2012
Experimental Biology

April 21 – 25, San Diego Convention Center, San Diego, CA

SPONSORS:
American Association of Anatomists (AAA)
The American Physiological Society (APS)
American Society for Biochemistry and Molecular Biology (ASBMB)
American Society for Investigative Pathology (ASIP)
American Society for Nutrition (ASN)
American Society for Pharmacology and Experimental Therapeutics (ASPET)

www.experimentalbiology.org
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OFFICE LOCATIONS * HOURS * TELEPHONE NUMBERS

AAA ................................................................. 619-525-6220
San Diego Convention Center, Room 10
Saturday – Tuesday, 7:30 AM – 5:00 PM
Wednesday, 8:00 AM – 12:00 PM

APS ................................................................. 619-645-6940/6941
San Diego Marriott Marquis & Marina, La Jolla/La Mesa
Saturday – Tuesday, 8:00 AM – 5:00 PM
Wednesday, 8:00 AM – 3:30 PM

ASBMB .......................................................... 619-525-6226
San Diego Convention Center, Lobby 6A
Sunday – Wednesday, 8:00 AM – 5:00 PM

ASP ...................................................................... 619-525-6222
San Diego Convention Center, Room 18
Saturday – Tuesday, 8:00 AM – 5:00 PM
Wednesday, 8:00 AM – 12:00 PM

ASN .................................................................... 619-321-6513
San Diego Hilton Bayfront, Room 302
Saturday – Tuesday, 9:00 AM – 1:00 PM; 3:00 PM – 6:00 PM
Wednesday, 8:00 AM – 11:00 AM

ASPET ............................................................. 619-645-6988
San Diego Marriott Marquis & Marina, Rancho Sante Fe 3
Saturday, 12:00 PM – 4:00 PM
Sunday – Tuesday, 7:00 AM – 6:00 PM
Wednesday, 7:00 AM – 12:00 PM

AV HEADQUARTER OFFICE ......................... 619-525-6215
San Diego Convention Center, Room 19
Friday, 7:00 AM – 5:00 PM
Saturday – Wednesday, 6:00 AM – 6:00 PM

CAREER RESOURCES
San Diego Convention Center, Hall D
Saturday – Tuesday, 8:00 AM – 5:00 PM
Wednesday, 8:00 AM – 12:00 PM

CHILD CARE .................................................... 619-525-6209
San Diego Convention Center, Hall E
Saturday, 8:00 AM – 6:00 PM
Sunday – Tuesday, 7:00 AM – 7:00 PM
Wednesday, 7:00 AM – 6:00 PM

EXHIBIT MANAGEMENT ......................... 619-525-6201
San Diego Convention Center, Hall A
Thursday – Tuesday, 8:00 AM – 5:00 PM

EXHIBITOR REGISTRATION ....................... 619-525-6200
San Diego Convention Center, Lobby B
Friday – Tuesday, 8:00 AM – 4:00 PM

HOUSING DESK .............................................. 619-525-6211
San Diego Convention Center, Lobby B
Friday, 1:00 PM – 6:00 PM
Saturday, 7:00 AM – 6:00 PM
Sunday, 7:00 AM – 5:00 PM

INFORMATION DESK .................................. 619-525-6211
San Diego Convention Center, Lobby B
Saturday – Wednesday, 9:00 AM – 6:00 PM

INFORMATION
Marriott Hall Registration Desk (North Tower)... 619-645-6950
Marina Registration Desk (South Tower)........ 619-645-6921
Meeting Management Desk, Marriott Hall
Saturday – Wednesday, 8:00 AM – 5:00 PM

INFORMATION .............................................. 619-321-6552
San Diego Hilton Bayfront, Room 502
Meeting Management Desk,
Saturday – Wednesday, 8:00 AM – 5:00 PM

LOST AND FOUND .............................. 619-525-6204
Meeting Management Office
San Diego Convention Center, Lobby D

MEETING MANAGEMENT OFFICE ............ 619-525-6204
San Diego Convention Center, Lobby D
Thursday, 7:30 AM – 5:00 PM
Friday – Saturday, 7:30 AM – 6:00 PM
Sunday – Tuesday, 7:30 AM – 5:00 PM
Wednesday, 7:30 AM – 12:00 PM

PRESS ROOM .................................................. 619-525-6213
San Diego Convention Center, Hall E
Saturday, 10:00 AM – 4:00 PM
Sunday – Tuesday, 7:30 AM – 5:00 PM
Wednesday, 7:30 AM – 12:00 PM

REGISTRATION INFORMATION .......... 619-525-6610
San Diego Convention Center, Lobby D
Friday, 1:00 PM – 6:00 PM
Saturday, 7:00 AM – 6:00 PM
Sunday – Tuesday, 7:00 AM – 5:00 PM
Wednesday, 7:00 AM – 3:00 PM

SPECIAL FUNCTION/COMMITTEE
MEETING INFORMATION ....................... 619-525-6204
Meeting Management Office, Lobby D

SPECIAL NEEDS/ADA..................... 619-525-6204
Meeting Management Office, Lobby D

SPEAKER PRACTICE ROOMS
San Diego Convention Center, Room 11B........ 619-525-6216
Saturday – Wednesday, 7:00 AM – 6:00 PM
San Diego Convention Center, Room 21........... 619-525-6217
Saturday – Wednesday, 7:00 AM – 6:00 PM

SAN DIEGO CONVENTION CENTER
111 West Harbor Drive, San Diego, CA 92101
Main #: 619-525-5000

SAN DIEGO MARRIOTT MARQUIS & MARINA
333 West Harbor Drive, San Diego, CA 92101
Main #: 619-234-1500

SAN DIEGO HILTON BAYFRONT
1 Park Boulevard, San Diego, CA 92101
Main #: 619-564-3333

See last page of program for hotel map and telephone numbers for overflow hotels.
GENERAL INFORMATION

REGISTRATION
San Diego Convention Center, Lobby D

Hours
Friday, 1:00 PM – 6:00 PM
Saturday, 7:00 AM – 6:00 PM
Sunday –Wednesday, 7:00 AM – 5:00 PM

SATELLITE REGISTRATION
San Diego Marriott Marquis & Marina, Marriott Hall – Registration Desk

Hours
Friday, 1:00 PM – 6:00 PM
Saturday, 7:00 AM – 6:00 PM
Sunday, 7:00 AM – 5:00 PM

Fees
Sponsoring/ Participating Society Member $425
Retired Society Member $135
Nonmember $575
Graduate Student Member $85*
Graduate Student Nonmember $105*
Undergraduate/High School Student Free**
High School Teacher Free**

One day registration is not available.

Categories
*Graduate Student (including all Society student members)
Students must have a department head or research advisor certify student eligibility. If registering at the meeting, bring a student ID card or a letter signed by your department head. “Student” will be indicated on your badge. Postdoctoral fellows, hospital residents, interns, and laboratory technicians do not qualify as students and must pay the full member or nonmember rate.

**Undergraduate Students, High School Students and High School Teachers
Participants must register on-site. For eligibility, bring a student or teacher ID or a letter signed by your supervisor (e.g., department head, research advisor, principal or teacher).

Guest Registration
Spouses and other non-scientist family members who wish to see a family member’s presentation may pick up a guest pass at a participating Society office or the Meeting Management Office. The guest pass only allows admittance to the one session where the family member is speaking. The guest pass does not include admission to the exhibits, scientific sessions, or social activities.

Cancellation and Refund Policy
To cancel and receive a refund for registration, the badge, receipt and a cancellation letter requesting a refund of the registration fee must have been received by March 23, 2012. After March 23, 2012 there are no refunds.

Exhibitor Registration
Company representatives and guests of exhibitors may register at the Exhibitor Registration Desk in Lobby B of the San Diego Convention Center. Registration will be open Friday – Tuesday.

Press Registration
Press badges will be issued from the EB Press Office, located in the San Diego Convention Center, Hall E, to members of the working press and freelance writers bearing a letter of assignment from an editor. Representatives from allied fields (public relations, public information, public affairs, etc.) may register in the registration area as nonmembers. Contact Suzanne Price for information at media@faseb.org.

SOCIETY TICKETED EVENTS
The following special Society activities have been planned and may require a fee in addition to the Experimental Biology 2012 registration fee.

AAA Social Event
20th Annual AAA Awards Banquet & Reception – Tuesday, April 24, 2012
The American Association of Anatomists cordially requests the pleasure of your company at the 20th Annual AAA Awards Banquet on Tuesday, April 24, 2012. The Banquet—from 7:00 PM to 10:00 PM at the Marriott Hotel—will feature a cocktail reception, dinner, & presentation of AAA awards. Tickets are $66 and will be available for purchase online via the AAA website (www.anatomy.org). Tickets will not be sold on-site at the meeting.
APS Social Event
The American Physiological Society will be celebrating its 125th Anniversary during the Experimental Biology 2012 meeting. As part of the celebration, APS will be holding a number of social events in conjunction with the meeting. APS registrants are encouraged to participate in these social events. EB attendees expressing interest in physiology are also invited to attend.

The Opening Ceremony and Walter B. Cannon Lecture on Saturday, April 21 at 5:30 PM is free of charge. However, there is a charge for the following events: (1) APS 125th Anniversary Beach Party on the North Embarcadero on Saturday, April 21, 7:00 PM – 10:00 PM and (2) APS 125th Anniversary Closing Party on Wednesday, April 25, 6:30 PM – 10:00 PM.

Please sign up for these events when registering for the meeting by checking the boxes on the registration form. The charge for each event will be $15.00 in advance/$25.00 on-site.

ASN Social Event
Luncheon for ASN Fellows and 50-Year Members
Join ASN in celebrating the accomplishments and achievements of our past and present Fellows and 50-Year Members over lunch at the Annual Meeting. This luncheon will follow a presentation honoring the newly inducted 2012 ASN Fellows. All members are invited to attend; guests are permitted. Ticket fees are as follows: $45.00 for members and $35.00 for non-members. All newly inducted Fellows will receive free registration. Additional details will be posted at www.nutrition.org.

ASBMB Social Event
Attendees interested in the following ASBMB organized activities may sign up while registering for the EB2012 meeting. Fees are noted below and event registration will close when fully subscribed. Details of these and other ASBMB events will be posted at www.asbmb.org/meeting2012.

ASBMB Graduate/Postdoctoral Professional Development Program – Saturday, April 21
This program will be held on Saturday, April 21, 9:00 AM – 3:30 PM. Event registration includes lunch: $25 ASBMB members; $35 all other EB registrants. ASBMB Travel Award recipients do not have to register for this event.

Professional Development Workshop for Students, Postdocs and Junior Faculty, sponsored by the ASBMB – Tuesday, April 24
This workshop will be held on Tuesday, April 24, 12:30 PM – 1:30 PM. Event registration includes lunch: no cost for ASBMB members; $20 all other EB registrants.

ASBMB 5K Fun Run and Walk – Sunday, April 22
Fun Run/Walk will be held rain or shine on Sunday, April 22 at 7:00 AM The entry fee includes a T-shirt: $25 for ASBMB members; $35 for all other EB registrants.

BADGE PICK UP
Badges were not mailed in advance. Badges and programs may be picked up on-site at the registration counters located in the San Diego Convention Center, Lobby D. Lost or forgotten badges can be replaced at the Replacement Badge Counter in the Convention Center Registration Lobby for $5. In addition, the program was not mailed in advance and can be picked up on-site at the Publications Counter located in the San Diego Convention Center, Lobby D.

NOTE: Badges must be worn at all times in the San Diego Convention Center. You will not be allowed access into the Exhibit Hall or scientific sessions without a badge. Children under the age of 16 are not required to wear a badge but must accompanied by a registered attendee.

CHILD CARE/CAMP EB, Hall E
Camp EB welcomes children ages 6 months – 17 years. Children participate in age-appropriate activities including arts and crafts, active games and much more in a safe, nurturing environment. Meals are not included in the camp fees. Parents can send or bring lunch to the center. Note: For the safety and security of your child(ren), EB/ACCENT has the right to refuse care to any child based on space availability and appropriateness. EB/ACCENT also has the right to refuse care to any child unable to adapt to group situations or whose presence or behavior may disrupt the program or endanger the health or safety of other children. ACCENT staff does not administer medication. Any child who is ill will not be admitted to the center.
COAT CHECK/LUGGAGE STORAGE  
San Diego Convention Center, Hall E  
Facilities for luggage storage and coat check will be available Friday through Wednesday. The coat check can store your bag(s) and coat(s) for the day for $2 per item. Please do not bring luggage to the meeting rooms.

CONFERENCE PHOTO CONSENT  
When you registered for Experimental Biology 2012, you affirmed agreement to allow the official Experimental Biology photographers to record your participation and reproduce your likeness in publications, online, etc.

DRINKING POLICY  
A number of social activities have been planned where alcoholic beverages will be offered. The Experimental Biology participating Societies, the San Diego Convention Center, San Diego Marriott Marquis & Marina, and the San Diego Hilton Bayfront, encourage responsible drinking of alcohol. Alcohol will not be served to anyone under the age of 21. Please be prepared to show photo identification. Alcoholic beverages are allowed only in specific areas and must not be taken out of those immediate areas.

E-POSTERS AND POSTER PICK UP  
San Diego Convention Center, Lobby D  
Please visit the Mira Digital Publishing desk in Lobby D to upload your PDF poster file. If you ordered your poster for on-site delivery by Mira Digital Publishing, your poster can be picked up in Lobby D. Following the meeting, all registered attendees will be able to access the posters online through the e-poster link on www.experimentalbiology.org.

EXHIBITS  
San Diego Convention Center, Exhibit Halls A-D  
Exhibits will be open 9:00 AM–4:00 PM, Sunday–Tuesday. See pages 425–493 for the complete list of exhibiting companies and products. Your visit to the exhibits may be customized by building an itinerary online at www.experimentalbiology.org/content/exhibits.aspx. Click on the Exhibit Floor Plan and login as a guest. Admission to the Exhibits is by official badge only. Children under the age of 16 accompanied by a registered adult are permitted access to the Exhibit Hall without a badge during show hours. Children are not permitted in the Exhibit Hall during setup or dismantling hours.

EXHIBITOR WORKSHOPS  
Exhibitor Workshops provide exhibiting companies the opportunity to talk about new product lines and services in an educational format, much like a session, and offer audience interaction and informal discussion beyond the Exhibit Hall. Exhibitor Workshop descriptions, times and locations are listed on pages 494–497.

FAMILY ROOM/WOMEN SCIENTISTS’ LOUNGE  
San Diego Convention Center, Hall E  
The family room and women scientists’ lounge will be open during registration hours. The lounge will have tables, chairs and a private area. The lounge is intended to provide a quiet environment where babies may be nursed, and where children can be taken for a break.

FOOD AND BEVERAGE  
Concessions will be open in the Exhibit Hall during exhibit hours, Sunday – Tuesday and in the Sails Pavilion Sunday – Wednesday. The food service offers continental breakfast, hot foods, sandwiches, salads, light snacks and beverages. A number of concessions will also be open on Saturday – Wednesday offering a variety of “grab and go” foods.

HOUSING INQUIRIES  
San Diego Convention Center, Lobby B  
A San Diego housing bureau representative will be located in the registration area Friday–Sunday to manage hotel questions and concerns. After Sunday, please refer your questions to the Meeting Management Office located in Lobby D.
INTERNET ACCESS
EB Lounge
San Diego Convention Center, Exhibit Halls A-D
Internet kiosks will be provided for checking email.

Wireless Access
San Diego Convention Center, Sails Pavilion and Lobby A - H
Wireless internet access will be available in the San Diego Convention Center Sails Pavilion and Lobby A - H, courtesy of EB, to all registered attendees. The free service will only be available in these areas. Attendees who wish to use the service should bring their own laptop computer (with a wireless 802.11/a, g, or n network card installed). To access the Internet, open your browser and access the SSID (wireless network identified) to “EB2012”. You will need to set your network card to use the DHCP. Technical support will not be provided at the meeting. Please configure your wireless connection before coming to the meeting. Remember to consider the security implications of using the wireless network and protect your laptop accordingly. For assistance, please call ext. 5500 from any house phone.

MESSAGE CENTER/LITERATURE TABLES
San Diego Convention Center, Lobby C
The message center and literature tables will be located in Registration Lobby. Registrants can check for messages and post fliers advertising social events or upcoming meetings. Exhibitors are not permitted to display materials on the literature tables.

POSTER PRESENTATIONS
San Diego Convention Center, Exhibit Halls A-D
Poster viewing and display hours are Sunday and Monday, 7:30 AM – 6:00 PM and Tuesday, 7:30 AM – 4:00 PM. Presentation times for each author are listed at the beginning of the session in the daily program. Your poster board number is the alpha/numerical listing next to your abstract number.

San Diego Convention Center, Sails Pavilion
Poster viewing and display hours for Wednesday are 7:30 AM – 5:30 PM. Presentation times for each author are listed in the EB2012 Daily Program and the Late-Breaking Program.

Poster Presentation Policy
Presenters must hang their posters no later than 7:30 AM on their day of presentation.

Presenters are expected to be at their poster boards during the assigned session presentation time, as designated by each society.

Posters must remain on display all day.

Posters that do not remain on display all day during their assigned day may, at the discretion of the programming society, be ineligible for awards.

Recording (photographing, audio taping or videotaping) any presentation/session is PROHIBITED, except by an EB-authorized agent or by first authors who want to photograph their poster presentation.

Please do not leave belongings, poster containers, or any materials under the poster boards or in the poster area. EB is not responsible for articles left in the poster area.

PRESS ROOM
San Diego Convention Center, Hall E
The EB Press Room will be open to members of the working press and freelance reporters with credentials. Upon registration, press members will receive all meeting materials as well as a press kit. The EB Press Room will be open Saturday, 10:00 AM – 4:00 PM, Sunday – Tuesday, 7:30 AM – 5:00 PM and Wednesday, 7:30 AM – 12:00 PM. The EB Press Room will include press information from all six sponsoring societies. To reach the Press Room on site, please call 619-525-6214.

PUBLICATIONS
San Diego Convention Center, Lobby D
Program
The program was not mailed in advance to U.S. or International registrants. It can be picked up on-site at the Publications Counter located in the San Diego Convention Center, Lobby D.

Late-Breaking Abstracts and Program Addendum
Registrants will receive a copy of the Late-Breaking Abstract Program and the Program Addendum at the meeting. All late-breaking abstracts are available
online at www.miracd.com/EB2012/Itinerary and as part of the online version of *The FASEB Journal* at www.fasebj.org. Additional copies of the Program may be purchased at the Publications Counter in Lobby D.

**RECORDING**
Photographing, audio taping, videotaping any presentation (oral or poster) or exhibit display is prohibited, except by an Experimental Biology authorized agent for official purposes, or by first authors who want to photograph their own poster presentation. You will be asked to leave the session room or exhibit hall if this policy is violated.

**RESTAURANT RESERVATIONS AND CITY INFORMATION**
San Diego Convention Center, Lobby B
Participants may obtain information about local restaurants and things to do in San Diego at the Visitors and Convention Bureau’s Information counter located in Lobby B.

**SPEAKER PRACTICE ROOMS AND SPEAKER INFORMATION**
San Diego Convention Center, Room 11B and Room 21
Speakers are not required to bring a laptop! All session rooms will be equipped with a data projector and computer. Bring your presentation on a Windows-readable USB flash drive or CD. We recommend that you bring a back-up presentation format. Please visit our website under general information for instructions on preparing your presentation www.experimentalbiology.org/content/OralPresentationInstructions.aspx.

Speakers should visit the Speaker Practice Room to review and check the compatibility of their presentation at least 4 hours prior to their session. Speakers must arrive in the session room one half hour prior to the scheduled start of the session to allow the technician time to load the presentation onto the computer. Additional audio visual equipment must be requested in advance of the meeting via email at eb@faseb.org or by contacting the Society that programmed your abstract or invited talk.

The Speaker Practice Rooms will be open during the following times:

- **Room 11B, Phone: 619-525-6216**
  - Saturday – Wednesday, 7:00 AM – 6:00 PM

- **Room 21, Phone: 619-525-6217**
  - Saturday – Wednesday, 7:00 AM – 6:00 PM

**SPECIAL NEEDS**
Registrants with special needs are advised to contact the EB Meeting Management Office at eb@faseb.org prior to the meeting. For on-site inquiries, please contact the Meeting Management Office in Lobby D of the San Diego Convention Center. For specific information on the San Diego Convention Center’s accessibility, contact the Guest Services Department at 619-525-5000. The San Diego Convention & Visitors Bureau staff the Concierge Desk in Lobby B of the San Diego Convention Center. The Bureau is able to provide accessibility information for the local area attractions. For information on San Diego area attractions, contact San Diego Convention & Visitors Bureau at 619-236-1212 or www.visitsandiego.org.

**TRANSPORTATION**
San Diego International Airport is conveniently located ten minutes from downtown San Diego. It is serviced by 22 major and commuter airlines and receives more than 16 million passengers a year.

**Airport Shuttle Service**
San Diego International Airport (SAN)
Super Shuttle offers service to/from SAN at $8 per person. Please refer to Experimental Biology 2012 when making your advance reservation. Make your reservation online at www.supershuttle.com, Discount Code SXVQN or call 800-258-3826.

**Taxi Service**
The taxi rate from the San Diego Airport to the San Diego Convention Center area is approximately $15.

**Trolley**
The SanDiegotrellyservestheSanDiegometropolitan area with convenient locations marked with a sign and the trolley image. The San Diego Convention Center is on the Orange Line at the Convention Center stop. To obtain schedules and other public transportation information, call Metropolitan Transit System at 619-744-5920 or visit www.sdmts.com.
YOUNG EXPERIMENTAL SCIENTISTS
(Y.E.S.) MIXER
San Diego Marriott Marquis & Marina, Marriott
Hall Salon 3
The Y.E.S. Mixer is open to all EB registrants and
is scheduled Monday, April 23, 9:00 PM–11:30 PM.
You must wear your badge to gain admittance.
Dance, relax, network while enjoying complimentary
snacks and soft drinks. The EB sponsoring societies
encourage responsible drinking for those drinking
alcohol. Alcohol will not be served to anyone under
the age of 21. Be prepared to present identification.

Experimental Biology exhibitors offer the best tools and
resources available in research today!

Join the exhibitors at 10:00 AM for coffee and 2:00 PM for snacks and
learn the latest and greatest from more than 400 companies.
EB-SPONSORED SPECIAL PROGRAMS

EB-SPONSORED SESSION

NATIONAL INSTITUTES OF HEALTH: PROGRAMS AND POLICIES UPDATE FROM INSTITUTES
TUE. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 1A

Chairs: J. Chatham and S. Barman

TEACHING POSTER SESSIONS

SUN.–MON., SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Special poster sessions have been scheduled related to teaching and the use of computers in research and teaching. The posters will be displayed Sunday–Monday from 7:30 AM to 6:00 PM. The poster sessions will cover two areas: 1) Teaching, Learning and Testing in the Biological and Biomedical Sciences; and 2) Computers in Research and Teaching. For further information, see the daily listing pages 141 and 215.

NIH GRANTS SEMINAR WORKSHOP SERIES

CONVENTION CENTER, CAREER CENTER AREA, HALL D

The FASEB Office of MARC and Professional Development Programs in association with the Experimental Biology 2012 (EB2012) Management Committee will sponsor career development seminars and a 3-part NIH Grants Seminar Workshop Series in the EB2012/FASEB Career Center located in Hall D of the Washington Convention Center. There is no fee or pre-registration associated with the workshops and seminars; however, EB2012 meeting registration is required to participate in all seminars/sessions. Handouts and resource materials will be provided onsite. Advance seating reservations are not required.

Critiquing of CV/resumes and the career coaching/counseling sessions are by appointment and starts at 9:00 AM on Saturday and continues until 12:00 PM on Wednesday. You may sign-up onsite in the EB2012/FASEB Career Center located in Hall D through Tuesday at 5:00 PM.

NIH Career Development (K) Awards (Sunday and Monday)

SUN. – MON. 8:30 AM – 9:45 AM, CAREER CENTER, HALL D

This presentation will focus on the NIH’s Career Development Awards (K) including the most recent K99/00 Pathways to Independence Award (for postdoctoral scientists) and other K awards targeted to individuals with research doctoral degrees (Ph.D. and equivalent) and clinical doctoral degrees (M.D. and equivalent). Among the K awards discussed will be the K01 Mentored Research Scientist Development Award, the K02 Independent Scientist Award, the K22 Career Transition Award, the K08 Mentored Clinical Scientist Development Award, the K23 Mentored Patient Oriented Career Development Award, the K24 Mid-Career patient Oriented Career Award, and K25 Mentored Quantitative Scientist Career Development Award.

The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative on these and other awards available for beginning investigators.

Scientific Peer Review of NIH Grants: Grantsmanship Part I

SUN. – MON. 10:00 AM – 11:30 AM, CAREER CENTER, HALL D

Presented by Anthony Coelho. Learn what is important to know and understanding about a sponsoring agency’s peer review process. Learn why this understanding peer review can enhance your chances of being funded. This presentation uses the scientific peer review at NIH as an example of what you need to know about peer review at any funding agency and how to use this information in preparation of your grant applications and competing successfully for funding. (Concurrent session.)
Grant Writing for Success: Grantsmanship Part II
SUN. – MON. 2:00 PM – 3:30 PM, CAREER CENTER, HALL D

Presented by Anthony Coelho. This presentation focuses on the principles of successful grant writing including the most common reasons that grant applications fail or succeed. Learn how to make an application meet the needs of the reviewers and the funding agency. Learn how to avoid the need for resubmission. Learn about sponsored agency resources and how to use them in the preparation of your application. (Concurrent session.)

CAREER DEVELOPMENT SEMINARS & WORKSHOPS

CONVENTION CENTER, CAREER CENTER AREA, HALL D

The following Seminars and Workshops will be held in the EB2012/FASEB Career Center. There is no fee or pre-registration associated with the workshops and seminars; just walk in and sit down! Critiquing of Resumes is by appointment and starts at 9:00 AM on Saturday and continues until 12:00 PM on Wednesday. Sign up on-site in the EB2012/FASEB Career Center, Hall D. Please note that on Wednesday, April 25th, the Critiquing of Resumes will be conducted between 9:00 AM and 12:00 PM in the Sails Pavilion of the San Diego Convention Center.

Saturday

9:00 AM – Networking: A Required Life Skill; presented by Howard Adams. To succeed in today’s competitive world of work, who you know can be as critical as what you know. Successfully networking, to develop contacts, is a required skill. Networking involves 1) making contacts, 2) establishing cordial relationships, and 3) ultimately bonding to mutually support each other and share information. This seminar explores skills and techniques germane to successful networking. During the session, Dr. Howard Adams will cover the following key topics: 1) Dimensions of Networking; 2) Networking to enhance one’s career/professional development; 3) Networking concerns: How? When? Where? Why?: 4) Tips for Successful Networking; 5) Do’s and Don’ts of Networking. (Concurrent session.)

9:00 AM – Workplace Dynamics I/II Workshop: Gaining Self-Awareness and Communication Skills; presented by Sharon Milgram and Lori Conlan. This experiential and engaging course, rooted in psychological type and the Myers-Briggs Type Indicator assessment, explores themes of self-awareness and self-management. Through exercises, lecture, and small group discussions, you learn about and validate your own type preferences and work and communication styles. We will also focus on the particular challenges of communication, different learning and teaching styles, and the different influencing and interaction styles you encounter in any research group or workgroup.

Understanding yourself and how you deal with people is an important skill that most scientists are not taught. This daylong workshop series provides leadership and self-management skills with examples based in typical lab environments. You can attend one or all of the sessions. Attendees for the entire day will earn a certificate of completion from the NIH Office of Intramural Training and Education.

10:00 AM – Postdocs: What Should You be Looking For and How to Find Them; presented by Andrew Green. Many PhDs just kind of fall into a postdoc, rather than thinking about it from a strategic perspective. Your postdoc is never an end in itself; rather it’s a means to another end whether that goal is a faculty position at a research university, at a small college, or perhaps an industry job. Learn how to find postdoc opportunities that will best prepare you for that next step, and how to use your postdoc experience to facilitate the transition to your next position. (Concurrent session.)

10:00 AM – Talking About Yourself: Interviewing Well; presented by Naledi Saul. In this session, we will help you learn how to interview successfully, by looking at the interview process from employer’s perspective. We will discuss the overall hiring process and the all-day interview format, as well as the steps to prepare for an interview, effectively use the different types of interview questions to both present your skills and experience, and assess the employer’s needs, and criteria to ultimately determine if the position is a good fit for you. (Concurrent session.)
10:30 AM – Goal Setting, Prioritizing, Time Management; presented by Howard Adams. Advancing through one career and life depends on that person’s ability to turn dreams, desires and wishes into tangible goals, objectives and milestones. Each individual has the power and responsibility to be both a dreamer and a doer. Success depends on both. This seminar is designed to guide participants through a process that frames dreams, wishes and desires in the context of career and life GOALS. Participants will be guided through critical career and life planning strategies involving time management and setting/prioritizing goals. (Concurrent session.)

11:00 AM – Beyond the Bench… Preparing for Your Career Transition in the Life Sciences; presented by Joe Tringali. Is there a way to move your skills from the bench to a related career? There is, assuming one is focused and willing to invest some time in making the switch. We will explore different paths to alternative scientific careers.

1:00 PM – Workplace Dynamics I/II Workshop: Conflict and Feedback; presented by Sharon Milgram and Lori Conlan. Rooted in the Thomas and Kilmann Conflict Grid, this interactive workshop provides an accessible framework for conflict management and giving and receiving personal feedback. In small group exercises, participants learn how to have — and even get some practice having — difficult conversations often associated with conflict within the NIH, like leadership struggles and authorship questions.

1:00 PM – Ten Ways to Get Lucky in the Job Search; presented by Philip Clifford and John Lombardo. Although it is important to have a plan for your career progression, it is just as important to take advantage of unexpected events along the way. This seminar will suggest specific ways to foster chance occurrences that may influence your job search. We will examine ten practical suggestions to prepare you to make happenstance work positively for you. (Concurrent session.)

1:30 PM – Negotiation Strategies for Scientists; presented by Debra Behrens. The session topics include: The basics of successful negotiation, contexts of gender and culture, leveraging your strengths, handling multiple offers, and closing the deal. (Concurrent session.)

2:00 PM – Transforming Your CV; presented by Naledi Saul. In this session, using a successful industry resume/CV as a case study, you will learn the difference between a CV and resume, what should and should not be included in a document tailored for industry jobs, and the best strategies to tailor your document to highlight your skills and experiences. You will also understand when and why to write a cover letter, including content and appropriate format. Bring a copy of your CV/resume or cover letter to work on during the session if you have one (but it is not required to attend the session). There will also be ample time for Q & A. (Concurrent session.)

2:15 PM – Job Hunting in the Biotech Industry; presented by Bill Lindstaedt. In this seminar you will learn how to prepare resumes and cover letters for your industry job search. Also, you will learn about job search strategies necessary for success on the biotech/pharma job market along with some tips for interview success and success at the negotiating table after you receive your job offer. After this seminar you will understand how to conduct the four job hunting techniques that comprise a comprehensive job search in the biotech industry. (Concurrent session.)

3:15 PM – Workplace Dynamics I/II Workshop: Team Skills; presented by Sharon Milgram and Lori Conlan. This is an experiential workshop that focuses on team tools and group development insights through the experience of real team and group work. This class is intended for anyone who works on or with teams and wishes to have greater skills in facilitating their effectiveness. All participants experience and practice a process for group learning in this class that they can put to use in their work teams whether they are group leaders or members. Lastly, the workshop focuses on spotting the stages of group development and how to help teams through rough spots, conflict, and growing pains.
3:30 PM - **Economics and Your Job Search**; presented by Joe Tringali. *Job Search Economics* is much more than a discussion of salary and signing bonuses. Knowing how the market place will react to your candidacy before you begin your search will help you deliver the best message, negotiate wisely, and make the right decision when you do receive offers. It’s all about supply and demand. (Concurrent session.)

8:30 AM – **Developing Your Core Message/"Elevator Pitch"**; presented by John Lombardo. See description under Saturday’s 4:00 pm listing. (Concurrent session.)

8:30 AM – **Making the Case for Graduate School**; presented by Howard Adams. Advanced degree level training has emerged as a key requirement for garnering positions of leadership in academia, government, and industry and for career in today’s workplace. Beyond this, and advanced degree signal scholarship, maturity, and the capacity to do rigorous work; all attributes that can provide an edge in the workplace. This seminar explores graduate education in the context of: 1) a career enhancement strategy; 2) graduate study opportunities and options; 3) how to negotiate the graduate school admission and financial aid process, and 4) placing graduate studies in one’s overall career plans. Key topics: Making the Case for Graduate School; The Value of an Advanced Degree; The GRE Exam; The Application/Admissions Process; Funding for Graduate Work; Putting the Pieces Together (Concurrent session.)

4:00 PM – **Developing Your Core Message/"Elevator Pitch"**; presented by John Lombardo. Your personal statement is a brief spoken statement (30-second mini-abstract) about you that lets people know who you are, what you do well, and what you are looking for. It is a well-prepared answer to the question, “Tell me a little bit about yourself.” A positive personal statement (“pitch”) will enhance your professional presence and stature, boost your self-confidence, and reduce your anxiety. It helps you establish your identity as a professional scientist, and it opens doors for connection and collaboration. This seminar will provide guidance in a safe place to practice and experiment. (Concurrent session.)

4:00 PM – **Global Interview Skills: A Practice Workshop for International Candidates**; presented by Debra Behrens. This session provides practice interview workshop customized for international graduate students. The key topics are: The four central questions in the employment interview, cultural and communication dynamics, the STAR method, and using “small talk” for big results.

Sunday

8:15 AM – ** Revealing Your Character through Your Resume**; presented by Judy Blumenthal. Recruitment into the job world is a billion dollar industry — in terms of risk. The top mistakes made in recruitment are not skills match, but decisions regarding the candidate’s integrity, honesty, and work ethics — various dimensions of your character. Even decisions on how you might treat potential co-workers and your clients/customers/patients, both verbally and non-verbally, influence the employer’s perception of your character.

In this workshop, you will learn how potential employers define your character and how you can present yourself to encourage the perception to be positive and, you worthy of working for and with them. (Concurrent session.)

10:30 AM – ** Sometimes It’s Who You Know: Winning at Networking**; presented by Judy Blumenthal. Networking is a crucial dimension of a job offer; from developing a resume to interviewing to the job offer. What do I take for granted? How do I communicate the right behaviors for the job? How much of the employer’s business do I really have to know? To be
at the right place at the right time, sometimes it takes just one person. But who is this person?

In this workshop, you will learn how to identify and approach the right people to help you obtain a job offer. You will learn essential behaviors that promote your case and that can be used quite favorably. (Concurrent session.)

11:00 AM – **Talking about Money: Compensation Negotiation for Scientists Moving into Industry**; presented by Bill Lindstaedt. Scientists moving from academia to industry are often confused by the job offer process. What’s the best way to talk about compensation with your future employers? If you ask for more, will they rescind your job offer? In this seminar, you will learn about WHAT is reasonable to ask for, and also HOW you can approach the compensation negotiation process in a way that produces optimal outcomes for you while maintaining positive relationships. (Concurrent session.)

11:00 AM – **The Academic Job Search in the Life Sciences: Part 1 – Understanding the Search Process from the perspective of Search Committees and Find Job Announcements**; presented by Andrew Green. If you’re sending the same materials to Harvard and Haverford or Cal Poly and Caltech, then at least one if not both search committees will be less than impressed. Academic search committees in the sciences and engineering at small, liberal arts colleges and non-R1 universities have a very different perspective than their peers at major research universities on what makes a strong candidate and desirable colleague. (Concurrent session.)

12:00 PM – **Career Skills Blitz**; presented by Sharon Milgram and Lori Conlan. These short sessions are designed to give you an overview of the skills required to mount a successful job search. These will be a fast pace, fun-filled way to spend your lunch. Each session will be strictly limited to twenty minutes, and you can choose to come to any of the presentations in the hour. Presenters will give you the highlights of the topics, with ideas on how to follow up with additional resources. You will be able to choose three sessions from the following offerings: 1) **Networking and Informational Interviews**: Learn how to manage your network including finding people, using social media tools and informational interviewing. 2) **Resumes and Cover letters**: There are common things needed and a resume and few simple rules for a cover letter. Make this part of your job package shine. 3) **Interviewing Tips**: Navigate the interview process with ease. 4) **Jobs and Training at the NIH**: Learn about NIH jobs and training opportunities that could enhance your career. 5) **Finding a Career Path**: Your dream job does exist. Come map out a plan to determine your career path. 6) **Non-bench Careers**: Highlights opportunities for PhDs in all sectors; academics, industry, non-profit, and government.

1:00 PM – **The Academic Job Search in the Life Sciences: Part 2 – Creating Your Written Application Materials: CVs, Cover Letters, Teaching Portfolios, Etc.** This two-part workshop is designed to provide an overview of the Academic Job Search process and help you figure out how to present your credentials, on paper and in person, in the strongest possible manner. You need not attend Part I to benefit from Part II. See description under Sunday’s 11:00 AM listing. (Concurrent session.)

1:00 PM – **Ten Tough Industrial Interview Questions; Ten Good Responses**; presented by Joe Tringali. You’ve been invited to interview with that drug development company that you’ve always wanted to work for. You’ve soaked up the position description, and are confident in your ability to do the job, as well as answer any/all technical questions during the interview process. The day is yours... until that first question catches you by surprise and your confidence begins to wilt. Be prepared for those non-technical questions that you will almost certainly hear at some point, know why they are asked, and learn what good ( if not great) responses to those questions might be in this workshop. (Concurrent session.)

1:30 PM – **Ten Ways to Get Lucky in the Job Search**; presented by Philip Clifford and John Lombardo. See description under Saturday’s 1:00 PM listing. (Concurrent session.)

1:30 PM – **NIH “How To” Series: How to Get a Job in Science Education & Outreach**; presented by Sharon Milgram and Lori Conlan. Most jobs sectors that PhDs will go into need an understanding of science, a knowledge of the field, communication skills, people and/or management skills and more. We will discuss how employers measure these skill qualifications by
job sector, how to find jobs in these areas, and more job specific information. This session is intended to augment your career informational interviewing with experts in the field. (Concurrent Session.)

2:30 PM – Managing Up; presented by Sharon Milgram and Lori Conlan. Participants in this session will learn how to effectively and efficiently communicate their goals and needs to their superiors. Topics include how to have a professional yet frank discussion with your mentor, committee and other superiors, and setting expectations for yourself and your superiors. (Concurrent session.)

3:00 PM – Achieving Your Goals: Goal Setting Strategies for Scientific and Career Success [Interactive]; presented by Bill Lindstaedt. Do you ever promise yourself that you’ll finish that paper, or improve your presentation skills, then don’t quite get around to it? Do you have trouble setting goals…and sticking to them? Survey data has shown that trainees in the biomedical sciences who create and follow a written plan are more likely to reach their research and career goals. In this hands-on workshop we’ll get you started on creating your annual Individual Development Plan (IDP) for completing projects and developing professional skills that you’ll need for success. Through this process, you will learn principles for how to set achievable goals, and strategies for ensuring that you’ll follow through to success. (Concurrent session.)

3:00 PM – The Job Talk; presented by Andrew Green. After months of stressful science, the voice on the other end of the phone says, “We’d like to invite you for an on-campus interview.” You gleefully discuss schedules, airports, and other arrangements until the voice mentions “and of course we’re all looking forward to your Job Talk,” and your stomach begins to spasm in new and creative ways. Answers to your questions about how to structure your presentation, how much detail to include, what level to pitch it (small college vs. university,) what are they really looking from Andrew Green, survivor of the academic job. (Concurrent session.)

3:30 PM – Negotiation Strategies for Scientists; presented by Debra Behrens. See description under Saturday’s 1:30 PM listing. (Concurrent session.)

4:00 PM – Career Decisions: How to Select a Career Path That’s Best for You [Interactive]; presented by Bill Lindstaedt. Do you want to find a career path that you’ll enjoy and find rewarding? Of course! But how do you find such a path? In this interactive workshop you will inventory your skills, interests, and values to consider your current career trajectory. You’ll then learn about how to research the many career path options available to life scientists, and what things to consider as you decide which is the best for you. (Concurrent session.)

4:00 PM – Navigating Graduate Work, Protocol, Milestones, Requirements; presented by Howard Adams. Success in graduate school starts with goal setting and the formulation of an action plan to achieve the desired results – obtaining the degree sought. The graduate study plan should delineate: 1) what is to be accomplished in terms of expectations, degree requirements, and program milestones; 2) action steps that establish priorities for tasks to be completed; 3) process for implementing action steps; and 4) timeframe for meeting program requirements/milestones. Seminar participants will be guided through exercises and provided with templates for developing a graduate program plan. (Concurrent session.)

4:00 PM – NIH “How To” Series: How to Get a Job in Science Policy; presented by Sharon Milgram and Lori Conlan Most jobs sectors that PhDs will go into need an understanding of science, a knowledge of the field, communication skills, people and/or management skills and more. We will discuss how employers measure these skill qualifications by job sector, how to find jobs in these areas, and more job specific information. This session is intended to augment your career informational interviewing with experts in the field. (Concurrent Session.)

4:15 PM – Making the Connection: The Relationship between the Resume, the Interview and the Job Offer; presented by Judy Blumenthal. The bottom line for any employer is, how will this individual behave on the job? This question is used in writing the job description and throughout the recruitment process. It is therefore imperative that applicants exhibit the right behaviors from the beginning: in writing (on their resume) to the interview (whether by phone or in person), to the final job offer.
In this workshop, you will learn what the essential behaviors are that must be communicated from the very beginning of your job search (the resume) to accepting the job. (Concurrent session.)

**Monday**

8:30 AM – Successful Behaviors for Winning an Interview; presented by Judy Blumenthal. Eye contact, arriving on time – these are given behaviors for any interview of any type and everyone knows them. The successful behaviors for winning an interview are those that categorize you as a high risk or low risk for the next recruitment step.

In this workshop, you will learn what behaviors are important to exhibit on an interview, and how employers evaluate these behaviors to determine whether or not you are a low risk and move you on to the next recruitment step, or a high risk and don’t. (Concurrent session.)

9:00 AM – NIH “How To Series: How to Get a Job in Government: Bench; presented by Sharon Milgram and Lori Conlan. Most jobs sectors that PhDs will go into need an understanding of science, a knowledge of the field, communication skills, people and/or management skills and more. We will discuss how employers measure these skill qualifications by job sector, how to find jobs in these areas, and more job specific information. This session is intended to augment your career informational interviewing with experts in the field. (Concurrent Session.)

9:00 AM – Developing Your Core Message("Elevator Pitch"); presented by John Lombardo. See description under Saturday’s 4:00 PM listing. (Concurrent session.)

9:00 AM – Ten Tough Industrial Interview Questions; Ten Good Responses; presented by Joe Tringali. See description under Sunday’s 1:00 PM listing. (Concurrent session.)

10:00 AM – Postdocs: What Should You Be Looking For and How to Find Them; presented by Andrew Green. See description under Saturday’s 10:00 AM listing. (Concurrent session.)

10:00 AM – Sometimes It’s Who You Know: Winning at Networking; presented by Judy Blumenthal. See description under Sunday’s 10:30 AM listing. (Concurrent session.)

10:15 AM – Making the Grade: Job Talk/Chalk Talk; presented by Debra Behrens. Participants learn how to plan, structure and deliver a job talk. The session covers the key elements of the chalk talk, and present a talk that captures the interest of a diverse (faculty, administrators, students) audience. (Concurrent session.)

11:00 AM – Talking about Money: Compensation Negotiation for Scientists Moving into Industry; presented by Bill Lindstaedt. See description under Sunday’s 11:00 AM listing. (Concurrent session.)

12:00 PM – Career Skills Blitz; presented by Sharon Milgram and Lori Conlan. See description under Sunday’s 12:00 PM listing. (Concurrent session.)

1:00 PM – The Industrial Hiring Process: Learn the Nuances, Get the Offer; presented by Joe Tringali. This session will include a discussion of the hiring process for the biotechnology and pharmaceutical industries and how it differs from the academic hiring process. Know your audience, what they want to hear, and give yourself the edge. (Concurrent session.)

1:00 PM – The Right Attitude and Behaviors While Job Searching from the Resume to the Job Offer; presented by Judy Blumenthal. Every person carries within them thoughts, feelings, and emotions that influence the way we are perceived by others, and the way we behave. This interaction (perceptions of others and our behavior) is so very complex, and happens so quickly, that perceptions are not necessarily at a conscious level and therefore opinions about you can be formed before you even have a chance to make any corrections to your attitude or behavior. This is
a serious consequence during the job search, and a consequence we want to do without.

Dr. Blumenthal will teach you how to present yourself in your resume, on the interview, and subsequent follow ups, including the job offer. She will teach you what goes on behind the scenes regarding attitudes and behaviors so that you have more leverage on your side. The end result is a positive consequence increasing the likelihood of job interviews and a job offer. (Concurrent session.)

1:15 PM – **Utilizing LinkedIn in the PhD Job Search**; presented by Andrew Green. Networking has never been more important in making a successful transition from academia to industry, but most PhDs believe they have limited contacts and feel ill-equipped to utilize this valuable resource. Learn how to use LinkedIn to expand your network and how to best take advantage of the informational interviews that result. (Concurrent session.)

1:30 PM – **NIH “How To” Series: How to Continue Your Training at NIH**; presented by Sharon Milgram and Lori Conlan. Most jobs sectors that PhDs will go into need an understanding of science, a knowledge of the field, communication skills, people and/or management skills and more. We will discuss how employers measure these skill qualifications by job sector, how to find jobs in these areas, and more job specific information. This session is intended to augment your career informational interviewing with experts in the field. (Concurrent Session.)

2:00 PM – **Achieving Your Goals: Goal Setting Strategies for Scientific and Career Success [Interactive]**; presented by Bill Lindstaedt. *See description under Sunday’s 3:00 PM listing.* (Concurrent session.)

2:00 PM – **Talking about Yourself: Interviewing Well**; presented by Naledi Saul. *See description under Saturday’s 10:00 AM listing.* (Concurrent session.)

2:30 PM – **Becoming a Mentor**; presented by Sharon Milgram and Lori Conlan. As you progress in your scientific career it is likely that you will mentor the next generation of young scientists. Many of you will start with an undergrad or summer intern. This seminar offers tips on how to develop a project for a novice, how to balance your time between your work and your mentee, and basic supervisory skills so both of you with know what to expect out of the experience. (Concurrent session.)

2:30 PM – **Revealing Your Character through Your Resume**; presented by Judy Blumenthal. *See description under Sunday’s 8:15 AM listing.* (Concurrent session.)

3:00 PM – **Career Decisions: How to Select a Career Path That’s Best for You**; presented by Bill Lindstaedt. *See description under Sunday’s 4:00 PM listing.* (Concurrent session.)

3:45 PM – **CV → Resume**; presented by Andrew Green. We have all seen a successful resume and we know the importance of having the best to make a first impression. Corporate recruiters are looking for very different evidence of soft and hard skills than academic search committees. Learn how to construct an effective resume that will help potential employers recognize the value you have to offer and strengthen your candidacy for science and non-science jobs outside of academia. (Concurrent session.)

4:00 PM – **Fundamentals for Managing the Postdoctoral Experience**; presented by Howard Adams. The postdoc assignment is typically a stepping stone to an independent position in academia, government, or industry. This seminar is designed to provide participants with the basic principles, concepts, and protocol for function as a scholar/researcher during the post-doc experience. Participants will be guided through step-by-step information on: 1) Picking the right post-doc position; 2) Establishing meaningful development and professional goals; 3) Communicating needs and expectations to your mentor/supervisor; 4) Setting clear performance benchmarks and tasks completion timelines; 5) Creating a task flow chart to track and monitor performance and progress; and 6) Taking ownership for your career/personal/professional development. (Concurrent session.)

4:00 PM – **Job Search in Academia & Industry**; presented by Debra Behrens. Are you looking for both academic and nonacademic jobs, but aren’t sure where to start? This workshop provides an overview for successfully navigating the two-track job search. Topics include: Organizing your search, timelines/logistics, researching employers, presenting
your qualifications and criteria for evaluating offers.  
(Concurrent session.)

4:00 PM – Successful Behaviors for Winning an Interview; presented by Judy Blumenthal.  
*See description under Monday’s 8:30 AM listing.*  
(Concurrent session.)

**Tuesday**

9:00 AM – The Job Talk; presented by Andrew Green.  
*See description under Sunday’s 3:00 PM listing.*  
(Concurrent session.)

9:15 AM – Making the Connection: The Relationship between the Resume, the Interview and the Job Offer; presented by Judy Blumenthal.  
*See description under Sunday’s 4:00 PM listing.*  
(Concurrent session.)

10:00 AM – Navigating Graduate Work Protocol, Milestones, Requirements; presented by Howard Adams.  
*See description under Sunday’s 4:00 PM listing.*  
(Concurrent session.)

10:00 AM – Academic Job Search: CVs, Letters, Statements and Start-ups; presented by Bill Lindstaedt. This workshop will present information on how to organize your academic job search, including advice on the various components of an application package. A mock faculty search committee exercise will teach you how to construct or improve a CV. You will then gain tips for writing cover letters, creating statements that will present you in the most positive light possible. Finally, you will learn valuable information about the content and process involved in negotiating for start-up packages.  
(Concurrent session.)

10:15 AM – Negotiation Strategies for Scientists; presented by Debra Behrens.  
*See description under Saturday’s 1:30 PM listing.*  
(Concurrent session.)

10:30 AM – Transforming Your CV; presented by Naledi Saul.  
*See description under Saturday’s 2:00 PM listing.*

11:00 AM – PhD Negotiation Skills and Strategies: How to Get What You Want and Need; presented by Andrew Green. Everything is negotiable…most of the time! Do you need to develop or refine your negotiation skills? This session covers salary, start up packages, and strategies for getting what you need to be successfully launched in your scientific career.  
(Concurrent session.)

11:30 AM – Successful Behaviors for Winning an Interview; presented by Judy Blumenthal.  
*See description under Monday’s 8:30 AM listing.*  
(Concurrent session.)

1:00 PM – Developing/Writing the Doctoral Dissertation; presented by Howard Adams. This workshop focuses on techniques and strategies for developing and writing a doctoral dissertation proposal. It is structured to walk participants through a step-by-step process for understanding the multi-dimensional competencies and skills required to do doctoral research. The session is designed to be interactive as the facilitator helps participants examine specific component of the dissertation proposal. These include: 1) the problem statement; 2) making the case for a specific research area; 3) literature review; 4) the research design and methodology component; and 5) framing expected outcomes and their significance.  
(Concurrent session.)

1:00 PM – Making the Grade: Job Talk/Chalk Talk; presented by Debra Behrens.  
*See description under Monday’s 10:15 AM listing.*  
(Concurrent session.)

1:00 PM – Achieving Your Goals: Goal Setting Strategies for Scientific and Career Success [Interactive]; presented by Bill Lindstaedt.  
*See description under Sunday’s 3:00 PM listing.*  
(Concurrent session.)

1:30 PM – CV→Resume; presented by Andrew Green.  
*See description under Monday’s 3:45 PM listing.*  
(Concurrent session.)

2:00 PM – Career Decision: How to Select a Career Path That’s Best for You [Interactive]; presented by Bill Lindstaedt.  
*See description under Sunday’s 4:00 PM listing.*  
(Concurrent session.)

2:15 PM – Talking about Yourself: Interviewing Well; presented by Naledi Saul.  
*See description under Saturday’s 10:00 AM listing.*  
(Concurrent session.)
2:30 PM – **Beyond the Bench... Preparing for Your Career Transition in the Life Sciences**; presented by Joe Tringali. *See description under Saturday's 11:00 AM listing.* (Concurrent session.)

3:00 PM – **Leadership Principles for Today’s Professionals**; presented by Howard Adams. As the workplace continues on the path of globalization and international competitiveness, the demand for effective leadership will grow within all employment sectors - government, academia, industry, and nonprofit. Thus, as one lives and works in the 21st century, having effective leadership skills is essential to success and advancement. This seminar explores “task-performance leadership” as a function of a leader getting people to do what he/she wants them to do. It addresses these five core competencies: leadership attributes, understanding change and resistance to change, cultivating relationships, visioning and goal setting from the position of leader, and leading others to achieve desired outcomes. Key topics: 1) Terminology of Leadership; 2) Trends that Challenge Leaders; 3) Competencies of an “All-Star” Leader; 4) “Walking the Walk” of a Leader; 5) Getting Work Done Through Others; 6) Creating the Optimal Leadership Environment. (Concurrent session.)

3:15 PM – **The Right Attitude and Behaviors While Job Searching from the Resume to the Job Offer**; presented by Judy Blumenthal. *See description under Sunday’s 1:00 PM listing.* (Concurrent session.)

3:30 PM – **Job Hunting in the Biotech Industry**; presented by Bill Lindstaedt. *See description under Saturday’s 2:15 PM listing.* (Concurrent session.)

**Wednesday**

Only CV/Resume Critiques, Career Coaching and Counseling Services will be provided in the Sails Pavilion location on Wednesday between 9:00 AM and 12:00 PM.
EXPERIMENTAL BIOLOGY
gratefully acknowledges the generous support of the following sponsors:

(Attendee Briefcases)

(Locator Signs)

(Locator Signs)

(Meeting Pens)

(Meeting Notepads)
SOCIETY HIGHLIGHTS

**ANATOMY (AAA)**

**PROFESSIONAL DEVELOPMENT WORKSHOP: CONNECTING WITH DIFFERENT AUDIENCES: THE ANATOMY OF COMMUNICATION**
SAT. 8:00 AM – SAN DIEGO CONVENTION CENTER, ROOM 7B

*Chair: D. Evans*

**PROFESSIONAL DEVELOPMENT WORKSHOP: CLIMBING THE ACADEMIC LADDER: SKILLS NEEDED FOR EACH RUNG**
SAT. 10:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 7B

*Chairs: R. Pratt and K. Topp*

**MASTER CLASS: NEURAL INNERVATION OF THE HEART AND ITS ROLE IN PATHOPHYSIOLOGY AND TREATMENT**
SAT. 1:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 8

*Chair: J. Walker*

**LANGMAN GRADUATE STUDENT PLATFORM AWARD SESSION**
SAT. 1:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 7B

*Chair: P. Trainor*

**EDUCATION RESEARCH PLATFORM AWARD SESSION**
SAT. 3:15 PM – SAN DIEGO CONVENTION CENTER, ROOM 7B

*Chair: C. Eckel*

**AAA POSTDOCTORAL PLATFORM AWARD SESSION**
SAT. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 7B

*Chair: J. Venuti*

**AACBNC SOCIALIZER (DEPARTMENT CHAIRS ONLY)**
SAT. 5:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MISSION HILLS

**WILEY RECEPTION (INVITATION ONLY)**
SAT. 7:00 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, CORONADO

**AAA NEW MEMBER WELCOME BREAKFAST**
SUN. 7:00 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, CARDIFF

**PLENARY LECTURES**
SUN. 8:00 AM – SAN DIEGO CONVENTION CENTER, ROOM 8

*Speaker: B. Olsen*

*Title: Vascular Endothelial Cells as a Source of Multipotent Stem-Like Cells*

*Speaker: R.L. Drake*

*Title: Open Minds, Open Opportunities*

**AAA YOUNG INVESTIGATOR AWARDS SYMPOSIUM**
SUN. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 9

*R.R. Bensley Award Lecturer: J. Reiter*

*Title: Tectonics Form a Transition Zone Complex of Ciliopathy Proteins That Regulate Ciliary Composition*

*C.J. Herrick Award Lecturer: J. Radley*

*Title: Evidence for a Limbic Cortical HPA-Inhibitory Network and Its Role in Chronic Stress-Induced HPA Axis Hyperactivity*
**H.W. Mossman Award Lecturer:** P. Reddien  
**Title:** The Cellular and Molecular Basis for Planarian Regeneration

**AAA Morphological Sciences Award Lecturer:** J. Guttman  
**Title:** Knocking E. coli off of Their Pedestals: Understanding the Strategies Microbes Exploit to Generate Morphological Structures during Their Disease Processes

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**AAA AWARDS BANQUET**  
**TUES. 7:00 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARriott HALL 4 (NORTH TOWER)**

Pick up *pre-purchased* tickets in the AAA Staff Office (Convention Center, Room 10) before 12:00 PM on Tuesday, April 24. Tickets will *not* be sold on-site at the meeting.

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**BIOCHEMISTRY AND MOLECULAR BIOLOGY (ASBMB)**

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**GRADUATE/POSTDOCTORAL TRAVEL AWARD KEYNOTE LECTURE**  
**FRI. 5:00 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 4 (NORTH TOWER)**

*Invitation only: All ASBMB Graduate/Postdoctoral and Graduate Minority Travel Award recipients must attend.*

**Speaker:** H. E. Hamm, Vanderbilt Univ.  
**Title:** Composing a Life

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**ANATOMY EDUCATION BREAKFAST ROUNDTABLES**  
**(Supported by an educational grant from Elsevier, Inc.)**

**MON. 8:00 AM – SAN DIEGO CONVENTION CENTER, ROOM 11A**

**Chair:** C. Eckel

**KEYNOTE ADDRESS**  
**(Supported by an educational grant from AACBNC)**

**MON. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 8**

**Speaker:** E. Olson  
**Title:** Heart Making and Heart Breaking: The Molecular Circuitry of Cardiac Development, Disease and Regeneration

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**AAA BUSINESS MEETING**

**MON. 6:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 8**

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**AAA STUDENT/POSTDOC POSTERS AND RECEPTION**

**MON. 7:00 PM – SAN DIEGO CONVENTION CENTER, WEST TERRACE**

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**FOSTERING PARTNERSHIPS BETWEEN COLLEGES, UNIVERSITIES AND K-12 SCHOOLS WORKSHOP**

**SAT. 9:00 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, SANTA ROSA (SOUTH TOWER)**

*Advance registration required.*
ASBMB GRADUATE AND POSTDOCTORAL PROFESSIONAL DEVELOPMENT PROGRAM
SAT. 9:00 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 4 (NORTH TOWER)

Advance registration required for non-ASBMB travel award recipients. All ASBMB Graduate/Postdoctoral and Graduate Minority Travel Award recipients must attend.

POWERING UP! ASBMB ANNUAL MEETING ORIENTATION FOR UNDERGRADUATES
SAT. 11:30 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, ATLANTA ROOM (NORTH TOWER, NEXT TO MARRIOTT HALL 1)

THE BATTLE! ASBMB 16TH ANNUAL UNDERGRADUATE STUDENT RESEARCH POSTER COMPETITION
SAT. 1:00 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 3 (NORTH TOWER)

Advance registration required to compete.

FIND YOUR SUPER MATCH! CAREER SPEED “DATING” FOR UNDERGRADUATES
SAT. 4:45 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, SAN DIEGO BALLROOM A (NORTH TOWER)

ASBMB OPENING LECTURE: HERBERT TABOR/JOURNAL OF BIOLOGICAL CHEMISTRY LECTURESHIP
SAT. 6:00 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 4 (NORTH TOWER)

Speaker: S. Kornfeld, Washington Univ. in St. Louis
Title: Oligosaccharides as Recognition Molecules — A Coming of Age

ASBMB OPENING RECEPTION
SAT. – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 3 (NORTH TOWER)

Immediately follows Opening Lecture

ASBMB 5K FUN RUN/WALK
SUN. – 7:00 AM – EMBARCADERO (BEHIND HARBOR HOUSE RESTAURANT, SEAPORT VILLAGE)

Advance registration required. Held rain or shine.

BREKKE FOR NEXT GENS:
UNDERGRADUATES’ BREAKFAST WITH KIM ORTH, ASBMB YOUNG INVESTIGATOR AWARD LECTURER
SUN. 7:00 AM – SAN DIEGO CONVENTION CENTER, 11A

Advance registration required.

AVANTI AWARD IN LIPIDS LECTURE
SUN. 8:30 AM – SAN DIEGO CONVENTION CENTER, 6B

Speaker: G. M. Carman, Ctr. for Lipid Res. at Rutgers Univ.
Title: Lipin/Phosphatidic Acid Phosphatase in Lipid Metabolism and Cell Physiology

ASBMB PLENARY LECTURE
SUN. 9:05 AM – SAN DIEGO CONVENTION CENTER, 6B

Speaker: S. L. McKnight, Univ. of Texas Southwestern Med. Ctr.
Title: Metabolic Specialization of Mouse Embryonic Stem Cells

ASBMB AWARD FOR EXEMPLARY CONTRIBUTIONS TO EDUCATION LECTURE
SUN. 12:30 PM – SAN DIEGO CONVENTION CENTER, 6B

Speakers: J. G. Voet, Swarthmore Col. and D. Voet, Univ. of Pennsylvania
Title: Content in the Educational Era of Process

ASBMB UNDERGRADUATE STUDENT RESEARCH POSTER COMPETITION AWARDS PRESENTATION
SUN. 12:30 PM – SAN DIEGO CONVENTION CENTER, 6B
Awards presented during the ASBMB Award for Exemplary Contributions to Education Lecture
ALICE & C.C. WANG AWARD IN MOLECULAR PARASITOLOGY SYMPOSIUM
Sun. 12:30 PM – SAN DIEGO CONVENTION CENTER, 6C
Speaker: E. Ullu, Yale Univ. Sch. of Med.
Title: The RNA Interference Pathway from a Trypanosome Point of View

WORKSHOP ON LIPID MAPS LIPIDOMICS TOOLS
Sun. 12:30 PM – SAN DIEGO CONVENTION CENTER, 11A

TEACHING SESSION WITH STUART KORNFELD: MODELING THE MOLECULAR MACHINERY OF THE PROTEIN TRAFFICKING PATHWAY
Sun. 1:30 PM – SAN DIEGO CONVENTION CENTER, 6B

ASBMB-MERCK AWARD LECTURE (2011)
Sun. 2:55 PM – SAN DIEGO CONVENTION CENTER, 6B
Speaker: C. Guthrie, UCSF
Title: The Spliceosome Is a Dynamic RNP Machine

WILL COMBINED MD-PHD TRAINING MAKE ME TWICE AS SUCCESSFUL?
Sun. 3:45 PM – SAN DIEGO CONVENTION CENTER, 1B

ASBMB BUSINESS MEETING
Sun. 6:15 PM – SAN DIEGO CONVENTION CENTER, 11A

WELCOME NETWORKING MIXER
(Sponsored by the ASBMB Minority Affairs Committee)
Sun. 6:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM D (SOUTH TOWER)

BREKKE FOR NEXT GENS:
UNDERGRADUATES’ BREAKFAST WITH MERCK AWARD LECTURER, BETTIE SUE MASTERS
Mon. 7:00 AM – SAN DIEGO CONVENTION CENTER, 11A
Advance registration required.

EARL & THRESSA STADTMAN SCHOLAR AWARD LECTURE
Mon. 8:30 AM – SAN DIEGO CONVENTION CENTER, 6B
Speaker: D. Sabatini, HHMI/MIT
Title: Control of Growth by the mTOR Pathway

ASBMB-MERCK AWARD LECTURE (2012)
Mon. 9:05 AM – SAN DIEGO CONVENTION CENTER, 6B
Speaker: X. Wang, Natl. Inst. of Biol. Sci., Beijing
Title: Dissecting Cellular Necrosis Pathways

AVANTI YOUNG INVESTIGATOR AWARD LECTURE
Mon. 9:55 AM – SAN DIEGO CONVENTION CENTER, 6A

Presented within the symposium, Metabolic Branchpoints/Lipid Channeling
Speaker: P. Espenshade, Johns Hopkins Univ. Sch. of Med.
Title: Fungal SREBPs: Hypoxic Transcription Factors Required for Pathogenesis

LIPID DROPLETS: BASIC WORKING PRINCIPLES WORKSHOP
Mon. 12:30 PM – SAN DIEGO CONVENTION CENTER, 6B

EFFECTIVELY COMMUNICATING YOUR SCIENCE, ASBMB PUBLIC POLICY SESSION
Mon. 12:30 PM – SAN DIEGO CONVENTION CENTER, 11A

RUTH KIRSCHSTEIN DIVERSITY IN SCIENCE AWARD LECTURE
Mon. 2:55 PM – SAN DIEGO CONVENTION CENTER, 6B
Speaker: L. Jones, Univ. of Texas MD Anderson and Univ. of Houston
Title: Changing the Course of America through Mentoring

ASBMB THEMATIC FERMENTATION HOUR
Mon. 6:00 PM – SAN DIEGO CONVENTION CENTER, WEST TERRACE (FACING THE BAY)
A networking happy hour for biochemists and molecular biologists.
ASBMB POETRY CONTEST READING
Mon. 7:00 pm – San Diego Convention Center, 6A Lobby

ASBMB BREWING SCIENCE, “TWEET AND MEET”
Mon. 7:30 pm – Mission Brewery, 1441 L Street

DELANO AWARD FOR COMPUTATIONAL BIOSCIENCES LECTURE
Tue. 8:30 am – San Diego Convention Center, 6B
Speaker: B. Honig, HHMI/Columbia Univ.
Title: Physical Principles Underlying Cadherin-Mediated Cell-Cell Recognition

WILLIAM C. ROSE AWARD LECTURE
Tue. 9:05 am – San Diego Convention Center, 6B
Speaker: S. Marqusee, Univ. of California, Berkeley
Title: Touring the Protein Energy Landscape: The View Depends on Where and How You Look

WORK LIFE BALANCE: A PROFESSIONAL DEVELOPMENT WORKSHOP FOR STUDENTS, POSTDOCS AND JUNIOR FACULTY
Tue. 12:30 pm – San Diego Convention Center, 11A
Advance registration required.

ASBMB YOUNG INVESTIGATOR AWARD LECTURE
Tue. 2:55 pm – San Diego Convention Center, 6B
Speaker: K. Orth, Univ. of Texas Southwestern Med. Ctr.
Title: Black Spot, Black Death, Black Pearl: The Tales of Bacterial Effectors

ASBMB WOMEN SCIENTISTS’ NETWORKING EVENT/RECEPTION
Tue. 6:00 pm – San Diego Convention Center, 11A

HERBERT A. SOBER LECTURESHIP
Wed. 9:00 am – San Diego Convention Center, 6B
Speaker: P. Farnham, Univ. of Southern California
Title: Using Genomic Technologies to Investigate Transcriptional Regulation in Normal and Cancer Cells

NUTRITION (ASN)
Please see pages 498-520 for a complete listing of the special functions and ancillary functions.

ASN OFFICE AND MEMBER SERVICES CENTER
San Diego Hilton Bayfront, 302
Sat. – Tue. 9:00 am – 1:00 pm; 3:00 pm – 6:00 pm
Wed. 8:00 am – 11:00 am

ASN MEMBER AND ATTENDEE LOUNGE
San Diego Convention Center, 30E
Sat. – Tue. 7:30 am – 5:30 pm
(Supported by Kraft Foods)

ASN BOOKSTORE
San Diego Convention Center, between Ballroom 20D and Center Terrace
Sat. – Tue. 7:30 am – 5:30 pm

COUNCIL MEETINGS AND HIGHLIGHTS
(Listed in chronological order.)

Nutritional Sciences Council Business Meeting and Breakfast
Sat. 7:00 am – San Diego Hilton Bayfront, 310

Medical Nutrition Council Business Meeting
Sat. 1:30 pm – San Diego Hilton Bayfront, 313
International Nutrition Council Business Meeting, Poster Competition and The Kellogg Prize in International Nutrition Research Lecture
MON. 6:00 PM – SAN DIEGO HILTON BAYFRONT, 306
Lecturer: J. Haas
(Supported by an educational grant from the Kellogg Company)

International Nutrition Council Reception
MON. 8:00 PM – SAN DIEGO HILTON BAYFRONT, 308

RESEARCH INTEREST SECTIONS (RIS) MEETINGS AND HIGHLIGHTS
(Listed in chronological order.)

CARIG Annual Symposium
FRI. 1:00 PM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM C

CARIG/V ARIG Social and Poster Competition
FRI. 6:30 PM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM B

RIS Chairs Luncheon (By invitation only.)
SAT. 12:00 PM – SAN DIEGO HILTON BAYFRONT, 310

Nutrition Immunology Business Meeting
SAT. 4:00 PM – SAN DIEGO HILTON BAYFRONT, 505

Energy and Macronutrient Metabolism “Hot Topics” Seminar and Business Meeting
SAT. 5:00 PM – SAN DIEGO HILTON BAYFRONT, 304

Joint-Reception and Poster Competition: Dietary Bioactive Components, Nutrient-Gene Interactions, and Vitamins and Minerals
SAT. 5:00 PM – SAN DIEGO CONVENTION CENTER, 20B/C
After the joint reception, each Research Interest Section will hold an individual business meeting, beginning at 7:00 PM.

Community and Public Health Nutrition Business Meeting
SAT. 5:30 PM – SAN DIEGO CONVENTION CENTER, 33C

Experimental Animal Nutrition Poster Competition and Business Meeting
SAT. 6:00 PM – SAN DIEGO CONVENTION CENTER, 24

Energy and Macronutrient Metabolism Reception and Poster Competition
SAT. 6:30 PM – SAN DIEGO HILTON BAYFRONT, 306B

Dietary Bioactive Components Business Meeting
SAT. 7:00 PM – SAN DIEGO CONVENTION CENTER, 25A

Nutrient-Gene Interactions Business Meeting
SAT. 7:00 PM – SAN DIEGO CONVENTION CENTER, 22

Vitamins and Minerals RIS Business Meeting
SAT. 7:00 PM – SAN DIEGO CONVENTION CENTER, 25B

Diet and Cancer Business Meeting, Poster Competition, and Reception
SUN. 12:00 PM – SAN DIEGO CONVENTION CENTER, 33A

Obesity Business Meeting and Student Research Poster Competition
SUN. 12:00 PM – SAN DIEGO CONVENTION CENTER, 33B

Nutrition Education Professional Development and Mentorship Luncheon
SUN. 12:30 PM – SAN DIEGO CONVENTION CENTER, 14A

Nutrition Epidemiology Business Meeting
MON. 8:30 AM – SAN DIEGO CONVENTION CENTER, 33A

Nutrition Translation Business Meeting and Networking Mixer
MON. 12:30 PM – SAN DIEGO CONVENTION CENTER, 33A

Nutrition Education Business Meeting
MON. 5:00 PM – SAN DIEGO CONVENTION CENTER, 33C

Aging and Chronic Disease Business Meeting
MON. 5:30 PM – SAN DIEGO CONVENTION CENTER, 33A

Lactation and ISRHML Business Meeting and Luncheon
TUES. 12:00 PM – SAN DIEGO HILTON BAYFRONT, 310
SPECIAL SESSIONS AND HIGHLIGHTS
(Listed in chronological order.)

Industry Forum
FRI. 5:30 PM – SAN DIEGO HILTON BAYFRONT
Immediately followed by a reception and dinner off-site.

Reception for Partners and Leaders
(By invitation only.)
FRI. 7:00 PM – SAN DIEGO WINE AND CULINARY EVENT CENTER

First-time Attendee and New Member Orientation
SAT. 2:00 PM – SAN DIEGO CONVENTION CENTER, 33C
(Organized by the Membership Committee)

Reception for Membership and University Mixer
SAT. 8:00 PM – SAN DIEGO HILTON BAYFRONT, SAPPHIRE BALLROOM DHLP

Graduate Student Breakfast
SUN. 6:45 AM – SAN DIEGO HILTON BAYFRONT, 304
(Supported by an educational grant from the National Dairy Council)
(Organized by the Student Interest Group)

Presidential Symposium: Nutrition and the Human Gut Microbiome: Seeking a Global Perspective
SUN. 10:30 AM – SAN DIEGO CONVENTION CENTER, BALLROOM 20D
(Supported by an educational grant from the Danone Institute International)

Meet the ASN Editors
SUN. 12:45 PM – SAN DIEGO CONVENTION CENTER, 32B
Advanced registration required for this event

Awards Ceremony
SUN. 6:00 PM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM A/E

Event for Young Professionals and Postdocs
SUN. 7:00 PM – SAN DIEGO HILTON BAYFRONT, 311
(Organized by the Young Professional Interest Group)

Department Heads Breakfast
MON. 7:00 AM – SAN DIEGO HILTON BAYFRONT, 310
(Supported by an educational grant from the Kellogg Company)

Student Interest Group (SIG) Meet the Fellows
MON. 10:30 AM – SAN DIEGO HILTON BAYFRONT, 310

Fellows, 50-Year Members, and Past Presidents Luncheon (By ticket only.)
MON. 11:30 AM – SAN DIEGO HILTON BAYFRONT, 304

E. V. McCollum Lecture
MON. 12:45 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 200
Lecturer: L. H. Allen

Society Annual Business Meeting
MON. 5:30 PM – SAN DIEGO CONVENTION CENTER, 31

Speed Mentoring for Students
MON. 7:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL 1
(Organized by the Student Interest Group (SIG) and the Young Professional Interest Group (YPIG))

ASN Journal Reception
(By invitation only.)
MON. 7:30 PM – 9:30 PM – ROY’S RESTAURANT
333 WEST HARBOR DRIVE
SAN DIEGO, CA 92101

MINORITY AFFAIRS COMMITTEE MARC TRAVEL Awardees Poster Session and Networking Breakfast
TUES. 7:00 AM – SAN DIEGO CONVENTION CENTER, 33A
W.O. Atwater Memorial Lecture
TUES. 12:45 PM – SAN DIEGO CONVENTION CENTER 20D
Lecturer: J. O. Hill

ARS W. O. Atwater Memorial Lecture Reception
to follow event at 1:00 PM.
(Supported by an educational grant from the
USDA, Beltsville)

SATELLITE SYMPOSIA
(Listed in chronological order.)

The Global Nutrition Transition: The Role of Lipid Supplementation
(Organized and supported by Herbalife Nutrition Institute)

FRI. 8:30 AM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM H

What Do We Really Know about Whole Foods Digestibility and Energy Values?
(Organized and sponsored by the Almond Board of California)

FRI. 1:00 PM – SAN DIEGO HILTON BAYFRONT, INDIGO BALLROOM G

Proteins as Beneficial Ingredients in Fortified Blended Foods: What Food Aid Studies Are Needed?
(Organized and sponsored by Solae, LLC)
SAT. 6:30 AM – SAN DIEGO CONVENTION CENTER, 30A/B

GUEST SOCIETY HIGHLIGHTS
(Listed in chronological order.)

ASN/ILSI North America Symposium on Energy Balance: A New Paradigm
Guest Society: ILSI North America
SAT. 8:00 AM – SAN DIEGO CONVENTION CENTER, 20D

PhenHRIG 2012 Symposium: The Human Microbiome and Formation of Bioactive Flavonoid Metabolites
Guest Society: PhenHRIG
SAT. 1:00 PM – SAN DIEGO CONVENTION CENTER, 30 A/B

Global Synergies for Food and Health: KNS & Foodopolis (Korean National Food Cluster) Presentations
MON. 6:00 PM – SAN DIEGO HILTON BAYFRONT, 520

KNS Korean Scientists Night
(Supported by Foodopolis)
MON. 7:00 PM – SAN DIEGO HILTON BAYFRONT, 500

Clinical Nutrition Update 2012
(Cosponsored by the Academy of Nutrition and Dietetics)
TUES. 10:30 AM – SAN DIEGO CONVENTION CENTER, 29A/B

PATHOLOGY (ASIP)

BREAST CANCER WORKSHOP:
PERSONALIZED MEDICINE & BREAST CANCER
(Sponsored by the ASIP Breast Cancer Scientific Interest Group)
(Supported by educational grants from Academic Press, California Breast Cancer Research Program and earlier.org-Friends for an Earlier Breast Cancer Test)
SAT. 8:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 16B

Chairs: A.G. Rivenbark and W.B. Coleman, Univ. of North Carolina at Chapel Hill
COURSE: PATHOBIOLOGY FOR BASIC SCIENTISTS: CELL INJURY AND INFLAMMATION: NEW RIFFS ON A CLASSICAL SCORE
(Sponsored by the ASIP Education Committee)
SAT. 8:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Chairs: R.N. Mitchell, Brigham and Women’s Hosp. and Martha B. Furie, Stony Brook Univ.

12TH ANNUAL WORKSHOP ON GRADUATE EDUCATION IN PATHOLOGY: GENOMICS AND PERSONALIZED MEDICINE IN THE GRADUATE CURRICULUM
(Sponsored by the ASIP Education Committee)
SAT. 11:30 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, CARDIFF
Chair: R.N. Mitchell, Brigham and Women’s Hosp.

BREAST CANCER SCIENTIFIC INTEREST GROUP NETWORKING AND POSTER SESSION
(Sponsored by the ASIP Breast Cancer Scientific Interest Group)
Sat. 11:45 AM – SAN DIEGO CONVENTION CENTER, ROOM 1B
Chairs: A.G. Rivenbark and W.B. Coleman, Univ. of North Carolina at Chapel Hill

HIGHLIGHTS: GRADUATE STUDENT RESEARCH IN PATHOLOGY
(Sponsored by the ASIP Committee for Career Development, Women and Minorities)
SAT. 1:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 15B

ASIP EXCELLENCE IN SCIENCE AWARD LECTURE
(Presented during: ASIP Highlights: Graduate Student Research in Pathology – 1:30 PM – 4:00 PM)
SAT. 3:35 PM – SAN DIEGO CONVENTION CENTER, ROOM 15B
Awardee: E. B. Lee, Univ. of Pennsylvania
Title: Mechanisms of TDP-43 Mediated Neurodegeneration in ALS and FTLD

ASIP TRAINEE WELCOME RECEPTION
SAT. 4:00 PM – SAN DIEGO CONVENTION CENTER, 15A

ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE
SAT. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Awardee: K. Elenitoba-Johnson, Univ. of Michigan
Title: Lost in Ubiquitination, Found by Mass Spectrometry: Identification of E3 Ligase Substrates Controlling Critical Cellular Events and Cancer

CAREER DEVELOPMENT WORKSHOP AND BREAKFAST: GETTING YOUR DREAM JOB: PREPARING YOUR CV AND MANAGING YOUR INTERVIEW
(Sponsored by the ASIP Committee for Career Development, Women and Minorities)
(Supported by educational grants from the FASEB Minority Access to Research Careers (MARC) Office and the Intersociety Council for Pathology Information)
SUN. 7:00 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, LAGUNA
12TH ANNUAL CAREER DEVELOPMENT PROGRAM & LUNCH: FUNDAMENTAL BASICS FOR SUCCESS: HOW TO WRITE AWARD-WINNING GRANTS
(Special registration required to attend this event.)
(Sponsored by the ASIP Committee for Career Development, Women and Minorities and the American Association of Anatomists)
(Supported by an educational grant from the FASEB Minority Access to Research Careers (MARC) Office)

SUN. 11:45 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, PRESIDIO 1/2
Chairs: T.A. Reaves, Med. Univ. of South Carolina
J.S. Reuben, Univ. of South Carolina Sch. of Med. – Greenville

BLOOD VESSEL CLUB: VASCULAR DEVELOPMENT
SUN. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16B
Chair: D.S. Milstone, Brigham and Women’s Hosp.

ROUS-WHIPPLE AWARD LECTURE
SAT. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16B
Title: The Many Roles of VEGF in the Adult

CLUB HEPATOMANIA
(Sponsored by the ASIP Liver Pathobiology Scientific Interest Group)

SUN. 6:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, TORREY PINES 2/3
Chairs: S. P. Mongan and K. Nejak-Bowen, Univ. of Pittsburgh Sch. of Med.

DER SCHADENKLUB – CELL INJURY SCIENTIFIC INTEREST GROUP
NETWORKING RECEPTION/POSTER SESSION
(Sponsored by the ASIP Cell Injury Scientific Interest Group)

SUN. 6:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM – SALON E
Chairs: C.C. Yates-Binder, Univ. of Pittsburgh Sch. of Med. and M.S. Willis, Univ. of North Carolina at Chapel Hill

ASIP COTRAN EARLY CAREER INVESTIGATOR AWARD LECTURE
MON. 8:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Awardee: A. Ivanov, Univ. of Rochester Sch. of Med. and Dent.
Title: Molecular Engines that Build and Break Epithelial Barriers

STOWELL SYMPOSIUM: TRENDS IN EXPERIMENTAL PATHOLOGY: METABOLISM & CANCER
(Cosponsored by the Italian Pathology Society)
(Supported by an educational grant from the Robert E. Stowell Endowment Fund)

MON. 9:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Chairs: S. Andò, Univ. degli studi della Calabria
A. Mantovani, Univ. of Milan

LUNCH & LEARN: BEST PRACTICES OF BIOBANKING & SPECIMEN COLLECTION
(Sponsored by the ASIP Education Committee)

MON. 12:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 14A
Chairs: W. Mars, Univ. of Pittsburgh Sch. of Med., T. Sander, Children’s Hosp. of Wisconsin
VETERINARY PATHOLOGY SCIENTIFIC INTEREST GROUP LUNCH/NETWORKING SESSION
(Sponsored by the ASIP Veterinary Pathology Scientific Interest Group)
MON. 12:45 PM – SAN DIEGO CONVENTION CENTER, SAILS PAVILION
Chairs: M. McArthur, Univ. of Texas MD Anderson Cancer Ctr.
        E. Whitley, Iowa State Univ.
        D. Hutto, Eisai, Inc.
        E. Galbreath, Lilly Res. Labs.

ASIP PRESIDENTIAL SYMPOSIUM:
PATHOGEN-HOST INTERACTIONS:
PROVOKING AND EVADING THE IMMUNE RESPONSE
MON. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Chair: M.B. Furie, Stony Brook Univ.

ASIP BUSINESS MEETING AND AWARDS PRESENTATION
MON. 5:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 16A
Chair: M.B. Furie, Stony Brook Univ.

EXPERIMENTAL PATHOLOGIST-IN-TRAINING AWARD
Recipient: R.M. Sumagin, Emory Univ.

EXPERIMENTAL PATHOLOGIST-IN-GRADUATE TRAINING AWARD
Recipient: J.D. Jones, Tuskegee Univ.

POSTDOCTORAL MERIT AWARD

PREDOCTORAL MERIT AWARDS
Recipients: D.A. Geem, Emory Univ. Sch. of Med.
            P.K. Awuah, Univ. of Pittsburgh

EXCELLENCE IN SCIENCE AWARD
Recipient: E.B. Lee, Univ. of Pennsylvania

OUTSTANDING INVESTIGATOR AWARD
Recipient: K. Elenitoba-Johnson, Univ. of Michigan

COTRAN EARLY CAREER INVESTIGATOR AWARD
Recipient: A. Ivanov, Univ. of Rochester Sch. of Med. and Dent.

ROUS-WHIPPLE AWARD

ROBBINS DISTINGUISHED EDUCATOR AWARD

GOLD-HEADED CANE AWARD
Recipient: Frederick F. Becker, Univ. of Texas MD Anderson Cancer Ctr.

ASIP AWARDS RECEPTION
MON. 6:00 PM – SAN DIEGO CONVENTION CENTER, MEZZANINE FOYER

SCIENTIFIC SLEUTHING OF HUMAN DISEASE FOR HIGH SCHOOL TEACHERS
(Sponsored by the ASIP Education Committee)
(Supported by an educational grant from the Intersociety Council for Pathology Information)
TUE. 8:30 AM – SAN DIEGO MARRIOTT MARQUIS & MARINA, DEL MAR
Chairs: M.B. Furie, Stony Brook Univ.
        K. Nejak-Bowen, Univ. of Pittsburgh Sch. of Med.

NEUROPATHOLOGY SCIENTIFIC INTEREST GROUP LUNCH/NETWORKING SESSION
(Sponsored by the ASIP Neuropathology Scientific Interest Group)
TUE. 11:45 AM – SAN DIEGO CONVENTION CENTER, ROOM 33A
Chairs: C.A. Wiley, Univ. of Pittsburgh Sch. of Med.
        C.L. Kolarcik, Univ. of Pittsburgh
ENDOTHELIAL AND EPITHELIAL CONTRIBUTIONS TO HOMEOSTASIS AND THE INFLAMMATORY RESPONSE
(Sponsored by the Inflammation/Immunopathology and Mucosal Pathobiology Scientific Interest Groups)

TUE. 5:30 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, DEL MAR
Chairs: F.W. Luscinskas, Brigham and Women’s Hosp.
A.S. Neish, Emory Univ.
A. Nusrat, Emory Univ.

PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS (ASPET)

2012 TEACHING INSTITUTE: THE USE OF SOCIAL MEDIA IN PHARMACOLOGY EDUCATION
SAT. 12:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 3
Chair: L. Crespo, Greenville Hosp. Syst.

GRADUATE STUDENT COLLOQUIUM: COMMUNICATION
SAT. 2:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 2
J.S. Fedan, NIOSH, Morgantown, WV
M.J. Seminerio, West Virginia Univ.

ASPET BUSINESS MEETING
SAT. 6:00 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20 D

Awards to be presented:

John J. Abel Award
J. Zhang, Johns Hopkins Univ. Sch. of Med.

Bernard B. Brodie Award in Drug Metabolism
Y. Sugiyama, Univ. of Tokyo

P.B. Dews Lifetime Achievement Award for Research in Behavioral Pharmacology
J.E. Barrett, Drexel Univ. Col. of Med.

Goodman & Gilman Award in Receptor Pharmacology

Pharmacia-ASPET Award for Experimental Therapeutics
A.H. Brodie, Univ. of Maryland Sch. of Med.

Robert R. Ruffolo Career Achievement Award

PHRMA FOUNDATION AWARDS

Award in Excellence in Pharmacology & Toxicology
M.L. Dubocovich, Univ. at Buffalo

Research Starter Grants in Pharmacology & Toxicology
S. Ajit, Drexel Univ. Col. of Med.
P. Ronaldson, Univ. of Arizona

Postdoctoral Fellowships in Pharmacology & Toxicology
U. Chu, Univ. of Wisconsin-Madison

Predoctoral Fellowships in Pharmacology & Toxicology
S. Nowinski, Univ. of Texas at Austin
J. Park, Univ. of California, Irvine
C. Ulrich, Univ. of Nevada, Reno

OPENING AND AWARDS RECEPTION
SAT. 7:30 PM – SAN DIEGO CONVENTION CENTER, CENTER TERRACE
WIP INTO SHAPE NETWORKING WALK
Sun. 7:00 AM – San Diego Marriott Marquis & Marina, Meet at the Concierge Desk

DIVERSITY COMMITTEE MENTORING BREAKFAST
Sun. 7:30 AM – San Diego Marriott Marquis & Marina, Anaheim

GRADUATE STUDENT – POSTDOC BEST ABSTRACT COMPETITION
Sun. 6:30 PM – San Diego Marriott Marquis & Marina, Marriott Hall 3/4
Presenters should arrive at 5:00 PM.

JULIUS AXELROD LECTURE
Sun. 2:00 PM – San Diego Convention Center, Room 2
Speaker: E. Sanders-Bush, Vanderbilt Univ. Sch. of Med.
Title: From Farm to Pharm: A Journey with Serotonin

JULIUS AXELROD SYMPOSIUM: NOVEL INSIGHTS INTO THE REGULATION OF SEROTONIN FUNCTION
Sun. 3:00 PM – San Diego Convention Center, Room 2
Chair: E. Sanders-Bush, Vanderbilt Univ. Sch. of Med.

P.B. DEWS LIFETIME ACHIEVEMENT AWARD FOR RESEARCH IN BEHAVIORAL PHARMACOLOGY LECTURE
Mon 2:00 PM – San Diego Convention Center, Room 2
Speaker: J. Barrett, Drexel Univ. Sch. of Med.
Title: Drugs of Abuse: Behavioral Determinants of Pharmacological Plasticity

BERNARD B. BRODIE AWARD IN DRUG METABOLISM LECTURE
Mon. 2:00 PM – Convention Center, Room 3
Speaker: Y. Sugiyama, Univ. of Tokyo
Title: Drug Transporters: Roles in New Drug Discovery and Development

JOHN J. ABEL LECTURE
Tue. 8:30 AM – San Diego Convention Center, Room 2
Speaker: J. Zhang, Johns Hopkins Univ. Sch. of Med.
Title: Spatiotemporal Regulation of Protein Kinases in Living Cells

PAUL M. VANHOUTTE DISTINGUISHED LECTURE IN VASCULAR PHARMACOLOGY
Tue. 4:30 PM – San Diego Convention Center, Room 2
Speaker: R.A. Cohen, Boston Univ. Sch. of Med.
Title: Nitric oxide in Metabolic Cardiovascular Disease

DIVISION BUSINESS MEETINGS & MIXERS

BEHAVIORAL PHARMACOLOGY DIVISION
Business Meeting
Mon. 5:45 PM – San Diego Convention Center, Room 2
No Mixer

CARDIOVASCULAR PHARMACOLOGY DIVISION
Business Meeting
Sun. 5:45 PM – San Diego Convention Center, Room 5B
Mixer
Tue. 6:00 PM – San Diego Marriott Marquis & Marina, Santa Rosa
DRUG DISCOVERY, DRUG DEVELOPMENT AND REGULATORY AFFAIRS DIVISION

Business Meeting
**MON. 12:15 PM – SAN DIEGO CONVENTION CENTER, ROOM 5B**

Mixer
**MON. 7:00 PM – SAN DIEGO MARriott MARQUIS & MARINA, SOLANA**

DRUG METABOLISM DIVISION

Business Meeting
**MON. 5:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 3**

Mixer
**TUE. 7:00 PM – SAN DIEGO MARriott MARQUIS & MARINA, BALBOA**

INTEGRATIVE SYSTEMS, TRANSLATIONAL AND CLINICAL PHARMACOLOGY DIVISION

Business Meeting
**MON. 5:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 5A**

Mixer
**MON. 7:00 PM – SAN DIEGO MARriott MARQUIS & MARINA, SOLANA**

MOLECULAR PHARMACOLOGY DIVISION

Business Meeting and Mixer
**MON. 7:00 PM – SAN DIEGO MARriott MARQUIS & MARINA, PRESIDIO I/II**

NEUROPHARMACOLOGY DIVISION

Business Meeting
**TUE. 5:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 3**

Mixer
**TUE. 7:00 PM – SAN DIEGO MARriott MARQUIS & MARINA, SOLANA**

PHARMACOLOGY EDUCATION DIVISION

Business Meeting
**MON. 5:45 PM – SAN DIEGO CONVENTION CENTER, ROOM 5B**

Mixer
**MON. 7:00 PM – SAN DIEGO MARriott MARQUIS & MARINA, SOLANA**

TOXICOLOGY DIVISION

Business Meeting
**Tue. 5:45 pm – San Diego Convention Center, Room 5A**

Mixer
**TUE. 7:00 PM – SAN DIEGO MARriott MARQUIS & MARINA, BALBOA**

ASPET CLOSING RECEPTION

**Wed. 6:00 PM – SAN DIEGO MARriott MARQUIS & MARINA, POOLSIDE TERRACE**

PHYSIOLOGY (APS)

REFRESHER COURSE IN ENDOCRINOLOGY: DIABETIC COMPLICATIONS
**Sat. 8:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 24**

WORKSHOP: OVERCOMING THE FEAR OF MAKING YOUR OWN TRANSGENIC AND KNOCKOUT MICE
**Sat. 1:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 27**

WORKSHOP: TOOLKIT FOR GENOMIC BIOMARKER DISCOVERY BY PHYSIOLOGISTS
**Sat. 3:15 PM – SAN DIEGO CONVENTION CENTER, ROOM 27**
PHYSIOLOGY IN PERSPECTIVE—THE WALTER B. CANNON MEMORIAL AWARD LECTURE
SAT. 5:30 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

Title: The Wisdom of the Body Revisited: Tribute to Walter B. Cannon and His Concept of Homeostasis as Applied to Pathophysiology of Hypertension

HUGH DAVSON DISTINGUISHED LECTURESHIP OF THE APS CELL & MOLECULAR PHYSIOLOGY SECTION
SUN. 10:30 AM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

Speaker: M. Knepper, NHLBI/NIH
Title: After the Interlude: Cell-Level Systems Biology in the 21st Century

CLAUDE BERNARD DISTINGUISHED LECTURESHIP OF THE APS TEACHING OF PHYSIOLOGY SECTION
SUN. 10:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 27

Speaker: W. Galey, HHMI, Chevy Chase
Title: Reflections on the Teaching and Learning of Science in the Late 20th and Early 21st Centuries

ERNEST H. STARLING DISTINGUISHED LECTURESHIP OF THE APS WATER & ELECTROLYTE HOMEOSTASIS SECTION
SUN. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 24

Speaker: K. Sandberg, Georgetown Univ.
Title: The Female Paradox: Resistance and Vulnerability in Hypertension and Renal Vascular Disease

THE HENRY PICKERING BOWDITCH MEMORIAL AWARD LECTURE
SUN. 6:00 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

Speaker: M. Liang, Med. Col. of Wisconsin
Title: microRNAs and Systems Molecular Medicine

CARL LUDWIG DISTINGUISHED LECTURESHIP OF THE APS NEURAL CONTROL & AUTONOMIC REGULATION SECTION
MON. 8:00 AM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

Speaker: I.H. Zucker, Univ. of Nebraska Med. Ctr.
Title: Sympathetic Nerve Activity in Heart Failure: A Critical Role for Central Angiotensin II Receptors

SOLOMON A. BERSON DISTINGUISHED LECTURESHIP OF THE APS ENDOCRINOLOGY & METABOLISM SECTION
MON. 10:30 AM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

Speaker: M.W. Schwartz, Harborview Med. Ctr.
Title: Understanding of Obesity as a Disorder of Energy Homeostasis

HISTORY OF PHYSIOLOGY GROUP BUSINESS MEETING AND LECTURE
MON. 12:25 PM – SAN DIEGO MARRIOTT MARQUIS & MARINA, RANCHO LAS PALMAS

Speaker: J.A. Dempsey, Univ. of Wisconsin-Madison
Title: Lessons in Respiratory Physiology from The Oxford:Copenhagen Debate and The three Danish Musketeers
EDWARD F. ADOLPH DISTINGUISHED LECTURESHIP OF THE APS ENVIRONMENTAL AND EXERCISE PHYSIOLOGY SECTION
MON. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 24

Title: Exercise Only Affects Muscle? Fat Chance

CARL W. GOTTSCALK DISTINGUISHED LECTURESHIP OF THE APS RENAL SECTION
MON. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 24

Speaker: M.J. Caplan, Yale Univ. Sch. of Med.
Title: Playing in Traffic: Sorting and Signaling in Renal Epithelial Cells

JOSEPH ERLANGER DISTINGUISHED LECTURESHIP OF THE APS CENTRAL NERVOUS SYSTEM SECTION
MON. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 23

Speaker: S.C. Woods, Univ. of Cincinnati
Title: Peptides, Food Intake and Body Weight: Problems of Interpretation

AUGUST KROGH DISTINGUISHED LECTURESHIP OF THE APS COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY SECTION
(Supported by the Novo Nordisk Fndn.)
TUE. 8:00 AM – SAN DIEGO CONVENTION CENTER, ROOM 24

Speaker: J.E Hicks, Univ. of California, Irvine
Title: Tales from the Heart: A Comparative and Evolutionary Perspective of the Vertebrate Circulatory System

JULIUS H. COMROE, JR. DISTINGUISHED LECTURESHIP OF THE APS RESPIRATION SECTION
TUE. 10:30 AM – SAN DIEGO CONVENTION CENTER, ROOM 24

Speaker: N.R. Prabhakar, Univ. of Chicago
Title: Sensing Hypoxia: Physiology, Genetics and Epigenetics

ROBERT M. BERNE DISTINGUISHED LECTURESHIP OF THE APS CARDIOVASCULAR SECTION
TUE. 2:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 24

Title: Molecular Mechanisms of Hypertension: Redox Signaling, Lipid Rafts and TRPMs

HORACE W. DAVENPORT DISTINGUISHED LECTURESHIP OF THE APS GASTROINTESTINAL & LIVER PHYSIOLOGY SECTION
TUE. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 24

Speaker: H.M. Said, Univ of California, Long Beach VA Med. Prog.
Title: Mechanism and Regulation of Intestinal Absorption of Water-Soluble Vitamins: Cellular and Molecular Aspects

APS BUSINESS MEETING
TUE. 6:00 PM – SAN DIEGO CONVENTION CENTER, ROOM 20A
THE MICROCIRCULATORY SOCIETY

MICROCIRCULATORY SOCIETY LANDIS AWARD LECTURE
SUN. 3:30 PM – SAN DIEGO CONVENTION CENTER, ROOM 23

Speaker: R. N. Pittman, Virginia Commonwealth Univ.

Title: Tales from the Microcirculation: Oxygen Transport and Its Regulation

PHYSIOLOGY InFOCUS: PHYSIOLOGY IN MEDICINE

SYMPOSIUM: PHYSIOLOGY OF OBESITY, CARDIOMETABOLIC DISEASE AND THERAPEUTIC WEIGHT LOSS
SUN. 3:30 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

SYMPOSIUM: USING PHYSIOLOGY TO TRANSLATE CARDIAC REMODELING AND HEART FAILURE
MON. 3:30 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

SYMPOSIUM: HYPERTENSION AND CHRONIC KIDNEY DISEASES
TUE. 3:30 PM – SAN DIEGO CONVENTION CENTER, BALLROOM 20A

NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE LECTURE
WED. 3:30 PM — SAN DIEGO CONVENTION CENTER, BALLROOM 20A

Speaker: O. Smithies, Univ. of North Carolina at Chapel Hill

Title: On Being a Bench Scientist for 50 Years
CONTINUING MEDICAL EDUCATION (CME)

This activity (“ASIP 2012 Annual Meeting at Experimental Biology 2012”) has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the Federation of American Societies for Experimental Biology (FASEB) and the American Society for Investigative Pathology (ASIP). FASEB is accredited by the ACCME to provide continuing medical education for physicians.

The Federation designates this live educational activity for a maximum of 38.5 ama pra category 1 credit(s)TM. Physicians should only claim credit commensurate with the extent of their participation in the activity.

CME workbooks will be available in the ASIP Office and the EB Meeting Management Office located in the San Diego Convention Center, San Diego, CA and online CME application forms will be available beginning April 21, 2012 on the ASIP website (http://www.asip.org/mtgs/eb12/cme.cfm). There is a $50 CME application fee, payable upon submission of the online CME application. The deadline for submitting a CME application is June 30, 2012. Should you have any questions, contact the ASIP Education Office (cme@asip.org, 301-634-7130) or the FASEB Office of Scientific Meetings and Conferences (fasebcme@faseb.org, 301-634-7010), both located at 9650 Rockville Pike, Bethesda, MD 20814-3998.

Sessions Eligible for CME

The only Society educational component of Experimental Biology 2012 that is eligible for CME credit is the ASIP 2012 Annual Meeting. All ASIP sessions that are summarized on pages lxxx–lxxxi of the Experimental Biology Meeting Book are eligible for CME except:

- Session 51: Breast Cancer Scientific Interest Group
- Session 57: ASIP Trainee Welcome Reception
- Session 146: Der Schadenklub - Cell Injury Scientific Interest Group Networking Reception/Poster Session
- Session 278: Veterinary Pathology Scientific Interest Group Lunch/Networking Event
- Session 280: ASIP Membership Business Meeting and Awards Presentation
- Session 281: ASIP Awards Reception
- Session 400: Neuropathology Scientific Interest Group Lunch/Networking Session
- Session 401: ISAMM Symposium: “Advances in Ultrasensitive RNA In Situ Hybridization”
- Session 406: Inflammation/Immunopathology and Mucosal Pathobiology Scientific Interest Groups: “Endothelial and Epithelial Contributions to Homeostasis and the Inflammatory Response”
- Session 403: National Institutes of Health: Programs and Policies Update from Institutes
- Poster viewing in the Exhibit Hall

Meeting Objective/Target Audience

The objective of the ASIP 2012 Annual Meeting at Experimental Biology 2012 is to increase basic and applied pathology knowledge and to provide a forum for the exchange of new research by scientists and investigators. The meeting is designed to support participants’ educational needs in the physician competency area of Medical Knowledge, as defined by the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS). At the completion of this meeting, participants should be able to:
• discuss the research underway and/or the current topics relevant to their areas of interest in pathology;
• demonstrate a gained level of knowledge of the methods and techniques being used by researchers and practitioners in this field; and
• utilize information and data that lead to improvements in human health.

This meeting is targeted to graduate students, postdoctoral fellows, research scientists, clinical practitioners, and medical education professionals.

DISCLOSURE POLICY

The Federation has implemented a process where everyone who is in a position to influence and/or control the content of a CME activity must disclose all relevant financial relationships with any commercial interest and any conflicts of interest must be resolved prior to the CME activity. The Federation requires that participants of FASEB-sponsored educational programs be informed of an organizer’s and/or a presenter’s (speaker, faculty, author, or contributor) academic and professional affiliation and the existence of any relevant financial relationship a presenter has with any proprietary entity producing health care goods or services consumed by, or used on patients, with the exemption of non-profit or government organizations and non-health care related companies. The intent of this disclosure is not to prevent a speaker from making a presentation. This policy allows the listener/attendee to be fully knowledgeable in evaluating the information being presented.

Disclosure includes any relationship that may bias the planning of the CME activity or may bias one’s presentation or which, if known, could give the perception of bias. These situations may include, but are not limited to: 1) stock options or bond holdings in a for-profit corporation or self-directed pension plan; 2) research grants; 3) employment (full or part-time); 4) ownership or partnership; 5) consulting fees or other remuneration; 6) non-remunerative positions of influence such as officer, board member, trustee, or public spokesperson; 7) receipt of royalties; 8) speaker’s bureau; 9) other. For full-time employees of industry or government, the affiliation listed in the Program will constitute full disclosure.

Organizing Committee Disclosures

The ASIP Program Committee was responsible for organizing the majority of the Annual Meeting program. In addition, the ASIP Meritorious Awards Committee selected award winners who are presenting lectures at the ASIP Annual Meeting. The Education Committee planned the Pathobiology Course for Basic Scientists: Cell Injury and Inflammation, the 12th Annual Workshop on Graduate Education in Pathology: Genomics, the Lunch & Learn session: Best Practices of Biobanking and Specimen Collection, and the Special Session: Scientific Sleuthing of Human Diseases for High School Teachers. The ASIP Committee for Career Development, Women and Minorities (CCDWM) planned the Career Development Workshop and Breakfast: Getting Your Dream Job and the 12th Annual Career Development Program and Lunch: Fundamental Basics for Success: How to Write Award-Winning Grant Proposals. Several members of these organizing committees indicated a relationship that could be perceived by some as a real or apparent conflict of interest in planning the CME activity. The disclosures have been reviewed and conflicts of interest resolved or managed.

• Elizabeth Galbreath (CCDWM and Meritorious Awards Committees) was an employee of and may receive stock options from Eli Lilly and Company during some of the planning of this meeting and is currently an employee of and may receive stock options from her current employer Amgen.
• Nicholas Lukacs (Program Committee) is the recipient of research grants from Carolus, Centocor, and Johnson & Johnson.
• Satdarshan (Paul) Monga receives consulting fees from ImClone Therapeutics.
• Andrew Neish (Program Committee) received consulting fees from Danone Corporation.
• Jerrold Turner (Meritorious Awards Committee) received consulting fees from Agennix.
Continuing Medical Education (CME)

Invited Speaker Disclosures

The following presenters in the ASIP oral sessions have indicated a relationship that, in the context of their presentation, could be perceived by some as a real or apparent conflict of interest but do not consider that it will influence their presentation. The disclosures have been reviewed and conflicts of interest resolved or managed. The number following each company name represents the specific relationship from the list above. If an organizer or a presenter is not listed, then he/she did not disclose a relevant financial relationship.

Bhattacharya, J.; Chromocell - 5  
Duncan, S.; Primorigen Biosciences - 7  
Galbreath, E.; Amgen - 1, 3; Eli Lilly and Company - 1, 3  
Garrett, W.; Groupe Danone - 2  
Greenbaum, L.; Johnson & Johnson - 3; 9 (spouse employment)  
Hogan, M.; IntegenX - 3, 5; Novartis - 2, 5; Genentech - 5; Merck - 5  
Lu, S.; Abbott International - 5, 6  
Lukacs, N.; Carolus - 2; Centecor - 2; Johnson & Johnson - 2  
Madabhushi, A.; IbRis, Inc. - 1, 4; VacuVis, Inc. - 1, 4; Siemens Corporation Research - 2; GE - 2; Riverside Research Institute - 2  
Mantovani, A.; Sigma-Tau - 2  
Serhan, C.; Resolvgyx Pharmaceuticals - 1, 9 (patents); Bayer Health Care - 7, 9 (patents)  
Symmans, W.; Nuvera Biosciences, Inc. - 1, 7  
Tsongalis, G.; Abbott-Vysis - 2, 5; Primera Dx - 2, 5, 6; Gerson Lehman - 5; Teva Pharmaceutical Industries, Ltd. - 5  
Yanik, M.; Entera Pharmaceuticals - 4

Abstract Author Disclosures

None of the authors of abstracts selected for CME-eligible oral presentations/poster discussions have indicated a relationship that, in the context of their presentation, could be perceived by some as a real or apparent conflict of interest. Please note that the viewing of posters in the Exhibit Hall is not a CME activity.
Across Societies – Experimental Biology

6. MARC and Professional Development Programs
72. MARC and Professional Development Programs
73. NIH K Awards
74. Formula for Grant Success: Part I - Scientific Peer Review of NIH Grants
75. Formula for Grant Success: Part II - Grant Writing for Success
194. MARC and Professional Development Programs
195. NIH K Awards
196. Formula for Grant Success: Part I - Scientific Peer Review of NIH Grants
197. Formula for Grant Success: Part II - Grant Writing for Success
331. MARC and Professional Development Programs

Biochemistry and Molecular Biology

1. ASBMB Graduate and Postdoctoral Travel Award Keynote Lecture
2. ASBMB Graduate and Postdoctoral Travel Award Poster Session
17. ASBMB Graduate and Postdoctoral Professional Development Program
18. Powering Up! ASBMB Annual Meeting Orientation for Undergraduates
19. The Battle! ASBMB 16th Annual Undergraduate Student Research Poster Competition
20. Find Your Super Match! Career Speed “Dating” for Undergraduates
85. Brekke for Next Gens, Undergraduate Breakfast with Award Scientist, Kim Orth
105. Will Combined MD-PhD Training Make Me Twice As Successful?
108. Welcome Networking Reception, Sponsored by the ASBMB Minority Affairs Committee
213. Brekke for Next Gens, Undergraduate Breakfast with Award Scientist, Bettie Sue Masters
224. Effectively Communicating Your Science, ASBMB Public Policy Session
234. ASBMB Thematic Fermentation Hour
235. ASBMB Inaugural Poetry Competition Reading
351. Work Life Balance: A Professional Development Workshop for Students, Postdocs and Junior Faculty
359. ASBMB Women Scientists’ Networking Event/Reception

Nutrition

123. Zinc Nutrition: From Discovery to Global Health Impact
238. Health Impact of Whole Grains, Bran and Cereal Fiber
249. Utilizing a Stepwise Procedure to Design Effective Nutrition Education
261. Communication Techniques of Effective Speakers
262. A Nurturing Environment Produces Future Legends: Development of Career through Successful Mentor-Mentee Relationships
371. The Future of Nutrition Research
384. Scientific Career Advancement for Early Stage Investigators

Pathology

132. Career Development Workshop and Breakfast: Getting Your Dream Job: Preparing Your CV and Managing Your Interview
138. 12th Annual Career Development Program and Lunch: Fundamental Basics for Success: How to Write Award-Winning Grants

Physiology

68. Using Social Media to Communicate about Physiology and You
166. Publishing 101: How to Get Your Work Published in APS Journals and Avoid Minefields along the Way
309. Do I Need Another Degree?
440. National Institutes of Health: Programs and Policies Update from Institutes
492. Conflict Resolution: How to Keep Everyone Happy!
503. E-media Tools for the Professional Scientist
EDUCATION-RELATED SESSIONS (OVERVIEW)

Across Societies – Experimental Biology
518. Teaching, Learning and Testing in the Biological and Biomedical Sciences I
519. Teaching, Learning and Testing in the Biological and Biomedical Sciences II
520. Disease Prevention through Education
718. Computers in Research and Teaching
719. Teaching, Learning and Testing in the Biological and Biomedical Sciences III
720. Teaching, Learning and Testing in the Biological and Biomedical Sciences IV

Anatomy
9. Master Class—Neural Innervation of the Heart and Its Role in Pathophysiology and Treatment
13. Pedagogy
78. Gross Anatomy for the Physician Assistant
82. Anatomical Education for Allied Health Care Professionals
200. Anatomy Education Breakfast Roundtables
204. Teaching Innovations in Anatomy I
208. Current Trends in the Anatomical Sciences: How Are We Teaching North American Dental Students?
456. Teaching Innovations in Anatomy II

Biochemistry/Molecular Biology
16. Fostering Partnerships between Colleges, Universities and K-12 Schools Workshop
18. Powering Up! ASBMB Annual Meeting Orientation for Undergraduates
94. Maximizing Institutional Effectiveness
98. Workshop on LIPID MAPS Lipidomics Tools
99. Teaching Session with Stuart Kornfeld: Modeling the Molecular Machinery of the Protein Trafficking Pathway
106. Maximizing Teaching Effectiveness
223. Maximizing Your Marketability
225. Lipid Droplets: Basic Working Principles Workshop
233. Maximizing Your Global Outreach
350. Promoting Concept Driven Teaching Strategies in BMB through Concept Assessment

Nutrition
25. Helpful or Harmful: Soy, Isoflavones, and Cancer Risk
26. Clinical Emerging Leaders Award Competition, Supported by the Medical Nutrition Council
30. Postdoctoral Research Award Competition, Supported by Solae, LLC
38. Graduate Student Research Award Competition, Supported by the Nutritional Sciences Council
111. Utilizing a Multilevel Team Approach: Lessons Learned from the Vitamin D DRI-Setting Activity
123. Zinc Nutrition: From Discovery to Global Health Impact
236. GPEC Forum: Using Interdisciplinary Tools to Evaluate Nutritional Interventions
238. Health Impact of Whole Grains, Bran and Cereal Fiber
249. Utilizing a Stepwise Procedure to Design Effective Nutrition Education
250. Establishing and Evaluating Health Claims for Probiotics
262. A Nurturing Environment Produces Future Legends: Development of Career through Successful Mentor-Mentee Relationships
362. Food and Nutrition Board Update: Not At All Quiet on the Labeling Front, and Remarques about Sodium
384. Scientific Career Advancement for Early Stage Investigators

Pathology
45. Pathobiology for Basic Scientists: Cell Injury and Inflammation: New Riffs on a Classical Score
50. 12th Annual Workshop on Graduate Education in Pathology: Genomics and Personalized Medicine in the Graduate Curriculum
393. Scientific Sleuthing of Human Disease for High School Teachers
Pharmacology and Experimental Therapeutics

60. 2012 Teaching Institute: The Use of Social Media in Pharmacology Education
61. Graduate Student Colloquium: Communication
294. Pharmacology Education Division Programming: Strategies for Pharmacology in Integrated Medical School Curricula: Best Practices for Enhancing Involvement of Our Discipline

Physiology

63. Refresher Course in Endocrinology: Diabetic Complications
65. Overcoming the Fear of Making Your Own Transgenic and Knockout Mice
69. Toolkit for Genomic Biomarker Discovery by Physiologists
164. Innovative Use of Technology for Teaching and Student Assessment in Physiology
171. Claude Bernard Distinguished Lectureship of the APS Teaching of Physiology Section
189. What Do Competencies Have to Do with My Teaching?
295. Assessment of Student Learning and Scientific Teaching
PUBLIC POLICY SESSIONS (OVERVIEW)

Across Societies—Experimental Biology
332. National Institutes of Health: Programs and Policies Update from Institutes

Anatomy
7. Connecting with Different Audiences: The Anatomy of Communication

Nutrition
29. Strategic, Global Approaches to Improve Breastfeeding Rates
111. Utilizing a Multilevel Team Approach: Lessons Learned from the Vitamin D DRI-Setting Activity

122. Food Insecurity and Health across the Lifespan
236. GPEC Forum: Using Interdisciplinary Tools to Evaluate Nutritional Interventions
250. Establishing and Evaluating Health Claims for Probiotics
362. Food and Nutrition Board Update: Not At All Quiet on the Labeling Front, and Remarques about Sodium
371. The Future of Nutrition Research

Pathology
403. National Institutes of Health: Programs and Policies Update from Institutes

Physiology
66. Public Outreach and Animal Research: Toolkit for Investigators
440. National Institutes of Health: Programs and Policies Update from Institutes
SAN DIEGO CONVENTION CENTER

Ground Level

EB Press Room
Coat Check/Luggage Storage
Family Room
Child Care

Career Center

Exhibitor Lounge

Internet Hot Spots
Lobby A – H
Tides Restaurant

Registration Area
Meeting Management Office
E-Poster and Poster Pick Up

Message Center

Cityside
SAN DIEGO CONVENTION CENTER

Mezzanine Level
Sails Pavilion

Pharmacology and Physiology Posters, Wed., April 25 (see page 380)
Late-Breaking Posters, Wed., April 25

Complimentary Wireless Access (see page xvii)
Laptop Charging Station
Indigo Level
SCIENTIFIC PROGRAM
San Diego Convention Center
San Diego, CA
April 21 – 25, 2012

SPONSORING SOCIETIES
American Association of Anatomists (AAA)
The American Physiological Society (APS)
American Society for Biochemistry and Molecular Biology (ASBMB)
American Society for Investigative Pathology (ASIP)
American Society for Nutrition (ASN)
American Society for Pharmacology and Experimental Therapeutics (ASPET)

GUEST SOCIETIES

AAA
Brazilian Society of Anatomy (SBA)
Chinese Society of Anatomical Sciences (CSAS)

APS
American Federation for Medical Research (AFMR)
Association of Latin American Physiological Societies (ALACF)
Association of Physiologists and Pharmacologists of India (APPI)
Austrian Physiological Society (APS)
Biomedical Engineering Society (BMES)
Brazilian Society of Physiology (SBFis)
Hungarian Physiological Society (MET)
Kazakh Physiological Society (KPS)
The Microcirculatory Society (MCS)
Physiological Society of India (PSI)
The Physiological Society – UK (TPS)
Sociedad Mexicana de Ciencias Fisiologicas (SMCF)
Société de Physiologie – France (SP)
Society of Experimental Biology and Medicine (SEBM)
Turkish Society of Physiological Science (TFBD)

ASBMB
Division of Biological Chemistry – American Chemical Society

ASIP
American College of Veterinary Pathologists
American Society for Matrix Biology
International Society for Analytical and Molecular Morphology
International Society for Biological and Environmental Repositories
Società Italiana di Patologia/Italian Pathology Society
Society for Cardiovascular Pathology

ASN
American Dietetic Association
American Society of Animal Science
ILSI North America
Korean Nutrition Society
Plant Phenolic and Human Health Research Interest Group (PhenHRIG)

ASPET
Behavioral Pharmacology Society
<table>
<thead>
<tr>
<th>Saturday, April 21</th>
<th>Sunday, April 22</th>
<th>Monday, April 23</th>
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<tbody>
<tr>
<td><strong>AM</strong></td>
<td><strong>PM</strong></td>
<td><strong>AM</strong></td>
</tr>
<tr>
<td>◆ Connecting w/ Different Audiences: The Anatomy of Communication D. Evans 8 AM – 10 AM Room 7B</td>
<td>◆ Master Class- Neural Innervation of the Heart J. McBride 1 PM – 3 PM Room 8</td>
<td>◆ Tissue Engineering, Regeneration &amp; Repair R. Marcucio 8 AM – 10 AM Room 7A</td>
</tr>
<tr>
<td>◆ Climbing the Academic Ladder: Skills Needed for Each Rung R. Pratt &amp; K. Topp 10:30 AM - 12:30 PM Room 7B</td>
<td>◆ Visualizing Complex Biomedical Systems C. Johnson 1 PM – 3 PM Room 9</td>
<td>◆ microRNAs in Stem Cells &amp; Cancer R. Hartley 8 AM – 10 AM Room 7B</td>
</tr>
<tr>
<td>AAA Graduate Student Platform Award Session P. Trainor 1:30 PM – 3 PM Room 7B</td>
<td>◆ Plenary Lecture B. Olsen 8 AM – 9 AM Room 8</td>
<td>◆ Hybrid- Global Positioning Systems Guide Neuronal Migration A. Stranahan 2:30 PM - 4:30 PM Room 7B</td>
</tr>
<tr>
<td>AAA Ed. Research Platform Award Session C. Eckel 3:15 PM - 4:45 PM Room 7B</td>
<td>◆ Gross Anatomy for the Physician Assistant J. McBride 10:30 AM - 12:30 PM Room 8</td>
<td>◆ Anatomical Education for Allied Health Care Professionals A. Burrows 2:30 PM - 4:30 PM Room 7B</td>
</tr>
<tr>
<td>◆ Hybrid – Pedagogy S. Marquez &amp; W. Pawlina 3:30 PM - 5:30 PM Room 8</td>
<td>◆ Vascular Endothelium in Health &amp; Disease B. Olsen 10:30 AM - 12:30 PM Room 9</td>
<td>Hybrid - Epigenetic Plasticity in Health &amp; Disease F. Domann 2:30 PM - 4:30 PM Room 9</td>
</tr>
<tr>
<td>◆ Digital Imaging S. Zhang 3:30 PM - 5:30 PM Room 9</td>
<td>❖ Vascular Endothelium in Health &amp; Disease B. Olsen 10:30 AM - 12:30 PM Room 9</td>
<td>AAA Undergraduate Poster Session 4 PM – 5 PM Sails Pavilion</td>
</tr>
<tr>
<td>AAA Postdoctoral Platform Award Session J. Venuti 5 PM - 6:30 PM Room 7B</td>
<td>❖ Plenary Lecture R. Drake 9 AM – 10 AM Room 8</td>
<td>AAA Young Investigator Awards Symposium 5 PM – 7 PM Room 9</td>
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<td>AAA Socializer 7 PM – 8 PM West Terrace</td>
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All sessions listed are in the San Diego Convention Center.
### American Association of Anatomists at Experimental Biology 2012 – San Diego, CA

All sessions listed are in the San Diego Convention Center unless otherwise noted.

#### AAA Networking Opportunities
- **Tuesday, April 24 AM**
  - Awards Banquet (advance ticket purchase necessary)
  - Career Networking Break

#### Meet the Editors
- **Saturday, April 21, 10 AM – 10:30 AM, Room 7A (CC)**
  - Meet the Editors

#### Meet the Author
- **Sunday, April 22 – Tuesday, April 24, AAA Booth 945 (Exhibit Hall)**
  - Meet the Author

#### Ask the Career Advisor
- **Sunday, April 22 – Tuesday, April 24, Room 10 (AAA Office)**
  - Ask the Career Advisor

#### New Member Welcome Breakfast
- **Sunday, April 22, 7 AM – 8 AM, Cardiff (Marriott)**
  - New Member Welcome Breakfast

#### Socializer
- **Sunday, April 22, 7 PM – 8 PM, West Terrace (CC)**
  - Socializer

#### Student/Postdoc Poster Reception
- **Monday, April 23, 7 PM – 8 PM, West Terrace (CC)**
  - Student/Postdoc Poster Reception

#### Young Experimental Scientists (Y.E.S) Mixer
- **Monday, April 23, 9 PM – 11 PM, Marriott Hall – Salon 3**
  - Young Experimental Scientists (Y.E.S) Mixer

#### Awards Banquet (advance ticket purchase necessary)
- **Tuesday, April 24, 7 PM – 8 PM, Marina Ballroom DE (Marriott)**
  - Awards Banquet (advance ticket purchase necessary)

#### Development & Growth
- **2:30 PM - 4:30 PM, Room 7B**
  - Development & Growth

#### Bioengineering Principles during Development
- **8 AM – 10 AM, Room 7A**
  - Bioengineering Principles during Development

#### Craniofacial Birth Defects
- **8 AM – 10 AM, Room 8**
  - Craniofacial Birth Defects

#### Refresher Course- The Facts about Formaldehyde
- **2:30 PM - 4:30 PM, Room 8**
  - Refresher Course- The Facts about Formaldehyde

#### Form, Function & Evolution
- **8 AM – 10 AM, Room 7B**
  - Form, Function & Evolution

#### The Role of Variation during Morphogenesis
- **10:30 AM - 12:30 PM, Room 8**
  - The Role of Variation during Morphogenesis

#### The Role of Variation during Morphogenesis
- **10:30 AM - 12:30 PM, Room 8**
  - The Role of Variation during Morphogenesis

#### Novel Views of the Eye
- **10:30 AM - 12:30 PM, Room 7B**
  - Novel Views of the Eye

#### Stem Cell Biology
- **10:30 AM - 12:30 PM, Room 9**
  - Stem Cell Biology

#### Cardiovascular Disease of the Nervous System
- **2:30 PM - 4:30 PM, Room 9**
  - Cardiovascular Disease of the Nervous System

#### Developmental Biology
- **10:30 AM - 12:30 PM, Room 8**
  - Developmental Biology

#### Developmental Biology
- **10:30 AM - 12:30 PM, Room 8**
  - Developmental Biology

#### Professional Development
- **Room 9**
  - Professional Development

#### Imaging
- **Room 6**
  - Imaging

#### Education & Teaching
- **Room 6**
  - Education & Teaching
<table>
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<tr>
<th>Date</th>
<th>Location</th>
<th>Time</th>
<th>Room</th>
<th>Event Description</th>
<th>Title</th>
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<tr>
<td>FRI, APRIL 20</td>
<td>Marriott Marquis</td>
<td>5:00 pm-6:30 pm</td>
<td>Marriott Hall 4</td>
<td>Graduate/Postdoctoral Travel Award Keynote Lecture (*)</td>
<td>Heidi E. Hamm, Composing a Life.</td>
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<td>6:30 pm-8:30 pm</td>
<td>Marriott Hall 3</td>
<td>Graduate/Postdoctoral Travel Award Poster Session (*)</td>
<td>Event by invitation only to ASBMB Graduate and Postdoctoral Travel Award recipients.</td>
</tr>
<tr>
<td>SAT, APRIL 21</td>
<td>Marriott Marquis</td>
<td>9:00 am-1:00 pm</td>
<td>Santa Rosa</td>
<td>K-12 Educators Workshop (*)</td>
<td>Fostering Partnerships between Colleges, Universities and K-12 Schools</td>
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<tr>
<td></td>
<td>Marriott Marquis</td>
<td>9:00 am-3:30 pm</td>
<td>Marriott Hall 4</td>
<td>Trainee Workshop (*)</td>
<td>Professional Development for Trainees</td>
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<tr>
<td></td>
<td>Marriott Marquis</td>
<td>11:30 am-12:00 pm</td>
<td>Atlantic</td>
<td>Powering Up!</td>
<td>ASBMB Annual Meeting Orientation for Undergraduates</td>
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<tr>
<td></td>
<td>Marriott Marquis</td>
<td>12:00 pm-4:30 pm</td>
<td>Marriott Hall 1</td>
<td>The Battle! (*) (1:00 PM Competition Start)</td>
<td>16th Annual ASBMB Undergraduate Student Research Poster Competition</td>
</tr>
<tr>
<td></td>
<td>Marriott Marquis</td>
<td>4:45 pm-5:45 pm</td>
<td>San Diego</td>
<td>Find Your Super Match!</td>
<td>Career Speed “Dating” for Undergraduates</td>
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<td></td>
<td>Marriott Marquis</td>
<td>6:00 pm-7:00 pm</td>
<td>Marriott Hall 4</td>
<td>Opening Lecture Herbert Tabor/Journal of Biological Chemistry Lectureship</td>
<td>Stuart Kornfeld, Oligosaccharides as Recognition Molecules - A Coming of Age</td>
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<tr>
<td></td>
<td>Marriott Marquis</td>
<td>9:00 am-1:00 pm</td>
<td>Marriott Hall 3</td>
<td>Special Event</td>
<td>Opening Reception</td>
</tr>
<tr>
<td>SUN, APRIL 22</td>
<td>Embarcadero</td>
<td>7:00 am</td>
<td>Entrance to Seaport Village</td>
<td>ASBMB 5K Fun Run/Walk (*)</td>
<td>ASBMB 5K Fun RunWalk held rain or shine.</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>7:00 am-8:00 am</td>
<td>11A</td>
<td>Brekke for Next Gens (*)</td>
<td>Undergraduates’ Breakfast with award lecturer, Kim Orth, ASBMB Young Investigator</td>
</tr>
<tr>
<td></td>
<td>Convention Center</td>
<td>8:30 am-9:05 am</td>
<td>6B</td>
<td>Avanti Award in Lipids Lecture</td>
<td>George M. Carman, Lipin/Phosphatidic Acid Phosphatase in Lipid Metabolism and Cell Physiology</td>
</tr>
<tr>
<td></td>
<td>Convention Center</td>
<td>9:05 am-9:40 am</td>
<td>6B</td>
<td>ASBMB Plenary Lecture</td>
<td>Steven L. McKnight, Metabolic Specialization of Mouse Embryonic Stem Cells</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>9:55 am-12:10 pm</td>
<td>6F</td>
<td>Concurrent Symposia</td>
<td>Histone Modifications and Their Recognition</td>
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<td>Convention Center</td>
<td>9:55 am-12:10 pm</td>
<td>6E</td>
<td></td>
<td>Constructing Networks</td>
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<td>Convention Center</td>
<td>9:55 am-12:10 pm</td>
<td>6D</td>
<td></td>
<td>The Ribosome and Early Folding Decisions</td>
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<td>Convention Center</td>
<td>9:55 am-12:10 pm</td>
<td>6C</td>
<td></td>
<td>Metabolomics</td>
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<td>Convention Center</td>
<td>9:55 am-12:10 pm</td>
<td>6A</td>
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<td>Organismal Metabolism</td>
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<td>Convention Center</td>
<td>9:55 am-12:10 pm</td>
<td>1B</td>
<td></td>
<td>Glycoconjugates in Pathogen Invasion and Virulence</td>
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<td>Convention Center</td>
<td>9:55 am-12:10 pm</td>
<td>1A</td>
<td></td>
<td>Maximizing Institutional Effectiveness</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>12:30 pm-1:30 pm</td>
<td>6B</td>
<td>ASBMB Award for Exemplary Contributions to Education Lecture</td>
<td>Judith G. and Donald Voet, Content in the Educational Era of Process</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>12:30 pm-2:00 pm</td>
<td>6C</td>
<td>Alice &amp; C.C. Wang Award in Molecular Parasitology Symposium</td>
<td>Elisabetta Ullu, The RNA Interference Pathway from a Trypanosome Point of View</td>
</tr>
<tr>
<td>SUN, APRIL 22</td>
<td>Location</td>
<td>Room</td>
<td>Event (* ) advance event registration required</td>
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<tr>
<td>12:30 pm-2:00 pm</td>
<td>Convention Center</td>
<td>1A</td>
<td>Workshop</td>
<td>Workshop on LIPID MAPS Lipidomics Tools</td>
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<tr>
<td>1:30 pm-2:30 pm</td>
<td>Convention Center</td>
<td>6B</td>
<td>Teaching Session with Stuart Komfeld</td>
<td>Modeling the Molecular Machin...nty of the Protein Trafficking Pathway</td>
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<tr>
<td>2:55 pm-3:28 pm</td>
<td>Convention Center</td>
<td>6B</td>
<td>ASBMB-Merck Award Lecture</td>
<td>Christine Guthrie, The Spliceosome is a Dynamic RNP Machine</td>
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<tr>
<td>3:45 pm-6:00 pm</td>
<td>Convention Center</td>
<td>6F</td>
<td>Concurrent Symposia</td>
<td>The Spliceosome: Fitting the Pieces Together</td>
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<td>Convention Center</td>
<td>6E</td>
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<td>Mechanism and Regulation of DNA Repair</td>
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<td>Convention Center</td>
<td>6D</td>
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<td>Mitochondrial Dynamics</td>
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<td>Lipid Droplets: A Dynamic Subcellular Compartment</td>
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<td>1B</td>
<td></td>
<td>Will Combined MD-PhD Training Make Me Twice as Successful?</td>
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<td>1A</td>
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<td>Maximizing Teaching Effectiveness</td>
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<tr>
<td>6:15 pm-7:30 pm</td>
<td>Convention Center</td>
<td>11A</td>
<td>Business Meeting</td>
<td>ASBMB Business Meeting</td>
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<tr>
<td>6:30 pm-8:30 pm</td>
<td>Marriott Marquis</td>
<td>Marina Ballroom D</td>
<td>Special Event</td>
<td>Welcome Networking Mixer, sponsored by the ASBMB Minority Affairs Committee</td>
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<tr>
<td>MON, APRIL 23</td>
<td>Location</td>
<td>Room</td>
<td>Event (* ) advance event registration required</td>
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<tr>
<td>7:00 am-8:00 am</td>
<td>Convention Center</td>
<td>11A</td>
<td>Brekke for Next Gens (*)</td>
<td>Undergraduates’ breakfast with award lecturer, Christine Guthrie, ASBMB-Merck Award, 2011</td>
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<tr>
<td>8:30 am-9:05 am</td>
<td>Convention Center</td>
<td>6B</td>
<td>Earl &amp; Thressa Stadtman Scholar Awd Lecture</td>
<td>David Sabatini, Control of Growth by the mTOR Pathway</td>
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<tr>
<td>9:05 am-9:40 am</td>
<td>Convention Center</td>
<td>6B</td>
<td>ASBMB-Merck Award Lecture (2012)</td>
<td>Xiaodong Wang, Dissecting Cellular Necrosis Pathways</td>
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<td>9:55 am-10:30 am</td>
<td>Convention Center</td>
<td>6A</td>
<td>Avanti Young Investigator Awd Lecture</td>
<td>Peter Espenshade, Fungal SREBPs: Hypoxic Transcription Factors</td>
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<td>presented in the symposium, Metabolic Branchpoints/Lipid Channeling</td>
<td>Required for Pathogenesis</td>
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<tr>
<td>9:55 am-12:10 pm</td>
<td>Convention Center</td>
<td>6F</td>
<td>Concurrent Symposia</td>
<td>RNA Dynamics: Function Follows Folding</td>
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<td>Convention Center</td>
<td>6E</td>
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<td>Mechanism of DNA Replication</td>
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<td>Organelle Quality Control</td>
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<td>6C</td>
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<td>Drug Development and Apoptosis: Linking Tumor Regression to Cell Death</td>
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<td>6A</td>
<td></td>
<td>Metabolic Branchpoints/Lipid Channeling (Avanti Young Investigator)</td>
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<td>In vivo Biochemistry of the Pathogen</td>
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<td>1A</td>
<td></td>
<td>Maximizing Your Marketability</td>
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<tr>
<td>Poster Manning Times</td>
<td>Convention Center</td>
<td>Exhibit Hall</td>
<td>Poster Sessions</td>
<td>Consult program for specific schedule information</td>
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<tr>
<td>12:30 pm-2:00 pm</td>
<td>Convention Center</td>
<td>11A</td>
<td>Workshop</td>
<td>Lipid Droplets: Basic Working Principles Workshop</td>
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<td>12:30 pm-2:00 pm</td>
<td>Convention Center</td>
<td>6B</td>
<td>Public Policy</td>
<td>Effectively Communicating Your Science</td>
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<tr>
<td>2:55 pm-3:30 pm</td>
<td>Convention Center</td>
<td>6B</td>
<td>Ruth Kirschstein Diversity in Science Awd Lecture</td>
<td>Lovell Jones, Changing the Course of America Through Mentoring</td>
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<tr>
<td>3:45 pm-6:00 pm</td>
<td>Convention Center</td>
<td>6F</td>
<td>Concurrent Symposia</td>
<td>Fundamental Mechanisms in Gene Regulation</td>
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<td>Convention Center</td>
<td>6E</td>
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<td>Networks and Time</td>
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<td>Convention Center</td>
<td>6D</td>
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<td>Protein Targeting and Translocation</td>
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<td>6C</td>
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<td>Chemistry in the Service of Medicine</td>
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<tr>
<td>MON, APRIL 23</td>
<td>Convention Center</td>
<td>1A</td>
<td>ASBMB's Happy Hour for Biochemists and Molecular Biologists</td>
<td>3:45 pm-6:00 pm</td>
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<td></td>
<td>Convention Center</td>
<td>1B</td>
<td>Poetry Reading</td>
<td>7:00 pm-7:45 pm</td>
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<tr>
<td></td>
<td>Convention Center</td>
<td>1C</td>
<td>ASBMB Thematic Fermentation Hour</td>
<td>3:45 pm-6:00 pm</td>
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<td>TUES, APRIL 24</td>
<td>Convention Center</td>
<td>6A</td>
<td>Barry Honig, Physical Principles Underlying Cadherin-Mediated Cell-Cell Recognition</td>
<td>9:00 am-9:35 am</td>
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<td></td>
<td>Convention Center</td>
<td>6B</td>
<td>William Marqusee, Touring the Protein Energy Landscape: The View Downstream and How You Look</td>
<td>9:35 am-10:10 am</td>
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<td></td>
<td>Convention Center</td>
<td>6C</td>
<td>Cancer Cell Metabolism</td>
<td>10:10 am-10:45 am</td>
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<td>Convention Center</td>
<td>6D</td>
<td>Novel Metabolic Routes of Glycoconjugate Assembly</td>
<td>10:45 am-11:20 am</td>
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<td></td>
<td>Convention Center</td>
<td>6E</td>
<td>Metabolic Engineering: From Antibiotics to Botulism</td>
<td>11:20 am-12:00 pm</td>
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<tr>
<td>WED, APRIL 25</td>
<td>Convention Center</td>
<td>1A</td>
<td>Promoting Concept Driven Teaching Strategies in BMB</td>
<td>9:00 am-9:35 am</td>
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<td></td>
<td>Convention Center</td>
<td>1B</td>
<td>Barry Farnham, Using Genomic Technologies to Investigate Transcriptional Regulator in Normal and Cancer Cells</td>
<td>9:35 am-10:10 am</td>
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<td>Convention Center</td>
<td>1C</td>
<td>Targeted Cancer Drug Development: Defining Molecular Profiles of Biotherapy</td>
<td>10:10 am-10:45 am</td>
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<td></td>
<td>Convention Center</td>
<td>1D</td>
<td>Endomembrane System Dynamics</td>
<td>10:45 am-11:20 am</td>
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<td></td>
<td>Convention Center</td>
<td>1E</td>
<td>ASBMB Women Scientists Networking Event/Reception</td>
<td>11:20 am-12:00 pm</td>
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<tr>
<td>Time</td>
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<tr>
<td>9:55 am-12:10 pm</td>
<td>Convention Center</td>
<td>6A</td>
<td>Concurrent Symposia</td>
<td>Lipid Regulation of Protein Function</td>
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<td></td>
<td>Convention Center</td>
<td>1B</td>
<td>(*) advance event registration required</td>
<td>Relationship of Host and Pathogen</td>
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<tr>
<td>12:15 pm-1:30 pm</td>
<td>Convention Center</td>
<td>Exhibit Hall</td>
<td>Late-Breaking Poster Sessions</td>
<td>Consult program for specific schedule information</td>
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<tr>
<td>1:45 pm-4:00 pm</td>
<td>Convention Center</td>
<td>6F</td>
<td>Concurrent Symposia</td>
<td>Interplay between Chromatin Structure and the Transcription Machinery</td>
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<td>Convention Center</td>
<td>6E</td>
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<td>Networks and Noise</td>
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<td>Convention Center</td>
<td>6D</td>
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<td>Protein Quality Control and Disease</td>
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<td>Convention Center</td>
<td>6C</td>
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<td>Frontiers in Mechanistic Enzymology</td>
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<td>Convention Center</td>
<td>6A</td>
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<td>Aging Metabolism</td>
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<td>Convention Center</td>
<td>1B</td>
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<td>Roles of Glycoconjgulates in Metabolism and Disease</td>
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<td>4:00 pm</td>
<td>Convention Center</td>
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<td>Meeting Concludes</td>
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### American Society for Nutrition at Experimental Biology 2012 – San Diego, CA

All sessions listed are in the San Diego Convention Center.

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<th>SUNDAY, APRIL 22nd</th>
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<td><strong>8:00-10:00 AM</strong></td>
<td>Energy Balance: A New Paradigm</td>
<td>8:00-10:00 AM</td>
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<tr>
<td><strong>8:30 am - 12:00 pm</strong></td>
<td>J.A. Milner and D. Tancred</td>
<td><strong>The Role of Dietary Components in Leptin Resistance</strong></td>
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<tr>
<td><strong>10:30 AM - 12:30 PM</strong></td>
<td>Controversies Regarding Reported Trends: Has the Obesity Epidemic leveled off in the U.S?</td>
<td><strong>10:30 AM - 12:30 PM</strong></td>
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<tr>
<td><strong>31 ABC</strong></td>
<td>Helping or Harmful: Soy, Isoflavones, and Cancer Risk</td>
<td><strong>3:00-5:00 PM</strong></td>
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<tr>
<td><strong>B. Lindshield and M. Messina</strong></td>
<td>Strategic, Global Approaches to Improve Breastfeeding Rates</td>
<td><strong>Fructose, Sucrose and High Fructose Corn Syrup: Relevant Scientific Findings and Health Implications</strong></td>
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<tr>
<td><strong>10:00 AM - 11:30 AM</strong></td>
<td>C. Lutter and A. Morrow</td>
<td><strong>P. Kris-Etherton</strong></td>
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<tr>
<td><strong>11:00 AM - 1:00 PM</strong></td>
<td>Adopting Healthy and Sustainable Food Service Guidelines</td>
<td><strong>Food Insecurity and Health Across the Lifespan</strong></td>
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<tr>
<td><strong>2:00-5:00 PM</strong></td>
<td>Utilizing a Multi-level Team Approach: Lessons Learned from the Vitamin D DRI-setting Activity</td>
<td><strong>Zinc Nutrition: From Discovery to Global Health Impact</strong></td>
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<tr>
<td><strong>2:00-5:00 PM</strong></td>
<td>Graduate Student Research Award Competition</td>
<td><strong>H. H. Sandstead</strong></td>
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</table>

**All minisymposia are programmed in rooms 32A - 29C**

| 32B | Carotenoids and Health | Bioavailability, Metabolism and Biomarkers of Dietary Bioactive Comp. |
| 32A | Carotenoids: Bioavailability and Metabolism Creating Healthy Food Environments | Redefine Obesity – Body Weight vs. Adiposity |
| 30D | Policies and Programs to Improve Children’s Nutrition | Micronutrient Interventions |
| 30C | Animal Research Models for Macronutrient Metabolism | B Vitamins and One-Carbon Metabolism |
| 30B | Epigenetics and Nutrition | Maternal Programming of Gene Expression |
| 30A | Nutrition and Inflammation | Application of Novel Statistical Methods for Use in Nutritional Epidemiology |
| 29D | Breastfeeding and Human Milk: Effects on the Recipient Infant and/or Lactating Mother | Breastfeeding, Early Child Feeding, Diet and Growth Trends |
| 29C | Longitudinal and Cross-Sectional Analysis of Associations between Diet and Health Outcome | Innovative Tools for Assessment of Diet, Physical Activity, and Related Behaviors |

This overview includes sessions programmed by ASN's Scientific Program Committee.

View ASN's Society Highlights and Guest Society Highlights in the onsite program for satellite symposia and Council, RIS and other activities.
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<tr>
<td>31</td>
<td>Real-world Nutrition Translation Blended with Food Science M. Ferruzi and R. Clemen</td>
<td>Metabolic Regulation by Amino Acids for Optimal Health S.M Hutson and T.G. Anthony</td>
<td>Communication Techniques of Effective Speakers C.A. Swanson and J. Engel</td>
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<tr>
<td>32B</td>
<td>Epidemiologic and Systems Biology Approaches</td>
<td>Mechanisms of Action and Molecular Targets of Dietary Bioactive Comp. II</td>
<td>Antioxidant and Anti-inflammatory Effects of Dietary Bioactive Components</td>
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<td>32C</td>
<td>Preventing Childhood Obesity</td>
<td>Obesity and Metabolic Syndrome</td>
<td>Preventing Early Childhood Obesity</td>
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<tr>
<td>30A</td>
<td>Lipid and Fatty Acid Metabolism and Trans.</td>
<td>Dietary Factors Affecting Lipid Metabolism</td>
<td>Polysaturated Fatty Acids and HhH.</td>
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<tr>
<td>30C</td>
<td>Osteoporosis and Bone Metabolism in Aging</td>
<td>Community Nutrition Programs and Policies for Older Adults</td>
<td>Carbohydrate Metabolism</td>
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<tr>
<td>29D</td>
<td>Development of Evidence-based Nutrition Education</td>
<td>Influences of Water and Beverage Consumption on Nutrition and Health Outcomes</td>
<td>Advancing Nutrition Policy and Improving the Effects of Nutrition Programs</td>
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<td>Time</td>
<td>Thursday, April 19th</td>
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<td>10:30 AM - 12:30 PM</td>
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<td>Ballroom 20D</td>
<td>Nutritional Prevention of Cognitive Decline</td>
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<td>L. Arab and R. Bailey</td>
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<tr>
<td>31 ABC</td>
<td>Nutritional Regulation of Epigenetic Change</td>
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<td></td>
<td>D. F. Romagnolo and T. R. Ziegler</td>
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<td>Education Track 29AB</td>
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<tr>
<td>Sunday, April 21</td>
<td>Highlights Graduate Student Research in Pathology: For Basic &amp; Clinical Research (Room 15A)</td>
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<tr>
<td>Monday, April 22</td>
<td>ASIP CoP Early Career Investigating Fellows: Kickoff Session (Room 1A)</td>
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<td>Tuesday, April 23</td>
<td>ASIP/CoP Early Career Investigating Fellows: Poster Session (Room 1A)</td>
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<td>Wednesday, April 24</td>
<td>Symposium: Molecular and Cellular Basis of Vascular Biology (Room 1A)</td>
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<td>Thursday, April 25</td>
<td>Symposium: Molecular and Cellular Basis of Vascular Biology (Room 1A)</td>
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<tr>
<td>Friday, April 26</td>
<td>Symposium: Molecular and Cellular Basis of Vascular Biology (Room 1A)</td>
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**All sessions listed are in the San Diego Convention Center, unless otherwise noted.**
American Society for Investigative Pathology Sessions at Experimental Biology 2012 – San Diego, CA

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<th>Sunday, April 22</th>
<th>Monday, April 23</th>
<th>Tuesday, April 24</th>
<th>Wednesday, April 25</th>
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<tr>
<td>Saturday, 4/21</td>
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<tr>
<td>WIP Into Shape Networking Walk</td>
<td>7:00 AM – 9:00 AM</td>
<td>Marionett, meet at Concierge Desk</td>
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<tr>
<td>Diversity Committee Mentoring Breakfast</td>
<td>7:30 AM – 9:00 AM</td>
<td>Marriott, Anaheim</td>
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<tr>
<td>MP</td>
<td>Emerging concepts in G protein dependent PLC regulation &amp; physiology</td>
<td>E. Sanders-Bush 3:00 PM – 5:30 PM Room 2</td>
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<tr>
<td>JULIUS AXELROD SYMPOSIUM</td>
<td>Novel insights into the regulation of serotonin function E. Sanders-Bush 3:00 PM – 5:30 PM Room 2</td>
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<tr>
<td>JULIUS AXELROD AWARD LECTURE: From farm to pharm: A journey with Serotonin</td>
<td>2:00 PM – 3:00 PM Room 2</td>
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<td>JULIUS AXELROD AWARD LECTURE: Drugs of abuse: Behavioral determinants of pharmacological plasticity J. Barrett 2:00 PM – 3:00 PM Room 2</td>
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<td>JULIUS AXELROD AWARD LECTURE: Spatiotemporal regulation of protein kinases in living cells J. Zhang 8:30 AM – 9:30 AM Room 2</td>
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<tr>
<td>JULIUS AXELROD AWARD LECTURE: The behavioral pharmacology of drugs of abuse &amp; drug dependence: A tribute to Steve Holtzman &amp; Bob Schuster L. Dykstra, C. Paronis 3:00 PM – 5:30 PM Room 2</td>
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<td>JULIUS AXELROD AWARD LECTURE: Membrane rafts in endothelial signaling J. Levitan, P-L. Li 9:30 AM – 12:00 PM Room 2</td>
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<td>JULIUS AXELROD AWARD LECTURE: Neuroplasticity &amp; disease M. Mattson 9:30 AM – 12:00 PM Room 2</td>
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<td>JULIUS AXELROD AWARD LECTURE: Drug transporters: Roles in new drug discovery and development Y. Sugiyama 2:00 PM – 3:00 PM Room 3</td>
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<td>JULIUS AXELROD AWARD LECTURE: Toll-like receptors in neuropsychiatry &amp; disease M. Mottson 9:30 AM – 12:00 PM Room 3</td>
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<td>JULIUS AXELROD AWARD LECTURE: The Nociceptin/orphanin FQ-NOP receptor system: Neurobiology, pharmacology &amp; therapeutic opportunities G. Calo 9:30 AM – 12:00 PM Room 4</td>
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<td>JULIUS AXELROD AWARD LECTURE: The Nicotinicotinic acetylcholine receptors: Neurobiology, pharmacology &amp; therapeutic opportunities G. Calo 9:30 AM – 12:00 PM Room 4</td>
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<td>JULIUS AXELROD AWARD LECTURE: Regulation of TRP channels M. Zhu 3:00 PM – 5:30 PM Room 4</td>
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<td>JULIUS AXELROD AWARD LECTURE: NADH-Cytochrome b5 oxidoreductase: Roles in physiology, pharmacology and toxicology T. Porter, D. Riddick 9:30 AM – 12:00 PM Room 4</td>
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<tr>
<td>JULIUS AXELROD AWARD LECTURE: Separation, pre-registration M. Gnegy, H. Khoushboei, H. Melkian 9:30 AM – 12:00 PM Room 4</td>
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<td>JULIUS AXELROD AWARD LECTURE: Fulfilling the promise of molecular medicine in autism spectrum disorders M. Bear 9:30 AM – 12:00 PM Room 4</td>
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<tr>
<td>JULIUS AXELROD AWARD LECTURE: Progress toward autism drug discovery M. Bear 9:30 AM – 12:00 PM Room 4</td>
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<tr>
<td>JULIUS AXELROD AWARD LECTURE: NEUROPHARMACOLOGY DIVISION</td>
<td>Postdoctoral Award Finalists 3:00 PM – 5:30 PM Room 3</td>
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<td>JULIUS AXELROD AWARD LECTURE: NEUROPHARMACOLOGY DIVISION</td>
<td>Neuropsychological correlates of stimulant treatment for ADHD in adolescents &amp; adults C. Advokaat 9:30 AM – 12:00 PM Room 3</td>
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<tr>
<td>JULIUS AXELROD AWARD LECTURE: NEUROPHARMACOLOGY DIVISION</td>
<td>Role of nuclear receptors in lipid dysregulation &amp; obesity-related diseases J. Chiang, H. Swanson 3:00 PM – 5:30 PM Room 4A</td>
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<td>JULIUS AXELROD AWARD LECTURE: NEUROPHARMACOLOGY DIVISION</td>
<td>Perivascular [p] fat: Pharmacology, physiology &amp; (P)function A. Dorance, S. Watts 9:30 AM – 12:00 PM Room 4A</td>
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<td>JULIUS AXELROD AWARD LECTURE: NEUROPHARMACOLOGY DIVISION</td>
<td>Clinical pipeline of marine natural products: The odyssey continues K. Glazer, A. Mayer 3:00 PM – 5:30 PM Room 5A</td>
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<td>NADH-Cytochrome b5 oxidoreductase: Roles in physiology, pharmacology and toxicology T. Porter, D. Riddick 9:30 AM – 12:00 PM Room 4</td>
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<tr>
<td>JULIUS AXELROD AWARD LECTURE: NEUROPHARMACOLOGY DIVISION</td>
<td>NEUROPHARMACOLOGY DIVISION</td>
<td>Clinical pipeline of marine natural products: The odyssey continues K. Glazer, A. Mayer 3:00 PM – 5:30 PM Room 5A</td>
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</table>
American Society for Pharmacology and Experimental Therapeutics at Experimental Biology 2012 – San Diego, CA

All sessions listed are in the San Diego Convention Center unless otherwise noted.

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<tr>
<th>Saturday, 4/21</th>
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<th>Wednesday AM, 4/25</th>
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<tbody>
<tr>
<td>TOX, DM, ISTCP</td>
<td>Role of pharmacogenetics in oncology</td>
<td>E.P. Black, H. Swanson</td>
<td>9:30 AM – 12:00 PM</td>
<td>Room 5A</td>
<td>DPE, BEH</td>
<td>The real world of therapeutic drugs: Bench to boardroom, the bedside &amp; beyond</td>
<td>P.K. Rangachari</td>
<td>9:30 AM – 12:00 PM</td>
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<tr>
<td>ISTCP</td>
<td>Emerging role of heme oxygenase in cardiovascular &amp; metabolic disease</td>
<td>N. Abraham</td>
<td>3:00 PM – 5:30 PM</td>
<td>Room 5B</td>
<td>DPE, BEH</td>
<td>MOLECULAR PHARMACOLOGY DIVISION Postdoctoral scientist award finalists</td>
<td>3:00 PM – 5:30 PM</td>
<td>Room 4</td>
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<tr>
<td>CVP BUSINESS MEETING</td>
<td>5:45 PM – 6:45 PM</td>
<td>Room 5B</td>
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<tr>
<td>ISTCP</td>
<td>Role of biomaterials &amp; drug bowel dysfunction</td>
<td>R. Vore</td>
<td>9:30 AM – 12:00 PM</td>
<td>Room 5A</td>
<td>TOX, DM, DDRA</td>
<td>From structure to knock-out: Common themes between CYPs &amp; ABC transporters</td>
<td>M. Vore</td>
<td>9:30 AM – 12:00 PM</td>
</tr>
<tr>
<td>CVP, ISTCP</td>
<td>Heme oxygenase in metabolic disease</td>
<td>J. Hinson</td>
<td>3:00 PM – 5:30 PM</td>
<td>Room 5A</td>
<td>TOXOLOGY DIVISION</td>
<td>The utilization of genetically modified mice to determine mechanisms of toxicity</td>
<td>H. Akbari</td>
<td>9:30 AM – 12:00 PM</td>
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<tr>
<td>CVP, ISTCP</td>
<td>Applications of therapeutic drugs: PHARMACOLOGY DIVISION</td>
<td>J. Hinson</td>
<td>3:00 PM – 5:30 PM</td>
<td>Room 5A</td>
<td>ISTCP, TOX, NEU</td>
<td>DDDRA BUSINESS MEETING</td>
<td>TOXOLOGY DIVISION</td>
<td>5:45 PM – 6:45 PM</td>
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<tr>
<td>Room 5A</td>
<td>ISTCP, TOX, NEU</td>
<td>Targeting PI3K for human diseases</td>
<td>T. Rao</td>
<td>3:00 PM – 5:30 PM</td>
<td>Room 5B</td>
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<td>Room 5B</td>
<td>TOX BUSINESS MEETING</td>
<td>5:45 PM – 6:45 PM</td>
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<td>DDRA BUSINESS MEETING</td>
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Opening Reception
7:30 PM – 9:30 PM 
Center Terrace

DPE | Building a pharmacology course from scratch: Benefits & pitfalls of a cut & paste pharmacology course | J. Starek | 9:30 AM – 12:00 PM | San Diego Marriott, Hall 5 |

Graduate Student/Postdoc Best Abstract Competition
6:30 PM – 8:30 PM 
San Diego Marriott, Hall 3/4

DDRA BUSINESS MEETING
12:15 PM – 1:15 PM 
Room 5B

PHARMACOLOGY EDUCATION DIVISION
Strategies for pharmacology in integrated medical school curricula: Best practices for enhancing involvement of our discipline | L. Crespo | 3:00 PM – 5:30 PM | Room 5B |

DPE BUSINESS MEETING
5:45 PM – 6:45 PM 
Room 5B

MP BUSINESS MEETING
7:00 PM – 9:00 PM 
Marriott, Presidio

Poster Sessions will be displayed 7:30 AM – 6:00 PM Sunday and Monday, 7:30 AM – 4:00 PM Tuesday, and 7:30 AM – 5:30 PM Wednesday. AUTHORS MUST BE PRESENT BY THEIR BOARDS 12:30 PM – 2:45 PM.

Sunday Poster Sessions
Drugs of abuse-Cocaine
Drugs of abuse-Depressants/Cannabinoids
Monoamines/behavior
Pharmacology of pain
GPCR signaling
Protease-activated receptors
GIRKs and Arrestins
cAMP signaling & compartmentation
Phosphoinositide signaling
Systems pharmacology/toxicology-Asthma & COPD
Systems pharmacology/toxicology-Pulmonary
Endothelium & ion channels
Endothelial mechanisms
Pharmacology of neuroprotection
Mechanisms of gene expression
Developmental Pharmacology/toxicology

Monday Poster Sessions
GPCR Ligand development
GPCR modifications & trafficking
AGS/RGS/Proteins
Kinases & phosphatases
Endothelium dysfunction
Vascular cell proliferation & angiogenesis
Peripheral & renal vascular pool
Neurotransmission
Neurotransmitter transporters
Neuronal & glial growth/differentiation
Alzheimer's disease approaches
Pharmacology of learning & memory
Clinical pharmacology & toxicology
Pharmacokinetics/pharmacodynamics
Phase I/Phase II drug metabolism
Drug discovery and development
Mechanisms of cell injury/death

Tuesday Poster Sessions
Cancer chemotherapy & mechanisms of toxicity I
Cancer chemotherapy & mechanisms of toxicity II
Corticosteroid-releasing factor
Drugs of abuse-amphetamines & other stimulants
Drugs of abuse-opiates
Drug-behavioral interactions
Physiology/behavior
Opioid/cannabinoid therapeutics
Neurotransmitter receptors
Neurotransmitter transporters
Signal transduction/ion channels
Smooth muscle pharmacology
Mechanisms of toxicity
Renal pharmacology/toxicology

Wednesday Poster Sessions
Cardioprotection
Vascular systems pharmacology
Cardiovascular pharmacology-Thrombosis
Targeting myocardial function
Pharmacology & women's health
Immune cell pharmacology
Pharmacology of immunity
Genotoxic/epigenetic pharmacology
Pharmacokinetics/pharmacodynamics
Natural products
All late-breaking abstracts
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<tr>
<th>Time</th>
<th>Session Title</th>
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<tr>
<td>8:00-10:00</td>
<td>Reactive Oxygen for the Biology 2012: National Institutes of Health: Endocrinology and Metabolism</td>
<td>Room 1A</td>
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<tr>
<td>10:30-11:30</td>
<td>Stem Cell and Neurological Control</td>
<td>Room 20A</td>
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<tr>
<td>11:30-12:30</td>
<td>Exercise and Public Outreach</td>
<td>Room 27</td>
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<tr>
<td>12:30-1:00</td>
<td>Cell Biology: Happy!</td>
<td>Room 25B</td>
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<tr>
<td>1:00-2:00</td>
<td>Sarcopenia: Regulatory Mechanisms</td>
<td>Room 25C</td>
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<td>2:00-3:00</td>
<td>Translational Regulation of Calcium by Examinable Cations: Freezing</td>
<td>Room 26</td>
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<tr>
<td>3:00-4:00</td>
<td>Recent Advances in Cardiovascular Function</td>
<td>Room 23</td>
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<td>4:00-5:00</td>
<td>Central Nervous System Control of Cellular CO2, pH, and HCO3</td>
<td>Room 24</td>
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<td>5:00-6:00</td>
<td>Dynamic Changes in the Circadian System</td>
<td>Room 23</td>
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<td>6:00-7:00</td>
<td>Diversity in the Physiological Genomes and Proteinomes</td>
<td>Room 26</td>
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<tr>
<td>7:00-8:00</td>
<td>Advanced Methods: Medicine and Environment: Still Using the Balance of the Brain?</td>
<td>Room 22</td>
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<td>8:00-9:00</td>
<td>Translational Mechanisms of Diabetes</td>
<td>Room 27</td>
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<tr>
<td>9:00-10:00</td>
<td>Molecular and Cellular Therapeutics: Pharmacology and Biochemistry</td>
<td>Room 26</td>
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<td>10:00-11:00</td>
<td>Overcoming the Year of Making Hypertension: From Cardiac and Metabolism</td>
<td>Room 23</td>
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<td>11:00-12:00</td>
<td>Biocompatibility of Hypertension: From Cardiac and Metabolism</td>
<td>Room 23</td>
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<td>12:00-1:00</td>
<td>Cell Biology: Respiration</td>
<td>Room 26</td>
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<td>1:00-2:00</td>
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<td>Cell Biology: Respiration</td>
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<td>Saturday, April 21</td>
<td>Sunday, April 22, 2012</td>
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<td>2:00-5:00</td>
<td>MicroRNAs in Human Disease and as Novel Therapeutics Persing/Leslie Room 27</td>
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<td>10:30-12:30</td>
<td>Teaching of Physiology Section Claude Bernard Lecture Galey Room 27</td>
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<td>Young Investigator Award PT Regulation of Transport Proteins in Kidney Intercalated Cells Pastor-Soler/Petrovic Room 27</td>
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<td>3:30-5:30</td>
<td>Future Directions of Mitochondrial Bioenergetics in Integrative Physiology Jastroch Room 27</td>
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<td>Impact of Environmental Estrogens and Androgens on Human and Animal Health and Reproductive Function Stachenfeld/Rees Room 27</td>
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<td>Neurovascular Responses to Aging and Disease: Adaptations and Interventions Schrage Room 27</td>
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<td>3:00-5:00</td>
<td>A Complex Interplay Coming Together to Build the Heart Krenn/Polo-Parada Room 22</td>
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<td>10:30-12:30</td>
<td>Development of the Control of Breathing Bailey/Bovis Room 22</td>
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<td>Chronic Intermittent Hypoxia: Respiratory, Autonomic and Cardiovascular Consequences Schlesinger/Toney Room 22</td>
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<td>Compensatory Responses to Acute or Chronic Hypoxia Exposure Schrage Room 27</td>
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<td>Regulation of Water and Ion Channels and Modulatory Proteins, Lipids, and Hormones Worrall/Pastor-Soler Room 22</td>
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<td>Regulation of Transporters and Modulatory Proteins, Lipids, and Hormones Wellin/Levi Room 22</td>
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<tr>
<td>3:15-5:15</td>
<td>Emerging Paradigms in Inflammation and Microvascular Dysfunction: Novel Insights and Future Trends Chakraborty/Muthuchamy Room 28A</td>
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<td>10:30-12:30</td>
<td>Microvascular Permeability: Paracellular versus Transcellular Transport Lominadze/O’Donnell Room 26A</td>
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<td>Functional Integration in the Hypothalamic Paraventricular Nucleus Watts/Aguilara Room 26A</td>
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<td>Communication Between Cardiac Cells and the Extracellular Matrix Chang/Gardner Room 28A</td>
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<td>Emerging Paradigms in Microvascular Signaling Straub/Westcott Room 28A</td>
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<td>Cell-Cell and Cell-Matrix Adhesions in Control of Fluid Balance and Innate Immunity: Talking is Critical! Birukov/Mehl Room 28A</td>
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<td>Targeted Proteomic Analyses of Heart Failure &amp; Pressure, Lindsey Room 28A</td>
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<td>Role of Adipose Tissue Macrophages in Mediating the Metabolic Effects of Obesity Hawkins Room 28A</td>
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<td>3:15-5:00</td>
<td>WeH Section Trainee Award Finalists Session and Data Diaries El-Marakby Room 25A</td>
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<tr>
<td>10:30-12:30</td>
<td>The Role of Oxigen Metabolism for the Development of Kidney Disease Palm/Carmes Room 28B</td>
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<td>Endoplasmic Reticulum Stress and Vascular Physio-Pathology Matrougui/Wilson Room 28B</td>
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<td>Novel Signaling Pathways in Renal Pathophysiology Plunck/Meurin-Richon Room 28B</td>
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<td>Novel Sites of Regulation in the Pulmonary Vasculature: Contractions and Non-traditional Responses Eldridge/Bates Room 28B</td>
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<td>Understanding the Evolution of Physiology: Insights from Selection Experiments in Rodent Models Garlid/Moore Room 28B</td>
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<td>Hydrogen Sulfide: Ecology, Physiology, and Clinical Applications Olson Room 28B</td>
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<td>Bone-Muscle Crosstalk Brodesser/Muscular Damage Myburgh Room 28B</td>
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<td>Mechanical Muscle Damage Eckmann Room 25A</td>
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<td>5:30-6:45</td>
<td>Innovative Use of Technology for Teaching and Student Assessment in Physiology</td>
<td>Lung Ion Channels and Fluid Homeostasis</td>
<td>Novel Mechanisms for Improving Mitochondrial Efficiency</td>
<td>Effect of Exercise and Nutritional Perturbations on Cumulative Muscle Protein Synthesis</td>
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<td>Gopalan Room 25A</td>
<td>Matsumi/Kuebler Room 25A</td>
<td>Cruzier Room 25A</td>
<td>Riechman Room 25A</td>
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<td>7:00–10:00 PM</td>
<td>Immune Cells and their Role in the Regulation of Blood Pressure and Sodium Homeostasis</td>
<td>Hyper-tension: Mechanisms and Consequences</td>
<td>Regulation of Water and Electrolyte Balance in Diabetic Neuropathy</td>
<td>Thermal Physiology: From Acute Responses to Protective Adaptation</td>
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<td>Marvar/Mathis Room 25B</td>
<td>Moreno-Quinn/George Room 25B</td>
<td>Roman/De Miguel Room 25B</td>
<td>Minson Room 25B</td>
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<td>Pannabecker/Hyndman Room 25B</td>
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<td>7:00–10:00 PM</td>
<td>What Do Competencies Have To Do With My Teaching?</td>
<td>Training Highlights in Physiological Genomics</td>
<td>Ion Channels Fuller/Carratino Room 25C</td>
<td>Ubiquitination and Deubiquitylation of Ion Channels and Transporters</td>
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<td>McClung/Suklaski Room 25C</td>
<td>Zhuo/Moreno-Quinn Room 25C</td>
<td>Room 25C</td>
<td>Hamilton/Balant Room 25C</td>
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<tr>
<td>4:30-5:30</td>
<td>WIEH Section New Investigator Award Lecture</td>
<td>Sawyer Room 24</td>
<td>9:00-10:00 Angiotensin and Sympathetic Nerve Activity</td>
<td>Kissepepin Neurons: Central Mediator of Reproduction and Metabolism</td>
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<td>New Investigator Award Lecture</td>
<td>Sawyer Room 24</td>
<td>Zucker Room 20A</td>
<td>Samson/Kelly Room 25C</td>
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<td>12:45-1:45 History of Physiology Group Lecture</td>
<td>Dempsey Marriott, La Costa</td>
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<td>Dempsey Marriott, La Costa</td>
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<td>6:00-7:30 APS Business Meeting Room 20A</td>
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Organized by: Joey Granger, Univ. of Mississippi Medical Center

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<tr>
<th>Date</th>
<th>Time</th>
<th>Room</th>
<th>Session Title</th>
<th>Chairs</th>
<th>Speakers</th>
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<tr>
<td>Sunday</td>
<td>April 22, 2012</td>
<td>3:30-5:30 PM</td>
<td>Room 20A</td>
<td>Physiology of Obesity, Cardiometabolic Disease, and Therapeutic Weight Loss</td>
<td>John Hall and Ann Schrehofer, Co-chairs</td>
<td>Speakers: Randy Seeley, John E. Hall, Kevin L. Grove, Lee M. Kaplan</td>
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<tr>
<td>Monday</td>
<td>April 23, 2012</td>
<td>3:30-5:30 PM</td>
<td>Room 20A</td>
<td>Using Physiology to Translate Cardiac Remodeling and Heart Failure</td>
<td>Merry L. Lindsey and Margaux Horn, Co-chairs</td>
<td>Speakers: Lynne W. Stevenson, Marielle Scherrer-Crosbie, Kersten Small, Yufang Jin</td>
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<tr>
<td>Tuesday</td>
<td>April 24, 2012</td>
<td>3:30-5:30 PM</td>
<td>Room 20A</td>
<td>Hypertension and Chronic Kidney Diseases</td>
<td>Pedro Jose and Jennifer Sullivan, Co-chairs</td>
<td>Speakers: Gerald DiBona, S. Ananth Karumanchi, Susan Quaggin, Alejandro Chade</td>
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<tr>
<td>Wednesday</td>
<td>April 25, 2012</td>
<td>3:30-5:30 PM</td>
<td>Room 20A</td>
<td>Nobel Prize in Physiology or Medicine Lecture</td>
<td>Oliver Smithies, Univ. of North Carolina</td>
<td>“On being a bench scientist for 50 years.”</td>
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<td>CRC-1</td>
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<td>CRC-5</td>
<td>Resume Critique/Career Counseling Room Hall D</td>
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<td>San Diego Convention Center</td>
<td>Networking: A Required Life Skill 9:00-10:00 AM (Howard Adams)</td>
<td>Postdocs: What Should You be Looking For and How to Find Them 10:00-11:15 AM (Andrew Green)</td>
<td>Talking About Yourself: Interviewing Well 10:00-11:00 AM (Naledi Saul)</td>
<td>Workplace Dynamics III Workshop: 9:00 AM-12:00 PM (Sharon Milgram, Lori Conlan)</td>
<td>One-on-One: Joe Tringali, Bill Lindstaedt, John Lombardo, Andrew Green, Naledi Saul, Debra Behrens</td>
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<td>Sat., Apr. 21</td>
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<td>Sat., Apr. 21</td>
<td>10:00</td>
<td>Goal Setting, Prioritizing, Time Management 10:30-11:30 AM (Howard Adams)</td>
<td>Postdocs: What Should You be Looking For and How to Find Them 10:00-11:15 AM (Andrew Green)</td>
<td>Talking About Yourself: Interviewing Well 10:00-11:00 AM (Naledi Saul)</td>
<td>Workplace Dynamics III Workshop (continues until 12:00 PM)</td>
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<tr>
<td>Sat., Apr. 21</td>
<td>11:00</td>
<td>Goal Setting, Prioritizing, Time Management... (continues until 11:30 AM)</td>
<td>Beyond the Bench... Preparing for Your Career Transition in the Life Sciences 11:00 AM-12:00 PM (Joe Tringali)</td>
<td>Postdocs: What Should You be Looking For... (Continues until 11:15 AM)</td>
<td>Workplace Dynamics III Workshop (continues until 12:00 PM)</td>
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<tr>
<td>Sat., Apr. 21</td>
<td>12:00 PM</td>
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<tr>
<td>Sat., Apr. 21</td>
<td>1:00</td>
<td>Ten Ways to Get Lucky in The Job Search 1:00-2:00 PM (Phil Clifford, John Lombardo)</td>
<td>Professional Development for PhDs 1:00-2:30 PM (Andrew Green)</td>
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<td>Sat., Apr. 21</td>
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<td>Professional Development for PhDs (continues until 2:30 PM)</td>
<td>Conflict &amp; Feedback (continues until 3:00 PM)</td>
<td>Developing Your Core Message/“Elevator Pitch” 3:30-4:30 PM (Joe Tringali)</td>
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<td>4:00</td>
<td>Job Hunting in the Biotech Industry... (continues until 3:15 PM)</td>
<td>One-on-One: Joe Tringali, John Lombardo</td>
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<tr>
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<td>Developing Your Core Message/ Elevator Pitch 8:30-9:30 AM (John Lombardo)</td>
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<tr>
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<td>Making the Case for Graduate School 8:30-9:30 AM (Howard Adams)</td>
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<td>Lab Management 9:00-10:30 AM (Sharon Milgram, Lori Conlan)</td>
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<td>One-on-One: Bill Lindstaedt, Andrew Green, Naledi Saul, Judy Blumenthal, Debra Behrens</td>
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<td>Managing Up 2:30-3:30 PM (Sharon Milgram, Lori Conlan)</td>
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<td>How to Get a Job in Science Policy 4:00-5:00 PM (Sharon Milgram, Lori Conlan)</td>
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<td>HOW TO GET A JOB IN SCIENCE POLICY 20-MINUTE MINI SESSIONS</td>
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*Career Skills Blitz: CRC-4: Networking and Informational Interviews; Resumes and Cover Letters; Interviewing Tips (20-minute mini-sessions) – Sharon Milgram, Lori Conlan
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<td>How to Get a Job in Government: Bench 9:00-10:00 AM (Sharon Milgram, Lori Conlan)</td>
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<td>Mon., Apr. 23 12:00 PM</td>
<td>Career Skills Blitz* 12:00-1:30 PM</td>
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<td>Mon., Apr. 23 1:00</td>
<td>The Industrial Hiring Process: Learn the Nuances: Get the Offer 1:00-2:00 PM (Joe Tringali)</td>
<td>Utilizing LinkedIn in the PhD Job Search 1:15-2:15 PM (Andrew Green) (continues until 2:15 PM)</td>
<td>The Right Attitude and Behaviors While Job Searching from the Resume to the Job 1:00-2:00 PM (Judy Blumenthal)</td>
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<td>Revealing... (continues until 3:30 PM)</td>
<td>Talking About Yourself (continues until 3:30 PM)</td>
<td>Becoming a Mentor 2:30-3:30 PM (Sharon Milgram, Lori Conlan)</td>
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<tr>
<td>Mon., Apr. 23 4:00</td>
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<td>Job Search in Academia &amp; Industry 4:00-5:00 PM (Debra)</td>
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<td>Successful Behaviors for Winning an Interview 4:00-</td>
<td>One-on-One: Naledi Saul and Joe Tringali</td>
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<td>5:00 PM (Judy Blumenthal)</td>
<td>One-on-One: Joe Tringali, Bill Lindstaedt, John Lombardo, Naledi Saul, Debra Behrens</td>
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<td>9:00</td>
<td>The Job Talk 9:00-10:00 AM (Andrew Green)</td>
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<td>10:00</td>
<td>Academic Job Search: CV’s, Letters, Statements and Start-ups 10:00 AM -11:30 PM (Bill Lindstaedt)</td>
<td>Negociation Strategies for Scientists 10:15-11:15 AM (Behrens)</td>
<td>Transforming Your CV 10:30-11:30 AM (Naledi Saul)</td>
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<td>Navigating Graduate Work Protocol, Milestones, Requirements 10:00-11:00 AM (Howard Adams)</td>
<td>One-on-One: Joe Tringali, John Lombardo, Judy Blumenthal</td>
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<td>11:00</td>
<td>Academic Job Search... (continues until 11:30 AM)</td>
<td>Successful Behaviors for Winning an Interview 11:30 AM-12:30 PM (Judy Blumenthal)</td>
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<td>PhD Negotiation Skills and Strategies: How to Get What You Want and Need 11:00 AM-12:00 PM (Howard Adams)</td>
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<td>One-on-One: John Lombardo, Joe Tringali</td>
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<td>1:00</td>
<td>Achieving Your Goals 1:00-2:00 PM (Bill Lindstaedt)</td>
<td>CV—Resume 1:30-3:30 PM (Andrew Green) continues until 2:30 PM</td>
<td>Making the Grade: Job Talk/Chalk Talk 1:00-2:15 PM (Behrens)</td>
<td>Developing/Writing the Doctoral Dissertation 1:00-2:00 PM (Howard Adams)</td>
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<td>One-on-One: Joe Tringali, Naledi Saul, Judy Blumenthal</td>
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<td>2:00</td>
<td>Career Decisions: How to Select a Career Path That’s Best for You 2:00-3:00 PM (Bill Lindstaedt)</td>
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<td>Wed., Apr. 25 9:00</td>
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FRIDAY, APRIL 20
Biochemistry and Molecular Biology

1. **ASBMB GRADUATE AND POSTDOCTORAL TRAVEL AWARD KEYNOTE LECTURE**
   
   **Special Session**
   (Supported by an educational grant from Genentech)
   (Sponsored by: ASBMB Education and Professional Development and Minority Affairs Committees)
   
   FRI. 5:00 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL SALON 4
   
   **COCHAIRRED: K. DODGE-KAFKA AND C. HEINEN**
   
   **Invitation only.**
   Participation is compulsory for all ASBMB Graduate Minority and Graduate/Postdoctoral Travel Award recipients.
   
   5:00 Chair’s introduction.

2. **ASBMB GRADUATE AND POSTDOCTORAL TRAVEL AWARD POSTER SESSION**
   
   **Special Session**
   (Supported by an educational grant from Genentech)
   (Sponsored by: ASBMB Education and Professional Development and Minority Affairs Committees)
   
   FRI. 6:30 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL SALON 1
   
   **Invitation only.**
   Participation is compulsory for all ASBMB Graduate Minority and Graduate/Postdoctoral Travel Award recipients.
   Poster board assignments will be issued at event check in, 4:00 pm - 4:45 pm, outside Hall 4.

Nutrition

3. **THE GLOBAL NUTRITION TRANSITION: THE ROLE OF LIPID SUPPLEMENTATION**

   **Special Session**
   (Organized and Sponsored by: Herbalife Nutrition Institute)
   
   FRI. 8:30 AM—HILTON SAN DIEGO BAYFRONT, INDIGO BALLROOM H
   
   **CHAIRRED: D. HEBER**

4. **WHAT DO WE REALLY KNOW ABOUT WHOLE FOODS DIGESTIBILITY AND ENERGY VALUES?**

   **Special Session**
   (Organized and Sponsored by: Almond Board of California)
   
   FRI. 1:00 PM—HILTON SAN DIEGO BAYFRONT, INDIGO BALLROOM G

5. **ASN CARIG ANNUAL SYMPOSIUM**

   **Special Function**
   (Supported by educational grants from Chrysantis, Inc. and Mead Johnson and Co., LLC)
   (Sponsored by: CARIG RIS)
   
   FRI. 1:00 PM—HILTON SAN DIEGO BAYFRONT, INDIGO BALLROOM C
   
   **CHAIRRED: M. FERRUZZI**
SATURDAY, APRIL 21
Across Societies – Experimental Biology

6. MARC AND PROFESSIONAL DEVELOPMENT PROGRAMS

Workshop
SAT. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

Career Development
The Experimental Biology 2012 Career Center activities have been arranged by the FASEB Office of MARC & Professional Development. Access to the Career Center is FREE to all registered EB 2012 meeting attendees.

9:00 Workplace dynamics I/II. S. Milgram, L. Conlan.
10:00 Postdocs: what should you be looking for and how to find them. A. Green.

10:00 Talking about yourself: interviewing well. N. Saul.
10:30 Goal setting, prioritizing, time management. H. Adams.
11:00 Beyond the bench: preparing for your career transition in the life sciences. J. Tringali.
1:00 Ten ways to get lucky in the job search. P. Clifford, J. Lombardo.
1:00 Workplace dynamics: conflict and feedback. S. Milgram, L. Conlan.
1:30 Negotiation strategies for scientists. D. Behrens.
2:00 Transforming your CV. N. Saul.
2:15 Job hunting in the biotech industry. B. Lindstaedt.
3:15 Workplace dynamics: team skills. S. Milgram, L. Conlan.
4:00 Global interview skills. D. Behrens.
4:00 Developing your core message/"elevator pitch". J. Lombardo.

7. CONNECTING WITH DIFFERENT AUDIENCES: THE ANATOMY OF COMMUNICATION

Symposium
SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: D. Evans

Professional Development
Public Policy
8:00 Chair’s introduction.
8:05 7.1 The abc of communication: easy as 123? D.J. Evans. Brighton and Sussex Med. Sch., U.K.
8:30 7.2 Communicating science during a crisis. C. Reddy. Woods Hole Oceanographic Instn.
8:55 7.3 Inside the Beltway and up on the Hill. J.C. LaManna. Case Western Reserve Univ.
9:20 7.4 Outside the box and inside the living room: teaching through television. J.S. Reidenberg. Mount Sinai Sch. of Med.
9:45 Discussion.

11:00 8.2 Herding cats and academics: skills for leading a professional organization. D.B. Burr. Indiana Univ. Sch. of Med.
11:25 8.3 Leading a medical school academic unit: institute versus department. K.J. Jones. Indiana Univ. Sch. of Med.
11:50 8.4 The role of the president in guiding the university: learners, lawyers and legislators. R.O. Kelley. Univ. of North Dakota.
12:15 Discussion.

8. CLIMBING THE ACADEMIC LADDER: SKILLS NEEDED FOR EACH RUNG

Symposium
SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: R. Pratt and K. Topp

Professional Development
10:30 Chair’s introduction.
10:35 8.1 Committees – target the right ones and work strategically to make them productive. K.S. Topp. UCSF.
11:00 8.2 Herding cats and academics: skills for leading a professional organization. D.B. Burr. Indiana Univ. Sch. of Med.
11:25 8.3 Leading a medical school academic unit: institute versus department. K.J. Jones. Indiana Univ. Sch. of Med.
11:50 8.4 The role of the president in guiding the university: learners, lawyers and legislators. R.O. Kelley. Univ. of North Dakota.
12:15 Discussion.

9. MASTER CLASS—NEURAL INNERVATION OF THE HEART AND ITS ROLE IN PATHOPHYSIOLOGY AND TREATMENT

Symposium
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: J. Walker

Education & Teaching
Cardiovascular
1:00 Chair’s introduction.
1:30 9.2 Clinical methods to assess cardiac sympathetic innervation and function. D.S. Goldstein. NINDS/NIH.
2:45 Discussion.
10. VISUALIZING COMPLEX BIOMEDICAL SYSTEMS

Symposium
Sat. 1:00 PM—San Diego Convention Center, 9
CHAIR: C. Johnson

Imaging/Computational Analysis

1:00 Chair’s introduction.

1:05 10.1 Image-based biomedical modeling, simulation and visualization. C. Johnson. Univ. of Utah.


1:55 10.3 Automating the visualization of biological machines. C.L. Bajaj. Univ. of Texas at Austin.


2:45 Discussion.

11. AAA LANGMAN GRADUATE STUDENT PLATFORM AWARD SESSION

Special Session
Sat. 1:30 PM—San Diego Convention Center, 7B
CHAIR: P. Trainor

1:30 Fgf-induced activation of the limb specific Shh regulatory region. T.W. Bailey, C.U. Pira and K.C. Oberg. Loma Linda Univ. (908.1)

1:45 Nexilin is a dynamic protein at Listeria monocytogenes comet tails and enteropathogenic E. coli pedestals. H.T. Law, M. Bonazzi, J. Jackson, P. Cossart and J.A. Guttmann. Simon Fraser Univ., Canada and Inst. Pasteur and INSERM, Paris. (522.3)

2:00 Is embryonic pressure overload responsible for causing endocardial fibroelastosis? Z. Pesevski and D. Sedmera. First Fac. of Med., Charles Univ. and Inst. of Physiol., Acad. of Sci. of Czech Republic, Prague. (726.13)


2:45 General discussion.

12. AAA EDUCATIONAL RESEARCH PLATFORM AWARD SESSION

Special Session
Sat. 3:15 PM—San Diego Convention Center, 7B
CHAIR: C. Eckel

3:15 Do lectures matter? Lecture attendance in online and face-to-face histology courses. M.L. Barbeau and K.A. Rogers. Univ. of Western Ontario. (528.5)


3:45 A successful method for engaging students in active learning using prosected cadavers. S. Khirallah and J.J. Walker. Purdue Univ. (529.13)


4:15 Foundations for a lifetime: a qualitative inquiry into the salient aspects of cadaver dissection over time and their impact on medical professionals. M.D. Skinner, S. Morrow and D.A. Morton. Univ. of Utah. (531.15)


13. PEDAGOGY

Hybrid Symposium
Sat. 3:30 PM—San Diego Convention Center, 8
CHAIR: S. Marquez and W. Pawlina

Education & Teaching

3:30 Chair’s introduction.


4:55 13.5 Integration of PBL cases into gross anatomy laboratory experiences followed by a modified TBL formative assessment: pedagogy using the best of both worlds. J.J. Wisco, T.L. Korin, P. Wimmers and M.E. Stark. David Geffen Sch. of Med. at UCLA.

5:10 13.6 Teaching beyond the classroom. L.R. Sherman. Mount Sinai Sch. of Med.

5:25 Discussion.
14. DIGITAL IMAGING

Symposium
(Sponsored by: CSAS and AAA)

Sat. 3:30 PM—San Diego Convention Center, 9

Chair: S. Zhang

Imaging/Computational Analysis

3:30 Chair’s introduction.
5:15 Discussion.

15. AAA POSTDOCTORAL PLATFORM AWARD SESSION

Special Session
Sat. 5:00 PM—San Diego Convention Center, 7B

Chair: J. Venuti

5:00 Developing henna-haematoxylin stain as alternative to Nissl stain in delineating the cytoarchitecture of the neocortex and archicortex of the cerebrum. J.N. Alawa, O. Gideon, B. Adetiba and C.B. Alawa. Ahmadu Bello Univ., Nigeria. (918.3)
5:15 15.1 FGF signaling is involved in physiological adaptation to pressure overload in developing heart. E. Krejci, Z. Pesevski, O. Nanka and D. Sedmera. Inst. of Physiol., Acad. of Sci. of Czech Republic, Prague and 1st Fac. of Med., Charles Univ. in Prague.
5:45 Potent suppressive effect of resveratrol and apigenin on pro-inflammatory responses in lipopolysaccharide and IFN-γ-activated microglia and macrophages: implications for Alzheimer's disease therapies. L. Ooi. Univ. of Western Sydney Sch. of Med. (921.2)
6:15 Tumor-derived IDO affects the lifespan in a mouse model of glioblastoma. D.A. Wainwright and M.S. Lesniak. Univ. of Chicago. (920.1)

Biochemistry and Molecular Biology

16. FOSTERING PARTNERSHIPS BETWEEN COLLEGES, UNIVERSITIES AND K-12 SCHOOLS WORKSHOP

Workshop
(Supported by an educational grant from National Science Foundation)
(Sponsored by: ASBMB Minority Affairs, Education and Professional Development and Undergraduate Affiliate Network Committees)
Sat. 9:00 AM—San Diego Marriott Marquis & Marina, Santa Rosa


Advance event registration required.

This workshop will promote collaborative partnerships between junior high and high school teachers and college/university faculty and researchers to bring creative, cutting-edge, and hands-on science into K-12 classrooms.

17. ASBMB GRADUATE AND POSTDOCTORAL PROFESSIONAL DEVELOPMENT PROGRAM

Special Session
(Supported by an educational grant from Genentech)
(Sponsored by: ASBMB Education and Professional Development and Minority Affairs Committees.)
Sat. 9:00 AM—San Diego Marriott Marquis & Marina, Marriott Hall Salon 4

Chair: R. Dodge-Kafka and C. Heinlen

Advance event registration required.

Participation is compulsory for all ASBMB Graduate Minority and Graduate/Postdoctoral Travel Award recipients.
SUNDAY

18. POWERING UP! ASBMB ANNUAL MEETING ORIENTATION FOR UNDERGRADUATES

Workshop

(Supported by an educational grant from National Science Foundation)

SAT. 11:30 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, ATLANTA

CHAIR: E. BELL AND M. JOHNSON

This interactive ASBMB Annual Meeting orientation will help students navigate the program offerings and make the most of their participation in the ASBMB national meeting.

19. THE BATTLE! ASBMB 16TH ANNUAL UNDERGRADUATE STUDENT RESEARCH POSTER COMPETITION

Special Session

SAT. 1:00 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL SALON 1

CHAIR: K. CORNELY

COCHAIR: P. A. ORTIZ AND M. A. WALLERT

Board numbers will be assigned at check-in (Noon - 12:45 pm) outside Marriott Hall 1.

20. FIND YOUR SUPER MATCH! CAREER SPEED “DATING” FOR UNDERGRADUATES

Workshop

(Sponsored by: ASBMB Education and Professional Development Committee)

SAT. 4:45 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, SAN DIEGO BALLROOM A

CHAIR: S. BARBOUR

Fast-paced, informative and fun, this workshop gives undergraduates an opportunity to meet and have Q&A sets with a variety of experts in both traditional and non-traditional career fields.

21. ASBMB OPENING LECTURE: HERBERT TABOR/JOURNAL OF BIOLOGICAL CHEMISTRY LECTURESHIP

Award

(Supported by an educational grant from Cadmus Communications, a Cenveo Company)

SAT. 6:00 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL SALON 4

6:00 Introductory remarks. S. R. Pfeffer.


22. ASBMB OPENING RECEPTION

Special Event

SAT.—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL SALON 1

Immediately follows the ASBMB Opening Lecture

ASBMB members and Biochemistry attendees welcome.

Nutrition

23. PROTEINS AS BENEFICIAL INGREDIENTS IN FORTIFIED BLENDED FOODS: WHAT FOOD AID STUDIES ARE NEEDED?

Special Session

(Organized and Sponsored by: Solae, LLC)

SAT. 6:30 AM—SAN DIEGO CONVENTION CENTER, 30A/B

24. ENERGY BALANCE: A NEW PARADIGM

Symposium

(Supported by an educational grant from International Life Sciences Institute North America)

(Sponsored by: ILSI NA)

SAT. 8:30 AM—SAN DIEGO CONVENTION CENTER, 20D

CHAIR: J.A. MILNER

COCHAIR: D. TANCREDI

8:30 Registration.


8:45 Defining energy balance. J. O. Hill. Univ. of Colorado Denver.


10:30 Effect of manipulating components of energy intake and energy expenditure. J. Jakicic. Univ. of Pittsburgh.

11:00 Can energy balance be altered by exercise alone? J. Donnelly. Univ. of Kansas.

11:30 Future directions and panel discussion. J. A. Milner. NCI/NIH.

25. HELPFUL OR HARMFUL: SOY, ISOFLAVONES, AND CANCER RISK

Symposium
(Supported by an educational grant from Pharmavite)
(Sponsored by: Diet and Cancer RIS)
SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: B. LINDSHIELD
COCHAIR: M. MESSINA

Education
8:00 Impact of soy intake on the risk of prostate, colon and endometrial cancer. M. Messina. Loma Linda Univ. and Nutr. Matters, Inc.


9:00 Soy and the breast cancer patient: a clinical perspective. M. Hardy. UCLA Ctr. for Integrative Med.


9:40 Panel takes questions from audience.

26. CLINICAL EMERGING LEADERS AWARD COMPETITION, SUPPORTED BY THE MEDICAL NUTRITION COUNCIL

Special Session
(Sponsored by: Medical Nutrition Council)
SAT. 9:00 AM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: P. KRIS-ETHERTON

Education
9:00 Overview.

9:15 Increasing the number of masticatory cycles reduces food intake in healthy young adults. Y. Zhu and J.H. Hollis. Iowa State Univ. (639.7)


9:45 Omega-3 supplementation prevents intestinal inflammation by inhibiting the expansion of an intestinal pathobiont in IL-10− mice. S. Devkota, V. Leone, Y. Wang, M. Musch, D. Antonopoulos and E. Chang. Univ. of Chicago and Argonne Natl. Lab. (830.4)

10:00 Effects of whole and refined grains on cardiometabolic risk factors in a controlled-feeding, weight-loss study: preliminary findings. K.A. Harris, S. West, J.P. Vanden Heuvel, S. Jonnalagadda and P.M. Kris-Etherton. Penn State and General Mills Inc., Minneapolis. (117.5)

10:15 High dose vitamin D is associated with decreased inflammatory markers and increased number of hospital-free days in adults with cystic fibrosis: a pilot study. R.E. Grossmann, S.M. Zughai, R.H. Lyles, S. Liu, V. Sueblinvong, M.S. Schechter, A.A. Stecenko, T.R. Ziegler and V. Tangpricha. Emory Univ. (43.4)

27. CATOTENOIDES AND HEALTH

Minisymposium
(Sponsored by: CARIG RIS)
SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: L. RUBIN
COCHAIR: J. CAMPBELL

8:00 Overview.

8:15 27.1 Regulation of antioxidant responses in prostate cancer: Nrf2-dependent and independent effects of lycopene. X. Gong, R. Marisiddiah, D. Wiener and L.P. Rubin. Univ. of South Florida.


8:45 27.3 Phytochemicals and cellular redox potential: variations in measurement of glutathione levels using three assays. R. Marisiddiah, D. Wiener, X. Gong and L.P. Rubin. Univ. of South Florida.


9:30 Summary.
28. THE EXPERIENCE OF HOUSEHOLD FOOD INSECURITY

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

Sat. 8:00 AM—San Diego Convention Center, 32A

Chair: J.S. Lee
Co-chair: M. Burke

8:00 28.1 A longitudinal study of food insecurity among low-income families in Toronto. R. Loopstra-Masters and V. Tarasuk. Univ. of Toronto.


8:30 28.3 Parents are not fully knowledgeable of their children’s experiences of food insecurity. J.L. Escobar-Alegria, E.A. Frongillo, M.S. Fram, M. Pérez-Garay, M.M. Macauda and D.L. Billings. Univ. of South Carolina.

8:45 28.4 Children’s very low food security is associated with increased dietary intakes in energy, fat, and added sugar among Mexican-origin children (6-11 y) in Texas border colonias. J.R. Sharkey, C. Nalty, C. Johnson and W.R. Dean. Sch. of Rural Publ. Hlth., College Station and Univ. of North Carolina Gillings Sch. of Global Publ. Hlth.

9:00 28.5 Single incidence household food insecurity is associated with elevated maternal BMI. N.A. Tilton, M.M. Black, L.S. Magder, Y. Wang and K.M. Hurley. Univ. of Maryland Sch. of Med.


9:30 28.7 Exploring shopping habits and nutrition knowledge of single mothers in transitional housing. S.J. Sweitzer, M. Romo, M. McAllaster and M.E. Briley. Univ. of Texas at Austin.


29. STRATEGIC, GLOBAL APPROACHES TO IMPROVE BREASTFEEDING RATES

Symposium

(Supported by an educational grant from Medela)

(Sponsored by: Lactation RIS)

(Cosponsored by: International Nutrition Council)

Sat. 10:30 AM—San Diego Convention Center, 31A/B/C

Chair: C. Lutter
Co-chair: A. Morrow

Public Policy


10:54 Making breastfeeding a public health priority in the United States and new tools to measure progress. L. Grummer-Strawn. CDC.


12:06 Summary. Do we have the breastfeeding evidence base we need to support large-scale health systems change? A. L. Morrow. Cincinnati Children’s Hosp.

30. POSTDOCTORAL RESEARCH AWARD COMPETITION, SUPPORTED BY SOLAE, LLC

Special Session

(Supported by an educational grant from Solae, LLC)

(Sponsored by: Young Professionals Interest Group (YPIG))

Sat. 11:00 AM—San Diego Convention Center, 29A/B

Chair: V.V. Potter

Education

11:00 Overview.


11:30 Maternal vitamin D supplementation to optimize the vitamin D status of breastfed infants. S.S. Oberhelman, M. Meekins, P. Fischer, B. Lee, B. Gardner, R. Singh, S. Cha, J. Pettifor and T. Thacher. Mayo Clin., Univ. of Kentucky and Univ. of Witwatersrand, South Africa. (44.5)


12:30 Flaxseed lignan supplementation improves markers of obesity in C57BL6 mice. N.A. Ford and S.D. Hursting. Univ. of Texas at Austin and M.D. Anderson Cancer Ctr., Smithville. (125.5)
31. CAROTENOIDS: BIOAVAILABILITY AND METABOLISM

Minisymposium
(Sponsored by: CARIG RIS)

SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: X. TANUMIHARDJO

COCHAIR: X. GONG


11:15 31.2 Effect of lactation stage on the content and bioaccessibility of carotenoids in human milk. T.E. Llipke, Z.E. Jouni, T.G. Sapper and M.G. Ferruzzi. Purdue Univ. and Mead Johnson Nutr., IN.


11:00 32.3 Challenges to making local food accessible through farmers’ markets and community supported agriculture: DeKalb County, Georgia. C. McAuliffe, L. Whitaker and A. Webb Girard. Emory Univ. Rollins Sch. of Publ. Hlth.


11:45 32.6 Healthy stores intervention associated with psychosocial improvements in adult American Indian consumers. J. Gittelsohn, S. He, E. Kim, B. Delrow and M. Pardilla. Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Navajo Nation Special Diabetes Prog., Window Rock, AZ.


32. CREATING HEALTHY FOOD ENVIRONMENTS

Minisymposium
(Sponsored by: Community and Public Health Nutrition RIS)

SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32A
CHAIR: E. RACINE

COCHAIR: C. BLAKE

10:30 32.1 Perceptions of the local food environment among low-income residents of Athens, Georgia. S. Wilson and J.S. Lee. Cornell Univ. and Univ. of Georgia.

10:45 32.2 Eating identity and perceptions of the neighborhood food environment. C.E. Blake, T.L. Barnes, M.D. Nichols and A.D. Liese. Univ. of South Carolina.


11:00 33.3 Barriers and facilitators to the implementation of healthy eating strategies in schools. M. Quintanilha, J. Lieffers, A. Farmer, T. Berry, S. Downs, D. Mager, N. Willows and L. McCargar. Univ. of Alberta and Univ. of Sydney.

11:15 33.4 State regulation of school food environments is not enough. S.J. Jones, M.P. Burke, E.A. Frongillo, Y. Chu, M. Tompkins and M. Howlett. Univ. of South Carolina and Simon Fraser Univ., Canada.

11:30 33.5 Children’s lunch box after the implementation of a guideline to regulate the foods and beverages for sale in schools in Mexico City. M. Perez-Rodriguez, I.B. Naranjo, E. Pedraza, G. Ávalos, G. Melendez and F. Pfeffer. FUNSALUD, Mexico City.

11:45 33.6 School lunches and children’s fruit and vegetable consumption. A.M. Teixeira, S.J. Jones, C.D. Childers and J.M. Ball. Univ. of South Carolina.
12:00  33.7  Using technology to assess gain in nutrition knowledge among the youth. H. Roy. LSU.
12:15  33.8  Behavioral intervention among early adolescent girls improves bone mass after 18 months; however, lactose malabsorption is still a barrier for calcium intake. Y. Lee, C.J. Boushey, L.D. McCabe, G.P. McCabe, R. Novotny, M. Van Loan, M. Read, S.B. Going, C.M. Weaver, D.A. Saviano and ACT Investigators. Purdue Univ., Univ. of Hawaii, USDA, Davis, Univ. of Nevada Reno and Univ. of Arizona.

34.  ANIMAL RESEARCH MODELS FOR MACRONUTRIENT METABOLISM

Minisymposium
(Sponsored by: Experimental Animal Nutrition RIS)
SAT. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30C
CHAILED: M. WALDRON
COCHAILED: K. SWANSON

10:45  34.2  Dietary L-carnitine results in greater energy expenditure and a lower RQ in overweight, but not lean, adult cats. A.K. Shoveller, D.L. Minikhiem, J. Brewer, J. Foy and J. DiGennaro. Procter & Gamble.
11:45  34.6  Palmitoleate supplementation dissociates liver inflammatory response from hepatic steatosis in mice. X. Guo, H. Li, H. Xu, C. Meng and C. Wu. Texas A&M Univ.
12:00  34.7  Effect of a high carbohydrate or a high fat diet and exercise on the oxidant/antioxidant status in liver. R. Valdés-Ramos, A.L. Guadarrama, B.E. Martinez-Carrillo, A. Kormanovski and T.R. Cruz Hernandez. Autonomous Univ. of State of Mexico and Grad. Sch. of Med.-IPN, Mexico City.
12:15  34.8  Relationship between exercise and high fat diet with oxidative stress parameters in the immune system. B.E. Martinez-Carrillo, R. Valdés-Ramos, A.L. Guadarrama and A. Kormanovski. Autonomous Univ. of State of Mexico and Higher Sch. of Med.-IPN, Mexico City.

35.  THE HUMAN MICROBIOME AND FORMATION OF BIOACTIVE FLAVONOID METABOLITES

Special Function
(Sponsored by: PhenHRIG)
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, 30A/B
CHAILED: M. GROSS

36.  CONTROVERSIES REGARDING REPORTED TRENDS: HAS THE OBESITY EPIDEMIC LEVELLED OFF IN THE UNITED STATES?

Symposium
(Sponsored by: Nutritional Epidemiology RIS)
(Cosponsored by: Obesity RIS Community and Public Health Nutrition RIS)
SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 20D
CHAILED: Y. WANG
COCHAILED: W.H. DIETZ

3:00  Overview of obesity epidemic in the U.S. W. H. Dietz. CDC.
3:25  Some different messages: the trends in different population groups in the U.S. and based on different type of data and different type of analysis. Y. Wang. Johns Hopkins Bloomberg Sch. of Publ. Hlth.
3:50  Lessons from European countries: the recent trends in childhood obesity. T. Lobstein. IASO and IOTF.
4:40  Questions and answers.

37.  ADOPTING HEALTHY AND SUSTAINABLE FOOD SERVICE GUIDELINES: EMERGING EVIDENCE FROM IMPLEMENTATION AT THE UNITED STATES FEDERAL GOVERNMENT, NEW YORK CITY, LOS ANGELES COUNTY, AND KAISER PERMANENTE

Symposium
(Sponsored by: Nutrition Education RIS)
(Cosponsored by: Public Health Nutrition RIS)
SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAILED: J. KIMMONS
COCHAILED: A. LEDERER

3:00  Implementing and evaluating the Health and Human Services and General Services Administration's Health and Sustainability Guidelines for federal concessions and vending operations. J. Kimmons. CDC.
4:00 Lessons learned from adopting and implementing procurement policies in the food services in the Los Angeles County Government and the region’s largest school district. M. Wood. RENEW Los Angeles County.


38. GRADUATE STUDENT RESEARCH AWARD COMPETITION, SUPPORTED BY THE NUTRITIONAL SCIENCES COUNCIL

Special Session

(Sponsored by: Nutrition Sciences Council)

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 29A/B

CHAIR: K. TUCKER

Education

2:00 High-dose (4000 IU) vitamin D supplementation improves insulin resistance in obese adolescents. A.M. Belenchia, A.K. Tosh, L.S. Hillman and C.A. Peterson. Univ. of Missouri-Columbia and University of Missouri Hosp. & Clin. (386.3)


2:45 Lower dairy calcium and dairy vitamin D intakes are associated with increased skeletal muscle fatty infiltration in adolescent girls. D. Vassallo, V. Lee, M. Laudermilk, R. Blew and S. Going. Univ. of Arizona and Univ. of Pennsylvania. (369.2)

3:00 Genetic variation in the vitamin D receptor and the plasma proteome. B. García Bailo, A. Badawi and A. El-Sohemy. Univ. of Toronto and Publ. Hlth. Agcy. of Canada, Toronto. (1012.6)

3:15 Fatty acid transport protein mediates macrophage polarization. Y. Qin, B. Sampey, G. Sacks, A. Freemerman, L. Li, R. Coleman, A. Stahl and L. Makowski. Gillings Sch. of Global Publ. Hlth., Univ. of North Carolina at Chapel Hill and Univ. of California, Berkeley. (364.6)

3:30 Tumor progression locus 2 deletion attenuates alcohol-induced hepatic inflammatory foci and cytokine expression in mice. C.A. Peach, S. Hussain, C. Liu, X-D. Wang and A.S. Greenberg. USDA at Tufts Univ. (1033.9)


4:00 Physiologic role of the Menkes copper ATPase (Atp7a) in intestinal iron transport. S. Gulec, P. Ranganathan, Y. Lu and J. Collins. Univ. of Florida. (641.22)


39. CAROTENOIDs: EYE AND BRAIN HEALTH

Minisymposium

(Sponsored by: CARIG RIS)

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32B

CHAIR: E. JOHNSON

COCHAIR: Z. JOUNI

3:00 Overview.


3:45 39.3 Relationship between brain lutein (L) and zeaxanthin (Z) and retinal L and Z in humans. R. Vishwanathan, J. Wittwer, W. Schalch and E.J. Johnson. USDA at Tufts Univ. and DSM Nutritional Prods. Ltd., Kaiseraugst, Switzerland.


4:30 Summary.

Please Silence Your Cell Phones during Sessions
40. REGULATION OF FOOD INTAKE
Minisymposium
(Sponsored by: Energy and Macronutrient Metabolism RIS)
(Cosponsored by: Obesity RIS)
SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32A
CHAIR: J.W. Apolzan
COCHAIR: J.H. Hollis

3:00 40.1 Chronic high fat diet changes gene expression within the brain reward system: critical periods and sex differences. T.M. Reyes and J. Carlin. Univ. of Pennsylvania Sch. of Med.


4:00 40.5 The contribution of gastrointestinal appetite hormones to protein-induced satiety. A. Astrup, A. Belza, M.Q. Serensen, C. Ritz, J.J. Holst and J.F. Rehfeld. Univ. of Copenhagen, Frederiksberg, Copenhagen and Univ. Hosp.


41. FAT SOLUBLE VITAMINS AND CHRONIC DISEASE
Minisymposium
(Sponsored by: Vitamins and Minerals RIS)
SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30D
CHAIR: D. TEEGARDEN
COCHAIR: G. CHEN

3:00 41.1 Vitamin D standardization program. C.T. Sempos, H.W. Vesper and K. Phinney. ODS/NIH, CSC, Atlanta and Natl. Inst. of Stds. and Technol., Gaithersburg, MD.


4:15 41.6 Determining the retinoic acid response element in the liver glucokinase gene promoter using deletion and linker-scan analysis. R. Li and G. Chen. Univ. of Tennessee Knoxville.

4:30 41.7 Knockout of CYP4F14 causes severe perturbations in vitamin E metabolism and results in tissue accumulation of vitamin E in the mouse. S.A. Bardowell, F. Duan, J.E. Swanson, D. Manor and R.S. Parker. Cornell Univ. and Case Western Reserve Univ.

4:45 41.8 Transcriptional regulation of the tocopherol transfer protein. L. Ulatowski, C. Dreussi and D. Manor. Case Western Reserve Univ.

42. PROTEIN AND AMINO ACID METABOLISM
Minisymposium
(Sponsored by: Energy and Macronutrient Metabolism RIS)
SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30C
CHAIR: E. Volpi
COCHAIR: S. Chevalier

3:00 42.1 Using the phenylalanine stable isotope pulse method to measure intracellular protein breakdown and metabolic shunting in the context of sepsis in the pig. G.A. Ten Have, M.P. Engelen, R.R. Wolfe and N.E. Deutz. Donald W. Reynolds Inst. on Aging, Little Rock.

3:15 42.2 Dietary supplementation with aromatic amino acids improves net protein synthesis in children with severe acute malnutrition during hospitalization. J.W. Hsu, A. Badaloo, C. Taylor-Bryan, M. Reid, T. Forrester and F. Jahoor. USDA, Houston, Baylor Col. of Med. and Univ. of West Indies, Jamaica.

3:30 42.3 Lean growth is enhanced by intermittent bolus compared with continuous feeding in neonates. S.W. El-Kadi, C. Boulry, M.C. Gazzaneo, A. Suryawan, R. Orellana, N. Srivastava, H.V. Nguyen, M.L. Fiorotto and T.A. Davis. USDA, Baylor Col. of Med.
4:45 42.4 Protein requirement in healthy pregnant women in early and late gestation determined by indicator amino acid oxidation method. **T.V. Stephens,** M. **Payne,** R.O. **Ball,** P.B. **Pencharz** and R. **Elango.** Child and Family Res. Inst., Vancouver, Univ. of Alberta and The Hosp. for Sick Children, Toronto.

4:00 42.5 Protein requirement of elderly women determined using the indicator amino acid oxidation technique. **M. Tang,** G.P. **McCabe,** R. **Elango,** P.B. **Pencharz,** R.O. **Ball** and W.W. **Campbell.** Purdue Univ., Univ. of British Columbia, Univ. of Toronto, The Hosp. for Sick Children, Toronto and Univ. of Alberta.


4:30 42.7 Leucine balance, metabolic and satiety responses to a leucine-rich meal in healthy elderly women. **C. Snarr,** E. **Redmond,** J.A. **Morais,** L.J. **Wykes** and S. **Chevalier.** McGill Univ.


43. NUTRITION AND INFLAMMATION

Minisymposium

(Sponsored by: Medical Nutrition Council (MNC))

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29D

CHAIRED: G. JENSEN

COCHAIR: T. ZIEGLER

3:00 43.1 Omega-3 fatty acids mitigate inflammation in felines with chronic kidney disease. **M.A. Harris,** K. **Lunn,** J. **Quimby,** S. **Kim** and C. **Mulligan.** Vet. Teaching Hosp., Colorado State Univ.


3:45 43.4 High dose vitamin D is associated with decreased inflammatory markers and increased number of hospital-free days in adults with cystic fibrosis: a pilot study. **R.E. Grossmann,** S.M. **Zughaier,** R.H. **Lyles,** S. **Liu,** V. **Suieblinvong,** M.S. **Schechter,** A.A. **Stecenko,** T.R. **Ziegler** and V. **Tangpricha.** Emory Univ.

4:00 43.5 Buccal swab IL-1ra in necrotizing enterocolitis: a predictive biomarker. **R. Murgas Torrazza,** N. **Li,** V. **Mai,** S. **Chen,** M. **Chow,** E-K. **Kim** and J. **Neu.** Univ. of Florida.

4:15 43.6 Maternal and infant predictors of CRP in exclusively breastfed infants born to HIV-infected Malawian mothers. **L.S. Adair,** A.L. **Thompson,** D. **Kayira,** C. **Chasela,** Z. **Kacheche,** D. **Kamwendo,** M. **Bentley,** D. **Jamieson,** L.H. **Allen** and S. **Shahab-Ferows.** Univ. of North Carolina at Chapel Hill, UNC Project, Lilongwe, Malawi, Ctrs. for Dis. Control and Prevent. and USDA, Davis.

4:30 43.7 Muscle breakdown determines arginine availability during hyperdynamic sepsis in the pig. **G.A. Ten Have,** M.P. **Engelen,** R.R. **Wolfe** and N.E. **Deutz.** Ctr. for Translational Res. in Aging & Longevity, Little Rock.

4:45 43.8 Alcohol exposure and burn injury drive acute adipose inflammation and alterations in glucose transporter GLUT1. **Y. Qin,** M. **Bird,** M. **Chen,** E. **Kovacs** and L. **Makowski.** Univ. of North Carolina at Chapel Hill and Loyola Univ. Med. Ctr.

44. BREASTFEEDING AND HUMAN MILK: EFFECT ON THE RECIPIENT INFANT AND/OR LACTATING MOTHER

Minisymposium

(Sponsored by: Lactation RIS)

SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29C

CHAIRED: C. LOVELADY

COCHAIR: E. WIDEN

3:00 44.1 A prospective study of blood pressure, BMI and immunity in breastfeeding and formula feeding women. **M.W. Groer,** F. **Sahebzamani,** C. **Jevitt** and J. **Beckstead.** Col. of Nursing, Univ. of South Florida.

3:15 44.2 Calcium plus vitamin D supplementation during pregnancy protects Brazilian adolescent mothers from excessive bone loss during lactation. **M.E.L. Diogenes,** F.F. **Bezerra,** E.P. **Rezende,** M.F. **Taveira,** I. **Pinhal** and C.M. **Donangelo.** Fed. Univ. of Rio de Janeiro, Univ. of Estado de Rio de Janeiro and Univ. of the Republic, Uruguay.

3:30 44.3 Impact of maternal prenatal metabolic abnormalities on metabolic hormones in human milk. **S.H. Ley,** A.J. **Hanley,** M. **Serber,** B. **Zinnman** and D.L. **O’Connor.** Univ. of Toronto, Mount Sinai Hosp. and The Hosp. for Sick Children, Toronto.

3:45 44.4 Docosahexaenoic acid and amino acids are limiting in pasteurized donor milk from a cross sectional sampling in the north American milk banks. **C.J. Valentine,** G. **Morrow,** A. **Hodge,** A.L. **Morrow** and L.K. **Rogers.** Cincinnati Children’s, Hosp. and Mother’s Milk Bank of Ohio and Nationwide Children’s Hosp., Columbus.

4:00 44.5 Maternal vitamin D supplementation to optimize the vitamin D status of breastfed infants. **S.S. Oberhelman,** M. **Meekins,** P. **Fischer,** B. **Lee,** B. **Gardner,** R. **Singh,** S. **Cha,** J. **Pettifor** and T. **Thacher.** Mayo Clin., Univ. of Kentucky and Univ. of Witwatersrand, South Africa.

4:15 44.6 Maternal body mass index modifies the impact of negative energy balance during lactation on infant weight and length gain in HIV-exposed, uninfected Malawian females. **E.M. Widen,** M. **Bentley,** D. **Kayira,** C. **Chasela,** Z. **Kacheche,** T. **Gegha,** D. **Kamwendo,** D. **Jamieson,** V. **Flax,** C. van der **Horst** and L. **Adair.** Univ. of North Carolina at Chapel Hill, UNC Project, Lilongwe, Malawi and Ctrs. for Dis. Control and Prevent.
Linear growth in very premature infants is significantly related to protein intake. C.L. Berseth, C. Harris and S.H. Mitmesser. Mead Johnson Nutr., Evansville, IN.


**Pathology**

### 45. PATHOBIOLOGY FOR BASIC SCIENTISTS: CELL INJURY AND INFLAMMATION: NEW RIFFS ON A CLASSICAL SCORE

**Course**

(Sponsored by: ASIP Education Committee)

SAT. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16A

CHAIRIED: R.N. MITCHELL AND M.B. FURIE

**Education**

This session is intended primarily for graduate students, residents, and post-doctoral fellows interested in a well-organized and well-structured update on the current scientific and clinical developments—and controversies—regarding cell injury, cell death, inflammation, and neoplasia. Topics will cycle on a regular basis from the popular Summer Academy courses, and speakers will be drawn from among the best pathobiology educators in the ASIP, providing a solid foundation of the fundamentals, and a stimulating look at the future. Given the focus and nature of the presentations, the sessions will also provide an excellent framework for pathobiology faculty developing new course materials, or industry professionals looking for a primer of the field.

9:30  Apoptosis and necroptosis. S. Oakes. UCSF Sch. of Med.

### 46. MESENCHYMAL STEM CELLS AND LUNG DISEASE

**Symposium**

SAT. 8:30 AM—SAN DIEGO CONVENTION CENTER, 17A

CHAIRIED: M.A. MATTHAY AND D.S. ZANDER

**Pulmonary Pathobiology**

**Stem Cells**

8:30  Mesenchymal stem cells and acute lung injury. M. A. Matthay. UCSF Sch. of Med.
9:15  Mesenchymal stem cell therapy: tales of airway inflammation and infection. T. Bonfield. Case Western Reserve Univ.
10:00 Lung repair by mitochondrial transfer from MSCs. J. Bhatattacharya. Columbia Univ. Med. Ctr.
10:45 Mesenchymal stem cells and mechanisms of interstitial lung fibrosis: potential for interaction with the environment. A. R. Brody. North Carolina State Univ.

### 47. BREAST CANCER WORKSHOP: PERSONALIZED MEDICINE AND BREAST CANCER

**Workshop**

(Supported by educational grants from Academic Press, California Breast Cancer Research Program and earlier.org - Friends for an Earlier Breast Cancer Test)

(Sponsored by: ASIP Breast Cancer Scientific Interest Group)

SAT. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16B

CHAIRIED: A.G. RIVENBARK AND W.B. COLEMAN

**Neoplasia**

10:00 Identification of new pathways for targeted breast cancer therapy. W. B. Coleman. Univ. of North Carolina at Chapel Hill.

### 48. TO GROW OR NOT TO GROW

**Minisymposium**

SAT. 8:45 AM—SAN DIEGO CONVENTION CENTER, 17B

CHAIRIED: C. HUGHES

COCHAIRIED: M.J. MCArTHUR

Abstract 48.1 moved to the end of Tuesday Poster Session 1034.

8:45  **48.2** Attenuation of retinal neovascularization and endothelial cells proangiogenic activity in endoglin-deficient mice. S. Park, C.M. Sorenson and N. Sheibani. Univ. of Wisconsin-Madison.
9:00  **48.3** Utilizing mTOR inhibition to study the role of mTOR signal transduction in angiogenesis. M. Ziegler and C.C.W. Hughes. Univ. of California, Irvine.
9:15  **48.4** A role for endothelial cell-derived Wnt5a in angiogenesis. A. Newman and C.C.W. Hughes. Univ. of California, Irvine.
9:45  **48.6** Functional genomics of endothelial cells treated with chemopreventive anti-angiogenic drugs. I. Sogno, A.R. Cantelmo, D. Bartolini, D.M. Noonan and A. Albini. Casa di Cura MultiMedica, Milan and Univ. of Insubria, Italy.
ASMB LECTURE

(Sponsored by: ASIP and the American Society for Matrix Biology)

SAT. 11:30 AM—SAN DIEGO CONVENTION CENTER, 16B


50. 12TH ANNUAL WORKSHOP ON GRADUATE EDUCATION IN PATHOLOGY: GENOMICS AND PERSONALIZED MEDICINE IN THE GRADUATE CURRICULUM

Workshop

(Sponsored by: ASIP Education Committee)

SAT. 11:30 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, CARDIFF

CHAIRPERSON: R.N. MITCHELL

Education

The goal of the ASIP Graduate Education Workshops is to provide a venue for Pathology Program Directors and interested Faculty to learn about and discuss innovations and best practices, and share experiences relevant to the training of Graduate Students, Residents, and Fellows. The sessions—with a box lunch provided—are relatively informal, beginning with short presentations (20-30 minutes each) and progressing to lively discussions; they typically average 15-25 attendees from programs around the country.

For 2012, in view of the Banbury Initiative and other developments, the Annual Workshop will focus on Genomics and Personalized Medicine in the Graduate Curriculum: what should graduate programs be considering, and what are the potential challenges and pitfalls?

11:30 Introductory remarks.

51. BREAST CANCER SCIENTIFIC INTEREST GROUP NETWORKING/POSTER SESSION

(This Session is not CME accredited.)

Poster Discussion

SAT. 11:45 AM—SAN DIEGO CONVENTION CENTER, 1B

CHAIRPERSON: A.G. RIVENBARK

COCHAIRPERSON: W.B. COLEMAN

Neoplasia

This informal lunch/networking session will take place following the Breast Cancer Workshop and will showcase a number of posters that will be selected for discussion. This event is provided for all ASIP members who are interested in breast cancer research. One of the major objectives of this session is to create a community of breast cancer researchers and to foster collaborations. Additionally, this professional networking outlet will provide new investigators and/or predoctoral students and postdoctoral trainees an opportunity to become acquainted with scientists working in the field. A complimentary light lunch will be provided for all in attendance.

P1 Growth of triple negative human breast cancer cells is regulated by the OGF-OGFr axis. I.S. Zagon, N.K. Porterfield and P.J. McLaughlin. Penn State Col. of Med. (142.1)

P2 A designer artificial transcription factor stably reprograms cancer cells by targeted DNA methylation. A.G. Rivenbark, S. Stolzenburg, B.D. Strahl and P. Blancafort. Univ. of North Carolina at Chapel Hill. (142.2)

P3 Inhibitory effect of adiponectin on breast cancer cell growth: evidences of the crucial role of ERα expression. L. Mauro, M. Pellegino, F. De Amicis, C. Giordano and S. Andò. Univ. of Calabria, Italy. (142.3)


P5 Neuropeptide Y stimulates VEGF production and secretion and promotes angiogenesis in murine and human breast cancer. P.J. Medeiros and D.N. Jackson. Univ. of Western Ontario. (142.5)

P6 Kaiso: a key regulator in EMT and cancer progression. J.D. Jones, H. Wang, P. He, W.E. Grizzle, T. Turner and C. Yates. Tuskegee Univ. and Univ. of Alabama at Birmingham. (142.6)

P7 Estrogen receptor-positive breast cancer cells drive CAFs to secrete leptin and support tumor invasiveness. I. Barone, S. Catalano, L. Gelsomino, S. Panza, S. Marsico, C. Giordano, D. Bonofiglio, I. Casaburu, K.R. Covington, S. Fuqua and S. Andò. Univ. of Calabria, Italy and Baylor Col. of Med. (142.7)

P8 Reprogramming the cancer epigenome by metabolic transduction. J.S. Byun and K. Gardner. NCI/NIH. (142.8)


P11 Polychlorinated biphenyls enhance the neoplastic from other pathology research training programs. Pathology. Scout for a postdoctoral fellow and meet colleagues provides a view of the research excellence among trainees in presentations by students, taken from regular sessions. It presents five biomarkers in one single test.

P12 Mono-ubiquitination of annexin A1, acetylation of PML and apoptosis of MCF7 cells treated by HDAC inhibitors. A. Hirata, T.H. Senanayake, P.M. Woster and F. Hirata. Wayne State Univ. (834.5)

P13 FoxO3a transcription factor differentially modulates the metastatic potential of ER+ and ER- breast tumors. C. Morelli, P. Maris, W. Anselmo, M.G. Cesarini, M. Lanzino, D. Sisci and S. Andò. Univ. of Calabria, Italy and Thomas Jefferson Univ. (834.4)

P14 Overexpression of claudin-6, -7 or -9 modifies the activation of MMP-2 and MMP-9. A.C. Torres Martinez, L.F. Montaño Estrada and E.P. Rendon-Huerta. Fac. of Med., UNAM, Mexico City. (833.1)

P15 Effects of claudins-6, -7 or -9 overexpression on migration and invasiveness of breast and hepatocellular cancer cells. B. Salas, E.P. Rendón-Huerta and L.F. Montaño-Estrada. UNAM, Mexico City. (833.8)

P16 Leptin increases HER2 stability through HSP90 in a xenograft model. H. Pang, F.R. Miller, T.A. Kocarek and M. Runge-Morris. Wayne State Univ. (834.6)

P17 Progesterone receptor B through Sp1 induces the progesterone receptor B through Sp1 induces the progression of human breast epithelial cells in a xenograft model. H. Pang, F.R. Miller, T.A. Kocarek and M. Runge-Morris. Wayne State Univ. (834.6)


52. HIGHLIGHTS: GRADUATE STUDENT RESEARCH IN PATHOLOGY

Poster Discussion

(Sponsored by: ASIP Committee for Career Development, Women & Minorities)

SAT, 1:30 PM—SAN DIEGO CONVENTION CENTER, 15B

CHAIR: D. Bielenberg

COCHAIR: K. Kolegraff

This session showcases a selection of oral and poster presentations by students, taken from regular sessions. It provides a view of the research excellence among trainees in Pathology. Scout for a postdoctoral fellow and meet colleagues from other pathology research training programs.


Oral Presentations


1:45 The RNA-binding protein Imp2 regulates oxidative phosphorylation that is key to glioblastoma cancer stem cell maintenance. M. Janiszewska, M.-L. Suva, R.H. Houtkooper, V. Clement-Schatlo and I. Stamenkovic. Univ. of Lausanne, Massachusetts Gen. Hosp., Boston, EPFL, Lausanne and Univ. of Geneva. (479.6)

1:55 Improvement of defective cystic fibrosis airway epithelial repair after CFTR rescue. N.T.N. Trinh, D. Adam, O. Bardou, P. Anik, É. Maillé, S. Lingée, P. Ferraro, M. Desrosiers, C. Coraux and E. Brochiero. CRCHUM Hôtel-Dieu, Univ.of Montreal, Univ. Champagne Ardenne, Reims and CHUM Notre-Dame, Montreal. (56.9)

2:05 Poster Presentations

P2 The desmosomal protein PERP is required for the pro-inflammatory response to Salmonella typhimurium infection. K. Hallstrom, C.V. Srikanth, T. Agbor, Z. Demma and B.A. McCormick. Univ. of Massachusetts Med. Sch. (55.9)

P4 Neuropoetide Y stimulates VEGF production and secretion and promotes angiogenesis in murine and human breast cancer. P.J. Medeiros and D.N. Jackson. Univ. of Western Ontario. (142.5)


P8 D295N mutant cathepsin D exerts a dominant negative effect in vitro by promoting α-synuclein accumulation. D.M. Crabtree, X. Ouyang and J. Zhang. Univ. of Alabama at Birmingham. (1035.15)


Oral Presentations

1:35 The role of miR-17-92 cluster in hepatic carcinogenesis. H. Zhu, C. Han and T. Wu. Tulane Univ. Sch. of Med. (274.12)

2:45 Attenuation of retinal neovascularization and endothelial cells proangiogenic activity in endoglin-deficient mice. S. Park, C.M. Sorenson and N. Sheibani. Univ. of Wisconsin-Madison. (48.2)

4:20 Instructing cells to change their identity.

2:00 Probing the potential of human pluripotent stem cell progeny. W. E. Lowry. UCLA.

3:35 DNA methylation dynamics in pluripotent cells. V. Y. Wu and H. Lee. Natl. Taiwan Univ. (657.5)

2:30 The inhibitory effect of sulforaphane on the expression of VCAM-1 in vascular smooth muscle cells. Y. J. Kim, D-K. Rhee and S. Pyo. Sungkyunkwan Univ., South Korea. (656.16)

3:50 Concluding remarks.

53. IPS CELLS: ARE WE THERE YET?

Symposium

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16A

CHAIRED: G.K. MICHALOPOULOS

Stem Cells

2:00 Probing the potential of human pluripotent stem cell progeny. W. E. Lowry. UCLA.


4:20 Instructing cells to change their identity. J. Gearhart. Univ. of Pennsylvania.

54. THE MYOFIBROBLAST: BIOLOGICAL FEATURES AND THERAPEUTIC PERSPECTIVE

Symposium

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16B

CHAIRED: C.M. HOGABOAM

2:00 Epigenetic mechanisms through which TLR9 promotes myofibroblast differentiation and IPF progression. C. M. Hogaboam. Univ. of Michigan.
56. EPITHELIAL INJURY AND REPAIR

Minisymposium

SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17B
CHAIR: S. COLGAN
COCHAIR: R. JONES

Epithelial Pathobiology

2:00 56.1 Potassium channels as operators of alveolar epithelial repair. A. Girault, A. Privé, N.T.N. Trinh, O. Bardou, É. Maillé and E. Brochiero. CRCHUM Hôtel-Dieu, Univ. of Montreal.

2:12 56.2 N-formyl peptide receptor-1 is important for homeostasis of intestinal epithelial cells. A. Alam, G. Leoni, C. Wentworth, A. Nusrat and A.S. Neish. Emory Univ.


2:36 56.4 Annexin A1 derived peptide Ac2-26 promotes epithelial wound healing through p120-Vav2-Rac1 signaling and ROS generation. G. Leoni, A. Mohammad, M. Perretti, C. Parkos, A. Neish and A. Nusrat. Emory Univ. and Barts and The London Sch. of Med.


3:00 56.6 AnnexinA2 regulates beta 1 integrin internalization and intestinal epithelial cell migration. C.R. Rankin, R.S. Hilgarth, G. Leoni, K.D. Beste, M. Kwon, C.A. Parkos and A. Nusrat. Emory Univ.


57. TRAINEE WELCOME RECEPTION

Special Session

(Sponsored by: ASIP Committee for Career Development, Women & Minorities)

SAT. 4:00 PM—SAN DIEGO CONVENTION CENTER, 15A

All trainees and mentors are invited to attend a Welcome Reception immediately following the Excellence in Science award presentation at the Highlights: Graduate Student Research in Pathology Session. Please join us for a fun and informal social gathering—it’s a great opportunity to network with old and new friends!

58. ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE

SAT. 5:00 PM—SAN DIEGO CONVENTION CENTER, 16A

5:00 Introduction.

5:05 Lost in ubiquitination, found by mass spectrometry: identification of E3 ligase substrates controlling critical cellular events and cancer. K. Elenitoba-Johnson. Univ. of Michigan.

Pharmacology and Experimental Therapeutics

59. DIVERSITY COMMITTEE WORKSHOP: BUILDING A CAREER IN PHARMACOLOGY: A FOCUS ON HEALTH DISPARITIES

Symposium

SAT. 12:00 PM—SAN DIEGO CONVENTION CENTER, 2
CHAIR: M.I. DAVILA-GARCIA

12:00 Chair’s introduction.


1:10 Cancer drug discovery and health disparities. Eileen J. Kennedy. Univ. of Georgia Col. of Pharm.

1:40 Drug-plant interaction in the American Indian/Alaskan Native populations: no control of potential harm. J. Yracheta. Univ. of Washington Sch. of Pharm.

60. 2012 TEACHING INSTITUTE: THE USE OF SOCIAL MEDIA IN PHARMACOLOGY EDUCATION

Symposium
SAT. 12:00 PM—SAN DIEGO CONVENTION CENTER, 3
CHAIR: L.M. CRESPO

Education
12:00 TBD.
12:45 Wikis and Wikipedia as teaching tools. J. Jemison. Univ. of Vermont Col. of Vermont.
1:30 Editing and publishing on Wikipedia. Lynn M. Crespo. Univ. of South Carolina Sch. of Med., Greenville.

61. GRADUATE STUDENT COLLOQUIUM: COMMUNICATION

Colloquium
SAT. 2:45 PM—SAN DIEGO CONVENTION CENTER, 2
CHAIR: L. SCHROTT, J.S. FEDAN, M.J. SEMINERIO

Education
2:45 Keynote Speaker: Get that job! How to ace your interview. B. A. Fischer. Survival Skills & Ethics Program, Univ. of Pittsburgh.

62. ASPET BUSINESS MEETING AND OPENING AWARDS RECEPTION

Business Meeting
SAT. 6:00 PM—SAN DIEGO CONVENTION CENTER, 20B/C
Opening Reception
7:30 PM—SAN DIEGO CONVENTION CENTER, CENTER TERRACE

Physiology

63. REFRESHER COURSE IN ENDOCRINOLOGY: DIABETIC COMPLICATIONS

Symposium
(Sponsored by: APS Education Committee)
SAT. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24
CHAIR: C. WILLIAMS AND M. RYAN

Education
Metabolic Diseases
8:00 Brain-gut interactions. S. Srinivasan. Emory Univ.
8:50 Adipocyte-islet interactions. S. Unniappan. York Univ.

64. MICROCIRCULATORY SOCIETY PRESIDENT’S SYMPOSIUM. CATION CHANNELS IN VASCULAR CONTROL: ASIC, AND TRPV PROTEINS

Symposium
(Sponsored by: The Microcirculatory Society)
SAT. 9:00 AM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: M. BOEGEHOLD

9:00 TRPV channels in cerebral arteries. S. Earley. Colorado State Univ.

65. OVERCOMING THE FEAR OF MAKING YOUR OWN TRANSGENIC AND KNOCKOUT MICE

Workshop
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: D. E. KOHAN AND M. DE CAESTECKER

Education
1:00 Conditional gene expression. H. Bujard. Heidelberg Univ.
2:00 Optimizing transgene expression. C. Sigmund. Univ. of Iowa.
2:30 Key issues with mouse phenotyping. V. Papaioannou. Columbia Univ.
66. PUBLIC OUTREACH AND ANIMAL RESEARCH: TOOLKIT FOR INVESTIGATORS

Symposium
(Sponsored by: APS Animal Care and Experimentation Committee)
SAT. 1:00 PM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: B. YATES

Public Policy
1:00 Introduction, B. Yates, Univ. of Pittsburgh.
1:10 Engaging the public about animal research: a scientist's perspective. D. Ringach, UCLA Jules Stein Eye Inst., David Geffen Sch. of Med.
1:40 Public outreach: a laboratory animal veterinarian's perspective and experience over a quarter of a century. J. D. Young, Cedars-Sinai Med. Ctr.
2:10 Why investigators and institutions should talk about animal research: a media relations perspective. J. Newman, Oregon Hlth. & Sci. Univ.
2:40 Discussion.

67. MICROCIRCULATORY SOCIETY PRESIDENT'S SYMPOSIUM II/YOUNG INVESTIGATOR NOVEL TRENDS

Symposium
(Sponsored by: The Microcirculatory Society)
SAT. 2:00 PM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: K. LUKASZWEICZ AND A. GOODWILL

Dedicated to the memory of Gabor Kaley, Ph.D., Professor of Physiology, New York Medical College, in honor of his positive impact on the careers of many young scientists.

2:00 A novel approach for imaging calcium events simultaneously in arteriolar vascular smooth muscle and endothelial cells. P. Bagher, C.J. Garland and K.A. Dora, Univ. of Oxford. (676.6)
2:30 Accelerated arteriogenesis in collateral arterial segments exposed to flow reversal after femoral arterial ligation. J.K. Meisner, S. Sumer, J. Niu, J. Song and R.J. Price, Univ. of Virginia. (682.8)
2:45 NG2 inhibition decreases endothelial cell sprouting along venules: a novel in situ angiogenesis assay to investigate multicellular interactions. P.C. Stapor, T. Ahsan and W.L. Murfee. Tulane Univ. (682.4)
3:00 The effect of network pattern alterations on microvascular resistance in hypertension. M. Yang and W.L. Murfee. Tulane Univ. (859.1)
3:15 Simulation of metabolic blood flow regulation in heterogeneous microvascular networks: effects of hematocrit variations. B.C. Fry and T.W. Secomb. Univ. of Arizona. (860.8)

3:45 Ankle position modifies tibialis anterior muscle perfusion and oxygenation in the human leg. R.B. Crater, B. Zhang and A.R. Hargens. UCSD. (860.15)
4:00 The ratio of C-peptide to insulin is critical for low oxygen tension-induced ATP release from human erythrocytes. J. Richards, A.H. Stephenson, M.L. Ellsworth and R.S. Sprague. Saint Louis Univ. (860.24)

Simvastatin and GGTI-2133, a geranylgeranyl transferase inhibitor, increase erythrocyte deformability, but inhibit low oxygen tension-induced ATP release. K.M. Clapp, M.L. Ellsworth, R.S. Sprague and A.H. Stephenson. Saint Louis Univ. (859.10)

Cilostazol, a phosphodiesterase 3 inhibitor, enhances prostacyclin receptor-mediated cAMP accumulation and ATP release in erythrocytes of healthy humans and humans with type 2 diabetes. S. Knebel, E.A. Bowles, R.S. Sprague and A.H. Stephenson. Saint Louis Univ. (676.11)


68. USING SOCIAL MEDIA TO COMMUNICATE ABOUT PHYSIOLOGY AND YOU

Symposium
(Sponsored by: APS Communications Committee)
SAT. 3:00 PM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: J. HICKS

Career Development
3:00 Dr. Pascale Lane – author of the blog Pascale Lane's Stream of Thought: Urine is Golden; http://pascalelane.wordpress.com/
3:40 Isis the Scientist – author of the popular blog On Becoming a Domestic and Laboratory Goddess; http://isisthestecientist.com/

69. TOOLKIT FOR GENOMIC BIOMARKER DISCOVERY BY PHYSIOLOGISTS

Workshop
SAT. 3:15 PM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: B. JOE AND L. MILLER

Education
3:15 Methods for large scale quantitative proteomics. J. Hoffert, NHLBI/NIH.
3:35 Bridging large scale systems biology research to physiological signaling pathways. L. Miller, NHLBI/NIH.

4:55 Methods for large scale ChIP sequencing. **J. Zhu.** NHLBI/NIH.

**70. WEH SECTION TRAINEE AWARD FINALISTS SESSION AND DATA DIURESIS**

***Award***

(Supported by an educational grant from Data Sciences, International and Juan Carlos Romero Foundation)

(Sponsored by: APS Water and Electrolyte Homeostasis Section)

**SAT. 3:15 PM—SAN DIEGO CONVENTION CENTER, 25A**

**CHAIR: A. EL-MARAKBY**

3:15 Renal medullary circadian clock genes are altered in endothelin B deficient rats. **J.S. Speed, M.A. Saleh and D.M. Pollock.** Georgia Hlth. Sci. Univ. and Mansoura Univ., Egypt. (1069.11)


3:45 T lymphocytes promote autoimmune-associated hypertension. **K.W. Mathis, K.L. Wasson, C.W. Masterson and M.J. Ryan.** Univ. of Mississippi Med. Ctr. (879.2)


4:30 Female spontaneously hypertensive rats have higher expression of TGF-β and Smad signaling in mesenteric arteries following the development of hypertension. **A.J. Tipton and J.C. Sullivan.** Georgia Hlth. Sci. Univ. (880.1)

4:45 Hyper-caloric diet enhances aortic endothelial function via increased NOS3 activity and expression in Dahl S rats. **F.T. Spradley, J.B. Musall and J.S. Pollock.** Georgia Hlth. Sci. Univ. (878.4)

71. **PHYSIOLOGY IN PERSPECTIVE — THE WALTER B. CANNON MEMORIAL AWARD LECTURE**

**Lecture**

(Sponsored by: Sucampo AG)

**SAT. 5:30 PM—SAN DIEGO CONVENTION CENTER, 20A**

**Title:** The Wisdom of The Body Revisited: Tribute to Walter B. Cannon and His Concept of Homeostasis as Applied to Pathophysiology of Hypertension

**Speaker:** L. G. Navar. Tulane Univ. Hlth. Sci. Ctr.
Across Societies – Experimental Biology

72. MARC AND PROFESSIONAL DEVELOPMENT PROGRAMS

Workshop
SUN. 8:15 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

Career Development
The Experimental Biology 2012 Career Center activities have been arranged by the FASEB Office of MARC & Professional Development. Access to the Career Center is FREE to all registered EB 2012 meeting attendees.

8:15 Revealing your character through your resume. J. Blumenthal.
8:30 Developing your core message/"elevator pitch". J. Lombardo.
8:30 Making the case for graduate school. H. Adams.
9:00 Lab management. S. Milgram, L. Conlan.
10:00 Transforming your CV. N. Saul.
10:30 Sometimes it’s who you know: winning at networking. J. Blumenthal.
11:00 Compensation negotiation for scientists moving into industry. B. Lindstaedt.
11:00 The academic job search in the life sciences: part 1. A. Green.
12:00 Career skills blitz.
1:00 The academic job search in the life sciences: part 2. A. Green.
1:00 Ten tough industrial interview questions; ten good responses. J. Tringali.
1:30 Ten ways to get lucky in the job search. P. Clifford, J. Lombardo.
1:30 How to get a job in science education and outreach. S. Milgram, L. Conlan.
2:30 Managing up. S. Milgram, L. Conlan.
3:00 Achieving your goals: goal setting strategies for scientific and career success. B. Lindstaedt.
3:00 The job talk. A. Green.
4:00 Career decisions: how to select a career path that’s best for you. B. Lindstaedt.
4:00 Navigating graduate work protocol, milestones, requirements. H. Adams.
4:00 How to get a job in science policy. S. Milgram, L. Conlan.
4:15 Making the connection: the relationship between the resume, the interview and the job. J. Blumenthal.

73. NIH K AWARDS

Seminar
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER
CHAIR: H. Khachatryan, NIGMS/NIH

Career Development
NIH Grants Seminar Workshop Series
This presentation will focus on the NIH’s new K99/00 Pathways to Independence Award (for postdoctoral scientists) and the K08 Mentored Clinical Scientist Development Award (for individuals with a health professional doctoral degree committed to a career in laboratory or field-based research.) The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative. EB 2012 registration is required to participate in the seminar.

74. FORMULA FOR GRANT SUCCESS: PART I - SCIENTIFIC PEER REVIEW OF NIH GRANTS

Seminar
SUN. 10:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER
CHAIR: A. M. Coelho, Jr., Grant Success Associates Inc.

Career Development
NIH Grants Seminar Workshop Series
Learn what is important to know and understand about a sponsoring agency’s peer review process. Learn why this understanding peer review can enhance your chances of being funded. This presentation uses the scientific peer review at NIH as an example of what you need to know about peer review at any funding agency and how to use this information in preparation of your grant applications and competing successfully for funding. EB 2012 registration is required to participate in the seminar.
75. FORMULA FOR GRANT SUCCESS: PART II - GRANT WRITING FOR SUCCESS

Seminar
SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER
CHAIR: A. M. COELHO, JR., GRANT SUCCESS ASSOCIATES INC.

Career Development
NIH Grants Seminar Workshop Series
This presentation focuses on the principles of Grant Writing for Success: and the common reasons that grant applications fail or succeed. Learn how to make an application meet the needs of the reviewers and the funding agency. Learn how to avoid the need for resubmission. Learn about sponsored agency resources and how to use them in the preparation of your application. EB 2012 registration is required to participate in the seminar.

Anatomy

76. AAA GENERAL SESSION

Plenary
SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 8
Henry Gray/Lippincott Williams & Wilkins Scientific Achievement Award Lecture
8:00 76.1 Vascular endothelial cells as a source of multipotent stem-like cells. B.R. Olsen. Harvard Sch. of Dent. Med.

77. AAA GENERAL SESSION

Plenary
SUN. 9:00 AM—SAN DIEGO CONVENTION CENTER, 8
Henry Gray/Elsevier Distinguished Educator Award Lecture
9:00 77.1 Open minds, open opportunities. R.L. Drake. Cleveland Clin. Lerner Col. of Med.

78. GROSS ANATOMY FOR THE PHYSICIAN ASSISTANT

Plenary Symposium
SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: M. HANKIN
Education & Teaching
Henry Gray/Elsevier Distinguished Educator Award Symposium
10:30 Chair's introduction.
10:35 78.1 History of the PA profession: from medical corpsmen to present day practitioners. J.K. Pagel. Cleveland Clin.

79. VASCULAR ENDOTHELIUM IN HEALTH AND DISEASE

Plenary Symposium
SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: B. OLSEN
Cardiovascular
Henry Gray/Lippincott Williams & Wilkins Scientific Achievement Award Symposium
10:30 Chair's introduction.
10:35 79.1 VEGF signaling in health and disease. L. Iruela-Arispe. UCLA.
11:50 79.4 Venous malformations: from causes to pathogenic mechanisms and murine models. M.S. Vikkula. Univ. Catholique de Louvain, Belgium.
12:15 Discussion.
80. MORPHOMETRY AND APPLIED ANATOMY
Symposium
(Sponsored by: SBA and AAA)
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7A
CHAIR: R. HALTI CABRAL

2:30 Chair’s introduction.
2:35 80.1 Peripheral nerve morphometry: from neurosciences to clinical applications. V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.
3:00 80.2 Ultrastructural analysis of experimental tenoplasty using bovine peritoneum. T.S. Masuko. Fed. Univ. of Bahia, Brazil.
4:15 Discussion.

81. GLOBAL POSITIONING SYSTEMS GUIDE
NEURONAL MIGRATION AND SYNAPSE FORMATION
Hybrid Symposium
(Supported by an educational grant from Springer)
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: A. STRANAHAN

Neurobiology
2:30 Chair’s introduction.
2:35 81.1 Activation of brain Wnt signaling in vivo: effect on LTP and neurogenesis. N.C. Inestrosa. Catholic Univ. of Chile.
3:10 81.2 Notch1 ablation induces molecular changes in plasticity genes that contribute to memory formation. L. Alberi and N. Gaiano. Univ. of Fribourg, Switzerland and Johns Hopkins Sch. of Med.
3:45 81.3 Reelin signaling in the hippocampus and entorhinal cortex contributes to age-related alterations in cognitive function. A.M. Stranahan. Georgia Hlth. Sci. Univ.
4:00 Switch in amyloid clearance mechanisms leads to vascular fragility in cerebral amyloid angiopathy. M.K. Zabel, M. Schrag, A. Crofton, S. Tung, H.V. Vinters and W.M. Kirsch. Loma Linda Univ. and UCLA. (920.10)
4:15 The death of neurons derived from familial Alzheimer’s disease pluripotent stem cells is no different from the death of neurons derived from normal controls. M.A. Shaner, S.H. Yuan and L.S. Goldstein. UCSD. (918.8)

82. ANATOMICAL EDUCATION FOR ALLIED HEALTH CARE PROFESSIONALS
Symposium
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: A. BURROWS

Education & Teaching
2:30 Chair’s introduction.
2:35 82.1 Incorporating biomechanics into an anatomy program with problem-based learning. M. Habib. Chatham Univ., PA.
3:00 82.2 A view inside from the surface: living anatomy for medical illustration students. G.P. Lees. Johns Hopkins Sch. of Med.
4:15 Discussion.

83. EPIGENETIC PLASTICITY IN HEALTH AND DISEASE
Hybrid Symposium
SUN. 2:30 PM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: F. DOMANN

2:30 Chair’s introduction.
2:35 83.1 The epigenetic basis of cell type specificity. B. Futscher. Univ. of Arizona.
3:00 83.2 Metabolic regulation of epigenetic processes. F.E. Domann. Univ. of Iowa.
3:55 83.5 Age-dependent expression of retinoic acid-related orphan receptor-alpha in the developing mouse cortex and hippocampus. S. Taniguchi, C. Armoskus and H-W. Tsai. California State Univ., Long Beach.
4:25 Discussion.
84. AAA YOUNG INVESTIGATOR AWARDS SYMPOSIUM

Special Session
SUN. 5:00 PM—SAN DIEGO CONVENTION CENTER, 9

5:00  84.1  Tectons form a transition zone complex of ciliopathy proteins that regulate ciliary composition. J. Reiter, F. Garcia-Gonzalo, K. Corbit, W. Dowdle and L. Yee. UCSF.

5:30  84.2  Evidence for a limbic cortical HPA-inhibitory network and its role in chronic stress-induced HPA axis hyperactivity. J. Radley. Univ. of Iowa.

6:00  84.3  The cellular and molecular basis for planarian regeneration. P. Reddien. Whitehead Inst., MIT.

6:30  84.4  Knocking E. coli off of their pedestals: understanding the strategies microbes exploit to generate morphological structures during their disease processes. J.A. Guttman. Simon Fraser Univ., Canada.

Biochemistry and Molecular Biology

85. BREKKE FOR NEXT GENS, UNDERGRADUATE BREAKFAST WITH AWARD SCIENTIST, KIM ORTH

Special Session
(Supported by an educational grant from National Science Foundation)
SUN. 7:00 AM—SAN DIEGO CONVENTION CENTER, 11A
Invitation only.

86. AVANTI AWARD IN LIPIDS LECTURE

Award
(Supported by an educational grant from Avanti Polar Lipids, Inc.)
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 6B

8:30  Introductory remarks. W. Dowhan.
8:35  86.1  Lipin/phosphatidic acid phosphatase in lipid metabolism and cell physiology. G.M. Carman. Rutgers Univ.

87. ASBMB PLENARY LECTURE

(Supported by an educational grant from Journal of Biological Chemistry)
SUN. 9:05 AM—SAN DIEGO CONVENTION CENTER, 6B

9:10  87.1  Metabolic specialization of mouse embryonic stem cells. S.L. McKnight. Univ. of Texas Southwestern Med. Ctr.

88. HISTONE MODIFICATIONS AND THEIR RECOGNITION

Symposium
SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6F
CHAired: K. Zaret

9:55  Chair’s introduction.
10:25  Identification and characterization of small molecules that inhibit binding of the third plant homeodomain finger of JARID1A to histone H3. E.K. Wagner, R. Flemming, N. Nath and J. Denu. Univ. of Wisconsin-Madison, Promega Corp. and Wisconsin Instns. for Discovery, Madison. (533.2)
11:05  An intrinsically unstructured domain in MBD2 recuits the histone deacetylase core complex of NuRD and modifies kinetics of DNA binding. D.C. Williams, M. Desai, G.D. Ginder and N.M. Walavalkar. Virginia Commonwealth Univ. (731.5)
12:00  Conclusion.
89. CONSTRUCTING NETWORKS

Symposium

SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6E

CHAIR: P. SORGER

9:55  Chair’s introduction.
10:00  89.1  Physical host-pathogen networks. N. Krogan. UCSF.
10:25  Specific O-GlcNAcylated peptide enrichment with improved photocleavable chemical/ enzymatic tagging methodology. G. Han, J. Ma, X. Liu and G.W. Hart. Johns Hopkins Sch. of Med. (776.7)
11:05  Identifying drug response signatures using genome-scale metabolic network analysis of human cell line expression data. D. Zielinski, M. Mo and B. Palsson. UCSD. (983.6)
11:20  Comparative analysis of M. pneumoniae models using the cytoSEED plugin for metabolic model visualization. N.L. Hazekamp, J. Kammeraad, B. Bockstege and M. DeJongh. Hope Col., MI and Univ. of Notre Dame. (983.4)
11:35  89.3  New opportunities and challenges in network biology. T. Ideker. UCSD.
12:00  Conclusion.

90. THE RIBOSOME AND EARLY FOLDING DECISIONS

Symposium

SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6D

CHAIR: W. CLEMONS

9:55  Chair’s introduction.
10:40  90.2  The role of Hsp90-R2TP complex in snorRP assembly and ribosomal RNA processing. W.A. Houry. Univ. of Toronto.
12:00  Conclusion.

91. METABOLOMICS

Symposium

SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6C

CHAIR: A. OSBOURN

9:55  Chair’s introduction.
10:00  91.1  Extensive in vivo metabolite-protein interactions revealed by large-scale systematic analyses. M. Snyder, X. Li, T. Gianoulis, K. Yip and M. Gerstein. Stanford Univ. and Yale Univ.
10:25  Targeting metabolism in liposarcomas. D. Braas, H. Wu and H. Christofk. UCLA. (551.6)
10:40  91.2  Elucidating the proteolytic regulation of bioactive peptides. A. Saghatelian. Harvard Univ.
11:20  Examining the role of lipoprotein-associated phospholipase A2 in atherosclerosis. T.E. Gilpatrick, J. Tomczak and B.J. Bahnson. Univ. of Delaware. (561.1)
11:35  91.3  Mechanisms of metabolic diversification in plants. A.E. Osbourn. John Innes Ctr., Norwich, U.K.
12:00  Conclusion.

92. ORGANISMAL METABOLISM

Symposium

SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6A

CHAIR: J. RUTTER

9:55  Chair’s introduction.
11:35  92.3  Metabolic signals that drive cell growth and proliferation. B. Tu and L. Cai. Univ. of Texas Southwestern Med. Ctr.
12:00  Conclusion.
93. **GLYCOCONJUGATES IN PATHOGEN INVASION AND VIRULENCE**

Symposium

**SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1B**

*CHAIRED: A. MENON*

9:55 Chair’s introduction.

10:00 93.1 Lectin-mediated defense of the intestinal epithelial surface. **L. Hooper, S. Vaishnava and S. Mukherjee.** Univ. of Texas Southwestern Med. Ctr.

10:25 Receptor determinants for the avian coronavirus infectious bronchitis virus: roles of host cell lectins and glycans. **Y. Zhang and G. Whittaker.** Cornell Univ. (606.3)

10:40 93.2 Biosynthesis and transport of cell wall glycolipids in mycobacteria. **M.J. McConville, A. Rainczuk, Y. Yamaryo-Botte, J. Pyke, R. Coppeil and P. Crellin.** Univ. of Melbourne and Monash Univ., Australia.


12:00 Conclusion.

94. **MAXIMIZING INSTITUTIONAL EFFECTIVENESS**

Symposium

**SUN. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1A**

*CHAIRED: J. BOND*

9:55 Chair’s introduction.

10:00 94.1 Integrating undergraduate research/research training into the curriculum at research-intensive institutions. **P.J. Kennelly.** Virginia Tech.

10:25 **STEP into Science** at Medgar Evers College, a successful strategic plan. **M.A. Carroll, D. Skeete and E.J. Catapane.** Medgar Evers Col., NY. (619.2)

10:40 94.2 Integrating undergraduate research/research training into the curriculum at primarily undergraduate institutions. **J.J. Provost.** North Dakota State Univ.

11:05 A laboratory course exploring the relationship between structure and function of yeast alcohol dehydrogenase 1. **M.O. Huff and B.V. Plapp.** Bellarmine Univ., KY and Univ. of Iowa. (619.4)

11:20 94.3 Integrating undergraduate research/research training into the curriculum at a minority-serving institution. **C. Andraos-Selim.** Hampton Univ.

11:45 Conclusion.

95. **ALICE AND C.C. WANG AWARD IN MOLECULAR PARASITOLOGY SYMPOSIUM**

**Award**

**SUN. 12:30 PM—SAN DIEGO CONVENTION CENTER, 6B**

12:30 Introductory remarks. **J. A. Wells.**

12:35 95.1 The RNA interference pathway from a trypanosome point of view. **E. Ullu.** Yale Univ. Sch. of Med.

1:05 95.2 The mechanism and machinery of spliced leader RNA silencing, a stress-induced mechanism leading to programmed cell death in *Trypanosoma brucei*. **S. Michaeli.** Bar Ilan Univ., Israel.

1:35 95.3 The intracellular parasite *Toxoplasma* injects polymorphic protein into the host cell that subverts host defenses including recruitment of host mitochondria and membrane attack by p47 GTPases. **L. Pernas, J.P. Boyle, M.A. Fieckenstein, M.L. Reese, S. Konen-Waisman, J.C. Howard, T. Steinfeldt and J.C. Boothroyd.** Stanford Univ., Univ. of Pittsburgh and Univ. of Cologne.

2:05 Conclusion.

96. **ASBMB AWARD FOR EXEMPLARY CONTRIBUTIONS TO EDUCATION LECTURE**

*(Sponsored by: ASBMB Education and Professional Development Committee)*

**SUN. 12:30 PM—SAN DIEGO CONVENTION CENTER, 6B**

Undergraduate Poster Competition awards will be presented during this lecture.

12:30 Introductory remarks and awards presentation. **H. White and K. Cornely.**

12:45 96.1 Content in the educational era of process. **J.G. Voet and D. Voet.** Swarthmore Col. and Univ. of Pennsylvania.

98. **WORKSHOP ON LIPID MAPS LIPIDOMICS TOOLS**

*(Supported by an educational grant from LIPID MAPS)*

**SUN. 12:30 PM—SAN DIEGO CONVENTION CENTER, 11A**

*CHAIRED: E. FAHY*

Workshop will highlight the diversity and unique structural and biochemical challenges of the lipidome, and provide users with a suite of convenient online tools for information retrieval and lipidomic data analysis. A brief overview, live demonstration and Q&A session of the online resources available on the LIPID MAPS website, including searchable lipid and gene/protein databases, structure drawing tools, mass-spectrometry prediction programs, lipid-related pathways, experimental protocols and consortium generated datasets will be presented. Workshop should be of interest to lipidomics researchers and bioinformaticists.

Lunch will be provided for the first 35 attendees.
TEACHING SESSION WITH STUART KORNFELD: MODELING THE MOLECULAR MACHINERY OF THE PROTEIN TRAFFICKING PATHWAY

Meet Dr. Kornfeld and other researchers who have contributed to the field of protein trafficking. Physical models of key proteins will be used to frame the conversations about the recent discovery of essential features of the trafficking pathway.

ASBMB-MERCK AWARD LECTURE (2011)

Award
(Supported by an educational grant from Merck)

Meet Dr. Kornfeld and other researchers who have contributed to the field of protein trafficking. Physical models of key proteins will be used to frame the conversations about the recent discovery of essential features of the trafficking pathway.

THE SPLICEOSOME: FITTING THE PIECES TOGETHER

Symposium

THE SPLICEOSOME: FITTING THE PIECES TOGETHER

Symposium

CHAIRED: A. M. PYLE

Mechanism and Regulation of DNA Repair

Symposium

SUN. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6E

CHAIRED: P. SUNG

Mitochondrial Dynamics

Symposium

SUN. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6D

CHAIRED: G. VOELTZ
104. LIPID DROPLETS: A DYNAMIC SUBCELLULAR COMPARTMENT

Symposium
SUN. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6A
CHAIR: D. MUOIO

3:45  Chair's introduction.
4:30  104.2 The cell biology of neutral lipid synthesis and storage. T. Walther. Yale Univ. Sch. of Med.
5:10  Live cell imaging of lipid droplet breakdown and growth in adipocytes. H. Wolinski, M. Paar, C. Jüngst, N.A. Steiner, D. Kolb, A. Lass, R. Zimmermann, A. Zumbusch and S.D. Kohlwein. Univ. of Graz, Austria, Univ. of Konstanz, Germany and Med. Univ. of Graz. (597.5)
5:25  104.3 Control of lipolysis by perilipins. D.L. Brasaemle. Rutgers Univ.
5:50  Conclusion.

105. WILL COMBINED MD-PHD TRAINING MAKE ME TWICE AS SUCCESSFUL?

Symposium
(Sponsored by: ASBMB Minority Affairs Committee)
SUN. 3:45 PM—SAN DIEGO CONVENTION CENTER, 1B
CHAIR: F. TALAMANTES

3:45  Chair's introduction.
3:50  105.1 Contrasting the application process and daily life of MD, MD/PhD, and PhD career tracks. A. Gutierrez-Hartmann. Univ. of Colorado Anschutz Med. Campus.
5:25  Panel discussion.
5:50  Conclusion.

106. MAXIMIZING TEACHING EFFECTIVENESS

Symposium
(Sponsored by: ASBMB Education and Professional Development Committee)
SUN. 3:45 PM—SAN DIEGO CONVENTION CENTER, 1A
CHAIR: E. MARTIN

3:45  Chair's introduction.
4:15  The effectiveness of images in the development of conceptual understanding in undergraduate biochemistry classes: what do we know? R. Milner. Univ. of Alberta. (616.1)
4:30  106.2 Effective teaching and mentoring while publishing and (hopefully) having a life. D.D. Wykoff. Villanova Univ.
4:55  Probing and improving students' understanding of protein alpha helix structure using targeted assessment and classroom interventions. J. Loertscher, V. Minderhout, J.E. Lewis and S.M. Villafane. Seattle Univ. and Univ. of South Florida. (616.2)
5:10  Monkeys, beach balls, and Twinkies® using analogies to teach enzyme kinetics. E.A. First. LSU Hlth. Sci. Ctr., Shreveport. (616.3)
5:25  106.3 The UAN: maximizing its utility to promote science education and outreach. N. Grover and M.A. Benore. Colorado Col. and Univ. of Michigan-Dearborn.
5:50  Conclusion.

107. ASBMB BUSINESS MEETING

SUN. 6:15 PM—SAN DIEGO CONVENTION CENTER, 11A

Find out what your Society is up to by attending the Business Meeting. The leadership wants to hear your ideas and receive feedback from members on how we're doing. ASBMB Council members will be on-hand to discuss issues and answer questions. Come and introduce yourself - this is a great networking opportunity!

108. WELCOME RECEPTION SPONSORED BY THE ASBMB MINORITY AFFAIRS COMMITTEE

Special Event
SUN. 6:30 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARINA BALLROOM D

The ASBMB Minority Affairs Committee welcomes PI’s, industry professionals, educators, young professionals and students to enjoy this networking and mentoring reception.

Graduate Minority Travel Award recipient research posters will be displayed at this event.

ASBMB members and Biochemistry attendees welcome.
109. THE ROLE OF DIETARY COMPONENTS IN LEPTIN RESISTANCE

Symposium
(Supported by an educational grant from Research Diets Inc.)
(Sponsored by: Nutritional Sciences Council, Obesity RIS, Energy and Macronutrient Metabolism RIS, Nutrient-Gene Interaction RIS and Nutrition Translation RIS)
Sun. 8:00 AM—San Diego Convention Center, 20D
Chaired: J.R. Vasselli

8:00 Role of fructose and over-nutrition in leptin resistance. P. J. Scarpace. Univ. of Florida.
9:30 Nutrient influences and mechanisms in leptin resistance. W. A. Banks. VA GRECC and Univ. of Washington.

110. SUSTAINABILITY IN THE 21ST CENTURY—FOOD, NUTRITION, AGRICULTURE, ECONOMICS AND THE ENVIRONMENT

Symposium
(Supported by an educational grant from National Dairy Council)
(Sponsored by: Public Information Committee)
Sun. 8:00 AM—San Diego Convention Center, 31A/B/C
Chaired: N. Auestad
Cochaired: J.M. Gazzaniga-Moloo

8:30 Life cycle analysis—from farm to table. O. Jolliet. Univ. of Michigan.
9:00 Agricultural capacity and localized food production to meet nutritional needs of a population. C. Peters. Tufts Univ.

111. UTILIZING A MULTILEVEL TEAM APPROACH: LESSONS LEARNED FROM THE VITAMIN D DRI-SETTING ACTIVITY

Symposium
(Sponsored by: Nutritional Sciences Council)
(Cosponsored by: Medical Nutrition Council)
Sun. 8:00 AM—San Diego Convention Center, 29A/B
Chaired: N.E. Moran
Cochaired: V.V. Potter

Education
Public Policy
8:00 Dietary Reference Intakes for vitamin D: justification for a review of the 1997 values. P. Coates. ODS/NIH.
8:24 The role of the basic, laboratory scientist in multi-level teams to investigate vitamin D markers of inadequacy. C. Ross. Penn State.
8:48 The role of translational researchers in multi-level teams in investigating cancer risk as a marker of vitamin D inadequacy. S. Clinton. The Ohio State Univ.
9:12 The role of translational researchers in multi-level teams investigating bone health as a marker of vitamin D inadequacy. S. Shapses. Rutgers Univ.
9:36 Summary and segue to panel discussion.

112. MECHANISMS OF ACTION AND MOLECULAR TARGETS OF DIETARY BIOACTIVE COMPONENTS I

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
Sun. 8:00 AM—San Diego Convention Center, 32B
Chaired: M. Dubick
Cochaired: S. Talcott and Student Chair: L. Fishcer

8:00 112.1 Molecular targets for botanical compounds genistein and kaempferol to prevent diabetes. D. Liu, Z. Fu and Y. Zhang. Virginia Tech.
8:45 112.4 Viscous dietary fibers added to a high fat diet decrease adiposity, improve glucose control and alter fuel utilization in obese rats. D.A. Brockman, X. Chen and D.D. Gallaher. Univ. of Minnesota, St. Paul.
9:00  112.5 Effects of bioactive salmon peptides and fatty acids on cellular transport and secretion of adiponectin. V. DeClercq, B. d’Eon and R. McLeod. Dalhousie Univ., Canada.


9:30  112.7 Inhibitory effects of metabolites of nobiletin and 5-hydroxy nobiletin on human lung cancer cells. N. Charoensinphon, J. Zheng, P. Dong, P. Qiu, T. Tran and H. Xiao. Univ. of Massachusetts Amherst and Ocean Univ. of China.

9:45  112.8 Palmatine, a novel anti-adipogenic and anti-diabetic alkaloid from an Indian medicinal plant Tinospora cordifolia. H.R. Vasanthi and S.M. Kannan. Sch. of Life Sci., Pondicherry Univ. and Sri Ramachandra Univ., India.

113. REDEFINE OBESITY—BODY WEIGHT VERSUS ADIPOSITY

Minisymposium

(Sponsored by: Obesity RIS)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32A

CHAIR: D. Heber

COCHAIR: F. GREENWAY

8:00  Overview.


8:30  113.2 Sarcopenic obesity among young adult Asian-American women: results from a serial-cross sectional study of multi-ethnic college aged adults in Southern California. C.L. Carpenter, E. Yan, S. Chen, K. Hong, M.L. Deng, Z. Li and D. Heber. David Geffen Sch. of Med. at UCLA.


9:30  Summary.

114. MICRONUTRIENT INTERVENTIONS

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30D

CHAIR: H.H. SANDSTEAD

8:00  114.1 Zinc, IGF-1, and food intervention in malnourished pregnant women on children body height after 6 years in Indonesia. N.A. Daud. Hasanuddin Univ., Indonesia.


9:00  114.5 Improvements in perceptual and cognitive performance linked to baseline iron status and consumption of a double-fortified salt. M.J. Wenger, L. Murray-Kolb, J. Hammons, S. Venkatramanan and J.D. Haas. Univ. of Oklahoma, Penn State, Cornell Univ. and Sch. of Dietetics and Human Nutr., McGill Univ.

9:15  114.6 Effect of iodine-iron interactions on iodine status in double-fortified salt intervention with female Indian tea pluckers. J. Hammons, S. Venkatramanan and J.D. Haas. Cornell Univ. and Sch. of Dietetics and Human Nutr., McGill Univ.


115. IMMUNE MODULATING NUTRACEUTICALS AND FUNCTIONAL FOODS

Minisymposium

(Sponsored by: Nutritional Immunology RIS)

Chairied: S.R. Shaikh

COChairied: D. Wu

8:00 115.1 The effect of milk components on the immune response to a pneumonia vaccine: a randomized placebo-controlled clinical trial. L.K. Fischer, J.B. German and M.E. Gershwin. Univ. of California, Davis.

8:15 115.2 Effects of edible mushrooms on plasma levels of anti-bovine collagen II IgG antibodies in DBA1 mice with collagen-induced arthritis. S. Kuvibidila. LSU Hlth. Sci. Ctr., New Orleans and Oklahoma State Univ.

8:30 115.3 Dietary supplementation of Lessertia frutescens (Sutherlandia) enhanced host defense against Listeria monocytogenes in BALB/c mice. C-H. Lu, W. Lei, J.D. Browning, Jr., P.A. Eichen and K.L. Fritsche. Univ. of Missouri-Columbia.


9:00 115.5 Age modulates effect of fish oil on the immune response in an ovalbumin asthmatic murine model. A. Histed, S. Lee, X. Du, D. Wu and S.N. Meydani. USDA at Tufts Univ.


9:30 115.7 Cranberry bioactives augment the activation status of THP-1 monocytes/macrophages. R.A. Creasy, C. Khoo and S.S. Percival. Univ. of Florida and Ocean Spray Cranberries Inc., Lakeville, MA.

9:45 Summary.

116. EPIGENETICS AND NUTRITION

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

Chairied: J. Zempleni

COChairied: S. Ross


8:30 116.3 Folate modulates adipocyte promoter methylation and lipid filling and release. J.S. Gouffon, M. Johnstone and M.B. Zemel. Univ. of Tennessee, Knoxville.

8:45 116.4 Holocarboxylase synthetase interacts physically with nuclear corepressor and histone deacetylases to mediate gene repression. D. Liu and J. Zempleni. Univ. of Nebraska-Lincoln.

9:00 116.5 Biotinylatation of K16 in histone H4 causes chromatin condensation. M.P. Singh and J. Zempleni. Univ. of Nebraska-Lincoln.


117. RISK FACTOR MODIFICATION IN CHRONIC DISEASE II

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)

Chairied: C. Tangney

COChairied: C. Bales

8:00 Overview.

8:15 117.1 Effects of whole walnuts and walnut components on postprandial triglyceride response, plasma measures of antioxidant activity, and endothelial function in overweight and obese adults. C.E. Berryman, S.G. West, J.A. Grieger, J.B. Blumberg and P.M. Kris-Etherton. Penn State and USDA at Tufts Univ.

8:30 117.2 Phase II randomized trial of walnut supplementation and subsequent influence on male reproductive health. C.L. Carpenter, S.M. Henning, M. Seltzer, E. Peterson, L. Xun and W.A. Robbins. David Geffen Sch. of Med. at UCLA and UCLA Sch. of Nursing.

8:45 117.3 Effect of pulses as part of a low glycemic index diet compared to a high fiber diet on HbA1c and blood lipids in type 2 diabetes. C.W.C. Kendall, L.S. Augustin, S. Mitchell, S. Sahye-Pudaruth, J. Covenev, A. Cerovic, S. Blanco and D.J.A. Jenkins. Univ. of Toronto and St. Michael's Hosp.


9:30 117.6 Dietary flavanols maintain endothelial homeostasis. C. Heiss. Univ. Dusseldorf.

9:45 Summary.
118. WHAT SHOULD I EAT? NUTRITIONAL EFFECTS OF FOODS

Minisymposium
(Sponsored by: Community and Public Health Nutrition RIS)
SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29D
CHAIR: W. Song
COCHAIR: S. Jasti

8:00 118.1 Effects of rice consumption on selected indicators of nutritional status. E.T. Kennedy and H. Luo. Tufts Univ. Friedman Sch. of Nutr. Sci and Policy.
8:45 118.4 Nutrient intakes and weight status of adult Canadian breakfast consumers versus non-consumers, and of those consuming breakfasts with versus without ready-to-eat cereal. S.I. Barr, L. DiFrancesco and V.L. Fulgoni III. Univ. of British Columbia, Source! Nutr., Toronto and Nutr. Impact LLC, Battle Creek, MI.
9:30 118.7 Inflammation in postpartum women is inversely related to transferrin saturation, but is not correlated with ferritin or hepcidin. J.M. Jorgensen, Z. Yang, B. Lönnerdal, C.J. Chantry, L.H. Allen and K.G. Dewey. Univ. of California, Davis, Natl. Inst. of Nutr. and Food Safety, China CDC, Beijing, Univ. of California Davis Med. Ctr., Sacramento and USDA, Davis.
9:45 118.8 Dietary behaviors and acculturation in South Asian college students. S. Jasti and A. Sachmechi. Queens Col. CUNY.

119. LONGITUDINAL AND CROSS-SECTIONAL ANALYSIS OF ASSOCIATIONS BETWEEN DIET AND HEALTH OUTCOMES

Minisymposium
(Sponsored by: Nutritional Epidemiology RIS)
SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29C
CHAIR: A.E. Millen
COCHAIR: L.M. Troy

8:00 119.1 Healthy Mediterranean-like dietary pattern predicts reduced risk of acute myocardial infarction in women: the Epic-France (E3N) prospective cohort study. N. Ahluwalia, L. Tondeur, M-C. Boutron and F. Clavel-Chapelon. Fac. of Med., Univ. of Paris 13, INSERM U557, Bobigny and INSERM U1018, Villejuif.
120. **PRESIDENTIAL SYMPOSIUM AND 2011 DANONE INTERNATIONAL PRIZE FOR NUTRITION: NUTRITION AND THE HUMAN GUT MICROBIOME: SEEKING A GLOBAL PERSPECTIVE**

**Special Session**  
(Supported by an educational grant from Danone Institute International)  
SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20D  
**CHAIR:** S.M. DONOVAN  
**COCHAIR:** J.I. GORDON

**Career Development**
11:00 Nursing the infant gut microbiota: an evolutionary link between milk glycans and infant born bifidobacteria. **D. Mills.** Univ. of California, Davis.
11:30 The influence of nutrition and the microbiome on metabolic phenotypes. **E. Holmes.** Imperial Col. London.
12:00 Efforts of the Bill and Melinda Gates Foundation. **A. Serazin.** Bill and Melinda Gates Foundation.
12:15 Moderated round-table discussion. **A. Serazin.** Bill and Melinda Gates Foundation.

121. **FRUCTOSE, SUCROSE AND HIGH FRUCTOSE CORN SYRUP: RELEVANT SCIENTIFIC FINDINGS AND HEALTH IMPLICATIONS**

**Symposium**  
(Supported by an educational grant from Corn Refiners Association)  
(Supported by: Medical Nutrition Council (MNC))

**CHAIR:** P. KRIS-ETHERTON

3:00 Opening comments. **P. M. Kris-Etherton.** Penn State.
3:05 The biochemistry and metabolism of fructose, sucrose and high fructose corn syrup and other nutritive sweeteners and other implications for the food industry. **J. S. White.** White Tech. Res.
3:45 The metabolic consequences of fructose: it’s alcohol without the buzz? **R. Lustig.** UCSF.
4:05 Health implications of fructose, sucrose and high fructose corn syrup: What do we really know? **J. M. Rippe.** Rippe Lifestyle Inst.
4:25 What do government agencies consider in the debate over added sugars? **D. M. Klurfeld.** USDA, Beltsville.
4:45 Discussion.

122. **FOOD INSECURITY AND HEALTH ACROSS THE LIFESPAN**

**Symposium**  
(Sponsored by: Medical Nutrition Council)  
(Cosponsored by: Aging and Chronic Disease RIS and Community and Public Health RIS)  
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 31A/B/C  
**CHAIR:** M.A. JOHNSON  
**COCHAIR:** J.S. LESS

**Public Policy**
3:00 Food insecurity across the life span is an ongoing national concern. **C. Gunderesen.** Univ. of Illinois.
3:48 Food insecurity and chronic diseases: risks and management problems. **B. Laraia.** UCSF.
4:12 Food insecurity and health care costs: research strategies using local, state, and federal data sources for older adults. **J. S. Lee.** Univ. of Georgia.
4:36 National initiatives to alleviate hunger in older Americans. **B. Hofland.** AARP Fndn.

123. **ZINC NUTRITION: FROM DISCOVERY TO GLOBAL HEALTH IMPACT**

**Symposium**  
(Supported by an educational grant from The Micronutrient Initiative and Albion)  
(Sponsored by: History of Nutrition Committee)  
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29A/B

**CHAIR:** H.H. SANDSTEAD  
**COCHAIR:** A.S. PRASAD

**Education**

**Career Development**

3:10 History of zinc chemistry. **W. Maret.** King’s Col. London.
4:00 Progress in assessing dietary zinc as an indicator of population zinc status. **R. S. Gibson.** Univ. of Otago, New Zealand.
4:25 Progress in understanding the role of zinc in human nutrition. **K. M. Hambridge.** Univ. of Colorado Sch.of Med.
124. BIOAVAILABILITY, METABOLISM AND BIOMARKERS OF DIETARY BIOACTIVE COMPONENTS

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: T.C. WALLACE
COCHAIR: J. BOMSER AND STUDENT CHAIR: B.A. WILSON

3:00 124.1 The fetal programming of dietary fructose and saturated fat on hepatic quercetin glucuronidation in rats. C-Y.O. Chen, N. Bryant, J. Blumberg and A. Serra. USDA at Tufts Univ. and Univ. de Lleida, Spain.

3:15 124.2 Phenolic acid concentrations in plasma and urine from men consuming green or black tea and their chemopreventive properties for colon cancer. S.M. Henning, P. Wang, R. Vicinanza, N. Abgaryan, D. Moura de Oliveira, Y. Zhang, R-P. Lee, C.L. Carpenter, W. Aronson and D. Heber. UCLA.

3:30 124.3 Quercetin bioavailability and biotransformation are inversely related to vitamin C status in college-aged adults. C-Y.O. Chen, N. Bryant, J. Blumberg and A. Serra. USDA at Tufts Univ. and Univ. de Lleida, Spain.


4:45 124.8 Determination of cranberry proanthocyanidin A2 in human plasma and urine using LC-MS/MS. C.A. Zampariello, D.L. McKay, G. Dolnikowski, J. Blumberg and C-Y.O. Chen. USDA at Tufts Univ.

125. OBESITY, INFLAMMATION AND CHRONIC DISEASE MODULATION BY DIETARY PHYTONUTRIENTS

Minisymposium
(Sponsored by: Obesity RIS)
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32A
CHAIR: C. DAVIS
COCHAIR: N. MATUSHESKI


3:30 125.3 Decrease of postprandial endothelial dysfunction by spice mix added to high fat meat patty in men with type 2 diabetes mellitus. Z. Li, S.M. Henning, Y. Zhang, A. Zerlin, G. Thomas, C-H. Tseng and D. Heber. UCLA.

3:45 125.4 Curcumin suppresses NOD1-mediated chemotactic genes expression in 3T3-L1 adipocytes. P. Hu and L. Zhao. Univ. of Tennessee, Knoxville.

4:00 125.5 Flaxseed lignan supplementation improves markers of obesity in C57BL6 mice. N.A. Ford and S.D. Hursting. Univ. of Texas at Austin and M.D. Anderson Cancer Ctr., Smithville.


4:45 125.8 Cinnamon polyphenols regulate high-fructose feeding and age-induced decreases in sirtuins in rat intestinal enterocytes. B. Qin, M.M. Polansky and R.A. Anderson. USDA, Beltsville, MD and Integrity Nutraceutical Intl., Spring Hill, TN.

126. B VITAMINS AND ONE-CARBON METABOLISM

Minisymposium
(Sponsored by: Vitamins and Minerals RIS)
SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30D
CHAIR: J. MILLER
COCHAIR: K.L. SCHALINSKE

3:00 126.1 The reaction of HOCl and cyanocobalamin: corrin destruction and the liberation of cyanogen chloride. D. Maitra, J. Byun, C.E.A. Souza, J. Banerjee, P.R. Andreana, S. Pennathur and H.M. Abu-Soud. Wayne State Univ. and Univ. of Michigan.


4:45 Summary.

127. NUTRITIONAL IMMUNOLOGY

Minisymposium

(Sponsored by: Nutritional Immunology RIS)

CHAIR: P.A. Sheridan

COCHAIR: B. Langkamp-Henken

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30C

3:00 127.1 Decreased response of influenza specific CD8+ T cells from overweight and obese humans. H. Paich, P. Sheridan and M. Beck. Univ. of North Carolina at Chapel Hill.

3:15 127.2 Age and nutritional status influence peripheral immune cell phenotypes in healthy men in rural Pakistan. I. Alam and G. Pawelec. Univ. of Tübingen, Germany.


4:00 127.5 Regulatory T cells: a mechanism for impaired immunity to influenza infection in obese mice? J.J. Milner, H.A. Paich, P.A. Sheridan and M.A. Beck. Univ. of North Carolina at Chapel Hill.


128. MATERNAL PROGRAMMING OF GENE EXPRESSION

Minisymposium

(Sponsored by: Nutrient-Gene Interaction RIS)

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30B

CHAIR: E. Uthus

COCHAIR: C. Anderson


3:30 128.3 Low dietary protein intake during pregnancy differentially affects mitochondrial copy number in stromal vascular cells from subcutaneous versus visceral adipose tissue in the offspring. T. Johnson, E.O. Uthus and K.J. Claycombe. USDA, Grand Forks.


4:45 Summary.

129. APPLICATION OF NOVEL STATISTICAL METHODS FOR USE IN NUTRITIONAL EPIDEMIOLOGY

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30A

CHAIR: Y. Song

COCHAIR: H. Eicher-Miller

3:00 Overview.


3:45  129.3  Comparison food and nutrient intake estimates modeled using 14-day diaries to estimates derived from two 24-hour recalls. L.M. Barraj, J. Srinivasan, L. Brookmire, X. Bi and M. DiNovi. Exponent Inc., Washington, DC and FDA, College Park, MD.

4:00  129.4  Development of a method for estimating long-term intake of foods and nutrients. L.M. Barraj, M. Murphy, C. Scrafford, X. Bi and M. DiNovi. Exponent Inc., Washington, DC and FDA, College Park, MD.


4:45  Summary.

130.  BREASTFEEDING, EARLY CHILD FEEDING, DIET AND GROWTH TRENDS

Minisymposium

(Sponsored by: International Nutrition Council (INC))

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29D

CHAIR: K. Peterson

COCHAIR: M. Young

3:00  130.1  Concordance with the WHO guidelines for early child feeding through the first six months of life in a sample of infants of the Guatemalan highlands. I. van Beusekom, M. Vossenaar, G. Montenegro-Bethancourt, C.M. Doak and N.W. Solomons. CeSSIAM, Guatemala City and VU Univ., Amsterdam.


4:00  130.5  Targeted messages delivered by nurses and radio improved infant and young child feeding in Mexico. E.C. Monterrosa, E.A. Frongillo, T. Gonzalez-Cossio, A. Bonvecchio, M.A. Villanueva, J. Thrasher and J.A. Rivera. Univ. of South Carolina and Natl. Inst. of Publ. Hlth., Cuernavaca.


131.  INNOVATIVE TOOLS FOR ASSESSMENT OF DIET, PHYSICAL ACTIVITY, AND RELATED BEHAVIORS

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29C

CHAIR: C. Boushey


3:30  131.3  Dermal carotenoids as measured by resonance Raman spectroscopy as a biomarker of response to a fruit/vegetable intervention study. L. Jahns, L. Whigham, L. Johnson, S. Mayne, B. Carmel, I. Ermakov and W. Gellermann. USDA, Grand Forks, Yale Sch. of Publ. Hlth. and Univ. of Utah.


4:00  131.5  Comparison of cooperation between image capture and digital recording of evening meals among adults. T.E. Schap, M.M. Franks and C.J. Boushey. Purdue Univ. and Univ. of Hawaii Cancer Ctr.

4:15  131.6  Feasibility of accelerometers for measuring children’s daily physical activity. S.E. Schaefer, M. Van Loan, L.H. Allen and J.B. German. Univ. of California, Davis and USDA, Davis.


4:45  Summary.

Visit The Exhibits
Sunday–Tuesday
9:00 AM–4:00 PM
Pathology

132. CAREER DEVELOPMENT WORKSHOP AND BREAKFAST: GETTING YOUR DREAM JOB: PREPARING YOUR CV AND MANAGING YOUR INTERVIEW

Workshop
(Supported by an educational grant from Intersociety Council for Pathology Information)
(Sponsored by: ASIP Committee for Career Development, Women and Minorities and the FASEB Minority Access to Research Careers (MARC Office)
SUN. 7:00 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, LAGUNA
CHAIR: R. BARRIOS AND T. SANDER

Career Development

Need to prepare or improve your CV/Resume? Job interview coming up?
Regardless of the career that you choose, preparing your CV/Resume and interviewing well is a necessary skill. Your CV/resume and interview should accurately reflect your achievements, accomplishments, and provide a great first impression of YOU. For practical advice on improving your CV/Resume and Interviewing Skills, you are invited to attend “Getting Your Dream Job: Preparing Your CV/Resume and Managing Your Interview”. This program offers a unique opportunity for trainees and scientists at all levels. You will leave this session with tools that will help you format your CV for academia and write a resume for industry. You will also gain valuable strategies when interviewing for both academic and industry positions. Please join us for an entertaining learning experience that will enhance various aspects of your professional development.

7:00 Welcome breakfast and opening remarks. R. Barrios. The Methodist Hosp. Syst.
7:10 How to prepare a curriculum vitae for academia. T. Sander. Children's Hosp. of Wisconsin.
7:35 How to write a resume for industry. E. Galbreath. Amgen Labs.
8:00 Managing your interview: part I: the academic job interview. L. M. McManus, M. E. Sobel, C. C. Yates. Univ. of Texas Hlth. Sci. Ctr. at San Antonio, ASIP, Univ. of Pittsburgh Sch. of Med.

133. COMPUTATIONAL PHENOMICS: THE POTENTIAL OF HIGH-THROUGHPUT, WHOLE-ANIMAL IMAGE ANALYSIS FOR ELUCIDATING GENE FUNCTION AND CHEMICAL TOXICITY

Symposium
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 17A
CHAIR: K.C. CHENG AND A. MADABHUSHI

Imaging
8:30 The potential role of high-throughput synchrotron microCT imaging of zebrafish in computational phenomics. K. C. Cheng. Penn State Hershey Col. of Med.
9:00 Tol2 transposon-based gene trap mutagenesis and high-throughput capillary-based imaging for the zebrafish phenome project. S. C. Ekker. Mayo Clin.
9:30 Fish and chips: high-throughput imaging for the zebrafish phenome project. M. F. Yanik. MIT.
10:15 Roles of multimodal registration and correlative analysis in phenomics. A. Madabhushi. Rutgers Univ.

134. MOLECULAR AND CELLULAR BASIS OF DISEASE: LIVER PATHOBIOLOGY, SESSION 1: LIVER DEVELOPMENT, STEM CELLS AND REGENERATION

Symposium
(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)
SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16A

Liver Pathobiology
8:30 The biology of the Foxl1 progenitor cell lineage in liver injury and repair. L. E. Greenbaum. Thomas Jefferson Univ.
9:30 microRNAs as drivers of liver regeneration. H. Willenbring. UCSF.
10:00 Initiation and termination pathways of liver regeneration. G. K. Michalopoulos. Univ. of Pittsburgh Med. Sch.
11:00 134.1 Wnt/β-catenin pathway is activated by thyroid hormone and is required for its hepatomitogenic activity. M. Fanti, A. Perra, M. Pibiri, M. Schwartz, S.P. Monga, G.M. Ledda-Columbano and A. Colombano. Univ. of Cagliari, Italy, Univ. of Tuebingen, Germany and Univ. of Pittsburgh.
135. REGULATION OF EPITHELIAL JUNCTIONS IN DEVELOPMENT AND DISEASES

Symposium

SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16B

CHAIR: A. Ivanov and A. Nusrat

Epithelial Pathobiology

8:30 Regulation and signaling of the cadherin/catenin adhesion system. C. Gottardi. Northwestern Univ. Feinberg Sch. of Med.

9:15 Catennins of the p120-subfamily at junctions and in the nucleus. P. D. McCrea. Univ. of Texas MD Anderson Cancer Ctr.

10:00 Unraveling relationships between intercellular junction proteins and epithelial homeostasis. A. Nusrat. Emory Univ.


136. INFLAMMATION AND IMMUNOPATHOLOGY

Minisymposium

SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 17B

CHAIR: J. Homeister

COCHAIR: B. McCormick

Inflammation


8:45 136.2 α(1,3)-Fucosylation alters STAT3-dependent IL-17 production in vivo. L.C. Mackey, J.M. Rose and J.W. Homeister. Univ. of North Carolina at Chapel Hill.


11:15 136.12 Cell surface localization and shedding of the candidate tumor suppressor ligand Ecrg4 after neutrophil activation and polarization. N. Lopez, X. Dang, M. Krzyzaniak, B. Eliceiri, R. Coimbra and A. Baird. UCSD.

137. MECHANISMS OF CARDIAC PATHO BIOLOGY

Minisymposium

SUN. 8:30 AM—SAN DIEGO CONVENTION CENTER, 15B

CHAIR: L.M. Buja

COCHAIR: M.S. Willis

Cardiac Pathobiology


8:45 137.2 Enhanced aldosterone synthesis and insufficient activation of cyp2c9-EET pathway in the brain play a pivotal role in salt-induced sympathetic activation in mice with pressure overload. K. Ito, Y. Hirooka and K. Sunagawa. Kyushu Univ., Japan.

9:00 137.3 Central sympathoinhibition improves left ventricular function and survival during the transition from hypertrophy to heart failure in Dahl salt-sensitive rats. N. Honda, Y. Hirooka, R. Matsukawa, K. Itou and K. Sunagawa. Kyushu Univ. Grad. Sch. of Med. Sci., Japan.

SUNDAY


9:45 137.6 Muscle RING finger-1 inhibits thyroid receptorα transcriptional activity and thyroid hormone-dependent cardiac hypertrophy. K.M. Wadasky, M. Zungu, M. Portman and M.S. Willis. Univ. of North Carolina at Chapel Hill, Univ. of Washington and Seattle Children’s Hosp.

10:00 137.7 STIM1 silencing prevents pressure-overload induced cardiac hypertrophy in mice. L.O. Benard, D. Jeong, D.S. Matasic, E. Kohlbrenner, R.J. Hajiard and J-S. Hulot. Mount Sinai Sch. of Med.


10:45 137.10 Adiponectin deficiency accentuates high fat diet-induced cardiac hypertrophy and contractile dysfunction through regulation of autophagy. R. Guo and J. Ren. Univ. of Wyoming Sch. of Pharm.


138. 12TH ANNUAL CAREER DEVELOPMENT PROGRAM AND LUNCH: FUNDAMENTAL BASICS FOR SUCCESS: HOW TO WRITE AWARD-WINNING GRANTS

Special Session

(Sponsored by: ASIP Committee for Career Development, Women & Minorities, American Association of Anatomists and the FASEB Minority Access to Research Careers)

SUN. 11:45 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, PRESIDIO 1

CHAIR: T.A. REAVES AND J.S. REUBEN

Career Development

Have a great idea but can’t seem to find a way to bring it to life? Most grant workshops focus on the mechanics of grant writing but for practical advice on translating your scientific brainstorms into fundable research plans, you are invited to attend “Fundamental Basics for Success: How to write award winning grants”. This program offers an opportunity for trainees and scientists at all levels to improve their written communication skills. Whether you are applying for funding from NIH, NSF or private agencies, you will leave this session with tools and strategies that will assist you with your grantsmanship and career development. Come prepared for an informative learning session that will help you jump-start your research enterprise!

Pre-registration is required for this session. A limited number of tickets will be available for purchase in the ASIP Office (San Diego Convention Center, Room 18) on Saturday, April 21 from 3:00pm - 5:00pm and on Sunday, April 22 immediately preceding the luncheon.

11:45 Lunch is served.
12:00 Introduction and announcements. T. A. Reaves. Med. Univ. of South Carolina.
12:05 Developing ideas into fundable research grant proposals. M. S. Willis. Univ. of North Carolina at Chapel Hill.
1:05 Grants that got scored...and funded. C. A. Parkos. Emory Univ.
1:35 Questions and wrap-up. J. S. Reuben. Univ. of South Carolina Sch. of Med.-Greenville.

139. MOLECULAR AND CELLULAR BASIS OF DISEASE: LIVER PATHOBIOLOGY, SESSION 2: LIVER INJURY, FIBROSIS AND HEPATOCELLULAR CANCER

Symposium

(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)

SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16A

CHAIR: S.P. MONGA

Liver Pathobiology

2:00 Origin and source of myofibroblasts in hepatic fibrosis. D. Brenner. UCSD.
3:00 Role of S-adenosylmethionine in the pathogenesis, treatment and prevention of hepatocellular carcinoma. S. C. Lu. Keck Sch. of Med., Univ. of Southern California.
4:00 Identification of Shp2 as a tumor suppressor in hepatocarcinoma. G-S. Feng. UCSD.
RESOLUTION OF INFLAMMATION

Symposium
SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17A
CHAIR: S.P. COLGAN AND A.S. NEISH

Inflammation
2:00 Novel mediators and mechanisms in resolution of inflammation, organ regeneration and pain. C. N. Serhan, Brigham and Women’s Hosp.
3:00 Macrophage regulation of resolving inflammation and tissue repair. W. J. Janssen, Univ. of Colorado Denver.
4:00 Defective inflammation resolution in atherosclerosis. I. Tabas, Columbia Univ.

141. BLOOD VESSEL CLUB

Special Session
SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16B
CHAIR: D.S. MILSTONE

Vascular Biology

Many cellular and molecular mechanisms that regulate vasculogenesis and angiogenesis have been elucidated. These include defining the importance of endothelial “tip”, “stalk” and “phalanx” cells in vascular sprouting, tube formation and blood flow; the crucial initiating and modulating role of tissue oxygen tension; the contribution of several vascular growth factors and their receptors; identifying intracellular signaling pathways triggered by these and other events; and exploring the importance of the spatio-molecular context and the numerous specific morphogenic signals provided by the extracellular matrix. However, the properties of new blood vessels in physiologic and pathologic settings are complex and distinct and their contributions to the initiation and resolution of both healing and tissue destructive responses remains in many cases enigmatic. While manipulating endogenous and designing exogenous vasculogenic and angiogenic interventions are promising approaches to preventing and treating a wide variety of vascular diseases and to facilitating applications of regenerative medicine success will require new experimental approaches, better understanding of the underlying biologic mechanisms involved and new ways to manipulate the properties of vascular cells and tissues in vitro and in vivo. Blood Vessel Club 2012 will provide a unique setting, consistent with its interactive and less formal origins, to present and discuss the most recent results in these rapidly progressing fields and in other areas of vascular biology. To this end the format will include two “full-length” presentations by investigators advancing the scientific and methodologic boundaries of vascular development and bioengineering plus several shorter presentations of “breaking work” (including “late breaking abstracts”) from a variety of laboratories working in these and other areas. Vigorous discussion and debate among the speakers and audience is encouraged.

142. BREAST CANCER: MOLECULAR TARGETS AND TREATMENT STRATEGIES

Minisymposium
SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17B
CHAIR: P. CARPENTER
COCHAIR: I. BARONE

Neoplasia

2:00 142.1 Growth of triple negative human breast cancer cells is regulated by the OGF-OGFr axis. I.S. Zagon, N.K. Porterfield and P.J. McLaughlin. Penn State Col. of Med.
2:40 142.3 Inhibitory effect of adiponectin on breast cancer cell growth: evidences of the crucial role of ERα expression. L. Mauro, M. Pellegrino, F. De Amicis, C. Giordano and S. Andò. Univ. of Calabria, Italy.
3:20 142.5 Neuropeptide Y stimulates VEGF production and secretion and promotes angiogenesis in murine and human breast cancer. P.J. Medeiros and D.N. Jackson. Univ. of Western Ontario.
4:00 142.7 Estrogen receptor-positive breast cancer cells drive CAFs to secrete leptin and support tumor invasiveness. I. Barone, S. Catalano, L. Gelsomino, S. Panza, S. Marsico, C. Giordano, D. Bonofiglio, I. Casaburi, K.R. Covington, S. Fuqua and S. Andò. Univ. of Calabria, Italy and Baylor Col. of Med.
4:20 142.8 Reprogramming the cancer epigenome by metabolic transduction. J.S. Byun and K. Gardner. NCI/NIH.

143. PULMONARY PATHOBIOLOGY

Minisymposium
SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 15B
CHAIR: N. LUKACS AND J. LINDEN

Pulmonary Pathobiology

2:00 143.1 Diesel particulate matter induces receptor for advanced glycation end-products expression by pulmonary macrophages. C.S. Curtis, T.D. Earley and P.R. Reynolds. Brigham Young Univ.

Abstract 143.3 moved to the end of Sunday Poster Session 658.


3:30 143.7 Adenosine A2A receptor activation attenuates Th1 and Th17 polarization in the airway. H. Pei, R. Ken, N. Huynh and J. Linden. La Jolla Inst. for Allergy and Immunol.

3:45 143.8 Evidence for proliferation of airway-delivered donor type II cells in lungs of recipient mice following intratracheal bleomycin. P.M. Wang and W.J. Martin II. NICHD/NIH.


4:15 143.10 Dissecting the fetal development of cystic fibrosis tracheal abnormalities. D.K. Meyerholz, D.A. Stoltz, P.B. McCray, Jr. and M.J. Welsh. Univ. of Iowa.

144. ROUS-WHIPPLE AWARD LECTURE

SUN. 5:00 PM—SAN DIEGO CONVENTION CENTER, 16B

Vascular Biology

5:00 Introduction.


145. LIVER PATHO BIOLOGY AT CLUB HEPATOMANIA

Poster Discussion

(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)

SU N. 6:30 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, TORREY PINES 2/3

CHAIR ED: S.P. MONGA AND K. NEJAK-BOWEN

Liver Pathobiology

Club Hepatomania is the official reception and poster discussion session for the ASIP liver interest group. This informal event brings together established researchers, junior faculty and trainees in the hepatic field, which enables forming new and strengthening old collaborations, networking, exploring job opportunities and at the same time discussing high impact and timely research in the discipline of liver pathobiology.

P1 145.1 Platelet derived growth factor receptor α in liver development. P. Awuah, A. Misse and S. Monga. Univ. of Pittsburgh Sch. of Med.


P3 145.3 Cell proliferation in liver in response to iron overload is dependent on β-catenin in male mice. S.P. Monga, A. Misse, E. Ramos and T. Ganz. Univ. of Pittsburgh and UCLA.


P5 145.5 Global gene expression changes in regenerating mouse liver following concurrent inhibition of MET and EGF. S. Paranjpe, W. Bowen, V. Bhave, J. Luo, A. Orr and G. Michalopoulos. Univ. of Pittsburgh.


P7 145.7 Profiling candidate housekeeping genes for data normalization in chronic ethanol treated rat liver regeneration model. E. Juskeviciute, R. Vadigepalli and J.B. Hoek. Thomas Jefferson Univ.


P12 145.12 LXR agonists protect against saturated fatty acid-induced cytotoxicity in liver cells. D. Wang, Y. Wei and M. Pagliassotti. Colorado State Univ.


145.19 Detection and quantification of 7,12-dimethylbenzanthracene in the liver and adipose tissue by HPLC. P. Jesus, N. Gonçalves, J. Costa, F. Pereira, M. Pereira and S. Cabrita. Univ. of Coimbra, Portugal.


Ezrin functionality and ischemia-reperfusion injury in transplantation. M.J. Mangino, T. Tian and S.L. Lindelli. Virginia Commonwealth Univ. (56.7)

Modulation of autophagy by bile acids in hepatocytes and liver. S.J. Manley, G. Guo, U. Apte and W-X. Ding. Univ. of Kansas Med. Ctr. (396.4)

Reduction in the intestinal epithelial glutathione redox potential may regulate proliferation in the neonatal murine gut. A. Richardson, L.S. Myers, S.-C. Song, L. Ray, A. Berardinelli, J. Hansen and P.W. Denning. Emory Univ. Sch. of Med. (833.7)

Insights into anti-cancer agent-induced cardiotoxicity. P. Weerasinghe, R. Brown and L.M. Buja. Univ. of Texas Med. Sch. at Houston. (137.9)

Impact of adenosine signaling on mutant LRRK2 induced neuronal injury. E. Steer and C. Chu. Univ. of Pittsburgh Sch. of Med. (1035.10)

Heavy metal scavenger metallothionein mitigates deep hyperthermia-induced myocardial contractile anomalies: role of autophagy. S. Jiang and J. Ren. Univ. of Wyoming. (396.1)

Anti-inflammatory peptide F markedly reduces oxidized fatty acids in the brain of LDL receptor deficient mouse on a high fat diet. S. Vazirian, A.D. Navab, L. Vakili, S. Safarpour, M. Haghnegahdar, G. Marvizi, P. Bakhtiari and J. Swartz. UCLA and UCLA, Bakersfield. (833.6)

Peritoneal mechanobiology and metastatic success in epithelial ovarian cancer. R.J. Burkhelter, Y. Liu, M. Marszow, Z. Sun, G.A. Meininger, D. Wagner and M.S. Stack. Univ. of Missouri-Columbia and Univ. of Notre Dame. (656.11)

Clozapine induces mitochondrial alterations and the secretion of proinflammatory cytokines in insulin-sensitive cell types. V. Contreras-Shannon, D.L. Heart, S. Maffi, G. Catano and C. Wals-Bass. St. Mary’s Univ. and Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (833.9)

The effect of the antipsychotic, clozapine, on monocyte mitochondria function and cytokine production. D.L. Heart, V. Contreras-Shannon and C. Wals-Bass. St. Mary’s Univ. and Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (833.12)

147. EMERGING CONCEPTS IN G PROTEIN-DEPENDENT PLC REGULATION AND PHYSIOLOGY

**Symposium**

*One Page of a Document* (Sponsored by: The Division for Molecular Pharmacology)  
**Sun. 9:30 am—San Diego Convention Center, 2**  
**Chair:** A. Smrcka

9:30 Kinetic scaffolding mediated by a phospholipase C-beta and Gq signaling complex. **T. K. Harden.** Univ. of North Carolina at Chapel Hill.

10:00 Synergistic regulation of phospholipase C beta isoforms as a coincidence detector for GPCR activation. **E. Ross.** Univ. of Texas Southwestern Med. Ctr.


11:00 PLCα as a localized signal integrator downstream of GPCRs and RTKs. **A. V. Smrcka.** Univ. of Rochester Sch. of Med.

11:30 Signaling mechanisms for neutrophil chemotaxis regulation. **D. Wu.** Yale Univ.

148. PHARMACOLOGY AND THERAPEUTIC POTENTIAL OF HISTAMINE H3 AND H4 RECEPTOR LIGANDS

**Symposium**

*One Page of a Document* (Sponsored by: The Divisions for Drug Discovery, Development & Regulatory Affairs; Molecular Pharmacology; Neuropharmacology; Behavioral Pharmacology; and Integrative Systems, Translational & Clinical Pharmacology)  
**Sun. 9:30 am—San Diego Convention Center, 3**  
**Chair:** R. Thurmond


10:00 Therapeutic potential of histamine H3 receptor ligands. **J-C. Schwartz.** Bioprojet Biotech, France.

10:30 Molecular and cell biology of the histamine H4 receptor. **T. Werfel.** Hannover Med. Sch., Germany.

11:00 Novel antihistamines that target the histamine H4 receptor. **R. L. Thurmond.** Johnson & Johnson Pharmaceut. R&D LLC.

11:30 Efficacy of a histamine H3 receptor antagonist (JNJ-39220675) and pseudoephedrine versus placebo in the prophylactic treatment of seasonal allergic rhinitis in an EEC model: randomized, three-way cross-over study. **W. T. Barchuk.** Janssen R&D LLC.

149. NEUROPSYCHOLOGICAL CORRELATES OF STIMULANT TREATMENT FOR ADHD IN ADOLESCENTS AND ADULTS

**Symposium**

*One Page of a Document* (Sponsored by: The Divisions for Behavioral Pharmacology and Neuropharmacology)  
**Sun. 9:30 am—San Diego Convention Center, 4**  
**Chair:** C. Advokat

9:30 What do we know about the cognitive effects of stimulant drugs in adults? **C. Advokat.** LSU.

10:00 Chronic methylphenidate treatment in adolescent monkeys: effects on brain dopamine systems and drug reinforcement. **L. J. Porrino.** Wake Forest Univ. Sch. of Med.

10:30 Treatment outcome in attention-deficit/hyperactivity disorder, with medication, behavioral treatment, and their combination. **W. E Pelham, Jr.** Florida Intl. Univ.

11:00 Interventions for cognitive control impairments in ADHD: developmental considerations. **J. Schweitzer.** Univ. of California, Davis Sch. of Med.

11:30 Acute tolerance to methylphenidate: age-related differences in children, adolescents, and adults. **J. M. Swanson.** Univ. of California, Irvine Sch. of Med.

150. ROLE OF PHARMACOGENETICS IN ONCOLOGY

**Symposium**

*One Page of a Document* (Sponsored by: The Divisions for Toxicology; Drug Metabolism; and Integrative Systems, Translational & Clinical Pharmacology)  
**Sun. 9:30 am—San Diego Convention Center, 5A**  
**Chair:** E.P. Black and H. Swanson


10:05 Utilizing gene expression signatures to predict response to targeted therapies in lung and colorectal cancer. **E. P. Black.** Univ. of Kentucky Col. of Pharm.


11:50 Discussion.

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**Please Silence Your Cell Phones during Sessions**
151. MULTI-TARGET AGENTS: THE YIN AND YANG OF RATIONAL DRUG DISCOVERY

Symposium

(Sponsored by: The Divisions for Neuropharmacology; Toxicology; Molecular Pharmacology; and Drug Discovery, Development & Regulatory Affairs)

SUN. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5B
CHAIR: A. CROSS AND M.W. WOOD

9:30 Chair’s introduction.
10:10 When simple agonism is not enough: emerging modalities of GPCR ligands. G. Milligan. Univ. of Glasgow.
11:55 Discussion.

152. BUILDING A PHARMACOLOGY COURSE FROM SCRATCH: BENEFITS AND PITFALLS OF A CUT AND PASTE PHARMACOLOGY COURSE

Symposium

(Sponsored by: The Division for Pharmacology Education)

SUN. 9:30 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL SALON 5
CHAIR: J. SZAREK

10:00 Preparing materials for use at sites other than your own medical school. P. G. Anderson. Univ. of Alabama at Birmingham.
11:30 Panel discussion. Should we develop a national repository of pharmacology topics? D. Bailey. Univ. of Western Ontario.

153. JULIUS AXELROD LECTURE

SUN. 2:00 PM—SAN DIEGO CONVENTION CENTER, 2

The Julius Axelrod Award in Pharmacology, presented annually for significant contributions to understanding the biochemical mechanisms underlying the pharmacological actions of drugs and for contributions to mentoring other pharmacologists, was established to honor the memory of the eminent American pharmacologist who shaped the fields of neuroscience, drug metabolism and biochemistry and who served as a mentor for numerous eminent pharmacologists around the world. Dr. Elaine Sanders-Bush was selected for her innovative and rigorous research that has shaped the field of serotonin receptors, GPCR function, and by extension, neuropharmacology in general.

2:00 Introduction. D. Sibley. NINDS/NIH.

154. JULIUS AXELROD SYMPOSIUM: NOVEL INSIGHTS INTO THE REGULATION OF SEROTONIN FUNCTION

Symposium

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 2
CHAIR: E. SANDERS-BUSH

3:00 Modulation of serotonin homeostasis by integrin signaling pathways. A. Carneiro. Vanderbilt Univ. Sch. of Med.

155. THE BEHAVIOR OF PAIN

Symposium

(Sponsored by: The Divisions for Behavioral Pharmacology; Drug Discovery, Development & Regulatory Affairs; and Neuropharmacology)

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 3
CHAIR: T. MARTIN

3:00 TBD.
4:00 The role of drug self-administration as a tool for preclinical pain research. T. J. Martin. Wake Forest Univ. Hlth. Sci.
4:30 Pain-depressed behaviors as novel tools for addressing analgesic efficacy in laboratory animals. S. S. Negus. Virginia Commonwealth Univ.
5:00 Future directions and challenges in the development of novel therapies for pain. F. Porreca. Univ. of Arizona Col. of Med.
156. ROLE OF NUCLEAR RECEPTORS IN LIPID DYSREGULATION AND OBESITY-RELATED DISEASES

Symposium

(Sponsored by: The Divisions for Drug Metabolism; Integrative Systems, Translational & Clinical Pharmacology; Toxicology)

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5A

CHAIR: J. CHIANG AND H. SWANSON

3:00 Introduction. H. Swanson. Univ. of Kentucky Col. of Med.
3:10 PXR and CAR as therapeutic targets for obesity type 2 diabetes. W. Xie. Univ. of Pittsburgh Sch. of Pharm.
3:45 Bile acid-activated receptors in regulating lipid and glucose metabolism. S. Fiorucci. Univ. of Perugia, Italy.
4:55 Impact of selective estrogen receptor beta ligands on obesity. R. Narayanan. GTx, Inc.

157. EMERGING ROLE OF HEME OXYGENASE IN CARDIOVASCULAR AND METABOLIC DISEASES

Symposium

(Sponsored by: The Divisions for Cardiovascular Pharmacology and Integrative Systems, Translational & Clinical Pharmacology)

SUN. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5B

CHAIR: N. ABRAHAM

3:20 Molecular regulation of heme oxygenase. A. Agarwal. Univ. of Alabama at Birmingham.
3:40 EET-agonist regulates mesenchymal stem cell-derived adipocytes through activation of heme oxygenase-1. N. G. Abraham. Univ. of Toledo.

4:00 Heme oxygenase and blood pressure regulation. D. E Stec. Univ. of Mississippi Med. Ctr.


Discussion.

158. ADAPTING TBL TECHNIQUES TO TEACH PHARMACOLOGY TO GRADUATE, PROFESSIONAL AND MEDICAL STUDENTS

Symposium

(Sponsored by: The Division for Pharmacology Education)

SUN. 3:00 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, MARRIOTT HALL SALON 5

CHAIR: R.S. KUMAR

3:00 Revisiting concepts of Team based learning. Addressing concerns. R. S. Kumar. St Matthew’s Univ. Sch. of Med., Grand Cayman Islands.
3:30 Exploring the advances in technology to augment outcomes in TBL. J. L. Szarek. Commonwealth Med. Col., PA.
4:00 Use of TBL sessions in an introductory graduate pharmacology courses. G. Dunaway. Southern Illinois Univ. Sch. of Med.
4:30 Group activity.

POSTER PRESENTERS:
UPLOAD YOUR POSTER

Where: E-Poster Counter, Hall D Lobby

Deadline: Wed., April 25, 3:30 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org

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Physiology

159. A COMPLEX INTERPLAY COMING TOGETHER TO BUILD THE HEART

Symposium
(Sponsored by: APS Cardiovascular Section)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: M. KRENZ AND L. POLO-PARADA

Physiology of Development

8:00 Patterns of mechanical forces and cardiac morphogenesis. B. J. Damon. Med. Univ. of South Carolina.
8:20 Conduction through the developing heart. D. Sedmera. Charles Univ., Prague.
8:40 Cardiac regional electrical specialization during development. L. Polo-Parada. Univ. of Missouri-Columbia.
9:00 Growth signaling in the ventricular wall. M. Krenz. Univ. of Missouri-Columbia.
9:20 Contribution of the lymphatics to building the heart. M. Watanabe. Case Western Reserve Univ. Sch. of Med.

160. AIR POLLUTION — FRIEND OR FOE TO THE CARDIOPULMONARY SYSTEMS?

Symposium
(Sponsored by: APS Hypoxia Group)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: L. E. WOLD

Hypoxia and Oxidative Stress

8:00 Air pollution and heart dysfunction in humans and animals. M. T. Kleinman. Univ. of California, Irvine.
8:30 Pulmonary dysfunction and air pollution. J. Godleski. Harvard Sch. of Publ. Hlth.
9:30 Mechanisms of air pollution-mediated cardiotoxicity. L. E. Wold. The Ohio State Univ.

161. BRAIN INSULIN: THE FORGOTTEN METABOLIC PARTNER OF LEPTIN?

Symposium

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24
CHAIR: K. RAHMOUNI AND V. BROOKS

8:00 Insulin: how your brain uses it to regulate food intake and body weight. D. J. Clegg. Univ. of Texas Southwestern Med. Ctr.
8:30 The importance of brain insulin action to hepatic glucose metabolism in the conscious dog. D. S. Edgerton. Vanderbilt Univ.

9:00 Sympathetic effects of brain insulin: mechanisms and consequences. K. Rahmouni. Univ. of Iowa Carver Col. of Med.

162. EMERGING PARADIGMS IN INFLAMMATION AND MICROVASCULAR DYSFUNCTION: NOVEL INSIGHTS AND FUTURE TRENDS

Symposium
(Sponsored by: APS Cardiovascular Section)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: S. CHAKRABORTY AND M. MUTHUCHAMY

Inflammation and Immune Responses

8:30 Immune cells, preconditioning, and prevention of postischemic microvascular dysfunction and parenchymal cell injury. R. J. Korthuis. Univ. of Missouri-Columbia.

163. IMMUNE CELLS AND THEIR ROLE IN THE REGULATION OF BLOOD PRESSURE AND SODIUM HOMEOSTASIS

Featured Topic
(Sponsored by: APS Water and Electrolyte Homeostasis Section)

SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: P. MARVAR AND K. W. MATHIS

Blood Pressure Regulation

Inflammation and Immune Responses

8:30 Stress, hypertension, and inflammation. P. Marvar. Emory Univ. Sch. of Med.
9:00 Alterations of T cell receptor Vβ chain usage in angiotensin II-induced hypertension. D. Trott, W. Chen and D. Harrison. Vanderbilt Univ. Med. Ctr. (879.3)
Placental ischemic stimulated CD4+ T helper cells increase blood pressure and placental and renal oxidative stress during pregnancy. K. Wallace, J. Scott, S. Novotny, J. Heath, J. Moseley and B. LaMarca. Univ. of Mississippi Med. Ctr. (879.7)


164. INNOVATIVE USE OF TECHNOLOGY FOR TEACHING AND STUDENT ASSESSMENT IN PHYSIOLOGY

Featured Topic
(Sponsored by: APS Teaching of Physiology Section)

Sun. 8:00 AM—San Diego Convention Center, 25A

Chair: C. Gopalan

Education

8:00 The use of novel Camtasia videos to improve performance of at-risk students. C.J. Miller. Univ. of Louisville. (519.2)

8:20 Teaching student to use social media to do scientific research. J. Krontiris-Litowitz. Youngstown State Univ. (519.3)


9:20 Technology in teaching physiology using team-based learning. C. Gopalan. St. Louis Col. of Pharm.

165. MICRORNAS IN HUMAN DISEASE AND AS NOVEL THERAPEUTICS

Symposium
(Sponsored by: APS Physiologists in Industry Committee)

Sun. 8:00 AM—San Diego Convention Center, 27

Chair: R. L. Persinger

Cochair: J. T. Liles

Translational Physiology

8:00 microRNA control of human disease. D. MacKenna. Regulus Therapeutics.

8:30 microRNAs as novel therapeutics in cardiovascular disease. E. van Rooij. Miragen Therapeutics.

9:00 Therapeutic microRNA targets in cancer. E. G. Marusson. Regulus Therapeutics.


166. PUBLISHING 101: HOW TO GET YOUR WORK PUBLISHED IN APS JOURNALS AND AVOID MINEFIELDS ALONG THE WAY

Symposium
(Sponsored by: APS Publications Committee)

Sun. 8:00 AM—San Diego Convention Center, 25C

Chair: H. Raff and R. Scheman

Career Development

8:00 Preparing your work for publication in APS journals: choosing a journal, authorship and peer review. H. Raff. Med. Col. of Wisconsin.

8:30 Ethical minefields I: plagiarism and data duplication. K. Barrett. UCSD.

8:50 Ethical minefields II: image manipulation. C. Bennett. APS.


167. RED BLOOD CELL MECHANISMS OF TISSUE BLOOD FLOW CONTROL: PHYSIOLOGICAL INSIGHTS IN HEALTH AND DISEASE

Symposium
(Sponsored by: The Physiological Society, UK — The Journal of Physiology)

Sun. 8:00 AM—San Diego Convention Center, 26

Chair: J. González-Alonso

8:00 Regulation of blood flow distribution in skeletal muscle: role of erythrocyte-released ATP. M. L. Ellsworth. St. Louis Univ.


9:00 ATP as a mediator of erythrocyte-dependent regulation of skeletal muscle blood flow in humans. J. González-Alonso. Brunel Univ., U.K.


168. STEM CELL BIOLOGY 2012: BASIC SCIENCE AND TRANSLATIONAL ADVANCES

Symposium
(Sponsored by: The Society for Experimental Biology and Medicine)

Sun. 8:00 AM—San Diego Convention Center, 20A

Chair: M. L. Adomo and M. J. Friedlander

Translational Physiology

8:00 Nonhuman primate induced pluripotent stem cells in regenerative medicine. P. Hornsby. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
169. TRANSLATIONAL BIOMARKERS OF HYPERTENSION: INSIGHTS FROM ANIMAL MODELS

Featured Topic
(Sponsored by: APS Physiological Genomics Group)
SUN. 8:00 AM—SAN DIEGO CONVENTION CENTER, 23
CHAIR: B. JOE

Blood Pressure Regulation

Inflammation and Immune Responses

8:25 Progress on positional cloning and validation of genomic biomarkers of hypertension. B. Joe. Univ. of Toledo Coll. of Med.
9:00 Mapping a novel blood pressure quantitative trait locus within a congenic strain spanning a single annotated gene containing segment on rat chromosome 10. R. Pillai, S. Kumasamy, Y. Nie, S.Y. Woolwine, P. Farm, K. Gopalakrishnan and B. Joe. Univ. of Toledo Coll. of Med. and Life Sci. (874.2)
9:15 Long-term interactions between the ACE/Ang II/AT1a receptor axis and the ACE2/Ang(1-7)/Mas receptor axis in wild-type C57BL/6J and AT1a receptor-knockout mice. B.N. Ellis, X.C. Li, E. Miguel-Qin and J.L. Zhuo. Univ. of Mississippi Med. Ctr. (874.3)
9:30 (Pro)renin receptor deletion prevents the development of DOCA-salt hypertension in neuron-specific (pro)renin receptor knockout mice. W. Li, H. Peng, A. Ichihara and Y. Feng. Tulane Univ. and Tokyo Women’s Med. Univ. (874.4)

170. AUTONOMIC CONTROL OF VISCERAL FUNCTIONS

Featured Topic
(Sponsored by: APS Neural Control and Autonomic Regulation Section)
SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: R. A. TRAWAGLI

11:00 Plasticity of brainstem circuits controlling gastrointestinal functions. K. N. Browning. Penn State Coll. of Med.
11:30 Central TRPV1 signaling regulates systemic blood glucose levels and hepatic PEPCK protein expression. J.D. O’Hare, K. Miyata, T.L. Fourrier, A.M. Krantz, A.V. Derbenev and A. Zsombok. Tulane Univ. (701.5)
11:45 Hydrogen peroxide modulates membrane properties in second-order nucleus tractus solitarii neurons. T.D. Ostrowski, E.M. Hassar, C.M. Heesch and D.D. Kline. Univ. of Missouri-Columbia. (701.7)
12:00 Calcium permeability in NMDA receptors in NTS baroreceptive neurons is not decreased at low temperature in Syrian hamsters, a hibernating species. S-I. Sekizawa, J. Horowitz, B. Horwitz and C. Chen. Univ. of California,Davis. (701.4)
12:15 POMC-GLP-2R signaling and action in the control of feeding behavior and gastric motility. X. Guan, X. Shi, D. Li, X. Li, Y. Wang, B. Chang and L. Chan. Baylor Coll. of Med. and Univ. of Texas MD Anderson Cancer Ctr. (701.16)

171. CLAUDE BERNARD DISTINGUISHED LECTURESHIP OF THE APS TEACHING OF PHYSIOLOGY SECTION

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 27

Education
Title: Reflections on the Teaching and Learning of Science in the Late 20th and Early 21st Centuries
Speaker: W. Galey. HHMI, Chevy Chase.

172. CONTROL OF VASCULAR TONE BY EXTRALUMINAL NUCLEOTIDES

Symposium
(Sponsored by: APS Cardiovascular Section)
SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: B. S. KIRBY AND S. P. MORTENSEN

Blood Pressure Regulation

10:30 Sympathetic activation by purinergic receptors in humans. L. I. Sinoway. Penn State Univ. Coll. of Med.
11:00 Contribution of P2 receptors to the exercise pressor reflex. M. P. Kaufman. Penn State Coll. of Med.
11:30 Role of interstitial nucleotides in skeletal muscle vasodilation. M. Nyberg. Univ. of Copenhagen.
173. DISRUPTION TO CENTRAL SYMPATHETIC CONTROL MECHANISMS: IMPLICATIONS FOR OBESITY-RELATED HYPERTENSION

Featured Topic
(Sponsored by: APS Central Nervous System Section)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: D. D. SARTOR AND S. D. STOCKER

Blood Pressure Regulation

Central Control of Homeostasis


11:00 Flip side: are attenuated sympathoinhibitory responses in obesity linked to hypertension? D. Sartor. Univ. of Melbourne.


12:00 Arcuate nucleus injection of anti-insulin affbody prevents sympathetic response to circulating insulin. B. Luckett, J. Frielle, L. Wolfgang and S.D. Stocker. Penn State Coll. of Med. and Gettysburg Col. (705.5)


174. FRONTIERS IN MECHANOBIOLOGY

Symposium
(Sponsored by: The Biomedical Engineering Society)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 24
CHAIR: S. CHIEN AND T. HSIAI

10:30 The role of myosin II motors and F-actin dynamics in the mechanics of cell migration and invasion. J. C. Lasheras. UCSD.

10:55 Mechanobiology as a tool in the design of biological machines. W. J. Polacheck. MIT.


11:45 Glyco-mechanobiology in the vasculature. S. Simon. Univ. of California, Davis.


175. HUGH DAVSON DISTINGUISHED LECTURESHIP OF THE APS CELL AND MOLECULAR PHYSIOLOGY SECTION

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20A
CHAIR: M. KNEPPER

Transporters and Ion Channels

Title: After the Interlude: Cell-Level Systems Biology in the 21st Century

Speaker: M. A. Knepper. NHLBI/NIH.

Blood Pressure Regulation


10:45 Relaxin lowers plasma levels of asymmetric dimethylarginine during chronic angiotensin II infusion. J.M. Sasser, M.W. Cunningham and C. Baylis. Univ. of Florida. (875.6)


11:45 Mice with targeted deletion of NBCe2 are hypertensive. H. Damkier, A. Rojek, H.L. Christensen, N.K. Iversen, E-M. Füchtbauer, T. Wang and J. Praetorius. Aarhus Univ., Denmark. (875.4)

12:00 Activation of Na+/H+ exchanger in the macula densa enhances tubuloglomerular feedback in spontaneously hypertensive rats. Y. Fu, Y. Lu, Y. Ge, L.A. Juncos and R. Liu. Univ. of Mississippi Med. Ctr. (875.12)

177. LUNG ION CHANNELS AND FLUID HOMEOSTASIS

Featured Topic
(Sponsored by: APS Respiration Section)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25A
CHAIR: S. Matalon and W. Kuebler

Transporters and Ion Channels

10:30 Regulation of alveolar fluid transport by gaseous mediators. R. Morty. Univ. of Giessen Lung Ctr.
10:45 Regulation of lung epithelial ion channels by hypochlorous acid. A. Lazrak. Univ. of Alabama at Birmingham.
11:00 NADPH oxidase regulates alveolar epithelial sodium channel activity and lung fluid balance in vivo via O₂⁻-signaling. M.N. Helms, P. Goodson, L. Jain and M. Koval. Emory Univ.
11:30 Regulation of ion transport and ASL height by the anti-hypertrophic actions of cardiac overexpression of ACE2 as a novel target for CVD therapeutics. Z. Sun. Univ. of Pennsylvania. (696.13)

11:15 Co-regulation of transcellular and paracellular leak across microvascular endothelium by dynamin and Rac. W.L. Lee, S. Armstrong, V. Khajoe, C. Wang, T. Wang, J. Tigdi, J. Yin, W.M. Kuebler, M. Gillrie, S. Davis and M. Ho. Univ. of Toronto and Univ. of Calgary, Canada. (862.1)
11:30 Sphingolipids signal rapid loss of P-glycoprotein transport activity at the blood-brain barrier. D.S. Miller, C.R. Campos, B.T. Hawkins and R. Cannon. NIEHS/NIH, Research Triangle Park and Univ of Washington Sch. of Med. (862.2)
11:45 Increased formation of functional caveolae due to increased content of fibrinogen. N. Muradashvili, S.J. Khundmiri, R.L. Benton and D. Lominadze. Univ. of Louisville. (862.3)
12:00 Novel role of local lamellipodia in endothelial barrier function. J.W. Breslin. LSU Hlth. Sci. Ctr., New Orleans. (862.6)
12:15 Infection of human pericytes by HIV-1 disrupts the integrity of the blood-brain barrier. M. Toborek and S. Nakagawa. Univ of Miami Miller Sch. of Med. and Univ of Kentucky Med. Ctr. (862.7)

178. MICROVASCULAR PERMEABILITY: PARACELLULAR VERSUS TRANCELLULAR TRANSPORT

Featured Topic
(Sponsored by: APS Cardiovascular Section)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: D. Lominadze and M. O’Donnell

10:30 Introduction.
10:35 Blood-brain barrier ion transporters in cerebral ischemia. M. O’Donnell. Univ. of California, Davis.
10:55 Paracellular occludin oligomeric assemblies at tight junctions of the blood brain barrier are altered by central and peripheral pathologies. T. P. Davis. Univ. of Arizona Col. of Med.

179. MOLECULAR AND CELLULAR THERAPY FOR CARDIOVASCULAR DISEASE

Symposium
(Sponsored by: APS Physiological Genomics Group)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 23
CHAIR: Z. Sun and S. C. Mockrin

12:00 National Heart, Lung, and Blood Institute resources to advance molecular and cellular therapies. S. C. Mockrin. NHLBI/NIH.

180. THE ROLE OF OXYGEN METABOLISM FOR THE DEVELOPMENT OF KIDNEY DISEASE

Symposium
(Sponsored by: APS Renal Section)

SUN. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: F. Palm and P. K. Carmines

Hypoxia and Oxidative Stress

Translational Physiology

12:00 Hypoxia inducible factor in chronic kidney disease and renal cell carcinoma. **M. Nangaku.** Univ. of Tokyo Sch. of Med.

181. ENDOPLASMIC RETICULUM STRESS AND VASCULAR PHYSIOPATHOLOGY

**Symposium**

(Sponsored by: APS Endocrinology and Metabolism Section)

**SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28B**

**CHAIR: K. Matrougui and E. Wilson**

**Inflammation and Immune Responses**

3:30 Endoplasmic reticulum stress and microvascular dysfunction in hypertension. **K. Matrougui.** Tulane Univ.

4:00 Regulation of the UPR in obesity-induced type 2 diabetes. **L. Larose.** McGill Univ.

4:30 The role of ER stress/UPR in the microvascular endothelial dysfunction. **M. Trojanowska.** Boston Univ.

5:00 Unfolded protein response in the vascular wall. **S. Karabina.** Univ. of Pierre and Marie Curie, Paris.

**182. ERNEST H. STARLING DISTINGUISHED LECTURESHIP OF THE APS WATER AND ELECTROLYTE HOMEOSTASIS SECTION**

**SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 24**

**Title:** The Female Paradox: Resistance and Vulnerability in Hypertension and Renal Vascular Disease

**Speaker:** **K. Sandberg.** Georgetown Univ.

**183. FUNCTIONAL INTEGRATION IN THE HYPOTHALAMIC PARAVENTRICULAR NUCLEUS**

**Symposium**

(Sponsored by: APS Central Nervous System Section)

**SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28A**

**CHAIR: A. Watts and G. Aguilera**

**Transporters and Ion Channels**

Central Control of Homeostasis

3:30 Regulation of CRH gene transcription in neuroendocrine neurons. **G. Aguilera.** NICHD/NIH.

4:00 Signaling mechanisms that coordinate synthesis and release programs in paraventricular neuroendocrine neurons. **A. Watts.** Univ. of Southern California.

4:30 Inter-population signaling mechanisms within the paraventricular nucleus: role in the generation of coordinated neurohumoral homeostatic responses. **J. Stern.** Georgia Hlth. Sci. Univ.

5:00 Paraventricular pre-autonomic neurons and cardiovascular function. **G. M. Toney.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

**184. MICROCIRCULATORY SOCIETY LANDIS AWARD LECTURE**

(Sponsored by: The Microcirculatory Society)

**SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 23**

**Title:** Tales from the Microcirculation: Oxygen Transport and Its Regulation

**Speaker:** **R. N. Pittman.** Virginia Commonwealth Univ.

**185. NCAR TRAINEE FEATURED TOPIC**

**Featured Topic**

(Sponsored by: APS Neural Control and Autonomic Regulation Section)

**SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 22**

**CHAIR: J. Carter and R. Sabharwal**


3:45 Neuronal uptake and subcellular localization of functional nanoformulated copper/zinc superoxide dismutase. **E.G. Rosenbaugh, D.S. Manickam, E.V. Batrakova, A.V. Kabanov and M.C. Zimmerman.** Univ. of Nebraska Med. Ctr. (893.2)


3:30 Neuronal uptake and subcellular localization of functional nanoformulated copper/zinc superoxide dismutase. **E.G. Rosenbaugh, D.S. Manickam, E.V. Batrakova, A.V. Kabanov and M.C. Zimmerman.** Univ. of Nebraska Med. Ctr. (893.2)


4:00 Regulation of CRH gene transcription in neuroendocrine neurons. **G. Aguilera.** NICHD/NIH.


5:00 Downregulation of AT1 receptor in the RVLM induced by mesenchymal stem cells treatment prevent the hypertension and sympathetic hyperactivity in 2K-1C Wistar rats. **E.B. Oliveira-Sales, E. Maquigussa, P. Semedo, L.G. Oliveira, N.O.S. Câmara, C.T. Bergamaschi, M.A. Boim and R.R. Campos.** Fed. Univ. of São Paulo. (893.5)
186. STRESS-RELATED RESPIRATORY DISORDERS: FROM CLINICAL MANIFESTATIONS TO ABNORMAL CHEMOSENSITIVITY

Symposium  
(Sponsored by: APS Respiration Section)  
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25A  
CHAIR: L. GARGAGLIONI AND R. KINKEAD  

Physiology of Development  
4:00  Panic disorder, separation anxiety, early separation, suffocation alarm, opioidergic system. **D. Klein.** Columbia Univ.  
5:00  The locus coeruleus: a gateway to understanding stress-related respiratory disorders. **L. Gargaglioni.** Sao Paulo State Univ.  
4:30  WNK1 activates SGK1 to regulate ENaC activity. **M. H. Cobb.** Univ. of Texas Southwestern Med. Ctr.  
5:00  WNK activates NCC through SPAK/OSR1 kinase. **P. A. Welling.** Univ. of Maryland Sch. of Med.

187. SYSTEMS BIOLOGY OF CARDIOVASCULAR GENOMES AND PROTEOMES

Symposium  
(Sponsored by: APS Cardiovascular Section)  
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 26  
CHAIR: J. LOSCALZO AND T. VONDRIOSKA  

Translational Physiology  
4:00  Implications of genomic networks for pathogenesis of atherosclerosis. **A. J. Lusis.** UCLA.  
5:00  Proteomic analysis of cardiac disease: mechanistic insights. **J. Van Eyk.** Johns Hopkins Sch. of Med.  

188. THE ROLE OF NOVEL WNK SIGNALING PATHWAY IN THE REGULATION OF SODIUM CHANNEL AND TRANSPORTERS

Symposium  
(Sponsored by: APS Cell and Molecular Physiology Section)  
SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25B  
CHAIR: H. CAI

Transporters and Ion Channels  
3:30  WNK regulates NKCC through SPAK/OSR1 kinase. **E. Delpire.** Vanderbilt Univ. Med. Ctr.  
4:00  WNK4 regulates NCC through a ERK1/2 signaling pathway. **H. Cai.** Emory Univ. Sch. of Med.  
4:30  Bicarbonate transport drives Na-independent K secretion via BK-α/β4 in β-intercalated cells. **R. J. Cornelius, L. I. Hatcher, K. M. Echtenkamp, J. J. Contreras and S. C. Sansom.** Univ. of Nebraska Med. Ctr. and Univ. of Nebraska at Omaha. (867.32)  
3:00  K-homeostasis is maintained with knockdown of big-conductance K channel in principal cells of connecting tubule/collecting duct. **T. Rieg, R. Lukowski, J. A. Dominguez, M. ShariK, P. Ruth and V. Vallon.** UCSD, VA San Diego Healthcare Syst., Univ. of Tübingen and Univ. of Colorado Anschutz Med. Campus. (867.4)

5:00 Purinergic signaling reciprocally contributes to the TRPV4-mediated mechano-sensitive response in the aldosterone-sensitive distal nephron. M. Mamenko, O.L. Zaika, R.G. O’Neil and O. Pochynyuk. Univ. of Texas Hlth. Sci. Ctr. at Houston. (867.21)


191. WATER AND ELECTROLYTE HOMEOSTASIS SECTION NEW INVESTIGATOR AWARD LECTURE

SUN. 4:30 PM—SAN DIEGO CONVENTION CENTER, 24

Title: Relaxin Protects against Cardio-Renal Disease: Role of Nitric Oxide


192. THE HENRY PICKERING BOWDITCH MEMORIAL AWARD LECTURE

SUN. 6:00 PM—SAN DIEGO CONVENTION CENTER, 20A

Title: microRNAs and Systems Molecular Medicine


Physiology InFocus
Physiology in Medicine

193. PHYSIOLOGY OF OBESITY, CARDIOMETABOLIC DISEASE, AND THERAPEUTIC WEIGHT LOSS

Symposium

SUN. 3:30 PM—SAN DIEGO CONVENTION CENTER, 20A

CHAIR: J. HALL AND A. SCHREIHOFER

Translational Physiology

3:30 Central nervous system fuel sensing: implications for the regulation of energy balance and treatment for obesity. R. Seeley. Univ. of Cincinnati Col. of Med.

4:00 Leptin-melanocortin system and control of cardiovascular metabolic functions in obesity. J. E. Hall. Univ. of Mississippi Med. Ctr.


POSTER PRESENTERS:
UPLOAD YOUR POSTER

Where: E-Poster Counter, Hall D Lobby

Deadline: Wed., April 25, 3:30 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org
194. MARC AND PROFESSIONAL DEVELOPMENT PROGRAMS

Workshop

MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

Career Development

The Experimental Biology 2012 Career Center activities have been arranged by the FASEB Office of MARC & Professional Development. Access to the Career Center is FREE to all registered EB 2012 meeting attendees.

8:30 Successful behaviors for winning an interview. J. Blumenthal.
9:00 Developing your core message/“elevator pitch”. J. Lombardo.
9:00 Ten tough industrial interview questions; ten good responses. J. Tringali.
9:00 How to get a job in government: bench. S. Milgram, L. Conlan.
10:00 Postdocs: what should you be looking for and how to find them. A. Green.
10:00 Sometimes it’s who you know: winning at networking. J. Blumenthal.
10:00 How to get a job in government: non-bench. S. Milgram, L. Conlan.
11:00 Compensation negotiation for scientists moving into industry. B. Lindstaedt.
12:00 Career skills blitz.
1:00 The industrial hiring process: learn the nuances, get the offer. J. Tringali.
1:00 The right attitude and behaviors while job searching: from the resume to the job offer. J. Blumenthal.
1:15 Utilizing LinkedIn in the PhD job search. A. Green.
1:30 How to continue your training at NIH. S. Milgram, L. Conlan.
2:00 Achieving your goals: goal setting strategies for scientific and career success [interactive]. B. Lindstaedt.
2:00 Talking about yourself: interviewing well. N. Saul.
2:30 Revealing your character through your resume. J. Blumenthal.
2:30 Becoming a mentor. S. Milgram, L. Conlan.
3:00 Career decisions: how to select a career path that’s best for you. B. Lindstaedt.
3:45 CV → resume. A. Green.
4:00 Job search in academia and industry. D. Behrens.
4:00 Fundamentals for managing the postdoctoral experience. H. Adams.
4:00 Successful behaviors for winning an interview. J. Blumenthal.

195. NIH K AWARDS

Seminar

MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

CHAIR: H. KHACHATURIAN, NIGMS/NIH

Career Development

NIH Grants Seminar Workshop Series

This presentation will focus on the NIH’s new K99/00 Pathways to Independence Award (for postdoctoral scientists) and the K08 Mentored Clinical Scientist Development Award (for individuals with a health professional doctoral degree committed to a career in laboratory or field-based research.) The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative. EB 2012 registration is required to participate in the seminar.

196. FORMULA FOR GRANT SUCCESS: PART I - SCIENTIFIC PEER REVIEW OF NIH GRANTS

Seminar

MON. 10:00 AM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

CHAIR: A. M. COELHO, JR., GRANT SUCCESS ASSOCIATES INC.

Career Development

NIH Grants Seminar Workshop Series

Learn what is important to know and understand about a sponsoring agency’s peer review process. Learn why this understanding peer review can enhance your chances of being funded. This presentation uses the scientific peer review at NIH as an example of what you need to know about peer review at any funding agency and how to use this information in preparation of your grant applications and competing successfully for funding. EB 2012 registration is required to participate in the seminar.

197. FORMULA FOR GRANT SUCCESS: PART II - GRANT WRITING FOR SUCCESS

Seminar

MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, HALL D, CAREER CENTER

CHAIR: A. M. COELHO, JR., GRANT SUCCESS ASSOCIATES INC.

Career Development

NIH Grants Seminar Workshop Series

This presentation focuses on the principles of Grant Writing for Success: and the common reasons that grant applications fail or succeed. Learn how to make an application meet the needs of the reviewers and the funding agency. Learn how to avoid the
need for resubmission. Learn about sponsored agency resources and how to use them in the preparation of your application.

EB 2012 registration is required to participate in the seminar.

Anatomy

198. TISSUE ENGINEERING, REGENERATION AND REPAIR

Platform
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7A
CHAIRMED: R. MARCUCIO

Regeneration/Tissue Engineering
8:00 198.1 Developing a completely biological tissue-engineered blood vessel for clinical use. N. L’Heureux. Cytograft Tissue Engineering, Novato, CA.
8:30 198.3 Injectable extracellular matrix-derived hydrogel for cardiac repair. K. Christian. UCSF.
9:00 198.5 Injectable extracellular matrix-derived hydrogel for cardiac repair. K. Christman. UCSD.
9:15 198.6 Notch signaling through the Jagged-1 ligand regulates mesenchymal progenitor differentiation and tissue regeneration. K.D. Hankenson. Univ. of Pennsylvania.

199. MICRORNAS IN STEM CELLS AND CANCER

Minisymposium
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIRMED: R. HARTLEY

Regulatory RNA Mini-Meeting
8:00 Chair’s introduction.
8:05 199.1 microRNAs to pathways in stem cells and cancer. R. Bleloch, D. Subramanyam, C. Melton, R. Judson and C. Belair. UCSF.
8:55 199.3 microRNA-RNA binding protein face off in cancer. R. Hartley, Univ. of New Mexico.
9:20 199.4 Non-coding RNAs: from scientist to patient and back. G. Carlin. Univ. of Texas MD Anderson Cancer Ctr.
9:45 Discussion.

200. ANATOMY EDUCATION BREAKFAST ROUNDTABLES

Special Session
(Supported by an educational grant from Elsevier, Inc.)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 11A
CHAIRMED: C. ECKEL

Education & Teaching
8:00 Chair’s introduction.
8:30 Applying the Ideas from The Carnegie Study of Medical Education to Guide Medical School Reform. Bridget O’Brien. UCSF.
9:00 General discussion.

201. THE NUCLEUS: NEW INSIGHTS AND UNDERSTANDING

Symposium
(Supported by an educational grant from Hamilton Thorne, Inc.)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 9
CHAIRMED: M. ALLEGRO

Cell Biology
8:00 Chair’s introduction.
8:05 201.1 The nucleolinus: a disappearing, forgotten, and (maybe) misnamed organelle. M.C. Allegro. Marine Biol. Lab., Woods Hole, MA.
8:30 201.2 The expanded repertoire of a classical intranuclear domain. T. Pederson. Univ. of Massachusetts Med. Sch.
9:20 201.4 The evolution of the nucleus. J.A. Lake. UCLA.
9:45 Discussion.

202. REACTIVATION OF EMBRYONIC PROCESSES IN REGENERATION AND REPAIR

Symposium
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 7A
CHAIRMED: M. DUNNWALD AND J. HELMS

Regeneration/Tissue Engineering
10:30 202.1 Regeneration of the drosophila epidermal barrier after wounding. W. McGinnis and M. Juarez. UCSD.
10:30 202.2 Translating insights from development into regenerative medicine with a focus on Wnt biology. J.A. Helms. Stanford Univ.
203. CELL BIOLOGY AND REGULATORY RNAs

Minisymposium
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: K. PRASANTH

Regulatory RNA Mini-Meeting
Cell Biology

10:30 Chair's introduction.
11:00 203.2 Role of cancer-associated nuclear-retained RNA in pre-mRNA splicing regulation. K.V. Prasanth, V. Tripathi, X. Zong, Z. Shen and S.G. Prasanth. Univ. of Illinois at Urbana-Champaign.
11:50 203.4 Repeat RNAs in chromosome regulation and mis-regulation in cancer. J.B. Lawrence, L.L. Hall and D.M. Carone. Univ. of Massachusetts Med. Sch.
12:15 Discussion.

204. TEACHING INNOVATIONS IN ANATOMY I

Platform
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: B. SINGH

Education & Teaching

10:30 Benefit assessment of premedical anatomical study for medical students. N. Harper, N.S. Livdahl, J. Jensen and D.A. Morton. Univ. of Utah Sch. of Med. (12.1)
11:00 204.1 Combining ultrasound and gross anatomic dissection in teaching 3-D anatomy: effectiveness in a first year medical course curriculum. A.M. Yee, J. Hwang, A.S. Pagano and S. Marquez. SUNY Downstate Col. of Med. and Mount Sinai Sch. of Med.

205. THE EXQUISITE LITTLE BRAINS OF BIG INSECTS

Symposium
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: J. HILDEBRAND

Neurobiology

10:30 Chair's introduction.
10:35 205.1 The evolution of insect brains and why big may be better. N.J. Strausfeld. Univ. of Arizona.
11:00 205.2 Regulation of form and function in the nervous system of honey bees. S.E. Fahrenbach. Wake Forest Univ.
11:50 205.4 Learning from insect brains: CNS processing of behaviorally significant odors. J.G. Hildebrand. Univ. of Arizona.
12:15 Discussion.

206. LUNG DEVELOPMENT AND THE ORIGINS OF DISEASE

Symposium
(Cosponsored by: Developmental Dynamics)
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7A
CHAIR: D. ORNITZ

Developmental Biology

2:30 Chair's introduction.
2:35 206.1 The role of slit-Robo signaling in congenital diaphragmatic hernia. X. Sun, E. Domyan and E. Hines. Univ. of Wisconsin-Madison.
3:00 206.2 Lung developmental biology: an important key to regeneration in apparently adult onset disease. D. Warburton. Children's Hosp. Los Angeles.
207. EXCELLENCE IN CANADIAN RESEARCH—NEURAL REGENERATION

Symposium
(Cosponsored by: Canadian Association for Anatomy, Neurobiology and Cell Biology)
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: M. KAWAJA

Neurobiology
Regeneration/Tissue Engineering
2:30 Chair’s introduction.
2:35 207.1 The role of microenvironment in the regenerative potential of neural stem cells after spinal cord injury. S. Karimi. Univ. of Manitoba.
3:00 207.2 Neural stem cells: from basic biology to tissue repair. C. Morshead. Univ. of Toronto.
4:15 Discussion.

208. CURRENT TRENDS IN THE ANATOMICAL SCIENCES: HOW ARE WE TEACHING NORTH AMERICAN DENTAL STUDENTS?

Symposium
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: H.W. LAMBERT

Education & Teaching
2:30 Discussion.
4:15 Discussion.

209. CARDIOVASCULAR BIOLOGY

Platform
MON. 2:30 PM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: J. BARNETT

Cardiovascular
2:30 209.1 Secreted growth factors from human epicardial-derived precursor cells protect against progressive injury after myocardial ischemia with reperfusion by preventing vascular mexitis. J.L. Spees. Univ. of Vermont.
2:45 Epicardial HIF1 regulates vascular precursor cell invasion into the myocardium through the VEGF signaling pathway. J. Tao, Y. Doughman, K. Yang, D. Ramirez-Bergeron and M. Watanabe. Case Western Reserve Univ. (726.14)
3:45 FOXO transcription factors are critical regulators of neonatal cardiomyocyte proliferation. A. Sengupta and K.E. Yutzey. Cincinnati Children’s Med. Hosp. Ctr. (525.6)
4:00 209.5 Integrating MALDI imaging mass spectrometry and shotgun proteomics for a systems biology understanding of congenital heart valve disease. P.M. Angel, B.M. Mettler, D.P. Bichell, H.S. Baldwin and R.M. Caprioli. Vanderbilt Univ.

210. AAA KEYNOTE LECTURE
(Supported by an educational grant from AACBNCC)
MON. 5:00 PM—SAN DIEGO CONVENTION CENTER, 8

5:00 210.1 Heart making and heart breaking: the molecular circuitry of cardiac development, disease and regeneration. E.N. Olson. Univ. of Texas Southwestern Med. Ctr.

211. AAA BUSINESS MEETING
MON. 6:00 PM—SAN DIEGO CONVENTION CENTER, 8
Biochemistry and Molecular Biology

213. BREKKE FOR NEXT GENS, UNDERGRADUATE BREAKFAST WITH AWARD SCIENTIST, BETTIE SUE MASTERS

Special Session
(Supported by an educational grant from National Science Foundation)

MON. 7:00 AM—SAN DIEGO CONVENTION CENTER, 11A
Invitation only.

214. EARL AND THRESSA STADTMAN SCHOLAR AWARD LECTURE

Award
MON. 8:30 AM—SAN DIEGO CONVENTION CENTER, 6B
8:30 Introductory remarks. S. R. Pfeffer.
8:35 214.1 Control of growth by the mTOR pathway. D. Sabatini. Whitehead Inst.

215. ASBMB-MERCK AWARD LECTURE

Award
(Supported by an educational grant from Merck)

MON. 9:05 AM—SAN DIEGO CONVENTION CENTER, 6B
9:05 Introductory remarks. S. L. McKnight.

216. AVANTI YOUNG INVESTIGATOR AWARD LECTURE

Award
(Supported by an educational grant from Avanti Polar Lipids, Inc.)

MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6A
This lecture is presented within the symposium, Metabolic Branchpoints/Lipid Channeling in Room 6A.
9:55 Avanti Young Investigator Award presentation and introduction. D. Raben.

217. RNA DYNAMICS: FUNCTION FOLLOWS FOLDING

Symposium
MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6F
CHAIR: J. LORSCH

9:55 Chair’s introduction.
10:00 217.1 A conserved RNA structure regulates polyamine-dependent alternative splicing and NMD. M. Ares. Univ. of California, Santa Cruz.
10:25 Role of the cofactor in the catalytic mechanism of the glmS/ ribozyme. J. Viladoms Claverol and M.J. Fedor. The Scripps Res. Inst. (746.2)
10:40 217.2 Linking the DEAD-box RNA helicase Ded1p to cellular RNA targets. E. Jankowsky. Case Western Reserve Univ.
11:20 ZBP1 KH34 consensus RNA-binding site identifies post-transcriptional regulatory networks. J. Chao and R. Singer. Albert Einstein Col. of Med. (949.1)
11:35 217.3 Group II intron architecture and its implications for the development of eukaryotic splicing systems. A.M. Pyle. Yale Univ.
12:00 Conclusion.

218. MECHANISM OF DNA REPLICATION

Symposium
MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6E
CHAIR: P. BAUMANN

9:55 Chair’s introduction.
10:25 S. cerevisiae RFC Walker A and arginine finger mutants are defective in clamp opening and binding. M.R. Marzahn and L. Bloom. Univ. of Florida. (739.8)
219. ORGANELLE QUALITY CONTROL

Symposium
MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6D
CHAIR: D. CHAN

9:55 Chair’s introduction.
10:00 219.1 ER-to-cytosol membrane transport of pathogens. B. Tsai. Univ. of Michigan Med. Sch.
10:25 Mitochondrial transcription factor A binding to mitochondrial DNA during aging and calorie restriction. A. Picca, A. Lezza, C. Leeuwenburgh and S. Tornaletti. Univ. of Florida and Univ. of Bari, Italy. (585.7)
10:40 219.2 The role of membrane shaping proteins, MTs and interorganelle contacts in regulating ER structure. G. Voeltz, J. Friedman, M. West, J. DiBenedetto, A. Rowland and A. English. Univ. of Colorado Boulder.
12:00 Conclusion.

220. DRUG DEVELOPMENT AND APOPTOSIS: LINKING TUMOR REGRESSION TO CELL DEATH

Symposium
MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6C
CHAIR: R. KING

9:55 Chair’s introduction.
10:00 220.1 Dissecting the BCL-2 family interaction network with stapled peptides: mechanistic insights and pharmacologic opportunities. L.D. Walensky. Dana-Farber Cancer Inst.
11:05 FADD/RIP1/RIP3 coregulation of apoptotic, necrotic and survival pathways in embryogenesis and lymphoid homeostasis. J. Zhang. Thomas Jefferson Univ. (798.29)
11:20 Signaling mechanisms of apoptosis resistance in lymphoid cells exposed to hyperosmotic stress. A.B. Scultock, C. Bortner and J. Cidlowski. NIEHS/NIH, Research Triangle Park. (798.6)
12:00 Conclusion.

221. METABOLIC BRANCHPOINTS/LIPID CHANNELING

Symposium
MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6A
CHAIR: D. BRASAEMLE

This symposium features the Avanti Young Investigator Award Lecture.

9:55 Chair’s introduction.
10:00 Avanti Young Investigator Award presentation and introduction. D. Raben.
10:50 221.1 Using C. elegans to dissect fat and feeding regulatory pathways. K. Ashrafi. UCSF.
11:15 ACSL1 multi-tissue knockout mice are resistant to diet- and age-induced obesity and insulin resistance. T.J. Grevengoed, D.S. Paul, L.O. Li and R.A. Coleman. Univ. of North Carolina at Chapel Hill. (790.7)

222. IN VIVO BIOCHEMISTRY OF THE PATHOGEN

Symposium
MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1B
CHAIR: S. BOOKER

9:55 Chair’s introduction.


11:35  **222.3**  Alteration of metabolic program by whiB6 enhances tuberculosis persistence. W. Jacobs and B. Weinrick. Albert Einstein Col. of Med. and HHMI.

12:00  Conclusion.

**223. MAXIMIZING YOUR MARKETABILITY**

*Symposium*

(Supported by an educational grant from the Council on Undergraduate Research (CUR) and Research Corporation for Science Advancement)

**MON. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1A**

**CHAIR:** J. PROVOST

9:55  Chair’s introduction.

10:00  **223.1**  Developing administrative/organizational skills. J.S. Bond. Penn State Col. of Med.

10:25  Gaining those important lab skills: three different training programs at a liberal arts college. A. Brower, R. Romano, D. Columbus and A. Aguanno. Marymount Manhattan Col. and Boston Univ. Sch. of Publ. Hlth. (619.5)

10:50  **223.2**  Opportunities in the private sector. M. Rosenberg. Promega Corp. and Univ. of Wisconsin-Madison.

11:15  Myth busters: 10 things you don’t know you don’t know. J.S. Bond. Penn State Col. of Med.

11:40  **223.3**  Effective use of social networking for career development. L.M. Balbes. Balbes Consultants LLC, Kirkwood, MO.

12:05  Conclusion.

**224. EFFECTIVELY COMMUNICATING YOUR SCIENCE**

*Public Affairs Workshop*

(Sponsored by: ASBMB Public Affairs Advisory Committee)

**MON. 12:30 PM—SAN DIEGO CONVENTION CENTER, 6B**

It has never been more important to communicate science and it’s importance to the public. How can we make scientific discovery a high national priority? What can each of us do locally to make a difference? Join Nobel laureate, P. Berg, NPR science correspondent, M. J. Palmer, Huffington Post science correspondent, C. Santa Maria and moderator J. Berg, for a panel discussion of how to get through to challenging audiences and make the best case for a long term investment in and focus on science.

**225. LIPID DROPLETS: BASIC WORKING PRINCIPLES**

*Workshop*

(Supported by an educational grant from Avanti Polar Lipids, Inc.)

**MON. 12:30 PM—SAN DIEGO CONVENTION CENTER, 11A**

Lipid droplets, organelles found in cells of vertebrates, invertebrates, and plants, have received much attention of late due to their importance in lipid-based diseases, host-pathogen interactions, and in the production of biofuels. This workshop will focus on the working principles and methodologies of lipid droplet research to engage those interested in expanding their knowledge or entering this field of research.

Light refreshments will be hosted. General seating available and doors open 15 minutes prior to event start.

**Organizer:**

R. V. Stahelin, Indiana Univ. Sch. of Med.-South Bend.

**Presenters:**

D. Brasaemle, Rutgers Univ.

T. Walther, Yale Univ.

D. Silver, Albert Einstein Col. of Med.

**226. RUTH KIRSCHSTEIN DIVERSITY IN SCIENCE AWARD LECTURE**

*Award*

**MON. 2:55 PM—SAN DIEGO CONVENTION CENTER, 6B**


3:00  **226.1**  Changing the course of America through mentoring. L.A. Jones. Univ. of Texas M.D. Anderson Cancer Ctr. and Univ. of Houston.

**227. FUNDAMENTAL MECHANISMS IN GENE REGULATION**

*Symposium*

**MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6F**

**CHAIR:** K. ADELMAN

3:45  Chair’s introduction.


5:10 Arrangement of the 4.5 Myb domain repeats of SNAP190 on the U1 gene promoter. W.E. Stumpf, M. Doherty and Y.S. Kang. San Diego State Univ. (731.9)


5:50 Conclusion.

228. NETWORKS AND TIME

Symposium

MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6E

CHAIRED: M. BULYK

3:45 Chair’s introduction.


5:50 Conclusion.

229. PROTEIN TARGETING AND TRANSLOCATION

Symposium

MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6D

CHAIRED: J. PUGLISI

3:45 Chair’s introduction.


5:25 229.3 The unfolded protein response in health and disease. P. Walter. UCSF.

5:50 Conclusion.

230. CHEMISTRY IN THE SERVICE OF MEDICINE

Symposium

MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6C

CHAIRED: P. COLE

3:45 Chair’s introduction.


4:30 230.2 Using small molecules to engineer and explore human immunity. D.A. Spiegel. Yale Univ.


5:50 Conclusion.

231. SIGNALING AND METABOLISM

Symposium

MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6A

CHAIRED: E. WHITE

3:45 Chair’s introduction.

3:50 231.1 Hormonal and cellular control of hepatic lipid metabolism. J. Rutter. Univ. of Utah.

4:15 Thioesterase superfamily member 2 (Them2) promotes the hepatic oxidation of plasma-free fatty acids. H.W. Kang, S. Han and D.E. Cohen. Brigham and Women’s Hosp. (562.1)
4:30  231.2  NAD metabolism: mechanisms of lifespan extension in yeast and nicotinamide riboside utilization in a healthy 50-year-old man. C. Brenner, S. Trammell, S-C. Mei and M. Migaud. Univ. of Iowa and Queen's Univ. Belfast.


5:10  The JAK kinase Tyk2 and the signal transducer and activator of transcription 3 are required for brown adipose tissue differentiation. A.C. Larner, M. Derecka, A. Gornicka, K. Szczepanek, M. Morgan, V.B. Raje, J. Sisler and S. Keller. Virginia Commonwealth Univ. and Univ. of Virginia. (758.9)


5:50  Conclusion.

232. ROLE OF GLYCOCONJUGATES IN SIGNALING AND DEVELOPMENT

Symposium
MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 1B
CHAIR: J. ESKO

3:45  Chair's introduction.


4:15  The role of N-linked glycosylation during Drosophila embryonic development. A. McCague and E. Selva. Univ. of Delaware. (607.6)

4:30  232.2  Specific N-glycans on SynCAM Ig proteins regulate synaptic adhesion and synapse development. T. Biederer. Yale Univ.


5:10  NogoB receptor is essential for extraembryonic vascular development and protein glycosylation. E.J. Park and W.C. Sessa. Sch. of Med., Yale Univ. (607.5)


5:50  Conclusion.

233. MAXIMIZING YOUR GLOBAL OUTREACH

Symposium
MON. 3:45 PM—SAN DIEGO CONVENTION CENTER, 1A
CHAIR: P. CRAIG

3:45  Chair's introduction.

3:50  233.1  Moving science from the laboratory to the field. A.A. James. Univ. of California, Irvine.

4:15  Undergraduate laboratory renaissance: research integration across the entire biochemistry laboratory curriculum. J. Rocecklin-Canfield, R. Gurney, N. Lee and L. Soltzberg. Simmons Col. (619.1)

Are you Tweeting about EB 2012?
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Be sure to follow EB on Facebook and Twitter.
236. GPEC FORUM: USING INTERDISCIPLINARY TOOLS TO EVALUATE NUTRITIONAL INTERVENTIONS

Symposium
(Supported by an educational grant from Mathile Institute for the Advancement of Human Nutrition)
(Sponsored by: Graduate and Professional Education Committee (GPEC) and the International Nutrition Council (INC)
(Cosponsored by: Community and Public Health Nutrition RIS)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: J.D. HAAS
COCHAIR: G.S. MARQUIS

Education

Public Policy
8:00 Novel applications of cognitive function in evaluation of nutritional interventions. M. J. Wenger. Univ. of Oklahoma.
8:35 Applications of physical performance and activity measures in evaluating nutritional interventions. S. E. Crouter. Univ. of Massachusetts.
8:55 Discussant. J. D. Haas. Cornell Univ.
9:40 Questions and answers.

237. REAL-WORLD NUTRITIONAL TRANSLATION BLENDED WITH FOOD SCIENCE

Symposium
(Supported by educational grants from PepsiCo / Frito-Lay, Inc. and ConAgra, Inc.)
(Sponsored by: Nutrition Translation RIS)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: M. FERRUZZI
COCHAIR: R. CLEMENS

8:00 What is food science and why does it matter in translational nutrition? M. Ferruzzi. Purdue Univ.
8:20 The complex world of food chemistry: the interplay between flavor reactions and mechanisms of health promotion in food. D. Peterson. Univ. of Minnesota.
8:40 Modeling gastric digestion of foods characterized by their material properties. R. P. Singh. Univ. of California, Davis.
9:20 Food-based clinical interventions toward cancer prevention. S. J. Schwartz. The Ohio State Univ.
9:40 Roundtable discussion.

238. HEALTH IMPACT OF WHOLE GRAINS, BRAN AND CEREAL FIBER

Symposium
(Supported by educational grants from CJ ChielJedang, Garuda international, and Kellogg)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: D.M. KLURFELD
COCHAIR: I.S. KIM

Education

Career Development
8:00 Opening comments and the overview of the science supporting the ASN position statement on whole grains, bran and cereal fiber. D. M. Klurfeld. USDA, Beltsville.
8:48 A comparison of the literature on the association between intakes of bran, cereal fiber, and whole grains and risk and biomarkers of heart disease. L. Qi. Harvard Sch.of Publ. Hlth.
9:12 A comparison of the literature on the association between intakes of bran, cereal fiber, and whole grains and risk of adiposity measures. D. M. Klurfeld. USDA, Beltsville.
9:36 Panel discussion.

239. EPIDEMIOLOGY AND SYSTEMS BIOLOGY APPROACHES

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: G.K. HARRIS
COCHAIR: Z. JOUNI AND STUDENT CHAIR: J. CAINE

8:00 Overview.
8:15 239.1 Relation of whole grain intake to risk of type 2 diabetes, cardiovascular disease and weight gain: a systematic review and meta-analysis. S. Chacko, E.Q. Ye, E.L. Chou, M. Kugizaki and S. Liu. UCLA Sch. of Publ. Hlth. and UCLA.


9:45 Summary.

240. PREVENTING CHILDHOOD OBESITY

Minisymposium

(Sponsored by: Nutrition Education RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32A

CHAIR: C. Gunther

COCHAIR: K. Harris

8:00 240.1 Timing of dessert but not portion size affects young children's intake at lunchtime. S. Kranz, L.R. Huss, S. Laurentz and G. McCabe. Purdue Univ.


8:45 240.4 Assessing school personnel knowledge of wellness policies. S. McWhinney, A. McDonald, L. Dawkins-Moultin, C. Outley and L. McKyer. Prairie View A&M Univ. and Texas A&M Univ.

9:00 240.5 Dietary intake of overweight and obese children attending a weight-loss program. S. Kranz, M. Brauchla, A. Garant and S. Gupta. Purdue Univ., Riley Hosp. and Indiana Univ., Indianapolis.

9:15 240.6 Pilot study on the management of childhood overweight: a pound of cure. S.A. Anzeljc and R. Murray. The Ohio State Univ.


241. SELENIUM I: SELENOPROTEIN SYNTHESIS, METABOLISM AND FUNCTION

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30D

CHAIR: R.A. Sunde

8:00 241.1 Inhibition of selenocysteine tRNA[Ser]Sec aminoacylation provides evidence that aminoacylation is required for regulatory methylthion of this tRNA. B. Carlson, J.Y. Kim, X-M. Xu, M.H. Yoo, Y. Zeng, S. Chen, V.N. Gladyshev, B.J. Lee and D.L. Hatfield. NCI/NIH, Seoul Natl. Univ., Ohio Univ. and Brigham and Women’s Hosp. and Harvard Med. Sch.


242. LIPID AND FATTY ACID METABOLISM AND TRANSPORT

Minisymposium

(Sponsored by: Energy and Macronutrient Metabolism RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30C

CHAIR: J.T. Brenna

COCHAIR: M.C. Huang

243. NUTRIENT-GENE INTERACTIONS

Minisymposium

(Sponsored by: Nutrient Gene Interactions RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30B

CHAIR: D. LEE

CO-CHAIR: Y. PAN


8:30 243.3 Effects of vitamin A status on the responses of the hepatic genes expression to insulin and retinoic acid in primary hepatocytes from Zucker lean and fatty rats. W. Chen and G. Chen. Univ. of Tennessee Knoxville.


9:00 243.5 Aging is a more significant determinant of hepatic DNA methylation patterns than a Western style diet. L.K. Park, E. Saltzman, G. Schnitzler, B.W. Yoon, L.D. Parnell, C.Q. Lai and S-W. Choi. USDA at Tufts Univ., Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and Tufts Med. Ctr.

9:15 243.6 Identification of genetic loci controlling intestinal calcium (Ca) absorption using BXD recombinant inbred mice fed high or low dietary Ca. R. Replogle, L. Wang, M. Zhang and J. Fleet. Purdue Univ.


9:45 243.8 Involvement of Sp1 in transcriptional regulation of Atp7a during hypoxia. L. Xie and J.F. Collins. Univ. of Florida.

244. OSTEOPOROSIS AND BONE METABOLISM IN THE AGING

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30A

CHAIR: A. BENDICH

8:00 Overview.


8:45 244.3 Habitual calcium intake and vitamin D status during adulthood through estrogen deficiency have few interactions on calcium kinetics and bone. C. Park, W. Lee, M. Allen, J. Fleet, G.P. McCabe and C.M. Weaver. Purdue Univ. and Indiana Univ. Sch. of Med.

9:00 244.4 Feeding soy protein isolate prevents impairment of bone acquisition by Western diets as a result of insulin signaling in bone. J. Zhang, O.P. Lazarenko, T.M. Badger, M.J.J. Ronis and J-R. Chen. Univ. of Arkansas for Med. Sci.


9:45 Summary.
245. COMMUNITY NUTRITION PROGRAMS AND POLICIES FOR OLDER ADULTS

Minisymposium
(Sponsored by: Aging and Chronic Disease RIS)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29D
CHAIR: M.A. JOHNSON
COCHAIR: J. FISCHER

8:00 Overview.
8:15 245.1 Persistent food insecurity is associated with higher levels of cost-related medication nonadherence in low-income older Georgians. E.L.P. Sattler and J.S. Lee. Univ. of Georgia.
9:15 245.5 The influence of home-delivered dietary approach to stop hypertension meals on body mass index and percent of energy needs consumed among older adults with cardiovascular disease. E.F. Racine, J. Lyerly, J. Warren-Findlow, T. Jennifer and W. McAuley. Univ. of North Carolina at Charlotte and George Mason Univ.
9:45 Summary.

246. DEVELOPMENT OF EVIDENCE-BASED NUTRITION

Minisymposium
(Sponsored by: Nutrition Education RIS)
MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29C
CHAIR: S.S. WONG
COCHAIR: M. SHAW

8:00 246.1 Sensory exploration of seasonally and locally available vegetables and their effects on vegetable consumption of Western Massachusetts Head Start preschool children. S. Sojkowski, S. Severin and S. Kannan. Univ. of Massachusetts Amherst and Head Start, Greenfield, MA.
8:30 246.3 What do college students want? A qualitative study exploring nutrition language and knowledge. S. Hirshberg, J. Lipschitz and I. Lofgren. Univ. of Rhode Island.
9:45 246.8 Randomized, controlled study demonstrates that About Eating, a web-based curriculum focused on eating competence increases food resource management skills of SNAP-Ed eligible women in Pennsylvania. J. Patterson, K. Arnold and B. Lohse. Penn State.

247. PROBIOTICS FOR OPTIMAL NUTRITION: FROM EFFICACY TO GUIDELINES

Symposium
(Supported by educational grants from Abbott Nutrition; BioProspect Limited; Danisco USA Inc.; Danone; Kraft Foods, Inc. and Nestle)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: S.M. DONOVAN
COCHAIR: G.S. HOWARTH

10:30 Pre-clinical development of new probiotics and probiotic-derived factors. G. Howarth. Univ. of Adelaide, Australia.
11:00 The stressed mucosa—application of non-invasive biomarkers to assess gut health. R. Butler. Univ. of South Australia.
11:30 Probiotic influences on atopy and non-gastrointestinal organ systems. S. Salminen. Univ. of Turku, Finland.
12:00 Evolving regulatory requirements for probiotics: nutritional recommendations. G. Gibson. Univ. of Reading, UK.
248. METABOLIC REGULATION BY AMINO ACIDS
FOR OPTIMAL HEALTH

Symposium
(Supported by an educational grant from Ajinomoto, Inc)
(Sponsored by: Nutritional Sciences Council (NSC))
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIRRED: S.M. HUTSON
COCHAIRRED: G.S. HOWARTH


249. UTILIZING A STEPWISE PROCEDURE TO
DESIGN EFFECTIVE NUTRITION EDUCATION

Symposium
(Sponsored by: Nutrition Education RIS, Community and Public Health RIS and Nutrition Translation RIS)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIRRED: S. GOODELL

Education
Career Development
10:30 Moderator’s introduction. S. Goodell.
10:55 Team work.
11:25 Discussion.
11:45 Team work.
11:55 Discussion.
12:00 Successful models and HECAT. P. Koch, V. Carraway-Stage. Columbia Univ., FoodMASTER Initiative.
12:20 Conclusion.

250. ESTABLISHING AND EVALUATING HEALTH CLAIMS FOR PROBIOTICS

Special Session
(Supported by educational grants from Abbott Nutrition; Dairy Research Institute; Danone; Kraft Foods, Inc. and Nestle)
MON. 1:00 PM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIRRED: S.M. DONOVAN
COCHAIRRED: M.E. SANDERS

Education
Public Policy
1:00 Evaluating the science behind probiotic health claims: European perspective. G. Gibson. Univ. of Reading, UK.
1:20 Evaluating the science behind health claims. B. O. Schneeman. FDA, College Park.
2:00 Questions and answers.

251. MECHANISMS OF ACTION AND MOLECULAR TARGETS OF DIETARY BIOACTIVE COMPONENTS II

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32B
CHAIRRED: C. KHOO
COCHAIRRED: A. SHAO

11:00 251.3 Leucine modulation of sirtuins and AMPK in adipocytes and myotubes. C. Liang, A. Bruckbauer and M.B. Zemel. Univ. of Tennessee and Nutraseut. Discoveries Inc., Knoxville.
11:45 251.6 Role of β-hydroxy-β-methylbutyrate in leucine stimulation of muscle mitochondrial biogenesis. R.A. Stancliffe and M.B. Zemel. Univ. of Tennessee, Knoxville.
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<th>Time</th>
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<tr>
<td>12:00</td>
<td>251.7</td>
<td>Pomegranate ellagitannin metabolite, urolithin A, inhibits prostate cancer cell proliferation via inhibition of IGF-1 signaling pathway.</td>
<td>R. Vicinanza, Y. Zhang, S.M. Henning, J. Ma and D. Heber. UCLA.</td>
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### 252. OBESITY AND METABOLIC SYNDROME

**Minisymposium**

*(Sponsored by: Energy and Macronutrient Metabolism RIS)*

**Chaired:** S.K. Das  
**Co-Chaired:** V.V. Potter

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<tr>
<td>10:30</td>
<td>252.1</td>
<td>Female mice lacking active NADPH-oxidase enzymes are protected against Western diet-induced obesity and metabolic syndrome.</td>
<td>M.J. Ronis, N. Sharma, J. Badeaux, M. Ferguson and T.M. Badger. Univ. of Arkansas for Med. Sci.</td>
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<td>10:45</td>
<td>252.2</td>
<td>Although equally obese, high fat diet -fed ovarietomized mice respond with greater adipose tissue inflammation than sham-operated mice.</td>
<td>V.J. Vieira Potter, K. Strissel, M.S. Obin and A.S. Greenberg. USDA at Tufts Univ.</td>
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<td>11:30</td>
<td>252.5</td>
<td>Maternal fat gain modulates insulin response among overweight/obese women.</td>
<td>J. De Haene, E. Murphy, N. Stotland, V. Ruiz Barros, G. Hernandez, M. Perez Rodriguez, D. Castaneda, P.J. Havel and J.C. King. Univ. of California, Davis and N.M. McKeown.</td>
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<td>12:00</td>
<td>252.7</td>
<td>Lipoprotein cholesterol distribution and LDL particle size is proatherogenic in Mexican Americans with metabolic syndrome.</td>
<td>G.A.P. Pignotti, S. Neupane, K.J. Farr and S. Vega-López. Arizona State Univ.</td>
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### 253. SELENIUM II: SELENIUM AND CANCER, INFLAMMATION AND OXIDATIVE STRESS

**Minisymposium**

*(Sponsored by: Vitamins and Minerals RIS)*

**Chaired:** R.A. Sundé

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<tr>
<td>12:00</td>
<td>253.7</td>
<td>A role for selenoprotein H in genome stability maintenance against oxidative stress.</td>
<td>R.T.Y. Wu and W-H. Cheng. Univ. of Maryland College Park.</td>
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### 254. DIETARY FACTORS AFFECTING LIPID METABOLISM

**Minisymposium**

*(Sponsored by: Energy and Macronutrient Metabolism RIS)*

**Chaired:** K.H. Kim  
**Co-Chaired:** C. Smas

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<td>10:30</td>
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<td>Overview.</td>
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11:00** 254.2  Folic acid supplementation alters adipose tissue lipid metabolism. **K.B. Kelly, S.D. Proctor, C.J. Field and R.L. Jacobs.** Univ. of Alberta.

11:15** 254.3  Consumption of one egg per day reduces the expression of hmg-coa reductase in peripheral mononuclear cells (pmnc) to maintain ldl cholesterol concentrations. **M.L. Fernandez, S. Ata, Y. Park and J. Lee.** Univ. of Connecticut.


11:45** 254.5  Carbohydrate restriction favorably affects HDL metabolism in men and women with metabolic syndrome: addition of egg yolk further increases large HDL particles. **C.J. Andersen, C.N. Blesso, Y. Park, J. Barona, T. Pham, J. Lee and M.L. Fernandez.** Univ. of Connecticut.

12:00** 254.6  Dietary intake ratio of calcium-to-phosphorus and sodium-to-potassium are associated with levels of serum and M.L. Fernandez. Kyungil Univ., Hoseo Univ. and Kongju Natl. Univ., South Korea.

12:15  Summary.

**255. NUTRIENT-GENE INTERACTIONS IN MODELS OF NEURODEGENERATIVE/NEUROMUSCULAR AND METABOLIC DISEASES**

**Minisymposium**

**(Sponsored by: Nutrient Gene Interactions RIS)**

**MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30B**

**CHAIR: M.J. Hamadeh**

**COCHAIR: C. Wu**


10:45  **255.2  Effect of ω3 PUFA on diet induced non-alcoholic fatty liver disease development and progression in C57BL/6J mice.** C.M. Depner and D.B. Jump. Sch. of Biol. and Popul. Hlth. Sci., Oregon State Univ.


11:15  **255.4  Dietary querctein supplementation alleviates disease related muscle injury in dystrophic muscle.** K. Hollinger, E. Snella, R.A. Shanely and J.T. Selsby. Iowa State Univ. and Appalachian State Univ., Kannapolis, NC.

11:30  **255.5  EGCG protects against 6-OHDA induced neurotoxicity in a cell culture model.** D. Chen, A.G. Kanthasamy and M.B. Reddy. Iowa State Univ.

11:45  **255.6  Protective effects of berries and walnuts against the accelerated aging and age-associated stress caused by irradiation in critical regions of rat brain.** S.M. Poulose, D.F. Bielinski, S.M. Gomes, K. Carrirhill-Knoll, B.M. Rabin and B. Shukitt-Hale. USDA at Tufts Univ. and Univ. of Maryland Baltimore County.

12:00  **255.7  Dietary vitamin D₃ at 50x the adequate intake increases apoptosis in the quadriceps of the female G93A mouse model of amyotrophic lateral sclerosis: a pilot study.** E. Parkhomenko, A. Miltonis, A. Gianforcaro, J.A. Solomon and M.J. Hamadeh. Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada.


**256. APPLICATIONS AND CHALLENGES OF PUBLIC USE DATA SETS FOR SECONDARY ANALYSIS NUTRITION RESEARCH**

**Minisymposium**

**(Sponsored by: Nutritional Epidemiology RIS)**

**MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30A**

**CHAIR: Y. Wang**

10:30  **256.1  The most frequently reported foods and beverages differ by age among participants of NHANES 1999-2008.** H.A. Eicher-Miller and C.J. Boushey. Purdue Univ. and Univ. of Hawaii Cancer Ctr.


11:00  **256.3  Sweeteners in the U.S. food supply and the role of fruit juice concentrates.** S.W. Ng, M.M. Slining and B.M. Popkin. Univ. of North Carolina at Chapel Hill.

11:15  **256.4  Comparing actual caloric value of food purchases with NHANES: what is missing?** C. Piernas, S.W. Ng and B.M. Popkin. Univ. of North Carolina at Chapel Hill.


11:45  **256.6  Dietary supplement use of children <18 years in the 2007 National Health Interview Survey.** J.T. Dwyer, R. Bailey, R. Nahin, G. Rogers, C. Semplos and P. Jacques. ODS/NIH, NCCAM/NIH and USDA at Tufts Univ.

12:00  **256.7  Gestational weight gain trends among WIC participants in Los Angeles County.** M. Koleilat, S. Whaley and D. Gee. PHFE WIC Prog., Irwindale, CA.

12:15  **256.8  A rapid automated method for detecting likely errors among sequential clinical measures recorded during clinical care.** D.C. Schwenke. Phoenix VA Hlth. Care Syst. and Arizona State Univ. Col. of Nursing and Hlth. Innovation.
257. WEIGHT MANAGEMENT IN REAL LIFE

Minisymposium
(Sponsored by: Community and Public Health Nutrition RIS)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29D
CHAIR: S.J. NIelsen
COCHAIR: S. FRANCIS


11:00 257.3 Peer led behavioral intervention and changes in weight status in female college freshman. E.M. Evans, M.D. Schmidt, M.C. Mojtabahedi, D.D. Guest, B.M. Das and E.L. Mailey. Univ. of Georgia and Univ. of Illinois, Urbana.

11:15 257.4 Increased dietary saturated fat intake is negatively associated with compliance to exercise regimen and improvement in fitness parameters. S. Krishnan, M. Gustafson, C. Campbell, E.C. Souza and N.L. Keim. Univ. of California, Davis, USDA Davis and Univ. of California Davis Med. Ctr.

11:30 257.5 Physical activity and protein intake are associated with feelings of energy and fatigue in overweight black and white women. C.L. Ward, W.J. McConnell, R.D. Larson, P.J. O’Connor and E.M. Evans. Univ. of Georgia.


12:15 257.8 Increase in physical activity among Central Brooklyn residents participating in an incentive-based walking program. J. Hoy-Rosas and B. Klein. The Family Ctr., Brooklyn, NY.

258. INFLUENCES OF WATER AND BEVERAGE CONSUMPTION ON HEALTH OUTCOMES

Minisymposium
(Sponsored by: Nutritional Epidemiology RIS)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29C
CHAIR: J. STOOGY
COCHAIR: C. Zizza

10:30 258.1 Beverage choices and contributions to food and nutrient intakes differ by smoking status: results from What We Eat in America, NHANES 2005-2008. R. Sebastian, C. Wilkinson Enns, J. Goldman and C. Zizza. USDA, Beltsville, MD and Auburn Univ. Col. of Human Sci.


11:00 258.3 Validating sugar-sweetened beverage intake and adiposity among African American and white adults in a doubly labeled water study. J.A. Emond, R.E. Patterson, P.M. Jardack and L. Arab. Moores Cancer Ctr., La Jolla, San Diego State Univ. Sch. of Publ. Hlth. and David Geffen Sch. of Med. at UCLA.


11:30 258.5 The association between sugar intake and HDL levels varies by sugar type and source. J.A. Welsh and M.B. Vos. Emory Univ. and Children’s Healthcare of Atlanta.


259. THE E.V. MCCOLLUM LECTURE

Keynote Lecture
MON. 12:45 PM—SAN DIEGO CONVENTION CENTER, 20D
TBD. L. H. Allen. USDA, Davis.

260. FRONTIERS IN FIBER NUTRITION RESEARCH AND APPLICATION

Symposium
(Supported by an educational grant from Kraft Foods, Inc. and National Starch, LLC)
(Sponsored by: Nutritional Epidemiology RIS)
MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: S.M. Kuo
COCHAIR: C.L. PEKMAN

3:00 259.1 Fibers: roughage, prebiotics and beyond. S. M. Kuo. Univ. at Buffalo.

3:20 259.2 New epidemiological evidences on dietary fiber and health. Y. Park. NCI/NIH.

3:40 259.3 Fecal bile acid profiling as a biomarker for fiber intake. L. H. Hagey. UCSD.
4:00 Filling the fiber gap with functional fiber—a view from the food industry. C. L. Pelkman. National Starch, LLC.
4:50 Questions and answers.

261. COMMUNICATION TECHNIQUES OF EFFECTIVE SPEAKERS
Symposium
(Supported by an educational grant from the NIH Office of Dietary Supplements)
(Sponsored by: Nutritional Sciences Council (NSC)
Mon. 3:00 PM—San Diego Convention Center, 31A/B/C
Chair: C. A. Swanson
Co-Chair: J. Engel

Career Development
3:00 Scientifically speaking: how to prepare an effective talk. B. Whitener. IQ Solutions.
3:30 Communicate with more clarity and confidence. N. Tolbert. The CommunicationCtr. DC.
4:00 The power of stories. N. Tolbert. The CommunicationCtr. DC.
4:30 TBD.

262. A NURTURING ENVIRONMENT PRODUCES FUTURE LEGENDS: DEVELOPMENT OF CAREER THROUGH SUCCESSFUL MENTOR-MENTEE RELATIONSHIPS
Symposium
(Sponsored by: Student Interest Group (SIG)
Mon. 3:00 PM—San Diego Convention Center, 29A/B
Chair: S. C. Chai

Education
Career Development
3:00 TBD. H. G. Anderson, D. Khoury. Univ. of Toronto.
4:00 TBD. R. J. Cousins. Univ. of Florida.
4:20 TBD. V. V. Potter. USDA HNRCA at Tufts Univ.
4:40 Questions and answers.

263. ANTIOXIDANT AND ANTI-INFLAMMATORY EFFECTS ON DIETARY BIOACTIVE COMPONENTS
Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
Mon. 3:00 PM—San Diego Convention Center, 32B
Chair: A. Berger
Co-Chair: S. Ley

3:00 263.1 Phenolics in mulberry leaves protect Hep G2 cells against hyperglycemia-induced oxidative damage. Y.-X. Zou, S.-T. Liao, F. Liu, J. Blumberg and C.-Y.O. Chen. Guangdong Acad. of Agr. Sci., China and USDA at Tufts Univ.
4:00 263.5 Effects of ginger (Zingiber officinale L) on inflammation-induced bone loss. J.L. Funk, J.B. Frye, L.E. Wright and B.N. Timmermann. Univ. of Arizona and Univ. of Kansas.
4:45 263.8 Influence of red pepper spice and turmeric on inflammation, and oxidative stress in overweight females: a metabolomics approach. D.C. Nieman, L. Kam, A.M. Knab and R.A. Shanely. Appalachian State Univ., NC.

264. PREVENTING EARLY CHILDHOOD OBESITY
Minisymposium
(Sponsored by: Nutrition Education RIS)
Mon. 3:00 PM—San Diego Convention Center, 32A
Chair: J. Kim
Co-Chair: K. Lora

3:00 264.1 The mother-infant dyad study: a grounded theory inquiry into the day-to-day experiences between first-time mothers and their infants that influence feeding practices. J.J. Helvey, K.M. Bower and K.F. Kavanagh. Univ. of Tennessee, Knoxville.
265. ANIMAL RESEARCH MODELS IN NUTRITION AND MUSCULOSKELETAL DEVELOPMENT

Minisymposium

(Sponsored by: Experimental Animal Nutrition RIS)

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30D

CHAIR: R.P. RHoads, JR

COCHAIR: C.H. STAHL

3:00 265.1 Increased adiposity induced by high dietary butter oil increases vertebrae trabecular structural indices in rats. F.H. Nielsen. USDA, Grand Forks.


4:00 265.4 X-ray fluorescence as an assay tool for musculoskeletal nutrition animal research. R.M. Branly, O.L. Tulip and D. Karam. Broward Col., FL and USAT Sch. of Med., Montserrat.

267. NUTRITION SCIENCE TRANSLATION: IMPACTS IN POLICY, PRACTICE AND CONSUMERS

Minisymposium
(Sponsored by: Nutrition Translation RIS)

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30B
CHAIR: P. WILLIAMSON-HUGHES
COCHAIR: G. JOHNSON

3:00 267.1 Diets that follow the 2010 Dietary Guidelines for Americans are associated with higher intakes of nutrients of concern. L.M. Troy and P.F. Jacques. USDA at Tufts Univ. and Friedman Sch., Tufts Univ.


4:00 267.5 Dietary milk polar lipids benefit gut barrier integrity and lipid metabolism in C57BL/6J mice during systemic inflammation induced by Escherichia coli lipopolysaccharide. A.L. Zhou, R.E. Ward and K.J. Hintze. Utah State Univ.


268. MILK BIOACTIVE COMPOUNDS

Minisymposium
(Sponsored by: Lactation RIS)

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30A
CHAIR: L. BODES
COCHAIR: H. HOLSCHER

3:00 268.1 Lactoferrin modulates lipopolysaccharide-induced perturbations in gene expression in human fetal intestinal epithelial cells. E.B. Nonnecke and B.L. Lönnerdal. Univ. of California, Davis.


3:30 268.3 Microbial colonization patterns of piglets fed both sow milk and formula is more similar to that of exclusively sow-reared than formula-fed piglets. M. Wang, E.C. Radlowski, M. Li, M.H. Monaco and S.M. Donovan. Univ. of Illinois, Urbana.

3:45 268.4 Exploring the landscape of nutrition related to sugar-sweetened beverage taxes. J. Sacco and V. Tarasuk.


4:30 268.7 Exploring the landscape of nutrition related marketing in Canada: is it guiding consumers to more healthful dietary patterns? J. Sacco and V. Tarasuk. Univ. of Toronto and Ryerson Univ. Sch. of Nutr., Canada.


269. ADVANCING NUTRITION POLICY AND IMPROVING THE EFFECTIVENESS OF NUTRITION PROGRAMS

Minisymposium
(Sponsored by: International Nutrition Council (INC))

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29C
CHAIR: E. FRONGILLO
COCHAIR: J. LEROY


3:45 269.4 Understanding facilitators and barriers to pregnant women’s participation in a nutrition supplementation program in Bangladesh. J. Woo, G.H. Peito, R.T. Naved, E.A. Frongillo and K.M. Rasmussen. Cornell Univ., ICDDR,B, Dhaka, Bangladesh and Univ. of South Carolina.


**NUTRITION/PATHOLOGY**

**MONDAY**


3:00 Modulation of starch digestion for slow glucose release through ‘toggling’ of mucosal α-glucosidases by acarbose. B-H. Lee, R. Eskandari, B.M. Pinto, B.L. Nichols and B.R. Hamaker. Purdue Univ., Simon Fraser Univ., Canada and Baylor Col. of Med. (638.7)


3:45 Influence of cultivar, processing, and food form on the glycemic index of barley. A. Aldughpassi, T.M.S. Wolever and E.M. Abdel-Aal. Univ. of Toronto and Agr. and Agri-Food Canada, Guelph. (638.16)


9:00 Animals as models of human cardiovascular disease: or the search to overcome outdated evolutionary homeostatic mechanisms. R. Hamlin. The Ohio State Univ.

10:15 Of mice and men: evolutionarily, what are the best rodent models of the human immune system for infectious disease research? S. Niewiesk. The Ohio State Univ.

11:00 Evolutionary aspects of animal models of aging. S. N. Austad. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

11:45 Modeling disease phenotypes: how an evolutionary perspective enhances the questions. E. Uhl. Univ. of Georgia.
272. ISBER SYMPOSIUM: BETTER DISEASE BIOMARKERS THROUGH BIOBANKING

Symposium
(Sponsored by: ASIP and the International Society for Biological and Environmental Repositories)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 17A
CHAIR: M. HOGAN AND G. HOSTETTER

11:00 Protein expression at the tissue level: the old and the new. G. Hostetter. Van Andel Res. Inst., Grand Rapids, MI.
11:45 Advanced technology for ambient temperature sample preservation. M. Hogan. IntegenX Corp.

273. STOWELL SYMPOSIUM: TRENDS IN EXPERIMENTAL PATHOLOGY: METABOLISM AND CANCER

Symposium
(Supported by an educational grant from Robert E. Stowell Endowment Fund)
(Sponsored by: ASIP and the Italian Pathology Society)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR: S. Andò and A. Mantovani

Neoplasia
10:00 Macrophages metabolism and cancer. A. Mantovani. Univ. of Milan.
11:00 Inflammation as the key link between obesity, metabolic syndrome, and cancer. V. Castronovo. Univ. of Liege.

274. BIOLOGY OF LIVER GROWTH AND REGENERATION

Minisymposium
(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 17B
CHAIR: T. Wu
COCHAIR: K. Nejak-Bowen

Liver Pathobiology
8:30 274.1 Hepatic stellate cells modulate the phenotype of liver myeloid dendritic cells rendering them tolerogenic. A. Dangi, T.L. Sumpter, B.M. Matta, D.B. Stolz, N. Murase, A.W. Thomson and C.R. Gandhi. Univ. of Pittsburgh.
9:15 274.4 Role of reprogramming factors in transdifferentiation of hepatocytes to biliary epithelial cells. V. Bhave, B. Bowen and G. Michalopoulos. Univ. of Pittsburgh.
10:15 274.8 Role of PINCH in regulating liver size and termination of liver regeneration. S. Donthamsetty, W. Mars, C. Wu and G. Michalopoulos. Univ. of Pittsburgh.
10:30 274.9 Role of PDGFRα liver regeneration using hepatocyte-specific knockout mice. P. Awuah, K.N. Nejak-Bowen and S. Monga. Univ. of Pittsburgh Sch. of Med.
11:00 274.11 Impacts of RegIII Seanactivation on murine hepatic protein nitration induced by acetaminophen. J-W. Yun, K. Lum and X.G. Lei. Cornell Univ.
275. CELL JUNCTIONS AND SIGNALING

Minisymposium

MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 15B

CHAIRRED: J. WASCHKE

COCHRARED: N. LOUIS

8:30  **275.1** Tandem peptide blocks pneumoviruses skin blistering in vivo and identifies a desmoglein receptor function leading to p38MAPK modulation. V. Spindler, B. Kempf and J. Waschke. Ludwig Maximilians Univ. Munich and Julius Maximilians Univ. Würzburg.


5:04  **275.3** JAM-A regulates barrier function through a pathway distinct from that controlling cell migration. A.C. Monteiro, A.I. Ivanov, C.R. Rankin, E.A. Severson, A. Nusrat and C.A. Parkos. Emory Univ., Univ. of Rochester and Brigham and Women's Hosp.

9:06  **275.4** Sorting nexin 27 mediates PDZ-directed trafficking of zona-occludens-2 to the tight junction. C.L. Hueschen, S.P. Zimmerman, S.L. Milgram and M.P. Playford. NHLBI/NIH.

9:18  **275.5** IFNγ influences epithelial proliferation by modulating Akt-beta catenin signaling downstream of cadherins. P. Nava Dominguez, K.N. Kolegraff, S. Koch, C. Parkos and A. Nusrat. Emory Univ.

9:30  **275.6** Disruption of the epithelial barrier upon Shigella flexneri infection. A. Maldonado-Contreras, K. Mumy and B. McCormick. Univ. of Massachusetts Med. Sch.

9:42  **275.7** Entamoeba histolytica induces a robust acute inflammatory response with increased colonic permeability and altered tight junction proteins in Muc2−/− mice. V. Kissoon-Singh, F. Moreau and K. Chadee. Univ. of Calgary, Canada.

9:54  **275.8** Mucin protects against trypsin-mediated increases in intestinal epithelial permeability. M. Chang, T. Alsaigh, E.B. Kistler and G.W. Schmid-Schönbein. UCSD.

10:06 **275.9** Altered colonic barrier function and paracellular permeability in Muc2−/− mice. E.H. Truevych, C. Hirota, F. Moreau, K. Tran, W. MacNaughton, J. Meddings and K. Chadee. Univ. of Calgary, Canada.

10:18 **275.10** Mechanisms involved in the disruption of the intestinal barrier during necrotizing enterocolitis. A. Bein and B. Schwartz. The Hebrew Univ., Israel.

276. PHAGOCYTES AND INFECTION

Minisymposium

MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 15A

CHAIRRED: B. Mccormick

COCHRARED: T. Denning

8:30  **276.1** Salmonella typhimurium induces HXA3 secretion by decreasing cellular levels and activity of the oxidoreductase enzymes GPX1 and PHGPX. T. Agbor and B. McCormick. Univ. of Massachusetts Med. Sch.


9:18  **276.5** Inflammasome activation triggered by the cysteine proteases of Entamoeba histolytica. L.M. Mortimer, F. Moreau and K. Chadee. Univ. of Calgary, Canada.

9:30  **276.6** Lipocalin 2 confers protection against endotoxin-induced sepsis in mice. M. Vijay-Kumar, J.D. Aitken, G. Srinivasan, B. Zhang and A.T. Gewirtz. Georgia State Univ.


9:54  **276.8** Phospholipase A2 is involved in S. pneumoniae elicited PMN transepithelial migration. R. Bhowmick, B.A. McCormick and J.M. Leong. Tufts Univ. Sch. of Med. and Univ. of Massachusetts Med. Sch.

10:06 **276.9** Hsp70 and a novel axis of innate immunity in the virus-infected brain. M. Oglesbee, M.Y. Kim, Y. Shu, P. Popovich and S. Niewiesk. The Ohio State Univ.


277. LUNCH AND LEARN: BEST PRACTICES OF BIOBANKING AND SPECIMEN COLLECTION

Special Session

(Sponsored by: ASAP Education Committee)

MON. 12:45 PM—SAN DIEGO CONVENTION CENTER, 14A

CHAIRRED: W. Mars, M. Hameed and T. Sander

Did you ever wonder why there can be such high variability in the reproducibility of results from different laboratories? Why is it that one research group able to lab identify a marker for a particular disease and yet another group never sees it, even when using the same techniques? The answer is generally quite simple: the way the specimens are collected and then stored.

In today's world where high throughput sampling is becoming the norm for identifying disease biomarkers, this question has never been more important. Those attending this session will be introduced to the factors that are considered important for proper specimen collection and storage and what current best practices of the Pathology field now dictate.

### MONDAY

#### 278. VETERINARY PATHOLOGY SCIENTIFIC INTEREST GROUP

(This session is not CME accredited.)

**Poster Discussion**

(Sponsored by: ASIP Veterinary Pathology Scientific Interest Group)

**MON. 12:45 PM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION**

**CHAIR ED:** M. MCA RT UR TH, E. GAL BRE ATH, E. WH IT LE Y and D. HU TTO

**Veterinary Pathology**

Anyone interested in veterinary pathology or animal models utilized to elucidate mechanisms of disease is invited to participate in an informal gathering to review interesting posters, meet and interact with a variety of students, residents, fellows, scientists and veterinary pathologists. This gathering has unlimited potential for fun, food and facts. Young scientists have the opportunity for valuable mentoring, networking and exploring potential collaborations. Please join us if you have ever wondered what a veterinary pathologist did.

<table>
<thead>
<tr>
<th>Poster</th>
<th>Title</th>
<th>Authors</th>
<th>Institution(s)</th>
</tr>
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<tbody>
<tr>
<td>P1</td>
<td>Effect of naphthalene and copper nanoparticles on three-spined stickleback (Gasterosteus aculeatus). F. Villarreal, E. Falisse, D. Morin, A. Buckpitt and D. Kültz. Univ. of California, Davis and Univ. of Namur, Belgium.</td>
<td>(833.13)</td>
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<td>P6</td>
<td>Therapeutic administration of a direct thrombin inhibitor reduces hepatic inflammation in a mouse model of hypercholesterolemia. K.M. Kassel, B.P. Sullivan, B.L. Coppie and J.P. Luyendyk. Univ. of Kansas Med. Ctr.</td>
<td>(405.7)</td>
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<td>P7</td>
<td>Hsp70 and a novel axis of innate immunity in the virus-infected brain. M. Oglesbee, M.Y. Kim, Y. Shu, P. Popovich and S. Niewiesk. The Ohio State Univ.</td>
<td>(276.9)</td>
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<tr>
<td>P8</td>
<td>Regulation of the calpain and ubiquitin proteasome system in a canine model of muscular dystrophy with myostatin inhibition. S.W. Cotten, K.M. Wadosky, D. Bogan, J.N. Kornegay and M.S. Willis. Univ. of North Carolina at Chapel Hill.</td>
<td>(478.3)</td>
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<td>P10</td>
<td>Accumulation and biochemical effects of microcystin-LR on Patagonian silverside (Odontesthes hatcheri) fed with Microcystis aeruginosa cells. C.M. Luquet, F. Bieczynska and V.A. Bianchi. CONICET, Junin de los Andes, Argentina.</td>
<td>(833.14)</td>
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<td>P12</td>
<td>Development of a new chick choioallantoic membrane model for human pancreas adenocarcinoma. V. Castronovo, A. Gonzalez, P. Delvenne and O. Peulen. Univ. of Liege, Belgium.</td>
<td>(479.4)</td>
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<td>P15</td>
<td>Expression of pentraxin 3 in the lungs of human, horse, cattle and pig. M. Soron and B. Singh. Univ. of Saskatchewan.</td>
<td>(835.9)</td>
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<td>P17</td>
<td>The influence of alternative housing on dairy calf innate immune measures after weaning. L.E. Hulbert, M.S. Calvo, K.C. Klasing and F.M. Mitloehner. Univ. of California, Davis.</td>
<td>(655.8)</td>
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<td>P19</td>
<td>Dissecting the fetal development of cystic fibrosis tracheal abnormalities. D.K. Meyerholz, D.A. Stoltz, P.B. McCray, Jr. and M.J. Welsh. Univ. of Iowa.</td>
<td>(143.10)</td>
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P27 Fluorescence compared to brightfield detection of CD35 in lymphoid follicles of the monkey to assess immunomodulatory treatment effect. J. Brodbeck, F. Chu, M. Gonzales Edick, L. Rangell, S. Bheddah and G. Cain. Genentech. (655.10)


279. PRESIDENTIAL SYMPOSIUM: PATHOGEN-HOST INTERACTIONS: PROVOKING AND EVADING THE IMMUNE RESPONSE

Symposium
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR: M.B. FURIE

2:00 Introduction.
2:05 Autophagy as a component of the innate immune response. M. S. Swanson. Univ. of Michigan.
2:45 Lyme disease and tularemia: the yin and yang of inflammation. M. B. Furie. Stony Brook Univ.

280. ASIP MEMBERSHIP BUSINESS MEETING AND AWARDS PRESENTATION

(This session is not CME accredited.)

Business Meeting
MON. 5:00 PM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR: M.B. FURIE

281. ASIP AWARDS RECEPTION

(This session is not CME accredited.)

Special Session
MON. 6:00 PM—SAN DIEGO CONVENTION CENTER, MEZZANINE FOYER

Open to all attendees

Pharmacology and Experimental Therapeutics

282. LOCATION, LOCATION, LOCATION: THE ROLE OF MEMBRANE MICRODOMAINS IN DOPAMINE TRANSPORTER FUNCTION AND TRAFFICKING

Symposium
(Sponsored by: The Divisions for Neuropharmacology and Molecular Pharmacology)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 2
CHAIR: H. KHOSHBOUEI AND H. MELIKIAN

10:30 The role for the neuronal GTPase, Rin, in dopamine transporter microdomain localization and trafficking. H. Melikian. Univ. of Massachusetts Sch. of Med.
11:00 Membrane cholesterol modulates the outward facing conformation of the dopamine transporter and alters cocaine binding. S. G. Amara. Univ. of Pittsburgh Sch. of Med.
283. COGNITIVE ENHANCEMENT TO IMPROVE TREATMENT OUTCOME AND QUALITY OF LIFE ASSOCIATED WITH NEUROPATHOLOGIES

Symposium
(Sponsored by: The Divisions for Behavioral Pharmacology; Neuropharmacology; and Toxicology)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 3
CHAIRED: R. GOULD and M. NADER

10:00 Cognitive deficits associated with cancer chemotherapy and potential pharmacological treatments. E. A Walker. Temple Univ. Sch. of Pharm.
11:30 Nicotinic acetylcholine receptors as targets for cognitive enhancement. M. Sarter. Univ. of Michigan.

284. PERIVASCULAR (P)FAT: PHARMACOLOGY, PHYSIOLOGY AND (P)FUNCTION

Symposium
(Sponsored by: The Divisions for Cardiovascular Pharmacology and Integrative Systems & Translational & Clinical Pharmacology)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 4
CHAIR: A. DORRANCE and S. WATTS

9:30 Emerging fields of study on the adipose tissue. K. Claycombe. USDA, Grand Forks.
10:15 Role of the perivascular renin-angiotensin system in vascular diseases. L. Cassis. Univ. of Kentucky Col. of Med.

285. THE REAL WORLD OF THERAPEUTIC DRUGS: BENCH TO BOARDROOM, THE BEDSIDE AND BEYOND

Symposium
(Sponsored by: The Divisions for Pharmacology Education and Behavioral Pharmacology)
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5A
CHAIR: P. K. RANGACHARI

9:55 Tomorrow’s prescribers: how should we train them, assess them and support them? S. Maxwell. Univ. of Edinburgh.
10:20 That’s a great drug, but who’s paying for it &emsp; beyond the do no harm paradigm. D. Macarios. Amgen.
10:45 Discussing the benefit and risks of drug therapies: interpreting drug information for healthcare providers and patients. S. Milligan. Genentech.
11:35 Open discussion.

286. DRUG DISCOVERY, DEVELOPMENT AND REGULATORY AFFAIRS SYMPOSIUM: MITOCHONDRIAL DYSFUNCTION IN HUMAN DISEASE

Symposium
MON. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5B
CHAIR: R. DAVIS and M. WILLIAMS

11:30 Therapeutic potential for mitochondrial disease treatment. R. E Davis. 3D Pharmaceut. Consultants Inc.

287. PUBLIC AFFAIRS WORKSHOP: FDA’S STRATEGY TO DEVELOP AND VALIDATE NEW ANTICANCER AND CANCER PREVENTION AGENTS AND PATHWAYS

Public Affairs Workshop
MON. 1:00 PM—SAN DIEGO CONVENTION CENTER, 4
CHAIR: K. Tew
1:00 Chair’s introduction.
1:05 Pitfalls in oncology development. K. Delorenzo. FDA, Silver Spring.
1:35 Oncology drug development. S. Shord. FDA, Silver Spring.
2:05 Bridging the gap between drug discovery and clinical trials: non-clinical development of oncology drugs. H. Saber. FDA, Silver Spring.
2:35 Discussion.

288. P.B. DEWS LIFETIME ACHIEVEMENT AWARD FOR RESEARCH IN BEHAVIORAL PHARMACOLOGY LECTURE

MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, 2

The P.B. Dew Lifetime Achievement Award for Research in Behavioral Pharmacology is given biennially to recognize outstanding lifetime achievements in research, teaching, and professional service in the field of Behavioral Pharmacology. It is presented to honor Peter Dew for his seminal contributions to the development of behavioral pharmacology as a discipline. Dr. James Barret was selected for this award based on his accomplishments focusing on some of the most important concepts and questions in the field of behavioral pharmacology, with particular emphasis on the behavioral determinants of drug action.

2:00 Introduction. N. A. Ator. Johns Hopkins Sch. of Med.

289. BERNARD B. BRODIE AWARD IN DRUG METABOLISM LECTURE

MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, 3

The Bernard B. Brodie Award in Drug Metabolism is established to honor the fundamental contributions of Bernard B. Brodie in the field of drug metabolism and disposition. The Award is presented biennially in even years to recognize outstanding original research contributions in drug metabolism and disposition, particularly those having a major impact on future research in the field. Dr. Yuichi Sugiyama receives the Brodie Award in recognition of his outstanding contributions to our understanding of human drug metabolism and transport.

2:00 Introduction. E. Johnson. The Scripps Res. Inst.

290. BEHAVIORAL PHARMACOLOGY DIVISION SYMPOSIUM: THE BEHAVIORAL PHARMACOLOGY OF DRUGS OF ABUSE AND DRUG DEPENDENCE: A TRIBUTE TO STEVE HOLTZMAN AND BOB SCHUSTER

Symposium

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 2

CHAIR: L. DYKSTRA AND C. PARONIS

3:00 Lessons learned from two of the best. L. Dykstra. Univ. of North Carolina at Chapel Hill.


4:00 Some determinants of drug tolerance and dependence. C. A. Paronis. Northeastern Univ.


5:00 Building bridges, solving problems: connecting behavioral pharmacological models of self-administration to treatments. M. Greenwald. Wayne State Univ. Sch. of Med.

291. DRUG METABOLISM DIVISION AND JAMES GILLETTE AWARD AND PLATFORM SESSION

Oral

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 3

CHAIR: H. SWANSON

3:00 Chair’s introduction.

3:25 P450 3A5 is primarily responsible for the formation of the most abundant oxidative metabolite of maraviroc. Y. Lu, C.W. Hendrix and N.N. Bumpus. Johns Hopkins Univ. Sch. of Med. (1052.2)


4:05 Hepatic PXR represses UGT1A1 gene expression during neonatal development. S. Chen and R.H. Tukey. UCSF. (1052.4)


5:25 Discussion.

292. MOLECULAR PHARMACOLOGY DIVISION POSTDOCTORAL AWARD FINALISTS

Oral

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 4

3:00 Cell-intrinsic adenosine A2A receptor signaling is required for T cell homeostasis and tumor surveillance. C. Cekic, D. Sag and J. Linden. La Jolla Inst. for Allergy and Immunol. (1119.1)
MONDAY

3:30 Activated protein C promotes endothelial barrier protection through biased PAR1 signaling mediated by β-arrestin and dishevelled-2 scaffolds. U.J.K. Soh and J. Trejo. UCSD Sch. of Med. (671.4)


293. INTEGRATIVE SYSTEMS, TRANSLATIONAL AND CLINICAL PHARMACOLOGY DIVISION YOUNG INVESTIGATOR AWARDS PLATFORM SESSION

Oral

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5A
CHAIR: J. PAUL
COCHAIR: M. AKBARALI

3:00 Chair’s introduction.


3:45 Cholecalciferol increases 7-dehydrocholesterol reductase activity in adult human epidermal keratinocytes. L. Zou and T.D. Porter. Univ. of Kentucky. (787.6)

4:00 Break.


4:30 Plaque-like A3 adenosine receptor microdomains are associated with bacteria-tethering nanotubes in human neutrophils. R. Coridden, T. Self, S.J. Briddon and S.J. Hill. Univ. of Nottingham. (1119.3)

4:45 Lactobacillus rhamnosus GG treatment potentiates intestinal hypoxia-inducible factor, promotes intestinal integrity, prevents inflammation, and ameliorates alcohol-induced liver injury. Y. Wang, Y. Liu, L. Kirpich, C. McClain and W. Feng. Univ. of Louisville. (673.17)

5:00 Awards.

294. PHARMACOLOGY EDUCATION DIVISION PROGRAMMING: STRATEGIES FOR PHARMACOLOGY IN INTEGRATED MEDICAL SCHOOL CURRICULA: BEST PRACTICES FOR ENHANCING INVOLVEMENT OF OUR DISCIPLINE

Symposium

MON. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5B
CHAIR: L.M. CRESPO

3:00 The knowledge objectives in pharmacology: our leverage in the curriculum. R. Eisenberg. Univ. of Minnesota.


4:00 Starting with a blank slate: building the curriculum in a new medical school. L. M. Crespo. Univ. of South Carolina, Greenville.

5:00 Panel discussion.

Physiology

295. ASSESSMENT OF STUDENT LEARNING AND SCIENTIFIC TEACHING

Symposium

(Sponsored by: APS Teaching of Physiology Section)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: M. P. WENDEROTH

Education

8:00 How to use Bloom’s to assess student learning. M. P. Wenderoth. Univ. of Washington.

8:30 Just the facts? Using Bloom’s taxonomy to characterize the cognitive skills in introductory biology. J. Momsen. North Dakota State Univ.

9:00 Using Bloom’s to inform changes in Introductory Biology course. C. Pollock. Univ. of British Columbia.

9:30 Using the genetics concept assessment to understand misconceptions and assess learning gains. J. Knight. Univ. of Colorado Boulder.

296. CARL LUDWIG DISTINGUISHED LECTURESHIP OF THE APS NEURAL CONTROL AND AUTONOMIC REGULATION SECTION

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 20A

Title: Sympathetic Nerve Activity in Heart Failure: A Critical Role for Central Angiotensin II Receptors

Speaker: I. H. Zucker. Univ. of Nebraska Med. Ctr.
297. **COMMUNICATION BETWEEN CARDIAC CELLS AND THE EXTRACELLULAR MATRIX**

**Featured Topic**

*(Sponsored by: APS Cardiovascular Section)*

**MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28A**

**CHAIRRED: J. D. CHANG AND J. D. GARDNER**

**Inflammation and Immune Responses**

8:00  Mechanosensing as an important regulator of contractile function in the heart. **D. E. Dostal.** Texas A&M Hlth. Sci. Ctr.

8:30  Role of Rho kinase in cardiac remodeling. **L. Wei.** Indiana Univ.

9:00  Matrix metalloproteinase-28 deletion attenuates short-term left ventricular dysfunction but exacerbates cardiac rupture post-myocardial infarction in mice. **Y. Ma, J. Zhang, T.A. Ramirez, A.M. Manicone and M.L. Lindsey.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of Washington. *(1060.1)*


9:30  Cardiac-myocyte ablation of Talin1 results in a blunted hypertrophic response to chronic pressure overload. **A.M. Manso, R. Li, N.M. Cruz, Y. Gu, S.M. Chang, B.J. Rasmussen, K.L. Peterson, D. Abel, S.J. Monkley, D.R. Critchley and R.S. Ross.** UCSD Sch. of Med. and VA Healthcare San Diego, Univ. of Utah Sch. of Med. and Univ. of Leicester, U.K. *(1060.3)*

9:45  S1P induces CCN1 expression through RhoA/MRTF-a activation and protects cardiomyocytes against cell death. **E. Ding, S. Miyamoto, X. Zhao, S.Y. Xiang, R.R. Neubig and J. Heller Brown.** UCSD and Univ. of Michigan. *(1060.4)*

**298. DEVELOPMENT OF THE CONTROL OF BREATHING**

**Featured Topic**

*(Sponsored by: APS Respiration Section)*

**MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 22**

**CHAIRRED: F. BAILEY AND R. BAVIS**

**Physiology of Development**

8:00  Postnatal maturation of O2 sensing: new mechanisms and persistent puzzles. **J. L. Carroll.** Univ. of Arkansas for Med. Sci.

8:30  Arousal from sleep in infants: a major protective mechanism during hypoxia and hypercapnia. **R. A. Darnall.** Dartmouth Med. Sch.

9:00  The effects of chronic nicotine exposure on chemosensitivity of medullary 5-HT neurons. **J. Avraam, Y. Wu and G.B. Richerson.** Univ. of Iowa. *(1090.8)*

**299. HYPOXIA INDUCIBLE FACTORS IN HEALTH AND DISEASE**

**Symposium**

**MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24**

**CHAIRRED: B. B. REES, C. G. WILSON AND M. WATANABE**

**Hypoxia and Oxidative Stress**

**Translational Physiology**

8:00  Signaling oxygen levels by protein hydroxylation. **P. Ratcliffe.** Univ. of Oxford.

8:30  The role of genetic models in determining novel roles for HIF and hypoxic response. **R. Johnson.** UCSD.

9:00  Molecular basis of congenital disorders of hypoxia sensing and high altitude adaptation. **J. Prchal.** Univ. of Utah.

9:30  Genomic information controlling the adaptation to long term hypoxia: from flies to humans. **G. Haddad.** UCSD.

**300. ION CHANNELS AS MACROMOLECULAR COMPLEXES**

**Symposium**

*(Sponsored by: APS Cell and Molecular Physiology Section)*

**MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 27**

**CHAIRRED: W. A. COETZEE AND M. DELMAR**

**Transporters and Ion Channels**

8:00  Sodium channels and cardiac desmosomal protein interaction. **M. Delmar.** NYU Sch. of Med.

8:30  The sodium channel beta subunit as a cell adhesion molecule. **L. Isom.** Univ. of Michigan Sch. of Med.

9:00  Ankyrin proteins and ion channels. **P. Mohler.** The Ohio State Univ.

9:30  The KATP channel as a megadalton complex. **W. A. Coetzee.** NYU Sch. of Med.
301. NOVEL MECHANISMS FOR IMPROVING MITOCHONDRIAL EFFICIENCY

Featured Topic

(Sponsored by: APS Endocrinology and Metabolism Section)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25A

CHAIR: S. CROZIER

Hypoxia and Oxidative Stress

8:00 Modulation of mitochondrial efficiency by dietary nitrate. F. Larsen. Karolinska Inst.

8:30 Flavanol-mediated enrichment of mitochondrial structure and bioenergetics. F. Villarreal. UCSD.

9:00 AMPK activation by AICAR induces mitochondrial biogenesis in the inner ear. A.L. Nuttall, T. Wilson, I. Omelchenko and X. Shi. Oregon Hlth. & Sci. Univ. (888.6)

9:15 Mitochondrial Ogg1 prevents loss of mitDNA content, decreases mitochondria fission and apoptosis under conditions of oxidative stress in H9C2 cells. M. Torres-Gonzalez, T. Gawlowski, B. Scott and W. Dillmann. UCSD Sch. of Med. (888.2)


302. NOVEL SIGNALING PATHWAYS IN RENAL PATHOPHYSIOLOGY

Featured Topic

(Sponsored by: APS Renal Section)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25B

CHAIR: R. ROMAN AND C. DE MIGUEL

8:00 Mechanisms of diabetes-associated glomerular hyperfiltration. P. Carmines. Univ. of Nebraska Col. of Med.

8:30 C-peptide in the pathophysiology of diabetic nephropathy. C. Maric. Univ. of Mississippi Med. Ctr.


9:30 Novel treatment approaches for diabetic kidney disease. K. Sharma. UCSD.

303. REGULATION OF WATER AND ELECTROLYTE BALANCE IN DIABETIC NEPHROPATHY

Symposium

(Sponsored by: APS Water and Electrolyte Homeostasis Section)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25B

CHAIR: R. ROMAN AND C. DE MIGUEL

8:00 Mechanisms of diabetes-associated glomerular hyperfiltration. P. Carmines. Univ. of Nebraska Col. of Med.

8:30 C-peptide in the pathophysiology of diabetic nephropathy. C. Maric. Univ. of Mississippi Med. Ctr.


9:30 Novel treatment approaches for diabetic kidney disease. K. Sharma. UCSD.

304. TOWARDS A BIOLOGY OF BODY WEIGHT REGULATION: THE WORK OF STEPHEN C. WOODS

Symposium

(Sponsored by: APS Central Nervous System Section)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 23

CHAIR: R. SEELEY AND S. C. WOODS

Central Control of Homeostasis

Metabolic Diseases

8:00 Food preference determined by nutrient sensing in mouth and gut. A. Sclafani. Brooklyn Col. of CUNY.


305. TRAINEE HIGHLIGHTS IN PHYSIOLOGICAL GENOMICS

Special Session
(Sponsored by: APS Physiological Genomics Group)

MON. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: J. L. ZHUO AND C. MORENO-QUINN

8:00 Endoplasmic reticulum (er) stress mediates nuclear factor-κ-B activation in the subfornical organ during slow-pressor angiotensin-II hypertension. C.N. Young and R.L. Davison. Cornell Univ. and Weill Cornell Med. Col. (874.11)

8:15 Significantly increased plasma levels of unbound-VEGF in overweight/obese women. K.L. Makey, L. Miele, E. Chinchiar, I. Pei, J. Robinson, M. Loftin, D. Waddell, M. Huang and J-W. Gu. Univ. of Mississippi Med. Ctr. and Univ. of Mississippi. (1151.17)


8:45 RNAI silencing of TNFa attenuates cold-induced pulmonary hypertension. P. Crosswhite and Z. Sun. Univ. of Oklahoma Hlth. Sci. Ctr. (874.8)

9:00 Epigenetic mechanism of atherosclerosis and hypertension in hyperhomocysteinemia. N. Narayanan, N. Tyagi, S. Pagni, M.T. Tseng and S.C. Tyagi. Univ. of Louisville. (874.7)


9:45 1H/13C NMR metabolomics in a neonatal rat brain slice model of early and late mild hypothermia treatments of asphyxia. J. Liu, L. Litt, J.G. Pelton, M. Segal, M.J.S. Kelly, M. Kim and T.L. James. UCSF, Lawrence and Univ. of California, Berkeley. (1151.16)


307. ALTERED CENTRAL AND GANGLIONIC CATECHOLAMINERGIC TRANSMISSION IN CARDIOVASCULAR DISEASE

Symposium
(Sponsored by: APS Neural Control and Autonomic Regulation Section)

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 24
CHAIR: D. J. PATERSON AND A. G. TESCHEMACHER


11:00 Angiogenin II and glial-Cl neuron modulation in hypertension. A. G. Teschemacher. Univ. of Bristol.


12:00 Modulation of cardiac sympathetic co-transmitters in cardiovascular disease. N. Herring. Oxford Univ.

308. CHRONIC INTERMITTENT HYPOXIA: RESPIRATORY, AUTONOMIC AND CARDIOVASCULAR CONSEQUENCES

Featured Topic
(Sponsored by: APS Central Nervous System Section)

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: A. M. SCHREIHOFER AND G. M. TONEY

Blood Pressure Regulation

Central Control of Homeostasis


11:00 Chronic intermittent hypoxia (ch) alters respiratory rhythmogenesis within the preBötzinger complex. A.J. Garcia, A. Doi, T. Malashchenko, A. Wei, G. Kumar, N.R. Prabhakar and J-M. Ramirez. Seattle Children's Res. Inst., Univ. of Washington and Univ. of Chicago. (899.2)

11:15 Intracellular recordings of respiratory and pre-sympathetic neurons in the ventrolateral medulla of rats submitted to chronic intermittent hypoxia. D.J.A. Moraes, D.B. Zoccal and B.H. Machado. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo. (899.1)

Neuropeptide Y signaling in altered catecholamine synthesis during intermittent hypoxia. G.K. Kumar, G. Raghuraman and N.R. Prabhakar. Univ. of Chicago. (899.12)

11:45 Exposure to acute intermittent hypoxia prolongs sympathoexcitatory and pressor responses evoked by NMDA in the hypothalamic paraventricular nucleus. S.S. Kandlikar, M.A. Andrade, A.S. Calderon and G.M. Toney. Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (899.10)
12:00 Colocalization of angiotensin converting enzyme 1 and FosB in the median preoptic nucleus following intermittent hypoxia. K.E. Faulk, W.D. Knight, J.T. Little and J.T. Cunningham. Univ. of North Texas Hth. Sci. Ctr. (899.8)

12:15 Intermittent hypoxia alters circulating leptin levels and the activity of pro-opiomelanocortin hypothalamic arcuate nucleus neurons. J.M. Moreau, S.A. Messenger and J. Ciriello. Univ. of Western Ontario. (899.7)

309. DO I NEED ANOTHER DEGREE?

Symposium
(Sponsored by: APS Career Opportunities in Physiology Committee)

MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: J. D. IMIG AND S. D. COAXUM

Career Development

10:30 Opportunities in academia for scientists with an MBA degree. M. Kluger, George Mason Univ.
11:00 Physiology and public health: what can an MPH degree do? R. Carter III. U.S. Army.

310. FUTURE DIRECTIONS OF MITOCHONDRIAL BIOENERGETICS IN INTEGRATIVE PHYSIOLOGY

Featured Topic
(Supported by an educational grant from Seahorse Bioscience, Inc.)
(Sponsored by: APS Comparative and Evolutionary Physiology Section)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: M. JASTROCH

Hypoxia and Oxidative Stress

Translational Physiology

11:00 Antioxidant enhanced spare capacity in cardiomyocytes as a protective response to oxidative stress induced by hypoxia and redox cycling agent. R. Legmann, J. Melito and D. Ferrick. Seahorse Bioscience, Billerica, MA. (887.8)

11:30 In vivo spectroscopy provides a new window into mitochondrial bioenergetics. D. J. Marcinek. Univ. of Washington Sch. of Med.
12:00 Non-invasive integrative analysis of cardiac energetics, translation to human heart in vivo. P.H. Dileo, V. Deschodt-Arsac, M. Chapolard, M. Hocini, P. Jais and M. Haissaguerre. INSERM U1045, Bordeaux Univ. (887.12)

311. ION CHANNELS

Featured Topic
(Sponsored by: APS Cell and Molecular Physiology Section)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: C. FULLER AND M. CARATTINO

Transports and Ion Channels

10:30 Expression and functional significance of Ca2+-activated Cl channels in dendritic cells. E. Shumilina, K. Szteyn, E. Schmid, M.K. Nurbueva, W. Yang, K. Kunzelmann and F. Lang. Univ. of Tuebingen and Univ. of Regensburg, Germany (884.3)
10:45 The N-terminus of CIC-3 determines membrane localization. F.S. Lamb and M.M. Collins. Vanderbilt Univ. and Univ. of Iowa. (884.4)

11:15 Chronic ethanol ingestion increases epithelial sodium channel activity in C57Bl/6 lung. D. Trac, E. Brewer and M.N. Helms. Emory Univ.: Sch. of Med. and Children's Healthcare of Atlanta. (884.6)
11:30 A Deg/ENaC cation conductance regulates migration and cell cycle progression in gliomas. A.K. Rooj, C.M. McNicholas and C.M. Fuller. Univ. of Alabama at Birmingham. (884.8)
11:45 The effects of synthetic ASIC1a peptide on glial proliferation. J.C. Guercio and E. Petroff. Montclair State Univ. (884.7)
12:00 microRNA 29b is upregulated in pulmonary artery smooth muscle cells from patients with idiopathic pulmonary arterial hypertension and inhibits K+ channel expression and function. N.M. Pohl, A. Yamamura, H. Yamamura, A. Makino and J.X-J. Yuan. Univ. of Illinois at Chicago. (884.10)
312. MECHANOBIOLOGY IN THE LUNGS

Symposium
(Sponsored by: APS Respiration Section)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25A
CHAIRRED: C. M. WATERS AND K. RIDGE

10:30 Deformation-induced plasma membrane stress failure. 
11:00 Micromechanical properties of intermediate filaments. 
11:30 Mechanical properties of migrating cells. E. Roan. Univ. of Memphis.
12:00 Mechanotransduction and matrix rigidity. D. Tschumperlin. Harvard Univ.

313. MICROVASCULAR SOCIETY YOUNG INVESTIGATOR SYMPOSIUM: OXIDANT STRESS AND INFLAMMATION IN THE MICROVASCULATION

Symposium
(Sponsored by: The Microcirculatory Society)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 26
CHAIRRED: J. TUNA

11:50 Mast cells in proximity of adult and aged mesenteric lymphatic vessels. V. Chatterjee and A.A. Gashev. Texas A&M Hlth. Sci. Ctr., Temple. (677.10)

314. PENDRIN: HEARING, BLOOD PRESSURE, THYROID FUNCTION AND MORE

Symposium
(Sponsored by: APS Renal Section)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28B
CHAIRRED: S. M. WALL AND S. MUALEM

Blood Pressure Regulation
Translational Physiology

10:30 Overview of pendrin function. S. Muallem. NIDCR/NIH.
11:05 The role of pendrin in the physiology of hearing. P. Wagemann. Kansas State Univ.
11:55 The role of pendrin in renal blood pressure regulation. V. Pech. Emory Univ.

315. SODIUM AND WATER HOMEOSTASIS: GENETIC AND COMPARATIVE MODELS

Featured Topic
(Sponsored by: APS Water and Electrolyte Homeostasis Section)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25B
CHAIRRED: T. PANNABECKER AND K. HYNDMAN

Translational Physiology

10:30 Non-mammalian models of salt and water homeostasis: historical and recent contributions. K. Choe. Univ. of Florida.
11:00 Natriuretic response to renal medullary endothelin B receptor activation is impaired in Dahl-salt sensitive rats on a high-caloric diet. W. Kittikulsuth, Y. Zhang, I. Sunjic and D.M. Pollock. Georgia Hlth. Sci. Univ. (1069.9)
11:45 Comparative studies of the desert rodent Dipodomys merriami and Munich-Wistar rat urine concentrating mechanisms. A.C. Babaria, W.H. Dantzler and T.L. Pannabecker. Univ. of Arizona. (886.29)
12:00 Role of sodium pump β1 subunit in adult mouse lung alveolar fluid homeostasis. P. Flodby, Z. Borok, D. Gao, Y.H. Kim, K-J. Kim and E.D. Crandall. Univ. of Southern California. (1069.6)
316. SOLOMON A. BERSON DISTINGUISHED LECTURESHIP OF THE APS ENDOCRINOLOGY AND METABOLISM SECTION
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20A
Metabolic Diseases
Title: Understanding of Obesity as a Disorder of Energy Homeostasis
Speaker: M. W. Schwartz. Univ. of Washington.

317. WIGGERS AWARD FEATURED TOPIC: CALCIUM HOMEOSTASIS AND ENDOPLASMIC RETICULUM STRESS IN VASCULAR FUNCTION
Featured Topic
(Sponsored by: APS Cardiovascular Section)
MON. 10:30 AM—SAN DIEGO CONVENTION CENTER, 23
CHAIR: R. C. Webb

10:30 Opening remarks and introductions. R. C. Webb.
Georgia Hlth. Sci. Univ.
11:05 Signaling ER redox and folding stress to maintain proper vascular function. C. S. Sevier. Cornell Univ.
12:00 T-type Ca²⁺-channels and the induction of CICR in vascular smooth muscle. K. Bigdely-Shamloo, E. J. Vignond and D. G. Welsh. Univ. of Calgary, Canada. (863.10)
12:15 Time course of doxorubicin accumulation and dysfunction in the rat aorta. N. M. Gibson, D. S. Hydock and R. Hayward. Univ. of Northern Colorado. (866.9)

318. HISTORY OF PHYSIOLOGY GROUP LECTURE
MON. 12:45 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, LA COSTA
Title: Lessons in Respiratory Physiology from the Oxford:Copenhagen Debate and the Three Danish Musqueteers

319. EDWARD F. ADOLPH DISTINGUISHED LECTURESHIP OF THE APS ENVIRONMENTAL AND EXERCISE PHYSIOLOGY SECTION
MON. 2:00 PM—SAN DIEGO CONVENTION CENTER, 24
Metabolic Diseases
Title: Exercise Only Affects Muscle? Fat Chance

320. CARL GOTTSCHALK DISTINGUISHED LECTURESHIP OF THE APS RENAL SECTION
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 24
Title: Playing in Traffic: Sorting and Signaling in Renal Epithelial Cells
Speaker: M. J. Caplan. Yale Univ. Sch. of Med.

321. CELL MOTILITY IN HEALTH AND DISEASE
Symposium
(Sponsored by: The Biomedical Engineering Society)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: A. Kontrogianni-Kostantopoulos and D. Wirtz
3:30 Dysregulation of receptor tyrosine kinase signaling in tumor cell migration and invasion. D. Lauffenburger. MIT.

322. CELLULAR CO₂, HCO₃⁻ AND PH SENSING
Symposium
(Sponsored by: APS Cell and Molecular Physiology Section)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: J. Praetorius and D. Brown
Transporters and Ion Channels
4:00 Luminal chemosensing in the duodenal mucosa. Y. Akiba. UCLA, CURE.
5:00 CO₂ and HCO₃⁻ sensing in the renal proximal tubule. W. F. Boron. Case Western Reserve Univ. Sch. of Med.
323. COMPENSATORY RESPONSES TO ACUTE OR CHRONIC HYPOXIA EXPOSURE

Featured Topic
(Sponsored by: APS Hypoxia Group)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: W. SCHRAGE

Hypoxia and Oxidative Stress
Central Control of Homeostasis

3:30 Pulmonary system limitations in COPD: similar to athletes at altitude? M. Amann. VA Med. Ctr., Salt Lake City.
4:45 Impaired cardiac norepinephrine transport in the hypertensive rat. J. Shanks, S. Mane, R. Ryan and D.J. Paterson. Oxford Univ. (1092.5)

324. EMERGING PARADIGMS IN MICROVASCULAR SIGNALING

Featured Topic
(Sponsored by: APS Cardiovascular Section)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: A. STRAUB AND E. B. WESTCOTT

Blood Pressure Regulation

3:45 The role of Pannexin-1 in the control of resistance vessel tone. M. Billaud. Univ. of Virginia Sch. of Med.
4:15 Myoendothelial contacts within the skeletal muscle arterial network: a potential mediator for divergent control of vascular tone. B.S. Kirby, A. Bruhl and S. Earley. Colorado State Univ. (1058.4)

4:30 eNOS inhibition is protective against oxygen glucose deprivation in brain microvascular endothelial cells by preempting eNOS uncoupling. P.S. Katz, E.A. Wappler, P.V. Katakam and D.W. Busija. Tulane Univ. Sch. of Med. (1058.5)
5:00 Attenuation of conducted vasodilatation in the skeletal muscle during hyperhomocysteinemia. S. Givvimani, N. Narayan, N. Tyagi and S.C. Tyagi. Univ. of Louisville. (1058.7)
5:15 Manipulating IP₃R-mediated calcium release in permeabilized endothelial cell tubes of resistance arteries.

325. IMPACT OF ENVIRONMENTAL ESTROGENS AND ANDROGENS ON HUMAN AND ANIMAL HEALTH AND REPRODUCTIVE FUNCTION

Symposium
(Sponsored by: APS Comparative and Evolutionary Physiology Section)
MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: N. STACHENFELD AND B. B. REES

Metabolic Diseases

Physiology of Development

3:30 Estrogenic activities in marine wildlife: potential causes and population impacts. D. Schlenk. Univ. of California, Riverside.
4:00 Reproductive effects of pesticide exposure in amphibians. T. Hayes. Univ. of California, Berkeley.
4:30 Environmental estrogens and disorders of the reproductive tract. H. S. Taylor. Yale Univ.
5:00 Anogenital distance as a readout of fetal androgen exposure. S. H. Swan. Mount Sinai Sch. of Med.

326. JOSEPH ERLANGER DISTINGUISHED LECTURESHIP OF THE APS CENTRAL NERVOUS SYSTEM SECTION

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 23

Central Control of Homeostasis

Metabolic Diseases

Title: Peptides, Food Intake and Body Weight: Problems of Interpretation
Speaker: S. C. Woods. Univ. of Cincinnati.
327. MOLECULAR SENSORS IN AFFERENTS NEURONS THAT CONTRIBUTE TO PAIN, FATIGUE, AND ACTIVATION OF AUTONOMIC REFLEXES IN HEALTH AND DISEASE

Featured Topic

(Sponsored by: APS Neural Control and Autonomic Regulation Section)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25A

CHAIR: C. BENSON

3:30 ASICs as sensors of metabolites. C. Benson. Univ. of Iowa Carver Col. of Med.

4:00 Applying information from rat and mouse group III-IV afferents to human subjects and patients. A. R. Light. Univ. of Utah.


4:45 Evidence for chemosensitive fibers in the aortic depressor nerve in mice but not in rats. H.M. Stauss, D.A. Morgan and K. Rahmouni. Univ. of Iowa. (892.6)

5:00 A novel pH conditioned Cl⁻ conductance in nodose ganglia neurons. R. Wang, C.A. Whiteis, C.J. Benson, M.W. Chapleau and F.M. Abboud. Univ. of Iowa and VA Med. Ctr. (892.7)


328. NOVEL SITES OF REGULATION IN THE PULMONARY VASCULATURE: CONTRADICTIONS AND NONTRADITIONAL RESPONSES

Symposium

(Sponsored by: APS Respiration Section)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28B

CHAIR: M. W. ELDREDGE AND M. BATES


4:00 Hypoxia-induced intrapulmonary shunting: passive pathways or active regulation? M. Bates. Univ. of Wisconsin-Madison.

4:30 Constriction in the microvasculature: muscle is not required. C. St. Croix. Univ. of Pittsburgh.

5:00 Control of pulmonary microvascular perfusion: it's not just arterioles anymore.

329. ORIGINS OF IMPAIRED CARDIOVASCULAR-RENAL FUNCTION AND BODY FLUID BALANCE

Featured Topic

(Sponsored by: APS Water and Electrolyte Homeostasis)

MON. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25B

CHAIR: H. NISHIMURA

Metabolic Diseases

Translational Physiology


4:00 Prenatal and postnatal programming of hypertension and kidney disease. M. Baum. Univ. of Texas Southwestern Med. Ctr.

3:30 Antioxidant treatment during development prevents low birth weight, hypertension, and enhanced sensitivity to mild renal ischemia in offspring exposed to placental insufficiency. N.B. Ojeda, S. Wilkening, J. Dasinger, B.T. Alexander, G. Graves and P. Rhodes. Univ. of Mississippi Med. Ctr. (1101.1)


3:30 Gestational chronic intermittent hypoxia causes asymmetric growth restriction and alters cholesterol homeostasis in the liver of Sprague-Dawley rats. W. Iqbal, E. Barry, D. Hardy and J. Ciriello. Univ. of Western Ontario and McMaster Univ., Canada. (1101.3)

3:30 Effects of prenatal betamethesone exposure and unilateral nephrectomy on sodium uptake in ovine renal proximal tubule cells from young adult male sheep. Y. Su, J. Bi, L. Tang, J.P. Figueroa and J.C. Rose. Wake Forest Univ. Hlth. Sci. (1102.3)

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Physiology InFocus
Physiology in Medicine

330. USING PHYSIOLOGY TO TRANSLATE CARDIAC REMODELING AND HEART FAILURE

Symposium
Mon. 3:30 PM—San Diego Convention Center, 20A
Chair: M. L. Lindsey and M. Horn

Translational Physiology


4:00 The importance of cardiac physiology in mice and humans. M. Scherrer-Crosbie. Massachusetts Gen. Hosp.


5:00 The importance of physiology in systems biology approaches to understanding post-MI remodeling. Y. Jin. Univ. of Texas at San Antonio.

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Across Societies – Experimental Biology

331. MARC AND PROFESSIONAL DEVELOPMENT
PROGRAMS

Workshop
TUE. 9:00 AM—SAN DIEGO CONVENTION CENTER, HALL D,
CAREER CENTER

Career Development
The Experimental Biology 2012 Career Center activities have
been arranged by the FASEB Office of MARC & Professional
Development. Access to the Career Center is FREE to all
registered EB 2012 meeting attendees.

9:00 The job talk. A. Green.
9:15 Making the connection: the relationship between the
resume, the interview and the job. J. Blumenthal.
10:00 Academic job search: CVs, letters, statements and
start-ups. B. Lindstaedt.
10:00 Navigating graduate work protocol, milestones,
requirements. H. Adams.
10:30 Transforming your CV. N. Saul.
11:00 PhD negotiation skills and strategies: how to get what
you want and need. A. Green.
11:30 Successful behaviors for winning an interview. J.
Blumenthal.
1:00 Making the grade: job talk/chalk talk. D. Behrens.
1:00 Developing/writing the doctoral dissertation. H. Adams.
1:00 Achieving your goals. B. Lindstaedt.
1:30 CV → resume. A. Green.
2:00 Career decisions: how to select a career path that’s best
for you. B. Lindstaedt.

332. NATIONAL INSTITUTES OF HEALTH: PROGRAMS
AND POLICIES UPDATE FROM INSTITUTES

Tutorial
(Sponsored by: American Association of Anatomists, The
American Physiological Society, American Society for
Biochemistry and Molecular Biology, American Society for
Investigative Pathology, American Society for Nutrition,
American Society for Pharmacology and Experimental
Therapeutics)
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 1A
CHAIR: J. CHATHAM AND S. BARMAN

Public Policy

2:00 NHLBI: current programs and new initiatives. S. Shurin.
NHLBI/NIH.
2:30 Common fund programs: what are they and are you
eligible for funding? E. Wilder. OD/NIH.
3:00 NIGMS strategic plan for training: what does it mean for
you? J. Greenberg. NIGMS/NIH.
4:30 NIH peer review: where are we and where are we going?
R. Nakamura. CSR/NIH.

Anatomy

333. EPIGENETICS AND REGULATORY RNAs

Platform
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: B. FUTSCHER

Regulatory RNA Mini-Meeting
8:00 333.1 Modulation of Shh signaling by microRNAs. Y.
Xu, D. Hu, R. Barbeau, A. Barczak and R. Marcucio. UCSF.
8:20 Negative regulation of enhancer-associated
RNA in macrophages. M.T. Lam, H. Cho, S. Heinz, C. Benner,
M.U. Kaikkonen, Y. Tanaka-Oishi, M. Kosaka, C. Lee, R.M.
Evans and C.K. Glass. UCSD and Salk Inst. (912.1)
8:40 333.2 Non-coding RNAs: epigenetic regulators of
gene transcription in human cells. K.V. Morris. The Scripps
Res. Inst.
9:00 333.3 Vascular epigenetics by regulatory RNA:
chance and necessity (algorithms) in adaptation reactions.
J.H. Wissler. ARCONS Inst. for Applied Res. & Didactics, Bad
Nauheim.
9:20 333.4 Epigenomic implications of antisense
transcription. C. Wahlestedt. Univ. of Miami Miller Sch. of Med.
9:40 333.5 ncRNAs, subnuclear architecture, and
relocation of regulated transcription units: a strategy for
controlling regulated gene programs in the three-dimensional
space of the nucleus. M.G. Rosenfeld, L. Yang, C. Lin, W. Liu,
E. Nunez, W. Li and Q. Hu. UCSD, HHMI.

334. CRANIOFACIAL BIRTH DEFECTS

Symposium
(Cosponsored by: AAA’s Advisory Committee for Young
Anatomists)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: L.B. RUEST

Developmental Biology
8:00 Chair’s introduction.
8:05 334.1 Redefining cleft lip and palate. A.R. Vieira.
Univ. of Pittsburgh.
335. ADULT STEM CELLS: FROM BASIC RESEARCH TO CLINICAL APPLICATIONS

Symposium
(Cosponsored by: The Anatomical Record)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: M. DEZAWA

8:00 Chair's introduction.
9:20 335.4 The present and the future of stem cell therapies. K. Giacin. Stemcyte, Ewing, NJ.
9:45 Discussion.

336. MICRORNAS IN CARDIAC DEVELOPMENT AND DISEASE

Minisymposium
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: D-Z. WANG

Regulatory RNA Mini-Meeting
Cardiovascular

10:30 Chair's introduction.
11:00 336.2 microRNA regulation of cardiac cell fate, morphogenesis and function. D. Srivastava. UCSF.
12:15 Discussion.
339. DEVELOPMENT AND GROWTH

Platform
TUE. 2:30 PM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: P. TRAINOR

Developmental Biology

2:45 A novel gene Crispid2 may contribute to facial dysmorphology in a chicken model of Crouzon’s syndrome. X. Li, S. Tropp, N. Young, B. Halgrimsson and R. Marcucio. UCSF, San Francisco Gen. Hosp. and Univ. of Calgary, Canada.

2:30 339.2 The role of the transcription factor BCL11B in the regulation of growth and asymmetric development of the mouse incisor. K. Kyrylkova, S. Kyryachenko, C. Kioussi and M. Leid. Oregon State Univ.

3:15 339.3 Regulated metabolism of vitamin A by retinol dehydrogenase 10 is critical for embryonic development of the heart. L.L. Sandell. Univ. of Louisville.


4:00 339.6 Alpha2a and alpha2c adrenergic receptors are involved in the regulation of bone growth, structure and function. C.H. Gouveia, G.M. Martins, M.B. Teixeira, C.C. Costa and P.C. Brum. Univ. of São Paulo.

4:15 339.7 Cellular patterns of bat (Carollia) forelimb skeletogenesis and their biomechanical consequences. L.N. Cooper, J. Jast, R. Behringer, J.J. Rasweiler IV and K.E. Sears. Univ. of Illinois, Urbana, MD Anderson Cancer Ctr., Univ. of Texas and SUNY Downstate Med. Ctr.

340. REFRESHER COURSE—THE FACTS ABOUT FORMALDEHYDE: WHAT EVERY ANATOMIST SHOULD KNOW

Symposium
TUE. 2:30 PM—SAN DIEGO CONVENTION CENTER, 8
CHAIR: R. FISHER

Education & Teaching
2:30 Chair’s introduction.
2:34 340.1 Occupational formaldehyde exposure and cancer risk. L. Beane Freeman. NCI/NIH.


341. DISEASES OF THE NERVOUS SYSTEM

Symposium
(Sponsored by: CSAS and AAA)
TUE. 2:30 PM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: Y-Q. Li

Neurobiology
2:30 Chair’s introduction.
2:35 341.1 TEMEM166, a transmembrane protein, regulates cell autophagy and apoptosis in focal ferebral ischemia. C. Zhou. Peking Univ., China.


4:15 Discussion.

POSTER PRESENTERS:
UPLOAD YOUR POSTER

Where: E-Poster Counter, Hall D Lobby
Deadline: Wed., April 25, 3:30 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org

LAST DAY TO VISIT EXHIBITS

Tuesday, April 24
9:00 AM – 4:00 PM
Biochemistry and Molecular Biology

342. DELANO AWARD FOR COMPUTATIONAL BIO SCIENCES LECTURE

Award
TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 6B
8:30  Introductory remarks. A. Brunger.
8:35  342.1 Physical principles underlying cadherin-mediated cell-cell recognition. B. Honig, Columbia Univ. and HHMI.

343. WILLIAM C. ROSE AWARD LECTURE

Award
TUE. 9:05 AM—SAN DIEGO CONVENTION CENTER, 6B
9:05  Introductory remarks. C. Bustamante.
9:10  343.1 Touring the protein energy landscape: the view depends on where and how you look. S. Marqusee. Univ. of California, Berkeley.

344. TRANSCRIPTIONAL REGULATION DURING GROWTH AND DEVELOPMENT

Symposium
TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6F
CHAIR ED: J. WYSOCKA
9:55  Chair’s introduction.
10:00  344.1 Mechanisms of transcriptional regulation in the p53 network. J. Espinosa. HHMI, Univ. of Colorado Boulder.
10:25  Age-dependent regulation of non-coding RNAs in male germ cell development. A.C.S. Luk, S.H. Ng, W-Y. Chan and T-L. Lee. The Chinese Univ. of Hong Kong Sch. of Biomed. Sci. (922.17)
11:05  Liganded thyroid hormone receptor induces nucleosome removal and histone modifications to activate transcription during adult stem cell development. Y-B. Shi. NICHD/NIH. (922.1)
12:00  Conclusion.

345. NETWORKS AND SPACE

Symposium
TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6E
CHAIR ED: S. ALTSCHULER
9:55  Chair’s introduction.
10:00  345.1 Dynamic information flow during neutrophil polarization. L. Wu, C-J. Ku, Y. Wang, O. Weiner and S. Altschuler. Univ. of Texas Southwestern Med.Ctr. and UCSF.
10:40  345.2 Spatial organization of signaling in bacterial chemotaxis. V. Sourjik. ZMBH, Univ. of Heidelberg.
11:05  Robust and sensitive control of nitrogen sequestration in Escherichia coli. M. Kim, Z. Zhang, D. Yan, A. Groisman and T. Hwa. UCSD and Indiana Univ. Sch. of Med. (777.1)
11:20  Regulation of activation of Rac1 and Cdc42 GTPases in CHRF-288-11 cells. R.P. Bhullar and B. Xu. Univ. of Manitoba. (769.1)
11:35  345.3 Mechanical tension spatially restricts signals to the leading edge during neutrophil migration. O.D. Weiner. UCSF.
12:00  Conclusion.

346. FACTORS MODULATING PROTEIN QUALITY CONTROL

Symposium
TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6D
CHAIR ED: J. GESTWICKI
9:55  Chair’s introduction.
10:00  346.1 The interaction of factors required for ER-associated degradation. J.L. Brodsky. Univ. of Pittsburgh.
10:25  Role of p97 AAA ATPase in the autophagic-lysosomal degradation of hepatic CYP2B1. P. Acharya and M.A. Correia. UCSF. (547.1)
10:40  346.2 IP3 receptor processing by the ERAD pathway. R.J.H. Wojcikiewicz. SUNY Upstate Med. Univ.
11:05  Regulation of chaperone activity in the endoplasmic reticulum. K. Gehring and G. Kozlov. McGill Univ. (955.5)
12:00  Conclusion.

347. METABOLIC ENGINEERING: FROM ANTIBIOTICS TO BIOFUELS

Symposium
TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6C
CHAIR ED: D. CANE
9:55  Chair’s introduction.
10:00  347.1 Harnessing unusual precursors in polyketide biosynthesis. M.G. Thomas and H. Park. Univ. of Wisconsin-Madison.

11:20 Heterologous expression of human phosphodiesterase 3A improves ethanol production in *Saccharomyces cerevisiae*. D.K. Rhee, S.C. Hockman, F. Ahmad and V.C. Manganelli. NHLBI/NIH. (960.1)


10:40 347.3 Metabolic engineering of *Saccharomyces cerevisiae* for alkaloid production. C.D. Smolke. Stanford Univ.

12:00 Conclusion.

348. CANCER CELL METABOLISM

Symposium

*TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6A*

CHAIR: R. SHAW

9:55 Chair’s introduction.


10:40 348.2 Role of MCT1 in cancer metabolism. H. Christofk. UCLA.

11:05 BRAFV600E- and PI3'K-activated signaling pathways cooperate to regulate phosphorylation of ribosomal protein S6 in human melanoma cells. J.M. Silva and M. McMahon. UCSF. (967.8)


12:00 Conclusion.

349. NOVEL METABOLIC ROUTES OF GLYCOCONJUGATE ASSEMBLY

Symposium

*TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1B*

CHAIR: J. HANOVER

9:55 Chair’s introduction.


10:25 Unusual chemical and enzymatic stability of polysialic acid containing N-glycolylneuraminic acid. L. Davies, O. Pearce, M. Tessier, S. Assar, V. Smutova, A. Pshezhetsky, R. Woods and A. Varki. UCSD, Univ. of Georgia and CHU Sainte-Justine, Univ. of Montreal. (610.1)


12:00 Conclusion.

350. PROMOTING CONCEPT DRIVEN TEACHING STRATEGIES IN BMB THROUGH CONCEPT ASSESSMENT

Symposium

*(Supported by an educational grant from National Science Foundation)*

*TUE. 9:55 AM—SAN DIEGO CONVENTION CENTER, 1A*

CHAIR: E. BELL

9:55 Welcome and session overview. E. Bell. Univ. of Richmond.

10:00 Teaching and learning evolutionary principles, Socratically. M. Klymkowsky. Univ. of Colorado Boulder.


11:30 Using a concept inventory to gauge student understanding in a large class. C. Bailey. Univ. of Nebraska, Lincoln.

12:00 Discussion.

351. WORK LIFE BALANCE: A PROFESSIONAL DEVELOPMENT WORKSHOP FOR STUDENTS, POSTDOCS AND JUNIOR FACULTY

Workshop

*(Sponsored by: ASBMB Membership Committee)*

*TUE. 12:30 PM—SAN DIEGO CONVENTION CENTER, 11A*

CHAIR: S. R. PFEFFER

Dr. Suzanne Pfeffer, ASBMB President, will engage participants in a discussion to address work-life balance and the practice of successful time management to achieve and sustain personal and professional satisfaction.

Lunch available for pre-registered event attendees.
352. **ASBMB YOUNG INVESTIGATOR AWARD LECTURE**

**Award**

**TUE. 2:55 PM—SAN DIEGO CONVENTION CENTER, 6B**


3:00 352.1 Black spot, black death, black pearl: the tales of bacterial effectors. K. Orth. Univ. of Texas Southwestern Med. Ctr.

3:00 352.2** RNA-BASED REGULATION: A DIVERSITY OF MECHANISMS**

**Symposium**

**TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6F**

**CHAIR: T. JOHNSON**

3:45 Chair’s introduction.


5:50 Conclusion.

354. **COUPLING OF DNA REPAIR AND REPLICATION**

**Symposium**

**TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6E**

**CHAIR: L. SYMINGTON**

3:45 Chair’s introduction.

3:50 354.1 Replication forks restarted by homologous recombination display a high frequency of errors at inverted repeats. A.M. Carr and J.M. Murray. Univ. of Sussex, U.K.

4:15 Multiple forms of the E. coli SOS response protein UmuD. J.N. Ollivierre, Q. Huang and P.J. Beuning. Northeastern Univ. (539.7)


5:10 Complex formation between LL-37 and CpG DNA: thermodynamic properties and effects in a prostate cancer progression model. M.L. Craig, C. Dodson, A.S. Gupta and P.D. Deeble. Mary Baldwin Col., VA. (740.6)


5:50 Conclusion.

355. **ORGANIZATION OF THE SECRETORY PATHWAY**

**Symposium**

**TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6D**

**CHAIR: C. RABOUILLE**

3:45 Chair’s introduction.


4:30 355.2 Self-organization of transitional ER sites. B. Glick, Y. Liu, N. Bharucha, E. Montega and D. Bhattacharyya. Univ. of Chicago and ACTREC, Navi, Mumbai, India.


5:10 Time-dependent changes in long range sphingolipid organization revealed by high-resolution secondary ion mass spectrometry. M.L. Kraft, H.A. Klitzing, K. Lou, J. Zimmerberg and P.K. Weber. Univ. of Illinois at Urbana-Champaign, NICHD/NIH and Lawrence Livermore Natl. Lab. (987.1)


5:50 Conclusion.

356. **TARGETED CANCER DRUG DEVELOPMENT: DEFINING MOLECULAR PROFILES OF SENSITIVITY**

**Symposium**

**TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6C**

**CHAIR: W. HAHN**

3:45 Chair’s introduction.


### 357. LIPID SIGNALING, INFECTION AND ATHEROSCLEROSIS

**Symposium**  
**TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 6A**  
**CHAIRIED: P. ESPENSHADE**

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<th>Time</th>
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<tr>
<td>3:45</td>
<td>Chair's introduction.</td>
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<td>3:50</td>
<td><strong>357.1</strong> Diacylglycerol acyltransferase 1 functions as a cellular hub to target hepatitis C virus proteins NS5A and core to lipid droplets. M. Ott, G. Camus, E. Herker, C. Harris and R.V. Farese. Gladstone Insts. and UCSF.</td>
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<td>4:15</td>
<td>Bile acids induce diacylglycerol kinase-θ expression in HepG2 liver cells. K. Cai and M.B. Sewer. Skaggs Sch. of Pharm. and Pharmaceut. Sci., UCSD.</td>
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<td>4:30</td>
<td><strong>357.2</strong> Genomics and lipidomics of macrophage activation. C.K. Glass. UCSD.</td>
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<td>4:55</td>
<td>Defining the role of SREBPs in viral infection. A.G. York and S.J. Bensinger. UCLA.</td>
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<td>5:50</td>
<td>Conclusion.</td>
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### 358. BIOCHEMICAL MEDIATORS OF THE HOST-PATHOGEN INTERACTION

**Symposium**  
**TUE. 3:45 PM—SAN DIEGO CONVENTION CENTER, 1B**  
**CHAIRIED: C. BARRY, III**

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<td>3:45</td>
<td>Chair's introduction.</td>
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<td>3:50</td>
<td><strong>358.1</strong> Bioorthogonal chemistries for glycoprofiling and beyond. C.R. Bertozzi. Univ. of California, Berkeley.</td>
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<td>4:30</td>
<td><strong>358.2</strong> Effects of mycobacteria or HIV on the host antimicrobial peptide cathecidin. S.C. Flores and J.R. Honda.  Univ. of Colorado Sch. of Med.</td>
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<td>5:50</td>
<td>Conclusion.</td>
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### 359. ASBMB WOMEN SCIENTISTS’ NETWORKING EVENT/RECEPTION

**Special Event**  
**TUE. 6:00 PM—SAN DIEGO CONVENTION CENTER, 11A**

Join author and fellow biochemist, Ellen Daniell, for a topical discussion of how women scientists can better support each other.

**E. Daniell, author, *Every Other Thursday: Stories and Strategies from Successful Women Scientists***

### Nutrition

**360. MONOUNSATURATES: THE FORGOTTEN FATS**

**Symposium**  
**(Supported by an educational grant from Haas Avocado Board)**  
**TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 20D**  
**CHAIRIED: D. Heber**

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<th>Time</th>
<th>Session</th>
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<tr>
<td>8:00</td>
<td>Welcome and brief overview of dietary MUFA. D. Heber.</td>
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<td>David Geffen Sch. of Med., UCLA.</td>
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<td>8:24</td>
<td>Effect of MUFA on glycemic control and satiety. J. Sabate.</td>
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<td>Loma Linda Univ.</td>
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<td>8:48</td>
<td>Acute effects of monounsaturated fatty acids with and without omega-3 fatty acids on vascular reactivity in individuals with type 2 diabetes. P. M. Kris-Etherton. Penn State.</td>
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<td>9:12</td>
<td>Effects of MUFA on visceral fat and inflammation. Z. Li.</td>
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<td>David Geffen Sch. of Med., UCLA.</td>
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<td>9:36</td>
<td>MUFA-rich foods in weight management. R. Mattes.</td>
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<td>Purdue Univ.</td>
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361. EXPANDING THE FRONTIERS OF NUTRITION RESEARCH: NEW QUESTIONS NEW METHODS AND NEW APPROACHES

Symposium
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: D. PELLETER
COCHAIR: C. PORTER

8:00 Frontiers in nutrition research: new questions, new methods and new approaches (overview). D. Pelletier. Cornell Univ.

8:30 The Food Dignity Project: action research and CBPR as frontiers in nutrition. C. Porter. Univ. of Wyoming.

9:00 Implementation science in developing countries: a sampling of questions, methods and approaches in large scale micronutrient programs. L. Neufeld and S. Wuehlen. Micronutrient Initiative, Ottawa.

9:30 Implementation science within the U.S.: questions, methods and approaches and state of the field. G. Aarons. UCSD.

362. FOOD AND NUTRITION BOARD UPDATE: NOT AT ALL QUIET ON THE LABELING FRONT, AND REMARQUES ABOUT SODIUM

Symposium
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: L. MEYERS
COCHAIR: D.M. BIER

Education
Public Policy

8:00 Welcome and Food and Nutrition Board update. L. D. Meyers. IOM.

8:05 IOM report on front of package nutrition systems and symbols. D. M. Bier. USDA, Houston.


9:30 Moderated discussion including audience participation - What's happening now? What's anticipated? How do we document the impact? TBD.

363. EFFECTS OF DIETARY BIOACTIVE COMPONENTS ON EXPERIMENTAL MODELS OF CHRONIC DISEASE RISK

Minisymposium
(Sponsored by: Dietary Bioactive Components RIS)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: J. WHelan
COCHAIR: M. PICKLO

8:00 363.1 Pyrroloquinoline quinone (pqq) and indicators of antioxidant potential, inflammation and metabolism in humans. R.B. Rucker, C. Harris, W. Chownadisai and C. Slupsky. Univ. of California, Davis.


8:45 363.4 Effects of leucine on mitochondrial biogenesis and cell cycle in A-375 melanoma cells. T.M. Flihiol, M.E. Johnstone and M.B. Zemel. Univ. of Tennessee, Knoxville.

9:00 363.5 Cinnamon counteracts the negative effects of a high fat/high fructose diet on brain insulin signaling and behavior. B. Qin, F. Canini, A.M. Roussel and R.A. Anderson. USDA, Beltsville, MD, Integrity Nutraceut. Intnl., Spring Hill, TN, CRSSA Army Res. Ctr. for Hlth., Grenoble and Joseph Fourier Univ., Grenoble.


364. OBESITY, INFLAMMATION AND NUTRIGENOMICS

Minisymposium
(Sponsored by: Nutrient Gene Interactions RIS)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 32A
CHAIR: D. HWANG
COCHAIR: T. ANTHONY

8:00 364.1 Effects of prebiotic inclusion and chain length on intestinal barrier, histomorphology, and mRNA abundance in obese C57BL/6J mice. K.D. Cephas, H.F. Mangian, K.A. Tappend and K.S. Swanson. Univ. of Illinois at Urbana Champaign.

LAST DAY TO VISIT EXHIBITS

Tuesday, April 24
9:00 AM – 4:00 PM
8:15 364.2 Purified diets are obesigenic, promote insulin resistance and confer sensitivity to chemical coitogens. J.D. Aitken, M. Vijay-Kumar, G. Srinivasan and A. Gewirtz. Georgia State Univ.


365. MICRONUTRIENT BIOAVAILABILITY

Minisymposium
(Sponsored by: Vitamins and Minerals RIS)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30D
CHAIR: L. SALDANHA
COCHAIR: E. JANLE

8:00 365.1 Vitamin D3 supplementation leads to increased total calcium absorption in 4- to 8-year-old children. S. Abrams, K. Hawthorne and Z. Chen. Baylor Col. of Med.


9:00 365.5 Plasma alpha-tocopherol transport studied using deuterium-labeled collar greens. M.G. Traber, S.W. Leonard, X. Fu, M.A. Grusak and S. Booth. Oregon State Univ., USDA at Tufts, USDA, Houston and Baylor Col. of Med.


9:45 365.8 Biofortified red mottled beans (Phaseolus vulgaris L) in a maize and bean diet provide more bioavailable iron than standard red mottled beans: studies in poultry (Gallus gallus) and an in vitro digestion/Caco 2 model. E. Tako, M.W. Blair and R.P. Glahn. USDA, Ithaca and Cornell Univ.

366. DIET AND CANCER: MOLECULAR TARGETS

Minisymposium
(Sponsored by: Diet and Cancer)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30C
CHAIR: N. Emenaker
COCHAIR: H. Xiao


8:15 366.2 BRCA-1 promoter hypermethylation and silencing induced by the aromatic hydrocarbon receptor and preventative effects of resveratrol. A. Papoutsis, J. Borg, O. Selmin and D. Romagnolo. Univ. of Arizona.


8:45 366.4 DHA alters EGFR spatiotemporal dynamics to suppress signal transduction. H.F. Turk and R.S. Chapkin. Texas A&M Univ.

9:00 366.5 Synergistic inhibition of lung cancer cell growth by nobiletin and atorvastatin in combination. N. Chaoensinphon, J. Zheng, P. Qiu, P. Nauw and H. Xiao. Univ. of Massachusetts Amherst and Ocean Univ. of China.


9:45 366.8 Bovine lactoferrin and bovine lactoferricin are internalized by colon cancer cells and exhibit elevated apoptosis. R. Jiang and B. Lönnerdal. Univ. of California, Davis.
367. NUTRITION, COGNITIVE, PHYSICAL AND FUNCTIONAL HEALTH IN OLDER ADULTS

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30B

CHAIRED: D. HOUSTON

COCHAIR: C. TANGNEY

8:00 Overview.


8:30 367.2 Memory performance is related to dietary, metabolic, and inflammatory parameters in older adults. D.L. Ballantyne, M.D. Shidler, R. Krikorian and S-Y. Lee. Univ. of Cincinnati and Univ. of Cincinnati Acad. Hlth. Ctr.


9:15 367.5 Intergenerational exergaming physical activity program increases flexibility and strength in older adults. K.A. Strand, S.L. Francis, J.A. Margrett, W.D. Franke and M.J. Peterson. Iowa State Univ.


9:45 Summary.

368. BREASTFEEDING: DETERMINANTS INITIATION, DURATION AND OTHER LACTATION SUCCESS OUTCOMES

Minisymposium

(Sponsored by: Lactation RIS)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 30A

CHAIRED: C. LOVELADY

COCHAIR: B. OLSON


8:15 368.2 Poor positioning, decreased prolactin levels, and low milk output associated with early cessation of exclusive breastfeeding in obese women. L.E. Hauff and E.W. Demerath. Cornell Univ. and Univ. of Minnesota, Minneapolis.


8:45 368.4 Maternal hospital experiences and exclusive breastfeeding in the first six months among WIC participants. M. Koleilat, S. Whaley and L. Jiang. PHFE WIC Prog., Irwindale, CA.


369. CHILD NUTRITION AND GROWTH: ISSUES AND CHALLENGES

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29C

CHAIRED: K. KORDAS

COCHAIR: N. AHLUWALIA

8:00 Overview.


8:30 369.2 Lower dairy calcium and dairy vitamin D intakes are associated with increased skeletal muscle fatty infiltration in adolescent girls. D. Vassallo, V. Lee, M. Lauderml, R. Blew and S. Going. Univ. of Arizona and Univ. of Pennsylvania.


9:30  369.6 Inflammation, iron status, and growth of school-age children: a prospective study. W. Perng, A. Baylin, C. Marin, M. Mora-Plazas and E. Villamor. Univ. of Michigan Sch. of Publ. Hlth. and Natl. Univ. of Colombia.

9:45  369.7 Ethnic disparity in body mass index among 5-to-8-year-old children in Hawaii. R. Novotny, C.E.S. Oshiro and L.R. Wilkens. Univ. of Hawaii at Manoa, Kaiser Permanente Hawaii and Univ. of Hawaii Cancer Ctr., Honolulu.

1165. ENERGY BALANCE, MACRONUTRIENT AND WEIGHT MANAGEMENT

Minisymposium
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 29D
CHAIR: M. VAN LOAN
COCHAIR: L. WHIGHAM

8:00  The effects of low, moderate, or high protein yogurt snacks on appetite control and subsequent eating in healthy women. S.M. Douglas, L.C. Ortinau, H.A. Hoertel and H.J. Leidy. Univ. of Missouri-Columbia. (820.37)

8:30  Effect of resistance training on changes in body composition and macronutrient utilization after weight loss in older women. J. Zhou and W.W. Campbell. Purdue Univ. (820.39)


370. ADIPOSE DYSFUNCTION, INTERACTION OF ROS AND INFLAMMATION

Symposium
(Supported by educational grants from Nestle, Kraft Foods, Inc. and USDA ARS)
(Sponsored by: Nutrient-Gene Interaction RIS, Obesity RIS, and Energy and Macronutrient Metabolism RIS)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: M. PICKLO
COCHAIR: K. CLAYCOMBE AND M. MEYDANI

10:30  The good, the bad and the ugly: adaptive and pathologic roles of inflammation and ROS in obesity. M. S. Obin. USDA at Tufts Univ.

11:00  The effect of macrophage secreted factors on preadipocyte fate: adipogenesis and survival. A. Sorisky. Univ. of Ottawa.


12:00  The Nrf2/anti-oxidant pathway and adipocyte function. J. Chan. Univ. of California, Irvine.

371. THE FUTURE OF NUTRITION RESEARCH

Symposium
(Sponsored by: Public Policy Committee)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: S.M. HUTSON

Public Policy

Career Development


10:40  Identifying nutrition research gaps. S. Hutson. Virginia Tech.

10:50  The future of nutrition research. R. M. Russell. ODS/NIH


Speakers: J. Milner, NCI/NIH
D. Bier, Children's Nutr. Res. Ctr., Houston
A. C. Ross, Pen State
Z. Li, UCLA
D. Klurfeld, USDA, Beltsville, MD.
J. Mein, Monsanto
P. Stover, Cornell Univ.
372. CLINICAL NUTRITION UPDATE 2012

Symposium
(Supported by an educational grant from Abbott Nutrition)
(Sponsored by: Medical Nutrition Council (MNC))

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: E. SALTZMAN
COCHAIR: C.W. BALES AND M.A. JOHNSON

Education
Career Development
12:06 Update on hospital nutrition support. T. R. Ziegler. Emory Univ.

373. DIETARY BIOACTIVE COMPONENTS

Minisymposium
(Supported by an educational grant from Abbott Nutrition)
(Sponsored by: Dietary Bioactive Components RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32B
CHAIR: K.J. YEUM
COCHAIR: J.B. BLUMBERG AND STUDENT CHAIR: K. ZUNGLIA

10:30 Overview.
10:45 373.1 Comparison of phenolic acid profiles and anti-inflammatory effects of two major species of blueberries in the U.S. J. Kang, K.M. Thakali and X. Wu. Univ. of Arkansas for Med. Sci.
11:15 373.3 Flavan-3-ol isolated from rhizome of Drynaria fortunei (Kunze) J. Sm. exerts osteoprotective effects via its actions on osteoblastogenesis and osteoclastogenesis. M-S. Wong, K-C. Wong, X. Dong, M-C. Law and T-H. Chan. The Hong Kong Polytech Univ.
12:00 373.6 Preliminary characterization of secreted bioactive compounds from Bifidobacterium longum with modulatory activity towards enterocytic fasting induced adipocyte factor. P. Pham, R. Cotten, T. Kolinek, S. Parker, D. Vattem and V. Maitin. Texas State Univ., San Marcos.

374. CHILDHOOD OBESITY: WHEN SHOULD WE INTERVENE?

Minisymposium
(Sponsored by: Obesity RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 32A
CHAIR: S. GOODELL
COCHAIR: W. DIETZ

10:30 374.1 Gestational weight gain is associated with postpartum weight retention and infant anthropometrics. F. Begum, I. Colman, L. McCargar, R.C. Bell and APRON. Study Team. Univ. of Alberta and Univ. of Ottawa.
10:45 374.2 Breastfeeding and obesity: WIC policy changes increase breastfeeding rates and reduce obesity at age four. S. Whaley, M. Koleilat and M. Whaley. PHFE WIC Prog., Irwinda, CA.
11:00 374.3 Early obesity prevention: a randomized trial of a practice-based intervention in 0-24 months infants. N. Schroeder, B. Rushovich, E. Bartlett, J. Gittelsohn and B. Cabalerio. USDA, Beltsville, Univ. of Maryland Baltimore and Johns Hopkins Univ.
375. INTESTINAL PHYSIOLOGY AND DIGESTIVE FUNCTION

Minisymposium
(Sponsored by: Experimental Animal Nutrition RIS)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30D
CHAIR: J. ODLE
COCHAIR: S.W. KIM

10:30  Overview.
10:45  375.1 Development of a simple in vitro digestion model suitable for multi-nutrient food systems. V.M. Garcia-Campayo, K. Ross, P. Ayeni, A. Bonnema and A. Berger. Cargill Inc., MN.
11:00  375.2 Development of a proof of concept bioassay core laboratory for in vivo testing of functional food products in animal models. K.L. McCutcheon, R.J. Martin and M.J. Keenan. LSU AgCtr.
11:15  375.3 Chronic antibiotic administration increases intestinal mass but inhibits functional adaptation in an intestinal failure piglet model. J.L. Barnes and K.A. Tappenden. Univ. of Illinois at Urbana-Champaign.
11:45  375.5 The gut microbiome of kittens is affected by dietary protein: carbohydrate ratio and correlated with blood metabolite and hormone concentrations. S. Hooda, B.M. Vester Boer, S.E. Dowd and K.S. Swanson. Univ. of Illinois, Urbana and Res. and Testing Lab., Lubbock.
12:00  375.6 Adaptation to every other day feeding leads to an increase in small intestine transit-amplifying cells and a decrease in gonadal fat. A.T. Mah, L. Van Landeghem, R.E. Blue and P.K. Lund. Univ. of North Carolina at Chapel Hill.

376. DIET AND CANCER: ANIMAL STUDIES

Minisymposium
(Sponsored by: Diet and Cancer RIS)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30C
CHAIR: M.Y. HONG
COCHAIR: N. SIRIWARDHANA

10:45  376.2 Dietary supplementation with methylseleninic acid, but not selenomethionine, reduces spontaneous metastasis of Lewis lung carcinoma in mice. L. Yan and L.C. Demars. USDA, Grand Forks.
11:00  376.3 Polyphenolic extract from Mangifera indica is cytotoxic in ER+ BT474 breast cancer cells and targets the SHIP-1-phosphatidylinositol3-kinase-Akt through microRNA-155. N. Banerjee, S. Arbizu, K.A. Krenek and S.M. Talcott. Texas A&M Univ.
11:15  376.4 The effect of tomato powder, soy germ, or a combination on prostate carcinogenesis in TRAMP mice. K. Zuniga, S. Clinton, J.M. Thomas-Ahner and J.W. Erdman, Jr. Univ. of Illinois at Urbana-Champaign and The Ohio State Univ.
12:00  376.7 Effects of high-fat diet on intestinal permeability and inflammation-associated tumorigenesis. M-Y. Kim, Y-J. Bae, Y-K. Bak, J. Kim and M-K. Sung. Sookmyung Women's Univ. and Hanbuk Univ., South Korea.

377. TRANSLATION OF NUTRITION SCIENCE TO PUBLIC HEALTH

Minisymposium
(Sponsored by: Nutrition Translation RIS)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30B
CHAIR: B. RICE

10:30  Overview.
11:15  377.3 Correlation of the nutrition metric profiling tool. A. Magness, M. McAllaster, K. McInnis, C. Roberts-Gray, S. Sweitzer and M. Briley. Univ. of Texas at Austin, Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Third Coast R&D, Galveston.
12:15  Summary.
378. GLOBAL HEALTH: DIETARY INTAKES AND HEALTH OUTCOMES IN DIVERSE POPULATIONS

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 30A

CHAIR: J. McDermid

COCHAIR: L. Troy

10:30 378.1 Burden and determinants of childhood undernutrition in an urban slum community in Ibadan, Nigeria. F.O. Samuel and F.B. Fadeyi. Univ. of Ibadan, Nigeria.


11:00 378.3 Race, diet, and body size contribute to skeletal parameters in female adolescents. B. Martin, C. Whisner, L. Delany and C.M. Weaver. Purdue Univ.


11:45 378.6 Food-waste study in 10 classes of first grade students to examine the proposed USDA guidelines for the School Breakfast Program 2011. N. Carr and S. Kranz. Purdue Univ.


379. DIETARY SUPPLEMENTS AS A POPULATION EXPOSURE IN CAUSATION, PREVENTION AND MANAGEMENT OF DISEASE

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29D

CHAIR: R. Bailey

COCHAIR: Y. Song

10:30 379.1 Making sense of dietary supplement research and a framework for the future. P.M. Coates and R. Bailey. ODS/NIH.


11:00 379.3 Dietary supplement use during pregnancy: results from the National Health and Nutritional Examination Survey. A. Branum, B. Singer and R. Bailey. Ctrs. for Dis. Control and Prevent., Hyattsville, MD, Univ. of Maryland College Park and ODS/NIH.


11:45 379.6 Dietary supplement users report physicians are primary source of information in East and West geographic regions. A. Kazaks, M. Rozga and J. Stern. Bastyr Univ., WA, Michigan State Univ., Univ. of California, Davis.


380. BEHAVIORAL SCIENCE AND EATING BEHAVIOR CHANGE

Minisymposium

(Sponsored by: Nutrition Education RIS)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 29C

CHAIR: Y. Chu

COCHAIR: M. Spence and STUDENT CHAIR: S. Hirshberg

10:30 380.1 Social influences on sugar consumption during pregnancy. J. Graham, L.E. Forbes, M. Mayan, L. McCargar, R.C. Bell and Sweet Moms Team. Univ. of Alberta.

10:45 380.2 Association of the parental feeding practices and type and home availability of sugar-sweetened beverages and fruit juice of preschool children from low income families. K. Lora, C. Quesada, D. Wakefield and A. Ferris. Univ. of Connecticut Hlth. Ctr., East Hartford.

11:00 380.3 Relationship between executive function, mood, and eating behavior in preschoolers. J. Pieper and K. Lauigo. Univ. of California, Davis and USDA, Davis.


381. W.O. ATWATER LECTURE

Keynote Lecture
(Supported by an educational grant from USDA, Beltsville)
(Sponsored by: USDA, Beltsville)
TUE. 12:45 PM—SAN DIEGO CONVENTION CENTER, 20D
Title: From Instinct to Intellect: 150 Years in Evolution of Energy Balance in Man
Speaker: J. O. Hill. Univ. of Colorado Denver.

382. EMERGING BIOMARKERS FOR CARDIOVASCULAR DISEASE: BEYOND LDL CHOLESTEROL

Symposium
(Supported by an educational grant from National Dairy Council)
TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: K.M. PARK
COCHAIR: B.H. RICE

3:30 Should we target HDL-cholesterol to reduce coronary heart disease risk? G. A. Francis. UBC James Hogg Res. Ctr.
4:00 The impact of nutrition on inflammatory biomarkers of cardiovascular disease. I. Jialal. Univ. of California, Davis.

383. INTERVENTION POINTS IN OBESITY: HOW EFFECTIVE ARE WORKSITE INTERVENTIONS FOR WEIGHT CONTROL AND REDUCING EXCESS HEALTH CARE COSTS ASSOCIATED WITH OBESITY?

Symposium
(Sponsored by: Medical Nutrition Council (MNC) and Obesity RIS)
TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: S.B. Roberts

3:00 Introduction. S. B. Roberts. USDA at Tufts Univ.
3:05 Worksite interventions for primary prevention of weight gain. S. Beresford. Univ. of Washington.
4:00 Cost-benefit projections for health care savings associated with worksite weight loss programs. C. Meyerhoefer. Lehigh Univ.
4:30 Panel discussion.

384. SCIENTIFIC CAREER ADVANCEMENT FOR EARLY STAGE INVESTIGATORS

Symposium
(Sponsored by: Young Professional Interest Group (YPIG))
TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29A/B
CHAIR: V.V. Potter

Education

Career Development

3:00 Upper level scientist from government agency. K. M. O’Connell. USDA.
3:40 New professor from research university. J. W. Perfield. Univ. of Missouri-Columbia.
4:00 New professor from small liberal arts college. K. F. Hilpert. SUNY Oneonta.
4:20 Tenured professor from research university. E. M. Evans. Univ. of Georgia.
4:40 New professor from medical school. A. L. Hevener. UCLA.
385. CARDIOVASCULAR EFFECTS OF DIETARY BIOACTIVE COMPONENTS

Minisymposium

(Sponsored by: Dietary Bioactive Components RIS)

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32B

CHAIR: D. KLIMIS-ZACAS

COCHAIR: J.Y. LEE AND STUDENT CHAIR: K. SANT

3:00 385.1  Grape polyphenols improve blood pressure and vascular function in men with metabolic syndrome. J. Barona, J.S. Volek and M.L. Fernandez. Univ. of Connecticut and Univ. of Antioquia, Colombia.

3:15 385.2  A mixture of grape seed and skin extract, green tea extract, resveratrol, and quercetin reduces blood pressure in hypertensive subjects with metabolic syndrome. T. Jalili, S. Beisinger, A. Quadros and A. Rabovsky. Univ. of Utah and Melaluca Inc., Idaho Falls.

3:30 385.3  Arterial stiffness and blood pressure are reduced after watermelon supplementation in obese with prehypertension and hypertension. A. Sanchez-Gonzalez, A. Wong and B.H. Arjmandi. Florida State Univ.


4:00 385.5  Wild blueberry consumption markedly attenuates concentration and expression of inflammatory markers in the obese Zucker rat. S. Vendrame, A. Daugherty, A.S. Kristo and D. Klimis-Zacas. Univ. of Maine.

4:15 385.6  Hypolipidemic effect of a blue-green alga, Nostoc commune var. sphaeroides Kützing, is attributed to algal residue but not lipid extract in C57BL/6J mice. C.S. Ku, B. Kim, T.X. Pham, Y. Yang, Y. Park, T.P. Carr, C. Weller and J. Lee. Univ. of Connecticut and Univ. of Nebraska-Lincoln.

4:30 385.7  Whole apple but not apple pectin affects cardiac pathology and the oxidative stress/antioxidant transcriptome in obese rats. E.M. Seymour, P.R. Bricker, K.N. Bosak, M.G. Kondoleon and S.F. Bolling. Univ. of Michigan.


386. VITAMIN D AND OBESITY: FROM CELLULAR TO CLINICAL TRIALS

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 32A

CHAIR: C. PALACIOS

COCHAIR: M.J. HAMADEH


3:15 386.2  Vitamin D regulates apoptosis in adipocytes via Ca²⁺ signaling. I.N. Sergeev, South Dakota State Univ.


3:45 386.4  Association between vitamin D metabolites in fat tissue and serum 25-hydroxyvitamin D in overweight and obese adults. B.D. Piccolo, E. Gertz, A.P. Thomas, N.L. Keim, S.H. Adams, E. Seyoum, G. Dolnikowski and M. Van Loan. Univ. of California, Davis, USDA, Davis and USDA at Tufts Univ.

4:00 386.5  Association between vitamin D status, cardiometabolic risk factors and metabolic syndrome in Puerto Rican adults. C. Palacios, C. Perez, M. Guzman, A.P. Ortiz and E. Suarez. Sch. of Publ. Hlth. and Sch. of Med., Med. Sci. Campus, Univ. of Puerto Rico.


4:45 386.8  Vitamin D and TNF-alpha effects on adipogenesis and inflammation in human adipocytes. R.J. Wood, B.E. Gray, Y-C. Kim and A.G. Ronnenberg. Univ. of Massachusetts Amherst.

387. RISK FACTOR MODIFICATION IN CHRONIC DISEASE I: MACRONUTRIENT MANIPULATION

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30D

CHAIR: C. BALES

COCHAIR: C. TANGNEY


Abstract 387.3 moved to the end of Tuesday Poster Session 812.


388. DIET AND CANCER: TRANSLATIONAL, CLINICAL AND SURVIVORSHIP

Minisymposium

(Sponsored by: Diet and Cancer RIS)

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30C

CHAIR: J. WHELAN

COCHAIR: J.R. ZHOU

3:00 Overview.


3:30 388.2 Alcohol and breast cancer risk in five ethnic groups: the Multiethnic Cohort. S-Y. Park, L.N. Kolonel, B.E. Henderson and L.R. Wilkens. Univ. of Hawaii Cancer Ctr. and Univ. of Southern California.


389. REVITALIZING LOCAL FOOD SYSTEMS

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 30B

CHAIR: C. PORTER

COCHAIR: N. FITZGERALD


3:45 389.4 Successful strategies and barriers to community gardening in metro Atlanta, Georgia. J.L. Self, A. Wyatt and A. Webb Girard. Emory Univ.

4:00 389.5 Nutrition education and cooking classes with teen and adolescent mothers. I. Scripa, C. Dobson, E. Yamaguchi and M. Taylor. Univ. of North Carolina at Greensboro and YWCA of Greensboro.


3:45 390.1 Understanding American-Indian children's perceived barriers and facilitators to following the Dietary Guidelines for Americans. L. Jahns, A. Wadsworth, C. Morin and L.R. McDonald. USDA, Grand Forks, Cankdeska Cikana Community Col. and Four Winds Community Sch., ND.

390. LACTATION: BIOLOGY OF MILK PRODUCTION AND SECRETION

Minisymposium
(Sponsored by: Lactation RIS)
TUE. 4:15 PM—SAN DIEGO CONVENTION CENTER, 30A
CHAIR: M. McGuire
COCHAIR: F. Hassiotou

3:00 Overview.
3:15 390.2 The immunological cellular and biochemical contents of breastmilk respond to maternal or infant infections. F. Hassiotou, P. Metzger, N. Trengove, C. Tat Lai, P. Hartmann and L. Filgueira. Univ. of Western Australia, Crawley and Albert Ludwigs Univ. Freiburg.
4:00 390.4 Elevated dairy fat intake by lactating women increases milk fat and alters fatty acid profile, but does not change gene expression in the milk fat globule transcriptome. K.M. Hunt, S.L. Brooker, J.E. Williams, M.K. McGuire and M.A. McGuire. Univ. of Idaho and Washington State Univ.
4:30 390.6 ZnT4 transports zinc to critical zinc-dependent proteins in the trans-Golgi network and exports Zn across the cell membrane in mammary epithelial cells. N. McCormick and S.L. Kelleher. Penn State.

391. FEEDING YOUNG CHILDREN

Minisymposium
(Sponsored by: Community and Public Health Nutrition RIS)
TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29D
CHAIR: K. Harding
COCHAIR: T. Erinsho

3:00 391.1 Intergenerational transmission of factors that determine infant feeding practices: a qualitative approach to examining Guatemalan maternal experiences. R. Garcia, O. Padilla, C.M. Doak, M. Vossenaar and N.W. Solomons. CeSSIAM, Guatemala City and VU Univ., Amsterdam.
3:45 391.4 Evaluating the quality of foods and beverages offered to preschool children at childcare centers using the Healthy Eating Index-2005. T. Erinosho, S. Ball, P. Hanson and D. Ward. Univ. of North Carolina at Chapel Hill.
4:00 391.5 Contribution of leading food sources, meals and presentations to dietary intake in government sponsored day-care centers in Guatemala (SOSEP). L. Hernández, G. Montenegro-Bethancourt, L. Kim, O.I. Bermudez, M. Vossenaar and N.W. Solomons. CeSSIAM, Guatemala City and Tufts Univ. Sch. of Med.
4:30 391.7 Is fruit and vegetable intake of preschool children associated with parental feeding practices? J.E. Shim, J. Kim and STRONG Kids Research Team. Seoul Natl. Univ. and Univ. of Illinois at Urbana-Champaign.

392. MICRONUTRIENTS: MEASUREMENT, INTERVENTION AND OUTCOMES

Minisymposium
(Sponsored by: International Nutrition Council (INC))
TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 29C
CHAIR: P. Christain
COCHAIR: R. Wessells

3:00 Overview.


Pathology

393.  SCIENTIFIC SLEUTHING OF HUMAN DISEASE FOR HIGH SCHOOL TEACHERS

Special Session
(Supported by an educational grant from Intersociety Council for Pathology Information)
(Sponsored by: ASIP Education Committee)
TUE. 8:30 AM—SAN DIEGO MARRIOTT MARQUIS & MARINA, DEL MAR
CHAIR: K. Nejak-Bowen and M.B. Furie

Education
Are you a high school science teacher interested in integrating concepts of human disease into your regular science curricula, or an undergraduate from a local college or university who is interested in learning more about pathology? If so, this workshop is for you! “Scientific Sleuthing of Human Disease for High School Teachers” will include presentations and handouts by three leading research pathologists on specific topics appropriate for classroom use, as well as information on pathology resources on the web. And this year we are adding a special “hands-on” component, where workshop attendees will have the opportunity to examine plasticized lung specimens up close and personal! The session will end with a tour of the latest scientific equipment and advances in technology in the Convention Center exhibit hall. Teachers are also welcome to bring students who have completed or are enrolled in an advanced biology course.

Space in this free workshop is limited, so register early!

8:30  Check-in and continental breakfast.
10:15 Break.
11:15 Break.
12:15 Tour the exhibits.

394.  MOLECULAR AND CELLULAR BASIS OF DISEASE: HOST-MICROBE INTERACTIONS: THE MICROBIOTA AND SYSTEMIC DISEASE

Symposium
TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR: A.S. Neish
COCHAIR: S. Lynch

Host-Microbe Interactions

10:00 Microbiota in systemic autoimmunity. A. V. Chervonsky. Univ. of Chicago.
10:45  Lactobacillus rhamnosus GG inhibits neutrophil extracellular trap formation. L. Vong, R.J. Lorentz, A.J. Sousa, M. Glogauer and P.M. Sherman. The Hosp. for Sick Children and Univ. of Toronto.
395. SCVP SYMPOSIUM: THE PATHOGENESIS AND MOLECULAR DIAGNOSIS OF CARDIOMYOPATHIES

Symposium

(Sponsored by: ASIP and the Society for Cardiovascular Pathology)

TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 16B

CHAIR: L.M. BUJA AND J. SEIDMAN

Cardiac Pathobiology

10:00 Molecular genetics and pathogenesis of arrhythmogenic right ventricular cardiomyopathy. A. J. Marian. Univ. of Texas Hlth. Sci. Ctr. at Houston.

396. AUTOPHAGY IN CELLULAR HOMEOSTASIS AND DISEASES

Workshop

TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 17A

CHAIR: A.I. IVANOV AND X-M. YIN

8:30 Ras, autophagy, and glycolysis. J. Debnath. UCSF.
10:00 396.1 Heavy metal scavenger metallothionein mitigates deep hypothermia-induced myocardial contractile anomalies: role of autophagy. S. Jiang and J. Ren. Univ. of Wyoming.
10:36 Exogenous calcium induces autophagy via classical autophagic machinery and recruits endoplasmic reticulum membranes to form autophagosomes. X. Chen, M. Li, W. Gao and X-M. Yin. Indiana Univ. - Purdue Univ. Indianapolis and Univ. of Pittsburgh.
11:12 396.5 mdx Mice have a defect in autophagy that is restored by rapamycin-loaded nanoparticle treatment. A.J. Li, K.P. Bibe, J.N. Marsh, C.C. Weihl and S.A. Wickline. Washington Univ. in St. Louis.

397. COMBATING CANCER THROUGH IMPROVED DIAGNOSIS AND THERAPEUTICS

Minisymposium

TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 15B

CHAIR: M.E. SOBEL

COCHAIR: A. GASPERI-CAMPANI

Neoplasia

8:30 397.2 New diagnostic approaches mediated by oligonucleotide aptamer (a revolutionary antibody?). Y. Z. Zeng and P. Zhang. The Methodist Hosp., Houston.
8:45 397.3 CSR1 inhibits XIAP. J. Luo, Z-L. Zheng and Y.P. Yu. Univ. of Pittsburgh.
9:30 397.6 Rational selection of antigens for targeted therapy of liver metastases. A. Turto, A. Blomme and V. Castronovo. Univ. of Liege, Belgium.
10:00 397.8 B-lymphocyte stimulator in neuroendocrine tumors: correlation with disease behaviour. M. Fabris, E. Tonutti, S. Pizzolitto, M. Isola, F. Curcio and F. Grimaldi. Azienda Hosp., Udine and Univ. of Udine, Italy.

398. NEUROPATHOLOGY

Minisymposium

TUE. 8:30 AM—SAN DIEGO CONVENTION CENTER, 15A

CHAIR: C. WILEY

COCHAIR: E. MASLIAH

Neuropathology

8:30 398.1 Gender differences in decreased ambulation and balance associated with Alzheimer’s disease. E. O'Mahony, H. Schlueter, J. Hong and S. Stavrianesa. Willamette Univ.
8:45 398.2 Imaging functional anatomy in the brain of mouse models of human disease. E.L. Bearer, J.J. Gallagher, A. Gonzales and R.E. Jacobs. Univ. of New Mexico and Caltech.
9:00 398.3 Reduced ABC efflux transporter function in activated microglia: implications in neurodegeneration. C. Gibson, J.R. Richardson and L.M. Aleksunes. Rutgers Univ. and UMDNJ, Piscataway.


9:45 399.6 Pyruvate protects the HT22 neuronal cells treated with rtPA against hypoxia-reoxygenation damage. **M-G. Ryou, R. Liu, R.T. Mallet and S-H. Yang.** Univ. North Texas Hth. Sci. Ctr.

10:00 399.7 Effect of endothelial nitric oxide synthase genotype on outcomes after experimental thromboembolic stroke. **I.Y. Sazonova, M.N. Hoda, M.A. Zemskova and D.C. Hess.** Georgia Hlth. Sci. Univ.


11:00 399.11 Molecular analysis of genetic variation in prions of Saccharomyces cerevisiae. **A.C. Kelly, F. Shewmaker and R. Wickner.** NIDDK/NIH and Uniformed Svcs. Univ. of Hlth. Sci.

10:10 399.3 Transplantation of mesenchymal stem cells and fibroblasts in a bio-compatible matrix corrects defective dermal remodeling. **C.C. Yates-Binder, M. Rodrigues, D. Whaley and A. Wells.** Univ. of Pittsburgh Sch. of Med. and Pittsburgh VA Med. Ctr.


11:10 399.6 Late remodeling of extracellular matrix after acute inflammatory injury or chronic distraction. **I.H. Prist, A.G. Salles, T.M. de Lima-Salgado and H.P. de Souza.** Fac. of Med., Univ. of São Paulo.

400. NEUROPATHOLOGY SCIENTIFIC INTEREST GROUP LUNCH/NETWORKING SESSION

(This session is not CME accredited.)

Special Session

(Sponsored by: ASIP Neuropathology Scientific Interest Group)

**TUE. 11:45 AM—SAN DIEGO CONVENTION CENTER, 33A**

**CHAIR:** C.A. WILEY AND C. KOLARICK

**Neuropathology**

The ASIP Neuropathology Scientific Interest Group will hold its first meeting at noon on Tuesday April 24th. Our first session will be an informal gathering of investigators from a broad range of disciplines who share a common interest in mechanisms of neurological disease. Given the diverse group of investigators attending the annual ASIP meeting, we hope to foster cross-disciplinary discussions to build multi-disciplinary networks. We are particularly interested in engaging current pre-doctoral students and postdoctoral trainees that may be interested in neuropathology research. After brief introductions, we will highlight current hot topics in neurological disease and make plans for programming at future ASIP meetings. Light refreshments will be provided.

401. ISAMM SYMPOSIUM: ADVANCES IN ULTRASENSITIVE RNA IN SITU HYBRIDIZATION

(This session is not CME accredited.)

**Symposium**

(Sponsored by: ASIP and the International Society for Analytical and Molecular Morphology)

**TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17B**

**CHAIR:** R.R. TUBBS AND L.E. DEBAULT

**2:00 Introductory remarks. R. R. Tubbs.** Cleveland Clin. Lerner Col. of Med.

PATHOLOGY

3:10 RNA ish—a useful tool to evaluate head and neck carcinomas for transcriptionally-active HPV. J. S. Lewis. Washington Univ.


402. MOLECULAR AND CELLULAR BASIS OF DISEASE: HOST-MICROBE INTERACTIONS: SESSION 2: NEW CONCEPTS IN VASCULAR BIOLOGY: ENDOThelial BACTERIAL INTERACTIONS

Symposium
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16A
CHAIR: M. Hickey
COCHAIR: F.W. Luscinskas
Host-Microbe Interactions

2:00 Imaging the inflammatory response—examination of bacterial interactions in the vasculature. M. J. Hickey. Monash Univ.


3:30 Penetration of the blood-brain barrier by bacterial pathogens. K. S. Doran. San Diego State Univ.


403. NATIONAL INSTITUTES OF HEALTH: PROGRAMS AND POLICIES UPDATE FROM INSTITUTES

(This session is not CME accredited.)

Symposium
(Sponsored by: ASIP, American Physiological Society, American Association of Anatomists, American Society for Biochemistry and Molecular Biology, American Society for Nutrition and American Society for Pharmacology and Experimental Therapeutics)

TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 1A
CHAIR: J. Chatham and S. Barman

Public Policy

2:00 NHLBI: current programs and new initiatives. S. Shurin. NHLBI/NIH.

2:30 Common fund programs: what are they and are you eligible for funding? E. Wilder. OD/NIH.

3:00 NIGMS strategic plan for training: what does it mean for you? J. Greenberg. NIGMS/NIH.

3:30 NIH peer review: where are we and where are we going? R. Nakamura. CSR/NIH.

404. PROTEIN MISFOLDING AND CHAPERONOPATHIES

Symposium
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 17A
CHAIR: M. S. Willis and J. Lin

2:00 Endoplasmic reticulum stress and cell survival. J. H. Lin. UCSD.

2:30 The role of ER-associated degradation in channelopathies due to protein misfolding. T. Mu. Case Western Reserve Univ. Sch. of Med.

3:00 Chaperones as the underlying pathophysiology of disease (chaperonopathies). A. J.L. Macario. Univ. of Maryland Sch. of Med.

3:30 Endoplasmic reticulum chaperones in development and human diseases. A. S. Lee. Univ. of Southern California Norris Cancer Ctr.

4:00 Progressive aggregation despite chaperone associations of a mutant SOD1-YFP in transgenic mice that develop ALS. M. Feany. Brigham and Women’s Hosp.


405. NOVEL TREATMENT FOR LIVER INJURY, FIBROSIS AND CANCER

Minisymposium
(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)

TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 16B
CHAIR: C. Ghandhi
COCHAIR: P. Stock

Liver Pathobiology

2:00 405.1 Glypican-3 as a potential therapeutic target for hepatocellular carcinoma immunotherapy. T. Trinh and C. Liu. Univ. of Florida.


2:45 405.4 PEZH2 and H3K27me3 are associated with Mallory-Denk body forming liver cell phenotype and HCC. B. French, F. Bardag-Gorce, J. Oliva, J. Li, J. Zhong and S.W. French. LA BIOMED.

3:00 405.5 Modulatory effects of mesenchymal stem cells on hepatic mitochondrial reactive oxygen species production in dietary-induced insulin resistance. V.Z. Nyamandi, C. Hughey, V. Johnsen, H. Virtanen, D.S. Hittel and J. Shearer. Univ. of Calgary, Canada.

3:30 405.7 Therapeutic administration of a direct thrombin inhibitor reduces hepatic inflammation in a mouse model of hypercholesterolemia. K.M. Kassel, B.P. Sullivan, B.L. Copple and J.P. Luyendyk. Univ. of Kansas Med. Ctr.


4:00 405.9 Development of liver fibrosis is critically regulated by phosphodiesterase 4 sub-family. L. Gobejishvili, K. Breitkopf, J. Zhang, D. Avila, S.S. Dooley, S. Barve and C.J. McClain. Univ. of Louisville and Univ. of Heidelberg, Germany.


406. ENDOTHELIAL AND EPITHELIAL CONTRIBUTIONS TO HOMEOSTASIS AND THE INFLAMMATORY RESPONSE

(Poster Discussion)

405.7

(TUE. 5:30 PM—SAN DIEGO MARRIOTT MARQUIS & MARINA, DEL MAR)

CHAIRMED: F.W. Lusinskas, A. Neish and A. Nusrat

Inflammation

Epithelial Pathobiology

We are pleased to announce a special interest group encompassing epithelial and endothelial cell biology, mucosal inflammation, and leukocyte biology. Tissue injury in response to environmental and exogenous challenges is associated with an inflammatory response that often occurs at biological interfaces, such as epithelial mucosa in the intestinal, respiratory and urogenital tract, or endothelia in organs and peripheral vasculature. Leukocyte trafficking during the inflammatory response at the interface presents a special problem in that these tissues must maintain (or restore) vital physiological functions inherent to the cell types that line biologic spaces. This special interest group is aimed at bringing together investigators, fellows and students who share a passion for this topic. It will be a great opportunity for common scientific discussions and an incentive for new collaborations.

P1 Salmonella typhimurium induces HXA3 secretion by decreasing cellular levels and activity of the oxidoreductase enzymes GPX 1 and PHGPX. T. Agbor and B. McCormick. Univ. of Massachusetts Med. Sch. (276.1)

P2 Entamoeba histolytica induces a robust acute inflammatory response with increased colonic permeability and altered tight junction proteins in Muc2+ mice. V. Kissoon-Singh, F. Moreau and K. Chadee. Univ. of Calgary, Canada. (275.7)

P3 Phospholipase A2 is involved in S. pneumoniae-elicited PMN transepithelial migration. R. Bhowmick, B.A. McCormick and J.M. Leong. Tufts Univ. Sch. of Med. and Univ. of Massachusetts Med. Sch. (276.8)

P4 Sorting nexin 27 mediates PDZ-directed trafficking of zona-occludens-2 to the tight junction. C.L. Hueschen, S.P. Zimmerman, S.L. Milgram and M.P. Playford. NHLBI/NIH. (275.4)

P5 Tandem peptide blocks pemphigus vulgaris skin blistering in vivo and identifies a desmoglein receptor function leading to p38MAPK modulation. V. Spindler, B. Kempf and J. Waschke. Ludwig Maximilians Univ. Munich and Julius Maximilians Univ. Würzburg. (275.1)

P6 Annexin A1 derived peptide Ac2-26 promotes epithelial wound healing through p120-Vav2-Rac1 signaling and ROS generation. G. Leoni, A. Mohammad, M. Perretti, C. Parkos, A. Neish and A. Nusrat. Emory Univ. and Barts and The London Sch. of Med. (56.4)

P7 N-formyl peptide receptor-1 is important for homeostasis of intestinal epithelial cells. A. Alam, G. Leoni, C. Wentworth, A. Nusrat and A.S. Neish. Emory Univ. (56.2)


P9 Cellulose confluence and cohesion regulates CXCL11/IP9 expression during keratinocyte re-epithelialization. A.C. Huen and A. Wells. Univ. of Pittsburgh Med. Ctr. and VA Pittsburgh Healthcare Syst. (56.3)


P12 Lactobacillus rhamnosus GG inhibits neutrophil extracellular trap formation. L. Vong, R.J. Lorenz, A.J. Sousa, M. Glogauer and P.M. Sherman. The Hosp. for Sick Children and Univ. of Toronto. (394.1)

P13 Differential contribution of desmoglein 2 and 3 to cell adhesion and intracellular signaling in keratinocytes. E. Hartlieb, V. Spindler and J. Waschke. Ludwig Maximilians Univ., Munich. (833.2)

P14 Overexpression of claudin-6, -7 or -9 modifi es the function leading to p38MAPK modulation. D. Geem, O. Medina, W. Kim, C. Huang, R. Newberry and J. Huerta. Univ. of Toronto and Univ. Hlth. Network, Toronto. (55.3)

P15 Engagement of ICAM-1 mediates neutrophil crawling on the luminal surface of the intestinal epithelium and signals to regulate barrier function. R. Sumagin and C.A. Parkos. Emory Univ. (55.10)

P16 Secondary lymphoid organs and CCR7 are dispensable for intestinal Th17 and Foxp3+ Treg cell differentiation. D. Geem, O. Medina, W. Kim, C. Huang, R. Newberry and T.L. Denning. Emory Univ. and Washington Univ. Sch. of Med. (136.4)

P17 Phosphoinositide 3-kinase activation and actin dynamics within force sensing anchors are required to stabilize VLA-4 integrin-mediated leukocyte adhesion. J. Rullo, H. Becker, S. Hyduk and M. Cybulsky. Univ. of Toronto and Univ. Hlth. Network, Toronto. (55.3)

P19 Endothelial cell IQGAP1 is an important regulator of the transendothelial migration of leukocytes. D.P. Sullivan and W.A. Muller. Northwestern Univ., Chicago. (55.6)


P22 α(1,3)-Fucosylation alters STAT3-dependent IL-17 production in vivo. L.C. Mackey, J.M. Rose and J.W. Homeister. Univ. of North Carolina at Chapel Hill. (136.2)

P23 VEGFR2 activation during the early onset of flow is ligand-dependent and mediated by the release of autocrine VEGF. N.G. dela Paz and J.A. Frangos. La Jolla Bioengin. Inst. (656.8)


410. THE NOCICEPTIN/ORPHANIN FQ-NOP RECEPTOR SYSTEM: NEUROBIOLOGY, PHARMACOLOGY AND THERAPEUTIC OPPORTUNITIES

Symposium
(Sponsored by: The Divisions for Neuropharmacology and Behavioral Pharmacology)
TUE. 9:30 AM—SAN DIEGO CONVENTION CENTER, 4
CHAIR: G. CALO

9:55 The nociceptin/orphanin FQ-NOP receptor system as a target for treating addiction. N. P. Murphy. UCLA.
10:45 Therapeutic potential of NOP agonists as analgesics without abuse liability. M. C. Ko. Univ. of Michigan Med. Sch.
11:10 NOP receptor ligands in Parkinsonism and levodopa-induced dyskinesia. M. Morari. Univ. of Ferrara, Italy.

411. FROM STRUCTURE TO KNOCKOUT: COMMON THEMES BETWEEN CYPS AND ABC TRANSPORTERS

Symposium
(Sponsored by: The Divisions for Toxicology; Drug Metabolism; and Drug Discovery, Development & Regulatory Affairs)
TUE. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5A
CHAIR: M. VORE

9:30 Structure of multidrug resistance transporters. G. Chang. UCSD.
10:40 Role of ABC transporters in ADME: translation from knockout mice to clinics. Y. Sugiyama. RIKEN Yokohama Inst.
11:15 Humanized mouse lines and their application for prediction of human drug metabolism and toxicological risk assessment. F. J. Gonzalez. NCI/NIH.
11:50 Discussion.

412. MODELS OF AFFECTIVE DISORDERS AND PHARMACOLOGICAL INTERVENTIONS: THE INFLUENCE OF ETIOLOGY IN TREATMENT APPROACH

Symposium
(Sponsored by: The Divisions for Behavioral Pharmacology; Drug Discovery, Development & Regulatory Affairs; and Neuropharmacology)
TUE. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5B
CHAIR: M. NADER AND L. HOWELL

10:00 Cross-species tests of potential predictors of responders to antipsychotic treatments. M. Geyer. UCSD.
11:00 The relationship between gender and psychotic symptoms in drug abusers. R. De La Garza II. Baylor Col. of Med.
11:30 Drug x host x environment interactions in nonhuman primate models of cocaine abuse. M. A Nader. Wake Forest Univ. Sch. of Med.

413. WOMEN IN PHARMACOLOGY CAREER ROUNDTABLE

Special Session
TUE. 1:00 PM—SAN DIEGO CONVENTION CENTER, 12

414. CARDIOVASCULAR PHARMACOLOGY DIVISION TRAINEE SHOWCASE

Oral
TUE. 2:30 PM—SAN DIEGO CONVENTION CENTER, 2


Sphingosine kinase-1 regulates VEGF-A induced angiogenesis by mediating the interaction between VEGFR2 and S1P1. A.M. Chavez, K.R. Chava and D. Mehta. Univ. of Illinois at Chicago. (841.2)
3:30 RhoA, phospholipase Cε and PKD signaling mediate S1P induced cardioprotection against ischemia/reperfusion. S.Y. Xiang, K. Ouyang, J. Chen, A.V. Smrcka and J. Heller Brown. UCSD and Univ. of Rochester. (1114.5)

4:15. NEUROPHARMACOLOGY DIVISION POSTDOCTORAL SCIENTIST AWARD FINALISTS

Oral

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 3

3:00 Chronic fluoxetine treatment is associated with persistent desensitization of the 5HT2A receptor and decreased cocaine-primed reinstatement in rhesus monkeys. E.K. Sawyer and L.L. Howell. Emory Univ. Yerkes Natl. Primate Res. Ctr. (844.7)

3:20 Dopamine and isoproterenol depolarize corticotrophin releasing factor neurons in the bed nucleus of the stria terminalis: a potential neurocircuit involved in relapse. Y. Silberman, R.T. Matthews and D.G. Winder. Vanderbilt Univ. Sch. of Med. (1039.3)


4:00 Methamphetamine-induced locomotor sensitization in C57BL/6 mice requires the MT1 melatonin receptor. A.J. Hutchinson, J. Ma, R.L. Hudson and M.L. Dubocovich. Univ. at Buffalo SUNY. (1040.6)


4:40 Cognitive and motor effects of endurance related compound AICAR: from muscle to brain. T. Kobilo and H. van Praag. NIA/NIH, Baltimore. (847.2)

5:00 Regulation of glycogen phosphorylase by the malin-laforin complex. V.V. Dukhande, T.M. Bridges and M.S. Gentry. Univ. of Kentucky Col. of Med. (852.14)

5:20 Discussion.

416. REGULATION OF TRP CHANNELS

Symposium

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 4

CHAIR: M. Zhu

3:00 Physiological functions of TRP channels as revealed from TRP knockout mice. V. Flockerzi. Univ. of Saarland, Germany.


4:00 Phosphoinositide regulation of TRP channels. T. Rohacs. UMDNJ- New Jersey Med. Sch.

4:30 Function and regulation of intracellularly localized TRPML channels. H. Xu. Univ. of Michigan.


5:15 Discussion.

417. TOXICOLOGY DIVISION SYMPOSIUM: THE UTILIZATION OF GENETICALLY MODIFIED MICE TO DETERMINE MECHANISMS OF TOXICITY

Symposium

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5A

CHAIR: J. Hinson


3:10 Role of P450 and nuclear receptor transgenic mice in determining mechanisms of chemical hepatotoxicity. F. J. Gonzalez. NCI/NIH.

3:45 Transgenic mouse models for modulating glutathione synthesis. T. J. Kavanagh. Univ. of Washington.

4:20 Signal transduction pathways in the mechanisms of hepatotoxicity. N. Kaplowitz. Univ. of Southern California, Keck Sch. of Med.


418. TARGETING PI3K FOR HUMAN DISEASES

Symposium

(Sponsored by: The Divisions for Drug Discovery, Development & Regulatory Affairs; Toxicology; and Molecular Pharmacology)

TUE. 3:00 PM—SAN DIEGO CONVENTION CENTER, 5B

CHAIR: T. Rao

3:00 Chair’s introduction.

3:05 PI3K structure, function, regulation in disease and drug targeting. D. Fruman. Univ. of California, Irvine.


4:05 Targeting the PI3K pathway for immune-mediated diseases. C. Rommel. Intellikine Inc.


5:20 Discussion.

419. PAUL M. VANHOUTTE DISTINGUISHED LECTURE IN VASCULAR PHARMACOLOGY

TUE. 4:30 PM—SAN DIEGO CONVENTION CENTER, 2

The Paul M. Vanhoutte Lecture in Vascular Pharmacology was established to honor Dr. Vanhoutte’s lifelong scientific contributions to our better understanding and appreciation of the importance of endothelial cells and vascular smooth muscle function in health and disease and for his mentoring of countless prominent endothelial and vascular biologists and pharmacologists. Dr. Richard Cohen receives this honor in recognition of his substantial lifelong scientific achievements and commitment in this research area that have led to the development of novel pharmacological agents to treat vascular dysfunction in the clinic.


Physiology

420. AUGUST KROGH DISTINGUISHED LECTURESHP OF THE APS COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY SECTION

(Supported by an educational grant from Novo Nordisk Foundation)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24

Title: Tales from the Heart: A Comparative and Evolutionary Perspective of the Vertebrate Circulatory System

Speaker: J. Hicks. Univ. of California, Irvine.

421. CELL-CELL AND CELL-MATRIX ADHESIONS IN CONTROL OF LUNG FLUID BALANCE AND INNATE IMMUNITY: TALKING IS CRITICAL!

Featured Topic

(Sponsored by: APS Respiration Section)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28A

CHAIR: K. Birukov and D. Mehta

8:00 Vascular permeability control and signaling functions of VE-cadherin at the front, center and sides of endothelial cells. E. Harris. Stanford Univ.

8:25 Rap1 and afadin promote interactions between adherens junctions and tight junctions and regulate endothelial permeability. A.A. Birukova, N. Zebda, T. Wu, O. Dubrovskyi, N. Sarich and K.G. Birukov. Univ. of Chicago. (1063.1)


8:55 Cadherin ectodomains and cadherin-actin linkages regulate the endothelial barrier. S.K. Quadri, L. Sun and J. Bhattacharya. Columbia Univ. (1063.3)

9:10 Src family kinases collaborate with distinct TNF-alpha-induced signaling pathways to regulate actin dynamics at cell-cell junctions and barrier function in endothelial cells. A.P. Adam, A. Lowery and P. Vincent. Albany Med. Ctr. (1063.2)


9:40 Innate immune function of adherens junctions in septic model of ALI. G. Hu. Univ. of Illinois at Chicago.

422. CELLULAR SIGNALING, SECOND MESSENGERS, CELL-CELL INTERACTIONS

Featured Topic

(Sponsored by: APS Cell and Molecular Physiology Section)

TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25C

CHAIR: N. Bradbury and My. Helms

8:00 DNA-dependent protein kinase is critical for VCAM-1 expression upon TNF treatment through phosphorylation of p50 NF-κB: a critical involvement in vascular and lung inflammation. J. Ju, A. Naura, Y. Errami, H. Kim, J. Kim, A.A. Beg, C. Giardina and H. Boulares. LSU Hlth. Sci. Ctr.-New Orleans, Chonbuk Natl. Univ., South Korea, Moffitt Cancer Cancer, Tampa and Univ. of Connecticut. (1064.9)
9:00 Resistance exercise increases cumulative muscle protein synthesis. **J. D. Fluckey.** Texas A&M Univ.

8:30 A reassessment of mitochondrial biogenesis during caloric restriction using D2O. **B. F. Miller.** Colorado State Univ.

9:00 Muscle RING finger-1 inhibits IGF1-dependent Akt activation and exercise-induced cardiac hypertrophy. **K. M. Wadosky, J. E. Rodriguez and M. S. Willis.** Univ. of North Carolina at Chapel Hill. (1076.1)

9:15 Exercise mitigates beta-2 adrenergic receptor dysfunction by decreasing homocysteine in diabetes. **P. K. Mishra, I. G. Joshua and S. C. Tyagi.** Univ. of Louisville. (1076.2)
TUESDAY

426. PHYSIOLOGY OF CALCIUM-ACTIVATED POTASSIUM CHANNELS

Symposium
(Sponsored by: The Physiological Society (UK)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 23
CHAIR: M. SHIPSTON AND P. RUTH

8:00 KCa channel function and regulation in T-cells. E. Skolnik. NYU Langone Med. Ctr.
8:30 Small molecule regulators of KCa channels. H. Wulff. Univ. of California, Davis.
9:00 KCa and the control of smooth muscle function. P. Ruth. Univ. of Tubingen.

427. REGULATION OF WATER AND ION CHANNELS AND MODULATORY PROTEINS, LIPIDS, AND HORMONES

Featured Topic
(Sponsored by: APS Epithelial Transport Group)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: R. T. WORRELL AND N. PASTOR-SOLER

Translational Physiology

Transporters and Ion Channels

8:00 Identification of ENaC intersubunit interfacing residues provides insight into conformational changes associated with channel gating. D.M. Collier and P.M. Snyder. Univ. of Iowa Carver Col. of Med. (1068.7)

Inhibition of αENaC expression and ENaC activity following blockade of the circadian clock-regulatory kinases CKIÎ±ε. J. Richards, M. Mitzevich, L. Jeffers, K-Y. Cheng, D.C. Eaton and M.L. Gumz. Univ. of Florida and Emory Univ. (1068.6)


Estradiol increases the density and open probability of epithelial sodium channels in alveolar cells. M.M. Greenlee, B.J. Duke and D.C. Eaton. Emory Univ. (1068.10)


428. THERMAL PHYSIOLOGY: FROM ACUTE RESPONSES TO PROTECTIVE ADAPTATION

Featured Topic
(Sponsored by: APS Environmental and Exercise Physiology Section)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: C. MINSON

8:00 Introduction: new insights into thermal adaptation. C.T. Minson. Univ. of Oregon.

KCa channels and EETs: major contributors to cutaneous thermal hyperemia. V.E. Brunt and C.T. Minson. Univ. of Oregon. (1079.10)

eNOS and nNOS contribution to reflex cutaneous vasodilation during dynamic exercise in humans. T.C. McNamara, J. Keen, G.H. Simmons, L.A. Holowatz and B.J. Wong. Kansas State Univ., Nike Sports Res. Lab., Beaverton, OR and Penn State. (1079.11)

Cardiovascular, autonomic, and thermoregulatory effects of repeated exertional heat stress in rats. H.M. Stauss, N. Choudhary, A. Nash, F.O. Liaboe and K.C. Kregel. Univ. of Iowa. (1079.3)


Heat acclimation mediated cytoprotective memory: does epigenetic mechanisms play a role? A lesson from the heart. M. Horowitz. The Hebrew Univ.
429. TRANSPORTER POTENTIAL CHANNELS AND ENDOThELIAL CALCIUM REGULATION IN NATIVE CELLS AND WHOLE VESSELS

Featured Topic
(Sponsored by: APS Cardiovascular Section)
TUE. 8:00 AM—SAN DIEGO CONVENTION CENTER, 27
CHAIREd: S. Marrinelli and S. Earley

Transporters and Ion Channels

8:00 Introductory remarks. S. Earley, Colorado State Univ.
8:15 Spatial and temporal TRPV channel activation in intact mesenteric artery. M.T. Nelson. Univ. of Vermont Col. of Med.
8:45 Opening of TRPV4 channels induce relaxation mediated by KCa3.1 channels and nitric oxide synthase in mouse pulmonary arteries. T. Dalsgaard, V.B. Bajoriunas, R. Köhler and U. Simonsen, Aarhus Univ., Denmark and Aragon Inst. of Hlth. Sci. I+CS, Zaragoza, Spain. (670.5)
9:00 CaR-mediated vasodilatation: role of endothelium TRPC channels. A.P. Albert, J. Shi, J. Mclough, H. Greenberg, C. Preet, I. Greenwood and V. Ho. St. George’s Univ. of London. (1056.1)
9:15 Unitary TRPA1-mediated Ca²⁺ influx events in primary cerebral artery endothelial cells. M.N. Sullivan, M. Francis, M.S. Taylor and S. Earley. Colorado State Univ. and Univ. of South Alabama Col. of Med. (1056.7)

430. INTESTINAL SOLUTE TRANSPORT IN INFLAMMATION

Featured Topic
(Sponsored by: APS Gastrointestinal and Liver Physiology Section)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25A
CHAIREd: L. Eckmann

Inflammation and Immune Responses

Transporters and Ion Channels


NOVEL ROLES OF THE RENIN-ANGIOTENSIN SYSTEM IN AGING AND OTHER PATHOLOGIES

Symposium
(Sponsored by: APS Endocrinology and Metabolism Section)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 23
CHAIR: M. C. CHAPPELL

Blood Pressure Regulation

10:30 The role of renin-angiotensin system in aging. C. Carter. Univ. of Florida.
11:00 Therapeutic benefit of angiotensin-(1-7) in cancer. P. E. Gallagher. Wake Forest Sch. of Med.
12:00 ACE2 and Ang-(1-7) in progressive liver injury. M. C. Chappell. Wake Forest Univ.

REGULATION OF TRANSPORTERS AND MODULATORY PROTEINS, LIPIDS, AND HORMONES

Featured Topic
(Sponsored by: APS Epithelial Transport Group)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 22
CHAIR: P. WELLING AND M. LEVI

Translational Physiology

Transporters and Ion Channels

11:15 Alternatively spliced PY cassette exons in WNK1 enhance sensitivity to aldosterone via the E3 ubiquitin ligase Nedd4-2. A. Roy, S. Khadem, B.F. Donnelly, F. Gong, N.M. Pastor-Soler, Y.P.C. Chang and A.R. Subramanya. Univ. of Pittsburgh Sch. of Med., Univ. of Maryland Sch. of Med. and VA Pittsburgh Healthcare Syst. (1152.6)
11:30 Insulin activates intestinal NHE3 via IRBIT. P. He, M. Yanda, M. Anitha, S. Srinivasan and C. Yun. Emory Univ. (1152.21)

TARGETED PROTEOMIC ANALYSES OF HEART FAILURE

Featured Topic
(Sponsored by: APS Cardiovascular Section)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: P. L. PING AND M. L. LINDSEY

Dynamics of the nuclear proteome in heart failure. T. Vondriska. UCLA Sch. of Med.
11:00 Phosphorylation of cTnI as a biomarker for heart failure. Y. Ge. Univ. of Wisconsin-Madison Sch. of Med. and Publ. Hlth.
12:00 Proteomic analyses on mitochondria in rats model of heart failure. T. Liu, L. Chen, E. Kim and A. Knowlton. Univ. of California, Davis, St. Mary's Hosp. of Daejeon Catholic Univ., South Korea. (1127.5)
436. THE LETHALITY OF TRAUMA: NEW INSIGHTS INTO THE PHYSIOLOGY OF HEMORRHAGE

Featured Topic
(Sponsored by: APS Environmental and Exercise Physiology Section)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: V. CONVERTINO

Blood Pressure Regulation

Translational Physiology


11:00 Reduced vascular smooth muscle sensitivity to contraction in ex vivo hemorrhaged rabbit epigastric artery. P.H. Ratz, R.W. Barbee, A.S. Miner, P.S. Reynolds and D. Contaifer. Virginia Commonwealth Univ. (1080.1)


11:30 Activation of 5HT1A receptors in the nucleus tractus solitarius contributes to blood pressure compensation with blood loss and peripheral chemoreflex responses in the presence of acidosis. J.E. Vantrease, N. Dudek and K. Scrogin. Loyola Univ. Chicago, Maywood. (1080.3)


437. UBIQUITYLATION AND DEUBIQUITYLATION OF ION CHANNELS AND TRANSPORTERS

Featured Topic
(Sponsored by: APS Cell and Molecular Physiology Section)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: K. HAMILTON AND C. BALUT

Transporters and Ion Channels

10:30 Ubiquitylation and deubiquitylation of KCa3.1 regulates trafficking and degrading. D. C. Devor. Univ. of Pittsburgh.

11:00 Loss of renal Nedd4-2 in adult mice leads to PHAII compensated by ENaC downregulation and ROMK upregulation. O. Staub, C. Ronzaud, D. Loffi ng, A. Debonneville, B. Yang, J. Stokes, R. Koesters, E. Hummler and J. Loffi ng. Univ. of Lausanne, Univ. of Zurich, Univ. of Iowa and INSERM/Univ. Pierre et Marie Curie, Paris. (1067.2)

11:15 Long QT syndrome type 3 caused by a PY-motif mutation leading to altered ubiquitylation and increased expression of Nav1.5 in knockin mice. J. Rougier, M. Albesa, C.A. Remme, J. Ogrodnik, S. Petitprez, J. Bankston, R.S. Kass, C.R. Bezzina, W. Chung and H. Abriel. Univ. of Bern, Univ. of Amsterdam and Columbia Univ. (1067.3)

11:30 Prolactin-stimulated ubiquitination of the zinc transporter ZnT2 regulates zinc secretion. Y.A. Seo and S.L. Kelleher. Penn State and Penn State Col. of Med. (1067.4)


12:00 Ubiquityination of vesicular acetylcholine transporter. Y. Li, J.L. Freeling and A. Sample. Univ. of South Dakota. (1067.6)

12:15 cGMP induces the degradation of internalized NKCC2 in thick ascending limbs: role of the proteasome. G. Ares and P. Ortiz. Henry Ford Hlth. Syst. (1067.7)

438. UNDERSTANDING THE EVOLUTION OF PHYSIOLOGY: INSIGHTS FROM SELECTION EXPERIMENTS IN RODENT MODELS

Featured Topic
(Sponsored by: APS Comparative and Evolutionary Physiology Section)

TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: T. GARLAND, JR. AND T. MEEK

10:30 Use of selection experiments with rodents to elucidate the evolution of physiological traits. T. Garland, Jr. Univ. of California, Riverside.

11:00 Correlated responses to selection for high maximal aerobic metabolism, predatory behavior, and herbivorous capability in a wild rodent, the bank vole: mimicking an adaptive radiation. P. Koteka. Jagiellonian Univ., Poland.


12:00 Using a selective breeding strategy to create 7th generation rats that voluntarily run low and high nightly distances. M.D. Roberts, L. Gilpin, J. Knouse, A. Haynes, R. Toedebusch, L. Ebene, C. Moore, S. Naples and F.W. Booth. Univ. of Missouri-Columbia and Sch. of Med. (1073.2)

12:15 Weight loss and the lean phenotype: energy expenditure and physical activity during calorie restriction. S. Mukherjee, D. Lapp, E. Cosentino, S.L. Britton, L.G. Koch and C.M. Novak. Kent State Univ. and Univ. of Michigan. (1073.3)

439. VASOPRESSIN-MEDIATED PHOSPHORYLATION AND TRAFFICKING OF TRANSPORTERS INVOLVED IN URINE CONCENTRATION

Symposium
(Sponsored by: APS Renal Section)
TUE. 10:30 AM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: J. M. SANDS AND M. A. BLOUNT

Translational Physiology
Transporters and Ion Channels
10:30 Vasopressin-mediated phosphorylation controls the urine concentration mechanism. J. D. Klein. Emory Univ.
11:00 A systems biology perspective of vasopressin signaling. J. D. Hoffert. NHLBI, NIH.

440. NATIONAL INSTITUTES OF HEALTH: PROGRAMS AND POLICIES UPDATE FROM INSTITUTES

Symposium
TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 1A
CHAIR: J. CHATHAM AND S. BARMAN

Public Policy
Career Development
2:00 NHLBI: current programs and new initiatives. S. Shurin. NHLBI/NIH.
2:30 Common fund programs: what are they and are you eligible for funding? E. Wilder. OD/NIH.
3:00 NIGMS strategic plan for training: what does it mean for you? J. Greenberg. NIGMS/NIH.
3:30 NIH peer review: where are we and where are we going? R. Nakamura. CSR/NIH.

441. ROBERT M. BERNE DISTINGUISHED LECTURESHIP OF THE APS CARDIOVASCULAR SECTION

TUE. 2:00 PM—SAN DIEGO CONVENTION CENTER, 24

Blood Pressure Regulation
Inflammation and Immune Responses
Title: Molecular Mechanisms of Hypertension: Redox Signaling, Lipid Rafts and TRPMs

442. COMPUTATIONAL MODELING IN CENTRAL RESPIRATORY CONTROL AND CO₂ CHEMORECEPTION

Symposium
(Sponsored by: APS Respiration Section)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25A
CHAIR: I. C. SOLOMON AND J. M. CORDOVEZ

Physiology of Development
3:30 Intracellular pH regulation in CO₂ chemosensitive and non-chemosensitive cells. J. M. Cordovez. Univ. de los Andes, Colombia.
4:00 What we can learn from mathematical models of chemosensitive neurons. J. C. Leiter. Dartmouth Med. Ctr.
5:00 Pontomedullary respiratory network models: predictions and experiments. B. G. Lindsey. Univ. of South Florida.

443. HORACE W. DAVENPORT DISTINGUISHED LECTURESHIP OF THE APS GASTROINTESTINAL AND LIVER PHYSIOLOGY SECTION

TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 24

Translational Physiology
Title: Mechanism and Regulation of Intestinal Absorption of Water-Soluble Vitamins: Cellular and Molecular Aspects
PHYSIOLOGY TUESDAY

444. HYDROGEN SULFIDE: ECOLOGY, PHYSIOLOGY, AND CLINICAL APPLICATIONS

Symposium
(Sponsored by: APS Comparative and Evolutionary Physiology Section)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: K. R. OLSON

Hypoxia and Oxidative Stress
Translational Physiology


445. KISSPEPTIN NEURONS: CENTRAL MEDIATOR OF REPRODUCTION AND METABOLISM

Symposium
(Sponsored by: APS Endocrinology and Metabolism Section)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: W. K. SAMSON AND M. J. KELLY

Central Control of Homeostasis

3:30 Kiss1 neurons as central processors for reproduction. R. A. Steiner. Univ. of Washington.
4:00 Estrogenic and leptin regulation of kisspeptin neurons. O. K. Ronnekleiv. Oregon Hlth. & Sci. Univ.
4:30 Neural pathways linking leptin and other signals to the reproductive neuroendocrine system. M. N. Lehman. Univ. of Michigan Sch. of Med.

446. KRUPPEL-LIKE FACTORS IN MUSCLE BIOLOGY

Symposium
(Sponsored by: APS Muscle Biology Group)
TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: S. HALDAR AND M. JAIN

4:00 KLF4 and phenotypic plasticity in smooth muscle. G. K. Owens. Univ. of Virginia.
4:00 Arteriolar remodeling induced by changes in flow and pressure in a model of skeletal muscle disuse. M. Delp. Univ. of Florida.

4:30 Age induces proliferation of smooth muscle and vascular remodeling in coronary arterioles: role of AMPK. J. Muller-Delp. Univ. of Florida Col. of Med.

5:00 Flow-induced remodeling of resistance arteries: role of angiotensin II. D. Henrion. INSERM 771, Angers.

450. ROLE OF ADIPOSE TISSUE MACROPHAGES IN MEDIATING THE METABOLIC EFFECTS OF OBESITY

Symposium

(Sponsored by: American Federation for Medical Research)

TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28A

CHAIR: M. HAWKINS

Translational Physiology


4:00 Mechanisms of adipose tissue inflammation and fibrosis. J. Pessin. Albert Einstein Col. of Med.

4:30 Molecular mechanisms that regulate macrophage accumulation and function in adipose tissue. A. Ferrante, Jr. Columbia Univ.

5:00 Characterizing macrophage phenotype and extracellular matrix components in human adipose tissue. P. Kern. Univ. of Kentucky.

451. ROLE OF ION CHANNELS IN CELL MIGRATION

Symposium

(Sponsored by: APS Cell and Molecular Physiology Section)

TUE. 3:30 PM—SAN DIEGO CONVENTION CENTER, 23

CHAIR: S. O’GRADY AND E. BROCHIERO

Transmitters and Ion Channels


4:00 Regulation of cell migration by integrin-mediated modulation of potassium efflux through Kir4.2. D. Sheppard. UCSF.


5:00 Collaborative work of K+ and CFTR channels with proteins of the migration machinery for the movement of lung epithelial cells. E. Brochiero. Univ. of Montreal.

452. APS BUSINESS MEETING

TUE. 6:00 PM—SAN DIEGO CONVENTION CENTER, 20A

Wednesday, April 25, 2012

Attend the Poster Sessions in the Sails Pavilion at 10:00 AM for coffee and 2:00 PM for snacks and learn more about the cutting edge science from more than 1,000 presenters.
WEDNESDAY, APRIL 25

Anatomy

454. BIOENGINEERING PRINCIPLES DURING DEVELOPMENT

Hybrid Symposium

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7A
CHAIR: E. JONES

Developmental Biology

8:00 Chair’s introduction.
8:30 454.2 Ontogeny of mechanoensation during vascular development. E.A.V. Jones and C. Henderson-Toth. McGill Univ.
9:10 454.4 Exposure to simulated microgravity affects development of the skull in Danio rerio. T.A. Franz-Odendaal and S. Edsall. Mount Saint Vincent Univ. and Dalhousie Univ., Canada.
9:40 454.6 FGF signaling is involved in physiological adaptation to pressure overload in developing heart. E. Krejci, Z. Pesevski, O. Nanka and D. Sedmera. inst. of Physiol., Acad. of Sci. of Czech Republic, Prague and 1st Fac. of Med., Charles Univ. in Prague. (15.1)
9:55 Discussion.

455. FORM, FUNCTION AND EVOLUTION

Platform

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 7B
CHAIR: K. MULDOON

8:00 455.1 A morphometric study of phylogenetic and ecologic patterns in procyonid (Mammalia: Carnivora) endocasts. H.E. Ahrens and V.B. DeLeon. Johns Hopkins Univ. Sch. of Med.
8:15 455.2 Molar surface area and mandibular mechanics: complex scaling relationships in primate masticatory systems. M.A. Holmes, T. Peburn and V. DeLeon. Johns Hopkins Sch. of Med. and Univ. of Missouri Sch. of Med., Columbia.
9:00 455.4 Comparative functional morphology of the head suspension of quadrupedal cats and the shoulder suspension of bipedal humans. M.L. Osborn and D.G. Homberger. LSU.
9:45 455.7 Exceeding expectations: examining the systemic effects of high body mass in relation to mechanical loading. N.M. Reeves. Univ. of Tennessee, Knoxville.

456. TEACHING INNOVATIONS IN ANATOMY II

Platform

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 9
CHAIR: T. HOAGLAND

Education & Teaching

8:00 456.1 Radical hysterectomy teaching module with a three-dimensional digital model of the female pelvis. S.K. Dunnigan, H.M. Nguyen and M. Johnson. Univ. of Western Ontario.
8:30 Teaching students to teach: a medical student teaching assistant perspective on the effectiveness of learning through apprenticeship. A.J. Erie, S. Starkman, W. Pawlina and N. Lachman. Mayo Clin. (531.20)
8:45 456.2 Integration of anatomy, literature research skills and clinical practice through a peer-teaching and peer-assessment exercise at pre-clinical level in an undergraduate medical course. L. Filgueira and E. Eppler. Univ. of Western Australia and Univ. of Zurich.
9:15 456.4 Curricular integration: not what we are bringing together, but who. R. Hopkins. Univ. of British Columbia.
9:45 456.6 Anatomy education through dissection and peer teaching: special dissections of the head and neck. A.M. Koba, L. Johnson and K.P. Babin. Col. of Sci. and Engin., San Francisco State Univ. and City Col. of San Francisco.
457. MUSCLES AND BONES: EVOLUTION AND DEVELOPMENT

Platform

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 7A

CHAIR: R. SCHNEIDER

Developmental Biology


11:00 457.3 Neural crest derivation of the bony skull of the Mexican axolotl. N. Piekarski and J. Hanken. Harvard Univ.


11:30 457.5 Regulation of jaw size during development and evolution. E.L. Ealba, J. Yu, A.H. Jheon, K.D. Butcher and R.A. Schneider. UCSF.


12:00 457.7 A novel skeletal disorder defines an intracellular role for FGFR2 during development. A.E. Merrill, A. Sarukhanov, P. Krejci, B. Ideni, R. Lachman, W. Wilcox and D. Krakow. Univ. of Southern California, UCLA and Cedars-Sinai Med. Ctr.

12:15 Discussion.

458. NOVEL VIEWS OF THE EYE

Symposium

(Cosponsored by: Association of Anatomy, Cell Biology & Neurobiology Chairpersons)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 7B

CHAIR: J. CLARK

Neurobiology

10:30 Chair’s introduction.


11:00 458.2 The genetic basis for normal vision and vision disorders. J. Neitz and M. Neitz. Univ. of Washington.


12:15 Discussion.

459. CARDIAC TISSUE ENGINEERING

Symposium

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 9

CHAIR: G. VUNJAK-NOVAKOVIC

Cardiovascular

10:30 Chair’s introduction.

10:35 459.1 Clinically relevant issues in cardiac stem cell therapy. J.C. Wu. Stanford Univ. Sch. of Med.

11:00 459.2 In vitro models of heart disease and regeneration. M. Radisic. Univ. of Toronto.


12:15 Discussion.

POSTER PRESENTERS: UPLOAD YOUR POSTER

Where: E-Poster Counter, Hall D Lobby

Deadline: Wed., April 25, 3:30 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org
Biochemistry and Molecular Biology

460. HERBERT A. SOBER LECTURESHIP

Award

WED. 9:00 AM—SAN DIEGO CONVENTION CENTER, 6B

9:00 Introductory remarks. M. Stallcup.

9:05 460.1 Using genomic technologies to investigate transcriptional regulation in normal and cancer cells. P.J. Farnham. Univ. of Southern California.

9:05 460.1 Using genomic technologies to investigate transcriptional regulation in normal and cancer cells. P.J. Farnham. Univ. of Southern California.

461. RIBOSOMES: REGULATION OF ACCESS TO mRNA

Symposium

WED. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6F

CHAIR: M. ARES, JR.

9:55 Chair's introduction.

10:00 461.1 A knotty problem: dissecting the molecular mechanics of mRNA recruitment to the eukaryotic ribosome. J.R. Lorsch. Johns Hopkins Univ. Sch. of Med.


11:05 NMD-deficient Upf3b-null mice display behavioral and neuropathological defects. L. Huang, E.Y. Shum, R. Karam, L.S. Nguyen, J. Gez and M.F. Wilkinson. UCSD and Women's and Children's Hosp., Adelaide. (747.5)


12:00 Conclusion.

462. TELOMERES AND TELOMERASE

Symposium

WED. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6E

CHAIR: J. DIFFLEY

9:55 Chair’s introduction.

10:00 462.1 Control of centrosomes and kinetochores by telomeres in meiosis. J.P. Cooper, C. Bez, A. Fennell, M. Klutstein and K. Tomita. Cancer Res. UK and University Col. London.


10:40 462.2 BRCA1 and CtIP are required for processing uncapped telomeres. M. Tarsounas. Univ. of Oxford.


12:00 Conclusion.

463. ENDOMEMBRANE SYSTEM DYNAMICS

Symposium

WED. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6D

CHAIR: B. GLICK

9:55 Chair’s introduction.

10:00 463.1 Large scale analysis of synaptic phosphorylation and O-GlcNAcylation reveals complex interplay between these post-translational modifications. J.C. Trinidad, D.T. Barkan, B. Gulledge, A. Thalhammer, A. Sal, R. Schoepfer and A.L. Burlingame. UCSF and University Col. London. (978.2)


10:40 463.2 Regulation of I-kappa-B kinase pathway by CARMA 1•Bcl-10•MALT -1 complex promotes SNARE complex formation and secretion in platelets. M. Banerjee, Z. Karim, J. Zhang and S.W. Whiteheart. Univ. of Kentucky. (986.1)

11:05 The actions of SNAREs and Munc18 in neuronal vesicle fusion. J. Shen. Univ. of Colorado Boulder. (988.2)

11:20 Regulation of I-kappa-B kinase pathway by CARMA 1•Bcl-10•MALT-1 complex promotes SNARE complex formation and secretion in platelets. M. Banerjee, Z. Karim, J. Zhang and S.W. Whiteheart. Univ. of Kentucky. (986.1)

11:35 463.3 Molecular insights into tether function at the late endosome and vacuole. C. Ungermann. Univ. of Osnabrueck, Germany.

12:00 Conclusion.

464. NEW METHODOLOGIES FOR TARGET DISCOVERY AND TARGET VALIDATION

Symposium

WED. 9:55 AM—SAN DIEGO CONVENTION CENTER, 6C

CHAIR: P. JACKSON

9:55 Chair’s introduction.

10:00 464.1 Functional genomics to decipher cancer dependencies and mechanisms. W.C. Hahn. Dana-Farber Cancer Inst.


12:00 Conclusion.

465. LIPID REGULATION OF PROTEIN FUNCTION
Symposium
WED: 9:55 AM—SAN DIEGO CONVENTION CENTER, 6A

CHAIR: T. OSBORNE

9:55 Chair’s introduction.


11:05 Chemical approaches to the investigation of protein-membrane binding interactions using synthetic lipid probes. M.D. Best. Univ. of Tennessee, Knoxville. (595.1)

11:20 Sterol regulation of HMG CoA reductase in the liver. N. Calhoun and R. Deobse-Boyd. Univ. of Texas Southwestern Med. Ctr. (787.10)

11:35 465.3 Inflammation and insulin resistance. J.M. Olefsky. UCSD.

12:00 Conclusion.

466. RELATIONSHIP OF HOST AND PATHOGEN
Symposium
WED: 9:55 AM—SAN DIEGO CONVENTION CENTER, 1B

CHAIR: M. JACKSON

9:55 Chair’s introduction.


10:40 466.2 Protein export via the accessory SecA2 system of Mycobacterium tuberculosis. M. Braunstein, J.T. Sullivan, M. Feltcher and L. Ligon. Univ. of North Carolina at Chapel Hill.


11:35 466.3 Compensatory evolution and fixation of Rfamycin resistance in MDR and XDR tuberculosis. C.E. Barry III. NIAID/NIH.

12:00 Conclusion.

467. INTERPLAY BETWEEN CHROMATIN STRUCTURE AND THE TRANSCRIPTION MACHINERY
Symposium
WED: 1:45 PM—SAN DIEGO CONVENTION CENTER, 6F

CHAIR: R. SHIEKETTAR

1:45 Chair’s introduction.

1:50 467.1 Molecular dynamics of epigenetic transitions. G.L. Hager. NCI/NIH.


2:30 467.2 Lysine methylation and regulation of gene expression programs. O. Gozani. Stanford Univ.

2:55 Replication-dependent expression of herpes simplex virus late genes is controlled by P-TEFb/CDK9 and DSIF/SP75. P. Elias and K-W. Tang. Univ. of Gothenburg, Sweden. (931.16)

3:10 Transcription factor access to their sites in chromatin. M. Floer and A. Gjidoda. Michigan State Univ. (925.1)


3:50 Conclusion.

468. NETWORKS AND NOISE
Symposium
WED: 1:45 PM—SAN DIEGO CONVENTION CENTER, 6E

CHAIR: A. HOFFMANN

1:45 Chair’s introduction.

2:00 Talk TBA. C. Voight, MIT.

2:25 468.1 Sensing array of radically coupled genetic biopixels. J. Hasty. UCSD.

2:55 Topocell – an image analysis tool to study intracellular topography. V.R.C.P.F. Fachada, N. Fachada, T. Turpeinen, P. Rahkila, A. Rosa and H. Kainulainen. Univ. of Jyväskylä, Finland and Tech Univ. of Lisbon. (578.2)


1:45 Chair's introduction.


2:15 Ubiquitin chain trimming recycles the substrate binding sites of the 26S proteasome and promotes degradation of lysine 48-linked polyubiquitin conjugates. C-W. Liu, N-Y. Zhang, A.D. Jacobson and A. MacFadden. Univ. of Colorado Sch. of Med. and Med. Col. of Wisconsin. (957.1)

2:30 469.2 TorsinA – unlocking the mysteries of an AAA+ ATPase in the endoplasmic reticulum and nuclear envelope. P.I. Hanson, A. Vander Heyden and T.V. Naismith. Washington Univ. Sch. of Med.

2:55 The role of protein oxidation in the onset of the transthyretin amyloidoses. L. Zhao, N. Reixach and J. Buxbaum. The Scripps Res. Inst. (752.10)


3:50 Conclusion.

469. PROTEIN QUALITY CONTROL AND DISEASE

Symposium

WED. 1:45 PM—SAN DIEGO CONVENTION CENTER, 6D

CHAIR: J. BRODSKY

1:45 Chair's introduction.


2:15 Ubiquitin chain trimming recycles the substrate binding sites of the 26S proteasome and promotes degradation of lysine 48-linked polyubiquitin conjugates. C-W. Liu, N-Y. Zhang, A.D. Jacobson and A. MacFadden. Univ. of Colorado Sch. of Med. and Med. Col. of Wisconsin. (957.1)

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2:55 The role of protein oxidation in the onset of the transthyretin amyloidoses. L. Zhao, N. Reixach and J. Buxbaum. The Scripps Res. Inst. (752.10)


3:50 Conclusion.

470. FRONTIERS IN MECHANISTIC ENZYMIOLOGY

Symposium

WED. 1:45 PM—SAN DIEGO CONVENTION CENTER, 6C

CHAIR: J. SELLO

1:45 Chair's introduction.


2:15 High-pressure adaptation in piezotolerant enzymes studied with cytochromes P450 from deep-sea bacteria. D.R. Davydov and E.V. Sineva. UCSD Skaggs Sch. of Pharm. and Pharmaceut. Sci. (959.4)

2:30 470.2 Oxidative nucleic acid modification and demodification. C. He. Univ. of Chicago.


3:50 Conclusion.
2:55 Human lysyl oxidase-like 2 in breast cancer metastasis. M. Mure, L. Xu and K. Rebecchi. Univ. of Kansas. (794.6)
3:10 Alteration of heparan sulfate 2-O-sulfation in endothelial cells enhances neutrophil infiltration in mice. D. Xu, J. Axelsson, B.N. Kang, P. Sriramarao, T.M. Handel, K. Ley and J.D. Esko. UCSD, Univ. of Minnesota, St. Paul and La Jolla Inst. for Allergy and Immunol. (609.1)

Nutrition

473. NUTRITIONAL PREVENTION OF COGNITIVE DECLINE

Symposium
(Supported by an educational grant from the NIH Office of Dietary Supplements)
(Sponsored by: Nutritional Epidemiology RIS)
WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: L. ARAB
COCHAIR: R. BAILEY
8:00 The role of B vitamins in preventing and treating cognitive impairment. M. Morris. Tufts Univ.
8:30 Coffee, tea, caffeine and flavonoids and cognitive decline. L. Arab. David Geffen Sch. of Med., UCLA.
9:00 Omega 3 fatty acids and decline. T. Cederholm. Uppsala Univ., Sweden.
9:30 Vitamin D. J. W. Miller. Univ. of California, Davis Med. Ctr.

474. NUTRITIONAL REGULATION OF EPIGENETIC CHANGES

Symposium
(Supported by educational grants from New England Biolabs and ThermoFisher Scientific)
(Sponsored by: Medical Nutrition Council (MNC) and the Nutritional Sciences Council (NSC)
WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 31A/B/C
CHAIR: D.F. ROMAGNOLO
COCHAIR: T. R. ZIEGLER
8:00 MicroRNAs, diet and cancer. R. Dashwood. Oregon State Univ.
8:30 Diet-nuclear receptor interactions and epigenetic diseases. D. F. Romagnolo. Univ. of Arizona.

475. MACRONUTRIENTS AS TOOLS TO COUNTER AGE-RELATED CHANGES IN SKELETAL MUSCLE

Symposium
(Supported by an educational grant from the Dairy Research Institute)
(Sponsored by: Energy and Macronutrient Metabolism RIS and Aging and Chronic Disease RIS)
WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 20D
CHAIR: W.W. CAMPBELL
11:00 Dietary carbohydrate: relationships among dietary carbohydrate, exercise, skeletal muscle, and insulin action. J. Haus. Univ. of Illinois, Chicago.
12:00 Energy balance and macronutrient distributions: must obese older adults compromise skeletal muscle while losing weight to improve health? W. W. Campbell. Purdue Univ.

POSTER PRESENTERS: UPLOAD YOUR POSTER

Where: E-Poster Counter, Hall D Lobby
Deadline: Wed., April 25, 3:30 PM
Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org
Pathology

476. INNATE IMMUNITY IN THE BRAIN

Symposium

(Sponsored by: ASIP Neuropathology Scientific Interest Group)

Wed. 8:30 AM—San Diego Convention Center, 16B
CHAIRRED: C.A. WILEY and J. KOFLER

Neuropathology

8:40 Innate immunity in the CNS. S-Y. Zhang. Rockefeller Univ.
10:00 Microglia in vitro. J. Kofler. Univ. of Pittsburgh Med. Ctr.

477. RECENT ADVANCES IN THE PATHOBIOLOGY OF DIABETIC COMPLICATIONS

Symposium

Wed. 8:30 AM—San Diego Convention Center, 16A
CHAIRRED: I. JIALAL and S. DEVARAJ

8:30 The role of inflammation in diabetic vascular complications. I. Jialal. Univ. of California, Davis Med.Ctr.
10:00 AGE-RAGE axis in diabetic complications. A. M. Schmidt. NYU Sch. of Med.

478. ANIMAL MODELS

Minisymposium

Wed. 8:30 AM—San Diego Convention Center, 17B
CHAIRRED: M.J. McARTHUR
COCHAIRED: E. WHITLEY

9:00 478.3 Regulation of the calpain and ubiquitin proteasome system in a canine model of muscular dystrophy with myostatin inhibition. S.W. Cotten, K.M. Wadosky, D. Bogan, J.N. Kornegay and M.S. Willis. Univ. of North Carolina at Chapel Hill.
9:15 478.4 The preventive effect of melatonin and/or exercise on cartilage destruction in collagenase-induced osteoarthritis rats. H. Kim, Y. Hong and Y. Hong. Inje Univ., South Korea.

479. MODELING CANCER: BIOLOGICAL AND THERAPEUTIC IMPLICATIONS

Minisymposium

Wed. 8:30 AM—San Diego Convention Center, 17A
CHAIRRED: P. DASGUPTA
COCHAIRED: V. CASTRONOVO

Neoplasia

9:00 479.3 Loss of β-catenin in hepatocytes leads to paradoxical increase in DEN/PB induced HCC. P. Awuah. Univ. of Pittsburgh Sch. of Med.
9:45 479.6 The RNA-binding protein Imp2 regulates oxidative phosphorylation that is key to glioblastoma cancer stem cell maintenance. M. Janiszewska, M-L. Suva, R.H. Houtkooper, V. Clement-Schatlo and I. Stamenkovic. Univ. of Lausanne, Massachusetts Gen. Hosp., Boston, EPFL, Lausanne and Univ. of Geneva.
Pharmacology and Experimental Therapeutics

480. **RAY FULLER LECTURE IN THE NEUROSCIENCES**

**Lecture**

**WED. 8:30 AM—SAN DIEGO CONVENTION CENTER, 2**

The Ray Fuller Lecture in the Neurosciences was established to honor the achievements of Ray Fuller in applying an improved understanding of the central nervous system to discover better treatments for the mentally ill. Dr. Fuller was one of the triad that discovered fluoxetine (Prozac), leading to an entire new approach to the therapy of depression.

8:30 **Introduction. L. Wecker.** Univ. of South Florida Col. of Med.  
8:35 Fulfilling the promise of molecular medicine in autism spectrum disorders. **M. F. Bear.** MIT.

481. **RAY FULLER SYMPOSIUM: PROGRESS TOWARD AUTISM DRUG DISCOVERY**

**Symposium**

**WED. 9:30 AM—SAN DIEGO CONVENTION CENTER, 2**

**CHAIR: M. BEAR**

9:30 TBD.  
11:50 Discussion.

482. **PROTEIN-PROTEIN INTERACTION INTERFACES AS THERAPEUTIC TARGETS: PROMISES AND CHALLENGES**

**Symposium**

**(Sponsored by: The Divisions for Molecular Pharmacology and Drug Discovery, Development & Regulatory Affairs)**

**WED. 9:30 AM—SAN DIEGO CONVENTION CENTER, 3**

**CHAIR: H. Fu**

9:30 Chair’s introduction.  
9:40 Targeting PPIs to interrogate survival signaling network in cancer. **H. Fu.** Emory Univ.  
10:15 Targeting PPI interfaces in drug discovery: key attributes of successful compounds. **D. C. Fry.** Hoffmann-La Roche Inc.  
10:50 Fragment-based drug discovery approach for challenging targets: PPI. **M. Arkin.** UCSF.  
11:25 Computational scaffold design approach for the discovery of PPI inhibitors. **S. Wang.** Univ. of Michigan.

483. **NADPH-CYTOCHROME P450 OXIDOREDUCTASE: ROLES IN PHYSIOLOGY, PHARMACOLOGY, AND TOXICOLOGY**

**Symposium**

**(Sponsored by: The Divisions for Drug Metabolism; Toxicology; and Drug Discovery, Development & Regulatory Affairs)**

**WED. 9:30 AM—SAN DIEGO CONVENTION CENTER, 4**

**CHAIR: D. RIDDICK**

**COCHAIR: T. PORTER**

9:30 **Introduction. D. S. Riddick.** Univ. of Toronto.  
9:40 Engineered mouse models harboring null or hypomorphic alleles for NADPH-cytochrome P450 oxidoreductase. **X. Ding.** New York State Dept. of Hlth. Discussion.  
10:10 Mouse models for deciphering the roles of NADPH-cytochrome P450 oxidoreductase and cytochrome b_{5} in physiology, drug metabolism and cancer. **C. R. Wolf.** Univ. of Dundee, Ninewells Hosp. and Med. Sch. Discussion.  
10:45 Replication of the hepatic lipidosis seen in hepatic POR-null mice in a hepatoma cell culture model: a role for FXR? **T. D Porter.** Univ. of Kentucky Col. of Pharm. Discussion.  
11:55 Discussion.

484. **OPIOID-INDUCED BOWEL DYSFUNCTION**

**Symposium**

**(Sponsored by: The Divisions for Integrative Systems, Translational & Clinical Pharmacology; Toxicology; and Neuropharmacology)**

**WED. 9:30 AM—SAN DIEGO CONVENTION CENTER, 5A**

**CHAIR: H. AKBARALI**

9:30 Opiate receptor function in enteric neurons. **C. Sternini.** UCLA Sch. of Med.  
10:00 Peripheral opiate antagonists—current usage in treating OBD. **F. M. Mangano.** Adolor Corp.  
10:30 Opioid tolerance and bowel dysfunction. **H. I. Akbarali.** Virginia Commonwealth Univ.  
11:00 Mu opioid receptor biased ligands: delivering powerful analgesia and minimizing side effects. **S. DeWire.** Trevana Inc.  
485. DISCOVERY OF PROTEIN KINASE INHIBITORS FOR CNS DISORDERS: OPENING NEW AVENUES FOR UNMET NEEDS

Symposium
(Sponsored by: The Divisions for Neuropharmacology; Behavioral Pharmacology; and Molecular Pharmacology)

Wed. 3:00 PM—San Diego Convention Center, 3

Chair: M. Gnegy and D. Watterson


4:10 Application of fragment-based lead discovery to identify specific targeted protein kinase inhibitors for CNS disorders. V. Nienaber. Zenobia Therapeut., Inc.

4:45 PKCβ inhibitors as potential treatment for drug abuse. R. Chen. Univ. of Michigan Med. Sch.

5:20 Discussion.

486. STEROID SIGNALING VIA G PROTEIN-COUPLED RECEPTORS

Symposium
(Sponsored by: The Divisions for Molecular Pharmacology; Integrative Systems, Translational & Clinical Pharmacology; Neuropharmacology; Toxicology; and Cardiovascular Pharmacology)

Wed. 3:00 PM—San Diego Convention Center, 4

Chair: E. Prossnitz

3:00 What have selective ligands told us about GPER function? E. Prossnitz. Univ. of New Mexico.


4:00 Actions of GPER on the vasculature. M. Barton. Univ. of Zurich.


5:00 G protein estrogen receptor regulates Kv11.1 ion channel activity in ERneg breast cancer cells. S. Gentile. Loyola Univ., IL. (1048.8)

5:15 Discussion.

487. CLINICAL PIPELINE OF MARINE PHARMACEUTICALS: THE ODYSSEY CONTINUES

Symposium
(Sponsored by: The Division for Drug Discovery, Development & Regulatory Affairs)

Wed. 3:00 PM—San Diego Convention Center, 5A

Chair: K. Glaser and A.M.S. Mayer

3:00 Overview of the current marine clinical pharmaceutical pipeline. K. B. Glaser. Abbott Labs.

3:15 Discovery of Eribulin mesylate (Halaven®): From marine natural product to FDA approved drug. M. Yu. EISAI Inc.


4:25 Discovery and development from marine microbiology of the anticancer compounds plinabulin (NPI-2358) and marizomib (NPI-0052). G. K. Lloyd. Nereus Pharmaceut. Inc.

5:00 Overview of the current preclinical marine pharmacology pipeline. A.M.S. Mayer. Midwestern Univ., IL.

5:20 Discussion.

488. APPLICATIONS OF BIOMATERIALS AND DRUG DELIVERY SYSTEMS FOR ENHANCING TISSUE ENGINEERING AND REGENERATION

Symposium
(Sponsored by: The Division for Integrative Systems, Translational & Clinical Pharmacology)

Wed. 3:00 PM—San Diego Convention Center, 5B

Chair: K.E. Anderson and G. Christ


4:00 Polymeric materials and conjugates for systemic drug and gene delivery. P. Stayton. Univ. of Washington.


5:00 Delivery of nucleic acids to regulate the local environment in tissue engineering applications. J. M. Saul. Wake Forest Univ. Hlth. Sci.

489. ASPET CLOSING RECEPTION

Special Event

Wed. 6:00 PM—San Diego Marriott Marquis & Marina, Poolside Terrace
490. ANABOLIC RESISTANCE TO EXERCISE WITH AGING OR DISEASE

Featured Topic
(Sponsored by: APS Environmental and Exercise Physiology Section)
WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: J. FLUCKEY

Metabolic Diseases
8:00 Introduction.
8:05 Anabolic resistance to load-induced hypertrophy with metabolic syndrome in the mouse. S. C. Bodine. Univ. of California, Davis.
8:50 The effect of treadmill exercise on the regulation of protein synthesis during IL-6 induced cancer cachexia. M. Puppa, J. White, S. Sato and J. Carson. Univ. of South Carolina. (1149.2)
9:50 Wrap-up. J. D. Fluckey, Texas A&M Univ.

491. BONE-MUSCLE CROSSTALK

Featured Topic
(Sponsored by: APS Muscle Biology Group)
WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: M. BROTTIO AND M. JOHNSON

8:00 The state of a new field: The Bone-Muscle Crosstalk. T. Clemens, Johns Hopkins Sch. of Med.
8:30 Aging and exercise models that define and reveal new aspects of the muscle-bone communication. M. Hamrick, Georgia Health Sciences University-Medical College of Georgia.
9:00 Multiple-staged regulation of myogenic differentiation by prostaglandin E2. C. Mo, S. Romero-Suarez, O. Igwe and M. Brottio. Univ. of Missouri-Kansas City. (1143.1)
9:15 Wnt3a a potent modulator of myogenic differentiation and muscle cell function. S. Romero-Suarez and M. Brottio. Sch. of Nursing, Univ. of Missouri-Kansas City. (1143.2)
9:30 Bad to bone: homocysteine. N. Tyagi, N. Narayanan, S. Givviman and S.C. Tyagi. Univ. of Louisville. (1143.5)

492. CONFLICT RESOLUTION: HOW TO KEEP EVERYONE HAPPY!

Symposium
(Sponsored by: APS Women in Physiology Committee)
WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: A. GRIPPO AND R. L. SUTLIFF

Career Development
8:00 Squashing squabbles. P. O. Smith. Univ. of Mississippi Med. Ctr.
8:30 Disagree and advance your career: nonviolent approaches for dealing with your superior. B. Horwitz. Univ. of California, Davis.
9:00 Overcoming laboratory disagreements from a trainee perspective. J. Sasser. Univ. of Mississippi Med. Ctr.
9:30 Panel discussion with questions from the audience.

493. CONTEMPORARY APPROACHES TO THE PATHOPHYSIOLOGY OF THE CARDIOVASCULAR SYSTEM

Symposium
(Sponsored by: Latin American Association of Physiological Societies (ALACF)
WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 23
CHAIR: R. ITURRIAGA AND B. H. MACHADO

8:00 The novel axis of the renin-angiotensin system-ACE2/angiotensin-(1-7)/Mas: role in cardiovascular control and hypertension. R. A.S. Santos. Fed. Univ. of Minas Gerais, Brazil.
8:30 ACE and AT1 receptor function as angiotensin II-independent mechanotransducers. J. E. Krieger. Heart Inst., Univ. of Sao Paulo.
9:00 Pathophysiological role of the sodium/bicarbonate cotransporter in the heart. A. Aiello. Univ. of La Plata.

494. GASTROINTESTINAL PHYSIOLOGY AND THE MICROBIOME

Featured Topic
(Sponsored by: APS Gastrointestinal and Liver Physiology Section)
WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 25A
CHAIR: R. T. WORRELL AND H. V. CAREY

Translational Physiology
8:00 Hibernation alters the gut microbial community in ground squirrels. H.V. Carey, W.A. Walters and R. Knight. Univ. of Wisconsin-Madison, Univ. of Colorado Boulder and HHMI. (1155.6)
8:15 Dynamics of the cecal microbial community of an extreme hibernator, the arctic ground squirrel. T. Stevenson, L. Buck, B. Quinlan and K. Duddleston. Univ. of Alaska Anchorage. (1155.7)

8:30 Feeding of probiotic formulation protects from obesity and diabetes. H. Yadav and S.G. Rane. NIDDK/NIH. (1155.4)

8:45 Organ function shapes the microbiome… and vice versa. M. G. D. Bello. Univ. of Puerto Rico at Rio Piedras.

9:15 Diverse gut microbes facilitate ingestion of dietary toxins in herbivores. M.D. Dearing, K. Kohl, C. Dale and R. Weiss. Univ. of Utah. (1155.8)


9:45 Dietary fat-induced taurocholic acid production promotes pathobiont and colitis in IL-10 -/- mice. S. Devkota, Y. Wang, V.A. Leone, M. Musch, A. Nadimpalli, D. Antonopoulos, B. Jabri and E. Chang. Univ. of Chicago and Argonne Natl. Lab. (1155.2)

495. MITOCHONDRIAL DYNAMICS IN CARDIAC PHYSIOLOGY

Symposium

(Sponsored by: APS Cardiovascular Section)

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 26

CHAIR: W. C. STANLEY AND J. H. RENNISON

Metabolic Diseases

Translational Physiology

8:00 Overview of formation and maintenance of mammalian mitochondria. J. Nunnari. Univ. of California, Davis.


9:00 Mitochondrial turnover and ischemia/reperfusion injury. A. B. Gustafsson. UCSD.

9:30 Sirtuins, protein acetylation and selective mitophagy. M. N. Sack. NHLBI/NIH.

496. NEUROVASCULAR MECHANISMS AND TARGETS IN STROKE: FROM CELLS TO HUMANS

Symposium

(Sponsored by: American Federation for Medical Research)

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 27

CHAIR: M. NING AND E. H. LO

Translational Physiology


8:30 Physiology and pathophysiology of the blood-brain barrier. T. Davis. Univ. of Arizona.

9:00 Imaging neurovascular mechanisms and targets in stroke. P. Lyden. Cedars-Sinai Hosp.


497. NOVEL REGULATORS OF CARDIAC FIBROBLAST FUNCTION AND FATE

Featured Topic

(Sponsored by: APS Cardiovascular Section)

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 22

CHAIR: M. CZUBRYT

Inflammation and Immune Responses

8:00 Regulation of cardiac fibroblast transdifferentiation by microenvironment manipulation. B. Hinz. Univ. of Toronto.

8:30 miRNA regulation of cardiac fibroblast function. E. Creemers. Univ. of Amsterdam.


9:15 Scleraxis works synergistically with Smads to regulate collagen gene expression. R. Bagchi and M. Czubryt. Univ. of Manitoba. (1059.2)


498. RECENT ADVANCES IN PHYSIOLOGY AND DISEASE: THE ROLE OF THE CIRCADIAN CLOCK IN NEURAL, CARDIOVASCULAR AND METABOLIC FUNCTION

Symposium

WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 24

CHAIR: M. L. GUMZ AND R. D. RUDIC

8:00 Mechanism and regulation of the circadian clock. D. R. Weaver. Univ. of Massachusetts Med. Sch.


9:00 The role of the circadian clock protein Per 1 in the regulation of renal sodium handling. M. L. Gumz. Univ. of Florida.

499. RESPIRATORY PATTERN VARIABILITY: INSIGHTS INTO RESPIRATORY CONTROL MECHANISMS IN HEALTH AND DISEASE

Featured Topic
(Sponsored by: APS Respiration Section)
WED. 8:00 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: T. DICK

8:00 Central mechanisms of variable respiratory patterns. N. Mellen. Univ. of Louisville Sch. of Med.
9:00 A stochastic and integrative model of breathing with temporal scaling characteristics. B.F. BuSha and S. Frone. The Col. of New Jersey. (1148.11)
9:15 Influence of different classes of anesthetics on burst-to-burst variability of basal phrenic nerve discharge in adult in vivo rat. T. Rahim, A. Kiridly, I.M. Reid and I.C. Solomon. Stony Brook Univ. (1148.9)
500. AMERICAN PHYSIOLOGICAL SOCIETY: 125 YEARS OF PROGRESS

Symposium
(Sponsored by: APS History of Physiology Group)
WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 23
CHAIR: C. M. Tipton and K. Ryan

11:10 APS and progress in advocating and implementing scientific policies and practices at the national and international levels. M. Frank. APS.
11:30 Eminent physiological studies by APS members during the past 125 years. C. M. Tipton. Univ. of Arizona.
12:00 Discussion by the membership.

10:55 In situ regeneration of blood vessels by recruiting endogenous stem cells. S. Li. Univ. of California, Berkeley.
12:10 Vascularization of engineered tissues. J. West. Rice Univ.

503. E-MEDIA TOOLS FOR THE PROFESSIONAL SCIENTIST

Symposium
(Sponsored by: APS Trainee Advisory Committee)
WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25C
CHAIR: J. Bomberger and E. Dale-Nagle

Career Development

10:30 Using e-media to find funding opportunities. C. Dant. Dartmouth Norris Cotton Cancer Ctr.
11:00 E-media tools for teaching. A. Bunker. Morningside Col., IA.
12:00 Ethical implications of social media. N. Brown. Happy Place Marketing, Tulsa.
504. ESSENTIAL INSIGHTS INTO PROTEIN INTERACTIONS IN EPITHELIA

Symposium

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 27
CHAIR: R. A. FENTON

10:30 Use of mass spec and related techniques to measure post-translations modifications. F. White. David H. Koch Inst. for Integrative Cancer Res., MIT.
11:00 The interactome of a human cell. P. Braun. Dana-Farber Cancer Inst.
12:00 Novel imaging approaches to study protein-protein interactions in living animals. R. Paulmurugan. Stanford Univ.

505. INSULIN RESISTANCE: A DEFENSE MECHANISM FOR THE STRESSED HEART?

Symposium

(Sponsored by: APS Cardiovascular Section)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 26
CHAIR: H. TAEGTMEYER AND M. CHANDLER

Metabolic Diseases

11:45 Cardioprotection attributed to high fat diet-induced insulin resistance. M. Chandler. Case Western Reserve Univ.
12:10 Insulin resistance as a cellular defense mechanism. K. L. Hoehn. Univ. of Virginia.

506. MECHANICAL MUSCLE DAMAGE

Featured Topic

(Sponsored by: APS Muscle Biology Group)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28B
CHAIR: K. MYBURGH

11:15 Titin is not the weak link in the Z-disk streaming induced by plyometric exercise. F. Macaluso, A.W. Isacs and K.H. Myburgh. Stellenbosch Univ., South Africa. (1141.1)
11:30 Mechanical modeling of Z-disc behavior in response to stretch. K. S. Campbell. Univ. of Kentucky.

507. OXYGEN TRANSPORT AND FATIGUE IN HUMANS: UNRAVELING THE MECHANISMS

Symposium

(Sponsored by: APS Environmental and Exercise Physiology Section)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25B
CHAIR: J. A. LOPEZ CALBET AND J. DEMPSEY

10:30 Brain oxygenation and fatigue: is it all about low PaO2? J. A. Lopez Calbet. Univ. of Las Palmas de Gran Canaria.
11:00 Performance enhancing effects of increased oxygenation. C. Lundby. Univ. of Zurich.
11:30 Mitochondrial respiration as limiting factor for exercise in humans. R. Boushel. Univ. of Copenhagen.
12:00 Role of muscle afferents in convective O2 transport and fatigue. M. Amann. Univ. of Utah.

508. REGULATION OF INTESTINAL STEM CELLS DURING DEVELOPMENT, HOMEOSTASIS, ADAPTATION AND PATHOPHYSIOLOGY

Symposium

(Sponsored by: APS Gastrointestinal and Liver Physiology Section)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 25A
CHAIR: Y. ZAVROS AND N. N. NANTHAKUMAR

Translational Physiology

Physiology of Development

11:00 CD166, the cancer stem cell marker, functions to regulate the intestinal stem cell niche. M. Wong. Oregon Hlth. & Sci. Univ.
11:30 Intestinal stem cell: isolation and characterization during intestinal adaptation and during recovery from injury. C. M. Dekaney. Univ. of North Carolina at Chapel Hill.

509. S-GLUTATHIONYLATION AS A MECHANISM OF OXIDATIVE SIGNALING

Symposium

(Sponsored by: APS Respiration Section)

WED. 10:30 AM—SAN DIEGO CONVENTION CENTER, 28A
CHAIR: J. SNOW AND V. ANATHY

Hypoxia and Oxidative Stress

10:30 S-glutathionylation uncouples eNOS and regulates its cellular and vascular function: relevance to pulmonary vasoreactivity. J. L. Zweier. The Ohio State Univ.
510. DIABETIC CARDIOVASCULAR DYSFUNCTION: ROS-DEPENDENT AND -INDEPENDENT CAUSES AND COMPLICATIONS

Featured Topic

(Sponsored by: APS Cardiovascular Section)

WED. 3:30 PM—SAN DIEGO CONVENTION CENTER, 28A

CHAIR: L. E. WOLD AND J. G. MESZAROS

Hypoxia and Oxidative Stress

Metabolic Diseases


4:00 Diabetic cardiomyopathy and nephropathy: Roles of glucose metabolism and oxidative stress. P. N. Epstein. Univ. of Louisville.


5:15 Role of BMP4 in eNOS uncoupling in type 2 diabetes. J.Y. Youn and H.L. Cai. UCLA. (1057.4)

511. HOST RESPONSES TO GASTROINTESTINAL INFECTIONS

Featured Topic

(Sponsored by: APS Gastrointestinal and Liver Physiology Section)

WED. 3:30 PM—SAN DIEGO CONVENTION CENTER, 25C

CHAIR: L. ECKMANN

3:30 Role of focal adhesion kinase in the innate immune response to salmonella infection. J. Casanova. Univ. of Virginia.


4:15 Changes in innate immune pathway and proteins of Caenorhabditis elegans during Cronobacter sakazakii infection. K. Balamurugan and B.S. Sivamaruthi. Alagappa Univ., India. (1156.2)


5:00 Inflammation causes important changes in stomach tight junction structure and function. S.J. Hagen, S. Zhang, J.H. Seo and J.G. Fox. Beth Israel Deaconess Med. Ctr. and MIT. (1156.4)

5:15 A molecular mechanism for suppression of colonic inflammation by gut bacteria. A. Gurav, N. Singh and V. Ganapathy. Georgia Hlth. Sci. Univ. (1156.5)

512. LEPTIN: METABOLIC, CARDIOVASCULAR AND IMMUNE CONTROL. DOES IT ALL COME FROM THE BRAIN?

Featured Topic

(Sponsored by: APS Cardiovascular Section)

WED. 3:30 PM—SAN DIEGO CONVENTION CENTER, 22

CHAIR: E. BELIN DE CHANTEMELE AND H. LOB

Inflammation and Immune Responses

3:30 Expanding metabolic roles for central leptin signaling and regulation by PTP1B. K. Bence. Univ. of Pennsylvania.

4:00 Circumventricular organs: new targets for leptin actions in central regulation of energy balance and cardiovascular regulation. A. V. Ferguson. Queen's Univ., Canada.


4:45 Activation of leptin receptors in the NTS contributes to the elevated blood pressure in obesity via inhibiting NTS melanocortin signaling. S-i. Sekizawa and C. Chen. Univ. of California, Davis. (1128.5)

5:00 Increasing leptin sensitivity increases blood pressure in mice on a TH2 responsive background only. E.J. Belin de Chantemele. Georgia Hlth. Sci. Univ. (1128.6)


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513. MAMMALIAN TARGET OF RAPAMYCIN AS A CENTRAL PLAYER IN ENERGY BALANCE REGULATION

Symposium
(Sponsored by: APS Translational Physiology Group)
Wed. 3:30 PM—San Diego Convention Center, 28B
Chair: I. Torre-Villalvazo and A. R. Hargens

Translational Physiology

3:30 Allosteric and active site inhibitors of mTOR in the clinic. L. Murphy, Novartis Insts. for Biomed. Res. Inc.
4:00 Amino acid signaling to mTOR mediated by inositol polyphosphate multikinase. S. Kim, Korea Advanced Inst. of Sci. and Technol.
4:30 Hypothalamic mTOR signaling in energy balance and obesity. D. Cota, INSERM, Univ. Bordeaux.
5:00 AMPK-mTOR cross talk regulates brown adipocyte differentiation. S. Fernandez-Veledo, Hosp. univ. de Tarragona Joan XXIII, Spain.

514. NUCLEAR RECEPTORS IN LIVER DISEASE

Symposium
(Sponsored by: APS Gastrointestinal and Liver Physiology Section)
Wed. 3:30 PM—San Diego Convention Center, 25A
Chair: L. Wang and J. Chiang

Inflammation and Immune Responses

3:30 LXR and lipid signaling in hepatic stellate cells. S. W. Beaven, UCLA.
4:00 SHP regulation of fatty liver and liver cancer. L. Wang, Univ. of Utah Sch. of Med.
5:00 A novel role of FXR in hepatocarcinogenesis. W. Huang, Beckman Res. Inst. of City of Hope.

515. REACTIVE OXYGEN SPECIES, EXERCISE AND SARCOPENIA

Symposium
(Sponsored by: APS Environmental and Exercise Physiology Section)
Wed. 3:30 PM—San Diego Convention Center, 27
Chair: A. McArdle and S. Brooks

3:30 The effect of aging and oxidative stress on motor unit remodeling. L. Larkin, Univ. of Michigan.
4:00 Role of oxidative stress on NMJ degeneration in aging. H. Van Remmen, Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
4:30 ROS signaling and maintenance of muscle mass and function. M. J. Jackson, Univ. of Liverpool.
5:00 Mitochondrial involvement in aging muscle atrophy: cause or effect(or). R. T. Hepple, McGill Univ.

516. REGULATION OF MUSCLE BLOOD FLOW BY ATP DURING EXERCISE

Symposium
(Sponsored by: APS Environmental and Exercise Physiology Section)
Wed. 3:30 PM—San Diego Convention Center, 25B
Chair: G. H. Simmons and S. B. Bender

Blood Pressure Regulation

4:00 The red blood cell as a source of dilatory ATP during exercise: mechanisms and implications. R. S. Sprague, St. Louis Univ. Sch. of Med.
4:30 The regulation of coronary blood flow by ATP during exercise. E. O. Feigl, Univ. of Washington.
5:00 The relative maintenance of skeletal muscle vasoconstriction during exercise in the aged: is ATP involved? A. R. Crecelius, Colorado State Univ.

Physiology InFocus

Physiology in Medicine

517. NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE LECTURE

Wed. 3:30 PM—San Diego Convention Center, 20A

Translational Physiology
Title: On Being a Bench Scientist for 50 Years
Speaker: O. Smithies. Univ. of North Carolina at Chapel Hill.
SUNDAY, APRIL 22

Across Societies – Experimental Biology

518. TEACHING, LEARNING AND TESTING IN THE BIOLOGICAL AND BIOMEDICAL SCIENCES I

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education

Presentation time: 12:30 PM-2:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Sunday only.

T1 518.1 Collaborative group testing: perceptions of students in a biotechnology course for non-majors. T.M. Roberts, M.A. Siegel and S.K. Freyermuth. Univ. of Missouri-Columbia.

T2 518.2 Determining the effectiveness of the hybrid teaching method in a biology course at a small liberal arts college. K.K. Resendes and K. Mroz. Westminster Col., PA.

T3 518.3 Assessment of online course design for a lecture-only pathophysiology course. K.L.W. Walton. Missouri Western State Univ.

T4 518.4 Are your students ready for A & P? Developing an effective tool to identify students at risk for failure in introductory science courses. A.D. Gutrice, R. Kallmeyer and A. Witham. Univ. of Cincinnati Blue Ash Col. and The Christ Col., Cincinnati.

T5 518.5 A biomedical instrumentation lab to accompany an advanced physiology course. N.S. Latman. West Texas A&M Univ.

T6 518.6 Developing simple virtual microscopic slides in developing countries: impact and attitudes of medical students. U.B. Anyaehie and E. Anyanwu. Univ. of Nigeria.

T7 518.7 Replacing laboratory animals by alternative material for teaching diabetes in practical classes. M.J.A. Rocha, L.F. Tazinafo, P.J. Basso and M.F. Silva. Univ. of São Paulo, Ribeirão Preto.

T8 518.8 CO2 rebreathing: an undergraduate lab to study the chemical control of breathing. N.J. Domnik, S.E. Turcotte, N.Y. Yuen, S. Iscoe and J.T. Fisher. Queen’s Univ., Canada.

T9 518.9 Applying new technologies to old problems: undergraduate research projects for isolating and characterizing local Daphnia sp. and Chlamydomonas sp. M.A.F. Daggett. Missouri Western State Univ.

T10 518.10 Integration of student centered physiology learning into related high school science courses. S. Anjur. IMSA, Aurora, IL.


519. TEACHING, LEARNING AND TESTING IN THE BIOLOGICAL AND BIOMEDICAL SCIENCES II

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education

Presentation time: 1:30 PM-3:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Sunday only.


T16 519.2 The use of novel Camtasia videos to improve performance of at-risk students. C.J. Miller. Univ. of Louisville.

T17 519.3 Teaching student to use social media to do scientific research. J. Krontiris-Litowitz. Youngstown State Univ.


T19 519.5 Predicting strategies to improve student perceptions about connections between biology knowledge areas using innovative network analysis software. A. Dasgupta and P. Pelaez. Purdue Univ.

T20 519.6 Physiology with the singing greeting card beeper. G. Belušič and G. Župančič. Univ. of Ljubljana, Slovenia.

T21 519.7 Computer-driven mechanical model enables investigation of complex cardiovascular concepts. T.E. Sweeney. Univ. of Scranton.

T22 519.8 Using open source technology to enhance nursing students’ understanding of physiology. J.E. Lauze and D.D. Runshe. Indiana Univ. East and Indiana Univ., Indianapolis.

521. CELL BIOLOGY: SIGNALING AND MOLECULAR BIOLOGY

Poster

1:30 PM-3:30 PM


522. CELL BIOLOGY: MEMBRANES AND CYTOSKELETON

Poster

12:30 PM-2:00 PM


520. DISEASE PREVENTION THROUGH EDUCATION

Poster

11:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education

Presentation time: 1:30 PM-3:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Sunday only.

523. IMAGING

Posters

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:30 PM-2:00 PM

B257 523.2 Novel imaging of the implantation of left-sided pacing leads within reanimated swine hearts. J.H. Eggum and P. Iaizzo. Univ. of Minnesota, Minneapolis.


B259 523.4 3-Dimensional imaging and quantification of cell adherence on surfaces of medical grade devices using confocal laser-scanning microscopy. K.E. Prater, R.D. Prater and J.P. Biggerstaff. Univ. of Tennessee, Knoxville.


524. CARDIOVASCULAR BIOLOGY: ANATOMY AND MORPHOLOGY

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:30 PM-2:00 PM

B261 524.1 Glutamatergic neurons of the rat epicardial ganglia. T. Wang and K.E. Miller. Oklahoma State Univ.


525. CARDIOVASCULAR BIOLOGY: HEART DEVELOPMENT AND GROWTH

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:30 PM-2:00 PM


B264 525.2 Is BMP-2 a component of the particulate matrix that is responsible for epithelial/mesenchymal transformation during heart development. T.H. Abd-Elhamid, M.L. Conway and A.R. Sinning. Univ. of Mississippi Med. Ctr.

B265 525.3 The type I TGFβ receptor ALK-1 functions in angiogenesis. I. Duffy, J. Watters and J. Hawker. Saint Leo Univ., FL, South Florida Community Col. and Texas A&M Univ.

B266 525.4 Shear stress-activated angiopeititin-2 modulates endothelial cell repairs and vasculogenesis via Wnt/β-catenin signaling pathway. F. Yu, W. Takabe, M. Harrison, R. Li, J. Gu, N. Chi, C-L. Lien and T. Hsiai. Univ. of Southern California, Emory Univ., Children’s Hosp. Los Angeles and UCSD.


526. CARDIOVASCULAR BIOLOGY: DYSFUNCTION; DISEASE; GENETIC DISORDERS

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B272 526.4 Bacterial LPS influences receptor activator NF kappa B and fraktalkine receptors expression in arterial smooth muscle cells derived from limbs amputated for peripheral arterial disease. R. Zamin, P. Norman and L. Filgueira. Univ. of Western Australia.

B273 526.5 Liver-specific deletion of protein tyrosine phosphatase 1B improves endothelial dysfunction and cardiovascular alterations associated with obesity in mice. A. Agouni, S. Tual-Chalot, L. Duluc, C.M. Martinez, N. Mody, R. Andriantsitohaina and M. Delibegovic. Univ. of Surrey, Univ. of Aberdeen and INSERM U694, Angers.


527. CARDIOVASCULAR BIOLOGY: SEX AND GENDER-RELATED DIFFERENCES

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


528. ANATOMY EDUCATION: UNDERGRADUATE

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B278 528.1 Correlation between undergraduate anatomy and physiology and graduate anatomy outcomes: defining predictors of academic success of PA students. M. Hankin, A. Gardner, R. Lane, C. Bennett-Clarke and P. Hogue. Univ. of Toledo Col. of Med.

B279 528.2 How do undergraduate students study for anatomy, and does it matter? J.B. Barger. Indiana Univ.

B280 528.3 Helping students help themselves: evaluating the effectiveness of undergraduate study techniques in human anatomy. C. Eleazer and R.K. Scopa Kelso. Univ. of Tennessee, Knoxville.

B281 528.4 Collaborative learning utilizing case-based problems. N.T. Hilvano and K.M. Mathis. Univ. of Cincinnati–Clermont Col.

B282 528.5 Do lectures matter? Lecture attendance in online and face-to-face histology courses. M.L. Barbeau and K.A. Rogers. Univ. of Western Ontario.

B283 528.6 Designing a laboratory-based microscopic anatomy class for undergraduates. S.K. Sommers Smith. Wellesley Col.

B284 528.7 Undergraduate dissection techniques: unique views of internal structures. L.N. Coniglio and Z.M. Saenz. San Francisco State Univ.

529. ANATOMY EDUCATION: TEACHING METHODS AND INNOVATIONS

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B287 529.3 The use of medical images in teaching human anatomy. G. Rae, M. Skelton and E. Bevers. Stetson Univ., FL.

B288 529.4 Faculty and student perceptions of tablet-based content in gross anatomy laboratory teaching. B.J. Smoot, C. Andler, J. Clay, C. Mayfield, P. Ohara and K.S. Topp. UCSF.

B289 529.5 The role of color in knowledge retention: a body-painting study. G.M. Finn and P.M. White. Sch. of Med. and Hlth., Durham Univ., U.K.

B290 529.6 A practical way to understand anatomical planes and directions in animals using vegetables. L.J. Tamayo-Arango. Univ. of Antioquia, Colombia.
530. ANATOMY EDUCATION: COMPUTER-ASSISTED LEARNING

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B307 530.3 A digital atlas for ultrasound guided nerve blocks of the upper limb. R.J. Rawski, J. Brookes, M. Johnson and S. Ganapathy. Univ. of Western Ontario.

B308 530.4 User experience and the influence on the evaluation of information presentation in an online brachial plexus module. J.G. Turgeon, K. Armstrong and T.D. Wilson. Univ. of Western Ontario.

B309 530.5 The educational value of virtual 3D skeletal model rendered from CAT scan in anatomy education. V.M. Balzano and L.M.J. Lee. The Ohio State Univ. Col. of Med.


B311 530.7 Use of video lab guides to supplement an undergraduate cadaver lab. H.J. Billings. West Virginia Univ. Hlth. Sci. Ctr.

B312 530.8 The use of 3D stereoscopic and 2D videos as pre-lab tool for anatomy dissection. S.M. Alkhalili, K. Hannon and G.L. Coppoc. Purdue Univ.

B313 530.9 Cadaver dissection videos as an effective lab instruction tool for medical and other graduate level health professional students. M.T. Bee, J.M. Montante and B. McAuley. Oakland Univ. William Beaumont Sch. of Med. and Univ. of Detroit Mercy.

B314 530.10 Computer-assisted instruction increased students’ ability to interpret 3D relationships and retain essential course material in undergraduate human anatomy and A&P courses. R.B. Tallitsch, K. Abdel-Malek, J. Krippel, A. Beck, P. Croll, S. Fenwick, K. Kelley and B. Peters. Augustana Col., IL, Cyber-Anat., Iowa City, Midwestern Univ. Sch. of Med., IL and St. Ambrose Univ., IA.


B316 530.12 Integrating online lessons for learning in the anatomy laboratory. E. Petrik and A.F. Doubleday. Univ. of Illinois at Chicago Col. of Dent.

B317 530.13 A comparison of commercial anatomy educational software. S.M. Attardi and K.A. Rogers. Univ. of Western Ontario.

531. ANATOMY EDUCATION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B318 531.1 The John Martin Rare Book Room as a learning resource. P.M. Heidger, Jr. and D.L. Hirst. Univ. of Iowa Carver Col. of Med.


B321 531.4 Undergraduate study approaches to anatomy, using surface or deep approaches. S. Dunham and A.J. Notebaert. Indiana Univ.

The anatomy training program by distance learning co-sponsored by AAA and the anatomical societies: experiences of first cohort of AAA trainees and mentor. C. Vasan, B. Smoot and N. Vasan. New Jersey Med. Sch. and UCSF.


Three opportunities in gross anatomy for meeting the diverse needs of fourth year medical students based on their chosen specialty areas. M.H. Snow and M.A. Winfield. Keck Sch. of Med., Univ. of Southern California.


Clinical cases and TBL in developmental and gross anatomy course. V. Mavrych, O. Bolgova and R. Seetharama. St. Matthews Univ., Cayman Islands.

Clinical utility of PA anatomy education. R. Lane, A. Gardner, C. Bennett-Clarke, P. Hogue and M. Hankin. Univ. of Toledo Col. of Med.


Beneficial aspect of cadaver dissection – medical students perspective. B. Kraszpulsa. Wright State Univ.

Accurate accountability of anatomical donors and material permits quality control for the medical school and maintains public trust. M.P. McGillicuddy, N. Caceres and S. Marquez. SUNY Downstate.


Medical students in the microscopic anatomy course: active learning as an evolving response to the adult learner’s needs. R.A. Jurjus, J. Krum and E. Goldman. The George Washington Univ.


ANATOMY EDUCATION: ASSESSMENT, CURRICULUM AND MENTORING

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


ANATOMY EXHIBITS

APRIL 22 — APRIL 24

VISIT THE EXHIBITS

EXHIBIT HOURS

SUNDAY — TUESDAY

9:00 AM — 4:00 PM

146
Biochemistry and Molecular Biology

533. HISTONE MODIFICATIONS AND THEIR RECOGNITION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A2 533.2 Identification and characterization of small molecules that inhibit binding of the third plant homeodomain finger of JARID1A to histone H3. E.K. Wagner, R. Flemming, N. Nath and J. Denu. Univ. of Wisconsin-Madison, Promega Corp. and Wisconsin Insts. for Discovery, Madison.


534. MECHANISMS OF INHERITANCE OF HISTONE MODIFICATIONS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A4 534.1 SV40 virions encode transgenerational epigenetic information from cellular viral chromatin. B.I. Milavetz, L. Kallestad, A. Gefroh, N. Adams, E. Wood and L. Balakrishnan. Univ. of North Dakota and Univ. of Rochester Med. Ctr.

535. TRANSCRIPTIONAL REGULATION AND EPIGENETICS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A6 535.2 Integrin α6β4 regulates promoter demethylation of EGFR ligands. B.L. Carpenter, M. Chen and K. O’Connor. Univ. of Kentucky.


A13 535.9 Downregulation of BRCA1-mediated transcription by HP1γ via modulation of promoter occupancy. J.D. Choi and J-S. Lee. Seoul Natl. Univ. and Ajou Univ., South Korea.


A15 535.11 Epigenetic regulation of the class II transactivator by the polycomb repressive complex 2. N. Boyd and S.F. Greer. Georgia State Univ.


A17 535.13 Identification of potential enhancers in intron 5 of the RUNX1 gene. S.E. Gutierrez, R. Alarcon, B. Rebollo, V. Fernandez and A. Javed. Univ. of Concepcion, Chile and Univ. of Alabama at Birmingham.


A20 535.16 Hypoxia sensing by Fe²⁺/-KG dependent dioxygenases regulate hmU synthesis in trypanosome DNA, chromatin structure and Pol II transcription. R. Sabatini, L. Cliffe, D. Ekanayake and G. Hirsch. Univ. of Georgia.
**536. MECHANISM AND REGULATION OF DNA REPAIR**

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM

A21 536.1 Enhancing directed double strand breaks with the Ref and RecA protein. S.J. Won and M.M. Cox. Univ. of Wisconsin-Madison.

A22 536.2 Lysine rich C-terminal domain of Ku protein from *Mycobacterium smegmatis* regulates its mode of DNA interaction. A.K. Kushwaha and A. Grove. LSU.

A23 536.3 The molecular mechanism of bacteriophage T4 Rad50/Mre11 DNA repair complex. T. Herdendorf and S. Nelson. Iowa State Univ.

A24 536.4 p300-Dependent acetylation of histone H3 at lysine 56 is required for cardioprotection and DNA damage response. S. Jain, J. Wei and N.H. Bishopric. Miller Sch. of Med., Univ. of Miami.


**537. DNA DAMAGE RESPONSE**

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM


**538. DNA DAMAGE SIGNALING PATHWAYS**

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM

A32 537.4 The anti-oxidant cysteamine confers a protective effect against oxidative damage in *Saccharomyces cerevisiae* in the absence of endogenous repair machinery. A.M. Steele, E. Chikwana and S. Mordan-McCombs. Franklin Col., IN.


**539. DNA REPAIR MECHANISMS**

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM


A35 539.2 Cigarette smoke induced DNA damage and inhibits cell cycle checkpoint and DNA repair pathways. P. Thai, D. Chen and R. Wu. Univ. of California, Davis.
540. HOMOLOGOUS RECOMBINATION

Poster

Sun, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

A51 540.1 The relative efficiency of homology-directed repair has distinct effects on proper anaphase chromosome separation. C. Laulier, A. Cheng and J.M. Stark. City of Hope.


541. MUTAGENESIS

Poster

Sun, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

A54 541.1 Polymyxin effects on β-lactam antibiotics in Pseudomonas aeruginosa. M. Lewis and D. Kwon. Long Island Univ.-Brooklyn Campus.


542. THE RIBOSOME AND EARLY FOLDING DECISIONS

Poster

Sun, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM

A56 542.1 The role of chaperones in the initial steps of bacterial oxidoreductase maturation. T.G.H. Leach and R. Turner. Univ. of Calgary, Canada.


543. AUTOPHAGY PATHWAY

Poster

Sun, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM

A58 543.1 The role of autophagy in erlotinib-resistant lung cancer and the synergistic induction of cell death with combination cisplatin and erlotinib treatment by Atg3 modulation. J.G. Lee and R. Wu. Univ. of California, Davis.


A61 543.4 Autophagy stimulation manipulates Burkholderia cenocepacia infection in a cystic fibrosis mouse model. B.A. Abdulrahman, A. Abu Khweek, K. Caution, A. Kopp and A. Amer. The Ohio State Univ. and Nationwide Children's Hosp.

A62 543.5 A naturally-occurring flavonoid quercetin inhibits autophagy in human rhabdomyosarcoma cell line. K. Dokladny and P. Moseley. Univ. of New Mexico.


544. MECHANISMS OF PROTEIN SYNTHESIS

Poster

Sun, 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM


545. PROTEIN FOLDING AND MISFOLDING
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM
A66  545.1 Soluble expression of chicken follistatin proteins in Escherichia coli. R. Choi and Y.S. Kim. Univ. of Hawaii.

546. PROTEIN SYNTHESIS IN ORGANELLES
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM

547. PROTEIN TURNOVER AND QUALITY CONTROL
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM
A72  547.1 Role of p97 AAA ATPase in the autophagic-lysosomal degradation of hepatic CYP2B1. P. Acharya and M.A. Correia. UCSF.
A75  547.4 Functional roles for the proteasome in retro-translocation of polytopic membrane proteins for ERAD. N.J. Smith, D. Adle and J. Lee. Univ. of Nebraska-Lincoln and Yale Univ.
A76  547.5 Defying the proteasome, autophagy and convention: S. cerevisiae dodges the isoaspartyl aging bullet. A. Patananan and S. Clarke. UCLA.

548. PROTEIN TURNOVER IN CELL REGULATION
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM
A78  548.2 Tripartite motif protein 23 regulates degradation of epidermal growth factor receptor. K. Le, G. Pacheco-Rodriguez, J. Moss and M. Vaughan. NHLBI/NIH.

549. PROTEOLYTIC ENZYMES AND INHIBITORS
(PROTEIN SYNTHESIS)
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM
A81  549.2 Separation of proinsulin conversion intermediates. R.B. Mackin. Creighton Univ.
A82  549.3 Selection of improved peptide ligases by yeast surface display. H. Tran, D. Gray, J. Marks, W. DeGrado and J. Wells. UCSF.

550. RIBOSOME AND TRANSLATION
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM
A83  550.1 Crystallization of Escherichia coli 70S ribosome in complex with tRNAs. B. Young. Univ. of Maryland Baltimore County and Yale Univ.
A85  550.3 The shortest nascent peptide that can direct ribosome stalling. S. Sothiselvam, H. Ramu, N. Vasquez-Laslop and A. Mankin. Univ. of Illinois at Chicago.
A86  550.4 The role of chromodomain in eukaryotic elongation factor 3-ribosome interaction. A.N. Sasikumar and T.G. Kinzy, UMDNJ-Robert Wood Johnson Med. Sch.
A87  550.5 Investigating the control of the actin cytoskeleton by EF1α. S. Colmer, C. Karas, D. Scerbo, M. Gomez and S. Dunaway. Drew Univ., NJ.

551. METABOLICOMICS

Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 PM-2:35 PM
A94 551.6 Targeting metabolism in liposarcomas. D. Braas, H. Wu and H. Christofk. UCLA.

552. BIOSYNTHESIS OF COMPLEX MOLECULES

Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 PM-2:35 PM

553. CHEMICAL BIOLOGY OF CELL DEATH

Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 PM-2:35 PM

554. MULTIENZYME COMPLEXES

Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 PM-2:35 PM

555. PHOTOCHEMICAL SENSORS

Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 PM-2:35 PM

556. PROTEIN INTERACTIONS IN CATALYSIS

Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 PM-2:35 PM
557. PROTEOLYTIC ENZYMES AND INHIBITORS (CHEMICAL BIOLOGY)

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


558. REGULATION AND ALLOSTERISM

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A107 558.3 The effects of citrate on glyoxosomal malate dehydrogenase. J. Mays, J. Marion and E. Bell. Univ. of Richmond and Virginia Commonwealth Univ.


562. ORGANISMAL METABOLISM
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 pm-2:35 pm
A121 562.1 Thioesterase superfamily member 2 (Them2) promotes the hepatic oxidation of plasma-free fatty acids. H.W. Kang, S. Han and D.E. Cohen. Brigham and Women’s Hosp.
A122 562.2 Citric acid cycle and nitrogen assimilation enzyme activities in glutamate dehydrogenase mutants of S. cerevisiae. A. Sieg and P.J. Trotter. Augustana Col., IL.
A123 562.3 Evidence of a dual role for adiponectin in liver regeneration following partial hepatectomy. J. Correnti and J.B. Hoek. Thomas Jefferson Univ.

563. GENETIC AND METABOLIC APPROACHES TO OBESITY
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 pm-2:35 pm
A124 563.1 Role of unique miRNAs in development of obesity and type 2 diabetes. H. Yadav and S.G. Rane. NIDDK/NIH.

564. METABOLIC REGULATION
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 pm-2:35 pm
A128 564.4 Spatial buffering of ATP by arginine kinase may be critical for Myxococcus xanthus development. T.E. Bohl and D. Fraga. Col. of Wooster, OH.
A130 564.6 Study on mechanism of cholesterol metabolism in Leydig’s cells of rats with lower serum testosterone due to intermittent anaerobic swimming training. Y. Yan and M. Xie. Beijing Sport Univ.

565. MITOCHONDRIA IN HEALTH AND DISEASE
Poster
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D
Presentation time: 1:05 pm-2:35 pm
A133 565.9 Visualization of ferritin in Anopheles gambiae 4a3b cells. Z.R. Conley, D.L. Geiser and J.J. Winzerling. Univ. of Arizona.

A141 565.8 Peroxisome proliferator coactivator 1a (PGC-1a) deficiency accelerates endothelial dysfunction during chronic angiotensin II treatment by increasing mitochondrial oxidative stress and vascular aging. T. Jansen, S. Kroeller-Schoen, A. Daiber, T. Muenzel and E. Schulz. Univ. of Med. Mainz, Germany.


A149 565.16 Effect of proinflammatory cytokines on mitochondrial function in 3T3-L1 adipocytes. J.P. Kuzmicic, W. Hahn, J. Burrill, S. Lavandero and D. Bernlohr. Univ. of Chile and Univ. of Minnesota, Minneapolis.


A151 565.18 Biochemical characterization of pathogenic mutations in human mitochondrial tRNA-Ala and alanyl-tRNA synthetase. J. Chihade, K. Her, M. Steinbach and K. France. Carleton Col., MN.

566. OBESITY

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


570. OBESITY AND THE METABOLIC SYNDROME

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A162 570.1 Pharmacological evaluation of an analogue of L-carnitine in obese Zucker-Lepr fa/fa rats. L. Rodríguez-Fragoso, B. Mendoza, R. De la Cruz Cordero, O. Vite, A. Avalos-Soriano and J. Reyes Esparza. Autonomous Univ. del Estado de Morelos and Ctr. for Res. and Technol. Develop. in Chronic Dis., Queretaro, Mexico.


A164 570.3 Hepatic MGAT1 is directly regulated by PPARγ2 and promotes fatty liver. Y. Lee and J-w. Kim. Yonsei Univ. Col. of Med., South Korea.


A166 570.5 Imperative role of macrophage in maintaining systemic energy homeostasis. B. Lee, L. Qiao, B. Kinney and J. Shao. UCSF and Univ. of Kentucky Coll. of Med.


A169 570.8 Palmitate and ceramide induce human monocytic cell toxicity towards neuronal cells. J.P. Little, J.M. Madeira and A. Klegeris. Univ. of British Columbia-Okanagan.

A170 570.9 AIMing at metabolic syndrome: towards development of novel therapies for modern metabolic diseases via macrophage-derived AIM. T. Miyazaki, J. Kurokawa and S. Arai. Univ. of Tokyo.


571. CALCIUM

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A172 571.1 The role of cellular energy levels in the calcium-mediated regulation of the Ran nuclear transport gradient. K. Batzel and K.K. Resendes. Westminster Coll., PA.

A173 571.2 LPS/TLF4-NF-κB axis signaling amplifies STIM1 expression to augment PAR-1-induced calcium entry and permeability response in lung microvessels. A. Debroy, P. Sundivakkam, V. Singh, A.B. Malik and C. Tiruppathi. Univ. of Illinois, Chicago.


A175 571.4 Store-operated calcium entry regulate mesenchymal stem cell proliferation. J.K. Maliske, B. Pani, S. Bollimuntha, J.E. Ohm and B.B. Singh. Univ. of North Dakota.

A176 571.5 Plexin, small GTPases and their interactions with the calcium binding protein, calmodulin: a possible mechanism for calcium to influence cell motility. I. Ahmed and M. Buck. Case Western Reserve Univ.

572. CYCLASES

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A177 572.1 Alcohol effect on recombinant adenyly cyclase. E. Qualls-Creekmore, R. Gupta and M. Yoshimura. LSU Sch. of Vet. Med.


573. NITRIC OXIDE

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A180 573.2 A comparison of nitrophorin 3 between wild-type and native forms. K.C. Childers. Univ. of Arizona.


A184 573.6 Structural studies of the regulatory domain of bovine soluble guanylate cyclase. E.D. Garcin and L. Rassoul-Taylor. Univ. of Maryland Baltimore County.

A185 573.7 Control of electron transfer and catalysis in neuronal NOS by a hinge connecting the FMN and FNR domains. M.M. Haque, M. Fadlalla, K. Aulak, A. Ghosh and R.W. Grange. Univ. of Maryland College Park.

574. PHOSPHODIESTERASES

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A187 574.1 Homogenous, luminescent HTS-formatted platform technologies for cAMP-, and cGMP-dependent phosphodiesterase. S. Bouli and K. Hsiao. Promega Corp. and Univ. of Wisconsin Med. Sch.

575. SIGNALING CROSSTALK

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A188 575.1 Vitamin D blocks estrogen signaling through PKA. A.P. Ankeny and J.M. Schmitt. George Fox Univ., OR.

A189 575.2 Estrogen receptor activation of CaM kinase I and ERK. M.S. Todd and J.M. Schmitt. George Fox Univ., OR.


A192 575.5 Prolactin receptor loss with Leydig cell apoptosis after EDS treatment of adult rats. B. Singhal, D. Dutta, I. Park, S. Sang and N. Mills. Texas Woman's Univ.

576. PLANT BIOCHEMISTRY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A193 576.1 To gibberellins and beyond! Insights into the evolution of diterpenoid metabolism. R.J. Peters. Iowa State Univ.


A195 576.3 Expression and purification of sunflower thiolase mutants. J.H. Dyer. Montclair State Univ., NJ.


A198 576.6 The effects of Candidatus Liberibacter asiaticus infection on the protein expression profiles and nutrient status of citrus plants. C.C. Nwugo, H. Lin, Y-P. Duan and E. Civerolo. USDA, Parlier, CA and Fort Pierce, FL.


A200 576.8 Membrane localization of a novel regulator of actin depolymerizing factor. K.K. Cuddy, P.H. Grey, X. Zhang and D.G. Oppenheimer. Univ. of Florida and UCSD.


577. METHODS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A204 577.1 Effects of storage conditions on soil molecular biology for forensic science purposes. S.A. Larson, N. Patel, V. Freeman, J. Hustedr, D. Carter and C. Bailey. Univ. of Nebraska-Lincoln.

A205 577.2 Development of a multiplex immunoassay for receptor signaling protein analysis. R. Wiese, S. Harbison and D. Hayes. EMD Millipore, St. Charles, MO.


A207 577.4 Assay of vitamin C in red blood cells. H. Li, H. Tu, Y. Wang and M. Levine. NIDDK/NIH.


A210 577.7 Lab-on-a-Print: desktop microfabrication for quantitative biology. T. Pan. Univ. of California, Davis.

578. BIOPHYSICAL METHODS

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM

A213 578.1 Histidine-tag-specific optical probes. H.E. Elverson, L.M. Hellman, M. Melikhsivili, C. Zhao, S.W. Whiteheart and M.G. Fried. Univ. of Kentucky, Univ. of Notre Dame and UCSD Sch. of Pharm.

A214 578.2 Topocell – an image analysis tool to study intracellular topography. V.R.C.P.F. Fachada, N. Fachada, T. Turpeinen, P. Rahkila, A. Rosa and H. Kainulainen. Univ. of Jyväskylä, Finland and Tech Univ. of Lisbon.


579. MASS SPECTROSCOPY

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM

A217 579.1 Rapid method for monitoring muscle protein metabolites by LC-MS. O. Auell, B. Hayes, C. Chow, D. King and D.G. Hammond. Taylor Univ., IN.


A219 579.3 Collaborative center for chemical and biological mass spectrometry. J. Sauer and J. Lawrence. Univ. of Wisconsin-Stevens Point.

A220 579.4 Detection of peptidyl-4-hydroxyproline in Bacillus anthracis. K. Rebecchi, L. Xu, T. Williams and M. Mure. Univ. of Kansas.


580. NANOTECHNOLOGY

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM


A223 580.2 Gold nanoparticle associated to berberine induces vasorelaxation and cytosolic Ca²⁺ decrease in rat aorta. N.T. Santos, B.R. Silva, L.M. Bendhack and C.N. Lunardi. Univ. of Brasilia and Univ. São Paulo, Ribeirão Preto.

A224 580.3 Tamoxifen association to methacylate polymer as a promising drug delivery system. S.S. Barros, J.R. Silva, R.B. Azevedo and A.J. Gomes. Univ. of Brasilia, Brazil.


A226 580.5 Association of berberine into hydrogel as drug delivery system. C.R. Souza and C.N. Lunardi. Univ. of Brasilia.

A227 580.6 Polymere microparticle loaded with atenolol as a drug delivery system to cardiovascular system. N.A. Oliveira and A.J. Gomes. Univ. of Brasilia.

A228 580.7 Preparation and characterization of polysaccharides microparticles loaded with cispaltin. C.M.S. Ribeiro and A.J. Gomes. Univ. of Brasilia.


581. PROTEIN CHEMISTRY

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM


A236 581.5 Evidence for the presence of phosphate groups on the two major proteins of the hamster sperm acrosomal matrix and their potential role in acrosomal hydrolase binding activities. G. Alvarez, T.L. Buchanan, S. Raychoudhury and S.K. Nagdas. Fayetteville State Univ., NC and Benedict Col., SC.


A240 581.9 The roles of conserved cysteine residues in the structure and function of glyoxysomal malate dehydrogenase. R. Jones and E. Bell. Univ. of Richmond and Math. & Sci. High Sch. at Clover Hill, VA.


A243 581.12 Stability and functionality of HL heteropolymer ferritins responsible for a hereditary ferritinopathy disorder. J. McNally, P. Arosio and F. Bou-Abdallah. SUNY Potsdam and Univ. of Brescia, Italy.

A244 581.13 The linkage between citrate, pH regulation and protein folding in glyoxysomal malate dehydrogenase. H. Yanta and E. Bell. Univ. of Richmond.

582. ELECTROPHORESIS

Posters

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A245 582.1 Operation invisible dead: a blind study to compare molecular fingerprints of soil samples between crime scene and criminal’s shoe. N. Patel, S. Larson, V. Freeman and C. Bailey. Univ. of Nebraska-Lincoln.

583. NEW MOLECULAR AND CELLULAR IMAGING AGENTS

Posters

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


584. RECOMBINANT DNA TECHNOLOGY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A251 584.4 Differentiating frequency of recombination from frequency of recombinants. G. Lezin, Y. Kosaka, H.J. Yost, M.R. Kuehn and L. Brunelli. Univ. of Utah and NCI-Frederick.

A252 584.5 Cloning of a putative L-3-hydroxyacyl CoA dehydrogenase from Micrococcus luteus. V. Takkalapalli, J.-K. Huang and L. Wen. Western Illinois Univ.

585. MITOCHONDRIAL DYNAMICS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A253 585.1 Molecular nanoenvironment of the mitochondrial presequence translocase. C.S. Mehnert, M. Gebert, S. Oeljeklaus, N. Pfanner and M. van der Laan. Univ. of Freiburg, Germany.

A254 585.2 Lithocholic acid delays yeast aging by altering mitochondrial dynamics. V. Titorenko, A. Beach and M. Burstein. Concordia Univ., Canada.


A257 585.5 Cardiac-specific deletion of prohibitin-2 in adult mice destabilizes mitochondrial proteins, nucleoids, and cristae morphology, resulting in lethal cardiomyopathy. T. Gawlowski, J. Yan, C. Merkwirth, W. Dillmann, T. Langer and M. Hoshijima. UCSD and Univ. of Cologne, Germany.

586. MITOCHONDRIAL GENETIC DISEASES

Poster  
**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**  
**Presentation time: 12:25 PM-1:55 PM**


**A262 586.3** Cardiac mitochondrial phenotype of the taz shRNA mouse model of human Barth syndrome. C.H. Le, A.B. deMooy and A.J. Chicco. Colorado State Univ.

587. MITOCHONDRIAL TOXICITY

Poster  
**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**  
**Presentation time: 12:25 PM-1:55 PM**

**A264 587.1** Effects of manganese and copper on mitochondrial membrane potential in the gill of *Crassostrea virginica*. B. Boisette, F. Dailey, E.J. Catapane and M.A. Carroll. Medgar Evers Col., NY.

588. NUCLEAR DYNAMICS

Poster  
**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**  
**Presentation time: 12:25 PM-1:55 PM**

**A265 588.1** Calcium-mediated regulation of the Ran gradient and karyopherin nuclear transport receptors. A. Grenet, S. Woodward and K.K. Resendes. Westminster Col., PA.

589. ORGANELLE BIOGENESIS

Poster  
**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**  
**Presentation time: 12:25 PM-1:55 PM**


**A267 589.2** Structural and energetic changes in mitochondria associated with aging rodent oocytes may be overcome by mitochondrial microinjection. F.J. Castora, F. Duran, F. Li, W. Ford, P. Birdsell, A. Mezezi and R.J. Swanson. Eastern Virginia Med. Sch. and Old Dominion Univ.
Acute and chronic exposure of nickel promotes breast cancer cell growth. J.P. Sabangan and M.C. Louie. Dominican Univ. of California.

592. CHECKPOINT MECHANISMS

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

Using the *S. cerevisiae* Stn1 telomere capping protein to dissect downstream responses of the S phase checkpoint. H.J. Gasparyan and C. Nugent. Univ. of California, Riverside.

593. CYCLINS AND CYCLIN-DEPENDENT KINASES

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM


594. LIPID DROPLETS: A DYNAMIC SUBCELLULAR COMPARTMENT

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM


595. CHEMICAL PROBES OF LIPID SYSTEMS

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

Chemical approaches to the investigation of protein-membrane binding interactions using synthetic lipid probes. M.D. Best. Univ. of Tennessee, Knoxville.

596. GENETIC MODELS OF LIPID METABOLISM

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM


597. LIPID DROPLET DYNAMICS

Poster

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM


A292 598.1 Regulation of macrophage cholesterol homeostasis by trans fatty acid. F. Shao and D.A. Ford. St. Louis Univ. Sch. of Med.

A293 598.2 Fatty acid uptake in the early branching eukaryotic pathogen Trypanosoma brucei. K.S. Paul, P. Vigueira, B. Winston, B. McCall, S. Cain, H. Evans and J. McCallister. Clemson Univ.


A295 599.2 Homology modeling of perilipin 5. Z. Niday and J.T. Tansey. Otterbein Univ., OH.

A296 600.1 Temporal hierarchy of membrane restructuring during cold acclimation in fish. K. Ward and E.E. Williams. Salisbury Univ., MD.

A297 601.1 A multifaceted investigation of the localization of the human follicle stimulating hormone receptor. D. Steinmetz and B.D. Cohen. Union Col., NY.


A299 601.3 Cloning and characterization of novel CTP:phosphoethanolamine cytidylyltransferase (Pcyt2) isoforms made by alternative splicing. Z. Pavlovic and M. Bakovic. Univ. of Guelph, Canada.

A300 601.4 FSH can induce ERK activation in a cAMP independent manner. C.L. Curtis and B.D. Cohen. Union Col., NY.


A305 603.1 The effect of the lipid environment on drug binding and transport by the P-glycoprotein multidrug transporter. F.J. Sharom and A.T. Clay. Univ. of Guelph, Canada.


A307 604.1 Structural investigations of CIC-ec1, a large integral membrane protein, using solution-state NMR and nanodisc technology. T. Chew, S. Abraham, S. Elvington and M. Maduke. UCSD and Stanford Univ.

A308 604.2 Functional and structural analysis of transmembrane segment IV of Na'/ H+ exchanger of Schizosaccharomyces pombe. A. Ullah, C. Alves, B.L. Lee, B.D. Sykes and L. Fliegel. Univ. of Alberta.

A309 604.3 Regulatory activation is accompanied by movements in the C-terminus of the Na-K-Cl cotransporter (NKCC1). M.Y. Monette and B. Forbush. Yale Univ.
605. VESICULAR TRAFFICKING

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM

A310 604.4 Pannexin 1 knockdown in metastatic melanoma cells induces cell differentiation into a melanocytic phenotype decreasing tumor size and metastasis in vivo. S. Penuela, L. Gyenis, A. Ablack, J. Churko, A. Berger, J. Lewis, D. Litchfield and D. Laird. Univ. of Western Ontario.


A312 604.6 Characterization of rOrf8/Escl of the enteropathogenic *Escherichia coli* as an inner rod protein. N. Sal-Man, W. Deng and B.B. Finlay. Univ. of British Columbia.

**606. GLYCOCONJUGATES IN PATHOGEN INVASION AND VIRULENCE**

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM


A322 606.2 Generation of an IgG monoclonal antibody to LacdiNac glycan epitopes from splenocytes of *Schistosoma mansoni* infected Swiss Webster mice. V.H. Bartlette, B. Mamphey, M. Mandalasi and K. Nyame. Univ. of Maryland Eastern Shore.

A323 606.3 Receptor determinants for the avian coronavirus infectious bronchitis virus: roles of host T cell lectins and glycans. Y. Zhang and G. Whittaker. Cornell Univ.

**607. ROLE OF GLYCOCONJUGATES IN SIGNALING AND DEVELOPMENT**

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM


A327 607.4 Global increases in O-GlcNAc levels lead to differentiation of myoblasts. K. Vaidyanathan and L. Wells. Univ. of Georgia.


A329 607.6 The role of N-linked glycosylation during *Drosophila* embryonic development. A. McCague and E. Selva. Univ. of Delaware.

608. GLYCANS IN PATHOGENIC PROTOZOA
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

609. IMMUNE SYSTEM GLYCOBIOLOGY
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A332 609.1 Alteration of heparan sulfate 2-O-sulfation in endothelial cells enhances neutrophil infiltration in mice. D. Xu, J. Axelsson, B.N. Kang, P. Sriramarao, T.M. Handel, K. Ley and J.D. Esko. UCSD, Univ. of Minnesota, St. Paul and La Jolla Inst. for Allergy and Immunol.
A333 609.2 Strategies to enhance T cell reconstitution after severe immunodepletion. M.R. Martinez, J. Dudakov and M. van den Brink. Univ. of Puerto Rico Mayaguez and Mem. Sloan Kettering Cancer Ctr.

610. NERVOUS SYSTEM GLYCOBIOLOGY
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM

611. CHEMISTRY AND CELL BIOLOGY OF NATURAL PRODUCTS
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A335 611.1 Biological features of human catalytic antibody light chains showing anti-cancer activity. T. Uda and E. Hifumi. Oita Univ., Japan and CREST of JST, Saitama.
A338 611.4 Determining intracellular concentrations of flavonoids in MDA-MB-231 cells using mass spectrometry. A. Pham, S. Yadegarynia and B. White. San Jose State Univ.

612. MODE OF ACTION OF BIOACTIVE NATURAL PRODUCTS
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:25 PM-1:55 PM
A344 612.2 Investigation of the role of dietary flavonoids on cell death: evidence to support a non-apoptotic mechanism. T. Lialiutksa, N. Ngo and B. White. San Jose State Univ.
A345 612.3 Identification of mechanism of action of anti-HIV properties of compounds present in neem (Azadirachta indica) extracts. S. Arora and J. Vanniyasingam. Kean Univ., NJ.
A346 612.4 Systemic chemical proteomics based target identification and validation of OMe-Syn, a new anti-angiogenic natural small molecule. N.H. Kim, N. Pham, R. Quinn and H.J. Kwon, Yonsei Univ., South Korea and Griffith Univ., Australia.

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613. PROTEIN-SMALL MOLECULE INTERACTIONS

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM

A349 613.1 The role of histidines in neurosteroid binding of NMDA NR2B and D subunits. S. Rhoads, S. Biello, L. Zemick and L. Gentile. Univ. of Richmond.


A351 613.3 Disruption of the HIF-1α/p300 interaction as a means of inhibiting angiogenesis. K.M. Reece, E.D. Richardson, S.T. Pisle, A.J. Holly, T.J. Campbell and W.D. Figg. NCI/NIH and SAIC, NCI-Frederick.

A352 613.4 Understanding the regulation of AMPA and NMDA iGluRs through the binding of sulfated neurosteroids. E.I. Bartle, D. Fanelli, R. Roark, A. Young and L. Gentile. Univ. of Richmond.


A354 613.6 A fluorescent glutathione analog for monitoring interactions of GST fusion proteins. H.C. Huff, C.R. Gaines and B.D. Caldwell. Missouri Western State Univ. and Boys Latin Sch. of Maryland, Baltimore.

614. CASPASES

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM


615. SIGNALING IN DISEASE AND THERAPY

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM

A357 615.1 Physiologic cardiac hypertrophy and cardiac dilation: a comparative study using ZmRacD transgenic mouse model. M.T. Elnakish, M.D.H. Hassona, M.A. Alhaj, L. Moldovan, M. Khan and H.H. Hassanain. The Ohio State Univ.


A365 615.9 Modulation of microRNA miR-29c in a novel cross-talk between mTOR complex 1 and angiotensin II type 2 receptor AT2R: an adaptive mechanism in over-nutrition. L. Pulakat, R. Gul, S. Arnold, V. DeMarco and J.R. Sowers. Univ. of Missouri-Columbia.

A366 615.10 HSP90 is a novel target of thrombospondin-1 to regulate colon cancer development. J. Ling, L. Gutierrez, Z. Lopez-Dee, S. Pan, V. Kalter, C. Cottell and D. Nye. The Commonwealth Med. Col., Wilkes Univ. and Univ. of California, Riverside.

616. MAXIMIZING TEACHING EFFECTIVENESS

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

A367 616.1 The effectiveness of images in the development of conceptual understanding in undergraduate biochemistry classes: what do we know? R. Milner. Univ. of Alberta.


A370 616.4 Design of purification and analysis protocols for riboflavin binding protein in an undergraduate biochemistry laboratory. T. Arnold Murray. Capital Univ., OH.
SUNDAY

617. MAXIMIZING YOUR MARKETABILITY

Poster

**Presentation time:** 1:05 PM–2:35 PM

A371 617.1 Withdrawn.

A372 617.2 Myth busters: 10 things you don’t know that you think you know about launching a career at a predominantly undergraduate institution. **R.S. Rowlett and K.A. Parson.** Colgate Univ., NY and Macalester Col., MN.

618. ENGAGING K-12 STUDENTS IN SCIENCE

Poster

**Presentation time:** 1:05 PM–2:35 PM

A373 618.1 Getting the high schools involved in scientific research! The New York City Partnership to Advance Science; collaborative research projects between NYC high schools and a liberal arts college: the pilot year. **A. Aguanno.** Marymount Manhattan Col.

619. ENHANCING UNDERGRADUATE RESEARCH EXPERIENCES

Poster

**Presentation time:** 1:05 PM–2:35 PM

A374 619.1 Undergraduate laboratory renaissance: research integration across the entire biochemistry laboratory curriculum. **J. Roecklein-Canfield, R. Gurney, N. Lee and L. Soltzberg.** Simmons Col.

A375 619.2 **STEP into Science** at Medgar Evers College, a successful strategic plan. **M.A. Carroll, D. Skeete and E.J. Catapane.** Medgar Evers Col., NY.


A377 619.4 A laboratory course exploring the relationship between structure and function of yeast alcohol dehydrogenase 1. **M.O. Huff and B.V. Plapp.** Bellarmine Univ., KY and Univ. of Iowa.

A378 619.5 Gaining those important lab skills: three different training programs at a liberal arts college. **A. Brower, R. Romano, D. Columbus and A. Aguanno.** Marymount Manhattan Col. and Boston Univ. Sch. of Publ. Hlth.

620. INNOVATIVE APPROACHES TO STEM EDUCATION

Poster

**Presentation time:** 1:05 PM–2:35 PM

A379 620.1 Enhancing student engagement in an advanced protein structure, function and biophysics class. **E. Bell.** Univ. of Richmond.

A380 620.2 Science of Cooking – an interdisciplinary approach to teaching a non-science majors lab and lecture course. **J.J. Provost.** North Dakota State Univ.

A381 620.3 Using distance leaning tools as a mechanism to create a STEM mentoring opportunity. **P. Ortiz, J. Duncan-Poitier, M. Groome, K. Hoffman, J. Lansing and S. Wortel.** SUNY Empire State Col., SUNY at Albany and New York Acad. of Sci.

A382 620.4 Mathematica’s computable document format player: a versatile tool for displaying interactive graphs and 3-D structures. **D.W. Sears and N.K. Clayton.** Univ. of California, Santa Barbara.

A383 620.5 Teaching biochemistry and molecular biology using dihydrofolate reductase as an expression system. **J. Lau and M. Gilbert.** Bellarmine Univ., KY and Bio-Rad Labs., Hercules, CA.

A384 620.6 Reading and writing about science: biochemistry, biomedicine and bioethics presented through the first year seminar. **C. Rohlman.** Albion Col., MI.

A385 620.7 Incorporating mathematics principles into high school biology experiments using GFP denaturation studies. **M. Puccinelli, E. Ogele, S. Kasper and L. West.** Lee Univ., TN.

A386 620.8 A novel approach to science?did Alice learn toxicology from the Mad Hatter? **V.V. Shende and M.A. Benore.** Univ. of Michigan-Dearborn.

621. PERFORMANCE ASSESSMENT FOR TEACHERS AND STUDENTS

Poster

**Presentation time:** 1:05 PM–2:35 PM

A387 621.1 Community-based design and national testing of an assessment tool to measure student understanding of enzyme kinetics in undergraduate biochemistry. **J. Loertscher, V. Minderhout, J.E. Lewis and S.M. Villafane.** Seattle Univ. and Univ. of South Florida.

622. STRATEGIES FOR COMMUNITY OUTREACH AND ENGAGEMENT

Poster

**Presentation time:** 1:05 PM–2:35 PM

A388 622.1 A medical humanities perspective of Frida Kahlo – an opportunity for recruitment into the health sciences. **F. Antelo.** Harbor-UCLA Med. Ctr.
Nutrition

624. LACTATION: BIOLOGY OF MILK PRODUCTION AND SECRETION

Poster

(Sponsored by: Lactation RIS)

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C1 I 624.1 The total amino acid profile of human milk is stable over the first three months of lactation. R.J. McMahon, M. Gray, A. Adelman, P.M. Herbers, J.G. Woo and A.L. Morrow. Mead Johnson Nutr., IN and Cincinnati Children's Hosp.

C2 II 624.2 Effects of milk collection and processing methods on origin and integrity of RNA in milk. D.G. Lemay, K. Hinde, R.C. Hovey, J.T. Smilowitz, J.B. German, P.A. Barry and J.B. German. Univ. of California, Davis and Harvard Univ.

C3 I 624.3 Breastmilk cells produce milk proteins in the culture dish. F. Hassiotou, P. Metzger, N. Trengove, C. Tat Lai, L. Filgueira and P. Hartmann. Univ. of Western Australia, Crawley and Albert Ludwigs Univ. Freiburg.

C4 II 624.4 An automated method to quantify milk fat globules and sources of RNA in milk. S.R. Hartono, F. Ventimiglia, J.T. Smilowitz, J.B. German, I. Korf and D.G. Lemay. Univ. of California, Davis.


C6 II 624.6 Genetic influence on fatty acid composition of human breastmilk. C.L. Cheatham. Univ. of North Carolina at Chapel Hill, Kannapolis.


A390 623.2 Self-efficacy ratings of URM students who return to a STEM summer research program. C.R. Shadding and D. Whittington. Washington Univ. in St. Louis Sch. of Med. and Strategic Evaluations Inc., Durham, NC.
C17 II 625.8 Dietary bovine lactoferrin stimulates intestinal proliferation in piglets. E.A. Reznikov, S.S. Comstock, N. Contractor and S.M. Donovan. Univ. of Illinois, Urbana and Pfizer Nutr., Collegeville, PA.

C26 626. NUTRITION INTERVENTIONS FOR RISK FACTOR MODIFICATION IN CHRONIC DISEASE

Poster

(Sponsored by: Aging and Chronic Disease RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C18 I 626.1 Case-control study of eating behaviors of young adults with and without diet-related chronic health condition. V. Quick, R. McWilliams and C. Byrd-Bredbenner. Univ. of Minnesota, Minneapolis and Rutgers Univ.


C20 I 626.3 Individualized counseling for a Healthy People 2010 diet results in surpassed fruit and vegetable intakes. E. Sidahmed, M. Cornelli, L. Askew, A. McCoy, M. Rapai, A. Sen and Z. Djuric. Univ. of Michigan.


C24 I 626.7 Baseline vitamin D status in patients with chronic kidney disease. B.N. Wright, K. Coakley, J. Alvarez and V. Tangpricha. Univ. of Maryland Baltimore County and Emory Univ. Sch. of Med.

C25 II 626.8 Internet-based tools to assess diet and provide feedback in CKD IV. L. Arab, S. Murali, A. Rastogi, A. Ang, N. Shetty and R. Vargas. UCLA and Kaiser Permanente, Fontana, CA.

C26 I 626.9 Withdrawn.


C35 II 626.18 Impact of a food based bar on biomarkers of heart disease in hypercholesterolemic adults. A. Hutchins. Univ. of Colorado Colorado Springs.


C39 II 626.22 Effects of vitamin D and calcium supplementation on blood pressure and serum lipids: a randomized, double-blind, placebo-controlled, clinical trial. W. Chai, R.M. Bostick, A.A. Franke and R.V. Cooney. Logan Col. of Chiropractic Univ. Progs., Emory Univ. and Univ. of Hawaii.


C44 I 626.27 Effects of camellia oil-enriched diet on oxidative stress and oxidized LDL-C in hypercholesterolemic subjects. A. Bumrungpet, P. Pavadhgul, S. Chusri and R. Kalpravidh. Mahidol Univ., Thailand.


C48 I 626.31 An obesity prevention and treatment worksite intervention by a faculty-directed student research team. V. Haley-Zitin, L. Surapaneni, D. Brodland, A. Musarra, A. Wiles, S. Carney and E. Challenger. Clemson Univ.

627. NUTRITION AND COGNITIVE AND PHYSICAL FUNCTION IN OLDER ADULTS

Poster

(Sponsored by: Aging and Chronic Disease RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C50 II 627.2 The characterization of iron status in InCHIANTI: the use of a higher ferritin cutoff. L. Chen, L.E. Murray-Kolb and K.V. Patel. Johns Hopkins Bloomberg Sch. of Publ. Hlth., Penn State and NIA/NIH.

C51 I 627.3 Neuronal MCP-1 mediates microglia recruitment and neurodegeneration induced by thiamine deficiency. G. Yang and Z. Ke. Shanghai Insts. for Biol. Sci., Chinese Acad. of Sci.


C53 I 627.5 Assessment of appendicular lean mass in older adults. A. Ellis and B.A. Gower. Univ. of Alabama at Birmingham.


628. COMMUNITY NUTRITION PROGRAMS AND POLICIES FOR OLDER ADULTS

Poster

(Sponsored by: Aging and Chronic Disease RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C56 I 628.1 Supplementing the nutrition screening initiative survey to characterize nutritionally at risk older adults. S.M. Wunderlich, Y. Bai, J. Brusca and S. Gaits. Montclair State Univ., NJ.

C57 II 628.2 Prevalence of osteoarthritis and dietary pattern in older people above 60 in southern area of Korea. D. Shin and H-J. Oh. Kyungnam Univ., South Korea.

C58 I 628.3 Identification of environmental supports for healthy eating in older adults. A. Sylvie and N.L. Cohen. Univ. of Massachusetts Amherst.

629. CREATING HEALTHY FOOD ENVIRONMENTS

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C59 I 629.1 Don’t walk this talk: public health discourse that disempowers. C.M. Porter. Univ. of Wyoming.

C60 II 629.2 Selecting target populations for community nutrition intervention using spatial analyses. J.E. Bryant. West Virginia Univ.

C61 I 629.3 Nutrition environment measures survey examining food price, availability, and quality, before and after relocation of Atlanta public housing residents. M. Ndirangu, D. Oakley and A. Anderson. Georgia State Univ.


C65 I 629.7 Identifying nutrition education deficits that affect food purchasing by low-income families with young children. E.E. Calloway, S.J. Sweitzer, M.E. Briley, M. Romero, K. McInnis and M. McAllister. Univ. of Texas at Austin and Johns Hopkins Bloomberg Sch. of Publ. Hlth.
630. WHAT SHOULD I EAT? NUTRITIONAL EFFECTS OF FOODS

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C71 I 630.3 Applying the dietary guidelines for Americans to the foods actually consumed in the U.S.: why are so many SoFAS on MyPlate? N. Carr, S. Kranz and L.M. Jahns. Purdue Univ. and USDA, Grand Forks.

C72 II 630.4 Self-reported lactose intolerance in Canadian adults. S.I. Barr. Univ. of British Columbia.


631. THE EXPERIENCE OF HOUSEHOLD FOOD INSECURITY

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 pm - 1:45 pm (I); 1:45 pm - 2:45 pm (II)


C93 I 630.25 Automated DNA extraction and multiplexed PCR assay to identify Escherichia coli O157:H7 from ground beef and kitchen surface swab samples. J. Chapman, T. Parrish, M. Duggan and P. Williams. Evogen Inc., Lenexa, KS.


C95 I 630.27 Monitoring of a pilot micronutrient powder home fortification program in the Kyrgyz Republic. E.A. Lundeen. Emory Univ.


632. BEHAVIORAL SCIENCE AND EATING BEHAVIOR CHANGE

Poster

(Sponsored by: Nutrition Education RIS)

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 pm - 1:45 pm (I); 1:45 pm - 2:45 pm (II)


C104 II 631.8 Food insecurity is associated with poor social capital, perceived health, and perceived diet among adult food bank users in and around the lower mainland of British Columbia, Canada. R.W. Hill and D.H. Holben. Ohio Univ.


632. BEHAVIORAL SCIENCE AND EATING BEHAVIOR CHANGE

Poster

(Sponsored by: Nutrition Education RIS)

Sun. 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 pm - 1:45 pm (I); 1:45 pm - 2:45 pm (II)

C107 I 632.1 Shaping college-age eating behavior in an institutionally derived food setting with a simple, interactive computer spreadsheet. T.A. Crowder and W.B. East. U.S. Military Acad., NY.

C108 II 632.2 Weight regulation practices of young adults: predictors of restraint eaters. V. Quick. Univ. of Minnesota, Minneapolis.

C109 I 632.3 2009-10 USDA Fresh Fruit and Vegetable Program in Indiana improved several factors that lead to improved health. Y.C. Lin, E. Poland and A.D. Fly. Indiana Univ. and Indiana Dept. of Educ., Indianapolis.


C111 I 632.5 Sodium benzoate intake in beverages may contribute to ADHD symptoms in college students. B. Beezhold and C.S. Johnston. Benedictine Univ., IL and Arizona State Univ.


C113 I 632.7 Media coverage and awareness of the release of the 2010 Dietary Guidelines for Americans and MyPlate. S.B. Epstein, K. Jeanpierre, S. Lynn and A.K. Kant. Queens Col., CUNY.
633. NUTRITION INTERVENTION IN DIABETES CARE
Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C117 II 633.4 Change in adherence to DASH diet and cardiovascular risk factors in youth with type 1 and type 2 diabetes mellitus: the search for diabetes in youth study. T.L. Barnes, J.L. Crandell, R.A. Bell, E.J. Mayer-Davis, D. Dabelea and A.D. Liese. Sch. of Dietetics and Nutr., LSU Hlth. Sci. Ctr., Shreveport, LA; Univ. of North Carolina at Chapel Hill, Wake Forest Sch. of Med., Colorado Sch. of Publ. Hlth., Univ. of Colorado Denver, Aurora, CO.


C119 II 633.6 Adiponectin enhances fetal fat deposition. L. Qiao, H-s. Yoo, A. Madon, B. Kinney, B. Lee, W.W. Hay and J. Shao. UCSD and Univ. of Colorado Denver, Aurora, CO.

C120 II 633.7 Genetic variation in TAS1R2 taste receptor and sweet taste perception and sugar intake. A.G. Dias and A. El-Sohemy. Univ. of Toronto, ON.

C121 II 633.8 Egg consumption and coronary heart disease among diabetic individuals: a systematic review of the literature. N.L. Tran, L.M. Barraj and J. Heilman. Exponent, Washington, DC.


634. NUTRITION AND SUSTAINABILITY
Poster
(Sponsored by: Nutrition Translation RIS)
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C123 I 634.1 Vegetarian dietary pattern is associated with increased consumption of fiber, calcium and potassium in adult respondents of the National Health and Nutrition Examination Survey, 2003-2008. L. Devareddy, K. Miller, D. Liska and V.L. Fulgoni III. The Kellogg Co. and Nutr. Impact LLC, Battle Creek, MI.

C124 II 634.2 Impact of Eat Well...For your Self, For the World text and curriculum on college students’ attitudes and eating habits. M. Neyman Morris, L. Rios, L. Bacon, D. Clifford and K. Gray. California State Univ., Chico and City Col. of San Francisco.

C125 I 634.3 Attitudes and behaviors related to locally grown and sustainable foods in a multiethnic population. A. Spieckerman. California State Univ., Fullerton.

635. FOOD-RELATED BEHAVIORS: CRITICAL FOR FOOD POLICY
Poster
(Sponsored by: Nutrition Translation RIS)
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C127 II 635.2 Intake, knowledge, beliefs and perception regarding the benefits and barriers of nuts intake among individuals with or at risk of cardiovascular disease and/or diabetes. R. Pawlik, H. London, S. Colby, E. Wall-Bassett and N. Sira. East Carolina Univ. and Univ. of Tennessee, Knoxville.


C131 II 635.6 U.S. trends in dietary variety and its association with BMI and micronutrient intakes. R.E. Ebner, A.P. Burke, S. Kranz, C.J. Boushey, S.B. Roberts and M.A. McCrory. Purdue Univ., Dublin Inst. of Technol. and Trinity Col., Ireland, Univ. of Hawaii Cancer Ctr. and USDA at Tufts Univ.

636. UNDERSTANDING AND COMMUNICATING BENEFITS/RISKS OF NATURAL-STATE FOODS (E.G. MINIMALLY PROCESSED, NATURAL, ORGANIC)

Poster

(Sponsored by: Nutrition Translation RIS)

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C133 I 636.1 Nutritional profiling of cod liver oil processed by molecular distillation, fermentation, or unrefined. B.T. Metzger and D.M. Barnes. Standard Process Inc., Palmyra, WI.


C135 I 636.3 Effect of fat claims on consumer perceptions about product helpfulness for weight management. A. Schermerl, Y. Qi, W. Lou, J.E. Mendoza, S. Henson and M.R. L’Abbe. Univ. of Toronto and Univ. of Guelph, Canada.

C136 II 636.4 Potato consumption among children and adolescents, ages 2 to 18, in the U.S. M.L. Storey and P.A. Anderson. Alliance for Potato Res. and Educ., McLean, VA.

C137 I 636.5 Potato consumption among adults in the U.S. M.L. Storey and P.A. Anderson. Alliance for Potato Res. and Educ., McLean, VA.


C142 II 636.10 Glycemic response to muscadine grape components, comparing healthy weight and overweight individuals. S. Cvitkusic. North Carolina State Univ.

C143 I 636.11 Validation of the digestive tolerance of soluble gluco fiber, a new fiber. B. Housez and M. Cazaubiel. Biofortis, Nantes.


C145 I 636.13 Canned fruits, vegetables, beans and fish provide nutrients at a lower cost compared to fresh, frozen or dried. C. Kapica and W. Weiss. Ketchum, Chicago.


637. METABOLIC PHENOTYPING, METABOLOMICS AND BIOMARKERS

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C150 I 637.3 Effects of consuming oxidized vegetable oils on amino acid metabolism. L. Wang, D. Yao and C. Chen. Univ. of Minnesota, St. Paul.


C152 II 637.5 In utero bisphenol A exposure: effects on metabolic homeostasis throughout the life-course. O.S. Anderson, B.N. Sanchez, K.E. Peterson, Z. Zhang and D.C. Dolinoy. Univ. of Michigan.

C153 II 637.6 Metabolites in human breastmilk identified as markers for sample storage quality. P. Hartmann, J.K. Lui, K.M. Piper, C. Rawlinson, G.L. Maker, N.J. Trengove and R.D. Trengove. Univ. of Western Australia and Murdoch Univ., Australia.


638. CARBOHYDRATE METABOLISM

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C170 II 638.11 Concept of slowly released dietary glucose: a focus on starch digestion at the mucosal $\alpha$-glucosidase level. A.H-M. Lin, B.L. Nichols and B.R. Hamaker. Purdue Univ. and USDA and Baylor Col. of Med.


C174 II 638.15 Effects of apple cider vinegar on postprandial blood glucose and satiety. L. Bollinger, J. Holden and J.C. Chezem. Ball State Univ.

C175 II 638.16 Influence of cultivar, processing, and food form on the glycemic index of barley. A. Aldughpassi, T.M.S. Wolever and E.M. Abdel-Aal. Univ. of Toronto and Agr. and Agri-Food Canada, Guelph.


639. REGULATION OF FOOD INTAKE

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C179 II 639.2 Popcorn snack more satiating than almonds, party mix or pretzels. K.J. Reimers, U.T. Lowczzyk and M.C. Meyer. ConAgra Foods, Omaha.


C182 I 639.5 Within subject variation of satiety hormone responses to a standard lunch. S.M. Forester, M. Witbracht, W. Horn, K. Laugero and N.L. Keim. Univ. of California, Davis and USDA, Davis.

C183 II 639.6 The effects of BMI and ratings of hunger on perceived taste of food. A.M. Stickel, E. Green and C. Murphy. San Diego State Univ. and UCSD.

C184 I 639.7 Increasing the number of masticatory cycles reduces food intake in healthy young adults. Y. Zhu and J.H. Hollis. Iowa State Univ.

C185 II 639.8 Increasing the number of masticatory cycles reduces appetite and modulates glycemic response and plasma gut hormone concentrations. Y. Zhu, W.H. Hsu and J.H. Hollis. Iowa State Univ.


C191 II 639.14 High-fat feeding leads to decreased responsiveness to the GLP-1 analogue, exendin-4, in obesity-prone rats. F. Duca, Y. Sakar and M. Covasa. INRA, Jouy en Josas, France and Western Univ. of Hlth. Sci., CA.


640. CAROTENOIDs AND HEALTH

Poster

(Sponsored by: CARIG RIS)

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

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<td>C206 II</td>
<td>641.4 Biomarker erythrocyte copper chaperone for superoxide dismutase is higher following marginal copper deficiency. J.R. Prohaska, K. Lassi and M. Broderius.</td>
<td>Univ. of Minnesota Med. Sch. Duluth.</td>
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<td>C208 II</td>
<td>641.6 Mathematical modeling of iron uptake by Tim-2 receptor in mouse kidney cells. J. Han and Z. Xie.</td>
<td>North Carolina A&amp;T State Univ.</td>
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<td>C211 I</td>
<td>641.9 The role of N-linked glycosylation in the trafficking and transferrin binding of Tfr2. N. Zhao and C.A. Enns.</td>
<td>Oregon Hth. &amp; Sci. Univ.</td>
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<td>C212 II</td>
<td>641.10 Discovery of a novel cytosolic ferroxidase in rodent enterocytes. Y. Lu, P.N. Ranganathan and J.F. Collins.</td>
<td>Univ. of Florida.</td>
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<td>C222 II</td>
<td>641.20 The iron transporter ferroportin is regulated by ascorbate. N.M. Scheers, K.B. Hoffmann and A-S. Sandberg.</td>
<td>Chalmers Univ. of Technol., Sweden.</td>
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<td>C224 II</td>
<td>641.22 Physiologic role of the Menkes copper ATPase (Atp7a) in intestinal iron transport. S. Gulec, P. Ranganathan, Y. Lu and J. Collins.</td>
<td>Univ. of Florida.</td>
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<td>C226 II</td>
<td>641.24 Iron transport ability of the Slc39a (ZIP) family of metal-ion transporters. W. Zhang and M. Knutson.</td>
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<td>C227 I</td>
<td>641.25 Iron overload upregulates the expression of regenerating islet-derived family genes in rat pancreas. R. Coffey, H. Nam and M. Knutson.</td>
<td>Univ. of Florida and Univ. of Utah.</td>
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<td>C229 I</td>
<td>641.27 Role of the iron-import protein DMT1 (divalent metal transporter 1) in liver iron uptake. C.Y. Wang and M. Knutson.</td>
<td>Univ. of Florida.</td>
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<td>C232 II</td>
<td>641.30 Posttranslational regulation of the Menkes copper ATPase (Atp7a) in intestinal epithelial cells. L. Xie and J.F. Collins.</td>
<td>Univ. of Florida.</td>
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<td>C233 I</td>
<td>641.31 Copper transport by divalent metal transporter 1 under low iron conditions. L. Jiang and J.F. Collins.</td>
<td>Univ. of Florida.</td>
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<td>C234 II</td>
<td>641.32 Metal transport, subcellular localization, and tissue distribution of Zip8, a Zip14 homologue. C.Y. Wang, S. Jenkitkasemwong, B.K. Sparkman, A. Shawki, B. Mackenzie and M. Knutson.</td>
<td>Univ. of Florida and Univ. of Cincinnati.</td>
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642. **Vitamin D and Obesity: From Cellular to Clinical Trials**

*Poster (Sponsored by: Vitamins and Minerals RIS)  
Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D  
Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)  
C235 II 642.1 Vitamin D2 intake increases 25-hydroxy vitamin D2 but decreases 25-hydroxy vitamin D3 concentration in the serum of healthy adults. C.B. Stephensen, M. Zerofsky, D.J. Burnett, Y. Lin, B.D. Hammock, L.M. Hall and T. McHugh. | USDA, Davis, Univ. of California, Davis, California Polytech State Univ., San Luis Obispo and USDA, Albany, CA.  

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643. FAT SOLUBLE VITAMINS AND CHRONIC DISEASE

Poster
(Sponsored by: Vitamins and Minerals RIS)

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C238 I 643.1 Predictors of 5-year change in plasma 25-hydroxyvitamin D concentrations in postmenopausal women. M. Kluczynski, M. Platek, C. DeNysschen, J. Wactawski-Wende and A. Millen. Univ. at Buffalo, NYU and Buffalo State Col.

C239 II 643.2 Vitamin D status of immigrant mothers and infants in metro Vancouver. W. Li, S.I. Barr, T.J. Green, S.J. Whiting and G.E. Chapman. Univ. of British Columbia and Univ. of Saskatchewan Col. of Pharm. and Nutr.


C241 II 643.4 Poor vitamin D status is associated with increased risk for metabolic syndrome, diabetes mellitus, and several unfavorable cardiometabolic markers in U.S. adults. V. Ganji, X. Zhang and V. Tangpricha. Georgia State Univ. and Emory Univ. and VA Med. Ctr.


C244 I 643.7 Cardiovascular risk factors are related to vitamin D status in midlife and older African Americans. J.L. Lemacks, J. Ilich-Ernest, P.A. Ralston, I. Young-Clark, C. Coccia, K. Wickrama and C.M. Harris. Florida State Univ., Texas A&M Univ.-Kingsville, Univ. of Georgia and Florida A&M Univ.


C248 I 643.11 Supercritical fluid extraction of vitamin D2 from UV enhanced yeast. B.T. Metzger, C. Scholl and D.M. Barnes. Standard Process Inc., Palmyra, WI.

644. MECHANISMS OF ACTION AND MOLECULAR TARGETS OF DIETARY BIOACTIVE COMPONENTS

Poster
(Sponsored by: Dietary Bioactive Components RIS)

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C251 I 644.3 Ratio of primary to secondary oxidation products and time of exposure correlate with lipid accumulation in murine adipocytes. J.P. Skinner, N. Dingels, N. Santanam and M. Penumetcha. Georgia State Univ. and Marshall Univ., WV.


C253 I 644.5 The lactoferrin receptor is differentially expressed across several human epithelial cell types. S.A. Lopez, E.B. Nonnecke and B.L. Lönnerdal. Univ. of California, Davis.


C255 I 644.7 Proanthocyanidins stimulate an inflammatory response in a pig intestinal epithelial cell line (IPEC-1 cells). M. Monagas, N. Schoene, J. Urban and G. Solano-Aguilar. UAM-CSIC, Madrid and USDA, Beltsville, MD.


C259 I 644.11 Quercetin exerts anti-adipogenic effects through modulation of 3T3-L1 preadipocyte proliferation and differentiation. J. Swick, O.H. Lee and Y-C. Kim. Univ. of Massachusetts Amherst.


C262 II 644.14 α-Tocopheryl phosphate – an activated form of vitamin E important for angiogenesis? J-M. Zingg, M. Meydani and A. Azzi. USDA at Tufts Univ.


C266 II 644.18 Polymethoxyflavones and atorvastatin synergistically inhibit breast cancer cell growth. L. Li, N. Charoensinphon, J. Zheng and H. Xiao. Univ. of Massachusetts Amherst.

645. EPIDEMIOLOGIC ASSOCIATIONS BETWEEN DIETARY BIOACTIVE COMPONENTS AND HEALTH

Poster

(Sponsored by: Dietary Bioactive Components RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C268 II 645.2 Development of a flavonoid database for assessing population exposures and its application. J.K.C. Ahuja, S. Bhagwat, D. Haytowitz, D. Dwyer, J.A. Milner and A. Moshfegh. USDA, Beltsville, ODS/NIH and NCI/NIH.


646. BIOAVAILABILITY, METABOLISM AND BIOMARKERS OF DIETARY BIOACTIVE COMPONENTS

Poster

(Sponsored by: Dietary Bioactive Components RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C271 I 646.1 Development and validation of a urinary biomarker for dietary furanocoumarins. S.W. Simpkins, L.R. Young and S. Peterson. Univ. of Minnesota, St. Paul.


C277 I 646.7 Determining functional fiber properties of berry pomaces via an anaerobic fermentation system. M.L. Goita, K.L. McCutcheon, A.M. Raggio and J.W. Finley. LSU AgCtr.

NUTRITION

C279 I 646.9 Variability on urinary excretion of chro lasic acid compounds and metabolites in humans after overnight fasting and under controlled diets. G. Duarte, M. Monteiro, V. Marques and A. Farah. Fed. Univ. of Rio de Janeiro.


C282 II 646.12 Effects of whole grain phytochemicals on biomarkers of postprandial metabolic dysregulation in overweight/obese adults following an oral glucose challenge. D.L. McKay, C-Y.O. Chen and J.B. Blumberg. USDA at Tufts Univ.


C286 II 646.16 A-type procyanidin dimers, trimers, and tetramers from cranberries transported across monolayers of human intestinal epithelial Caco-2 cells. K. Ou, S.S. Percival, T. Zou, C. Khoo and L. Gu. Univ. of Florida and Ocean Spray Cranberries Inc., Lakeville-Middleboro, MA.

C287 I 646.17 Uptake and metabolism of α-mangostin by human cell lines: HepG2 liver cells, HT-29 colon cells, and THP-1 macrophage-like cells. F. Gutierrez Orozco, C. Chitchumroonchokchai, K.M. Riedl and S.J. Schwartz. The Ohio State Univ.


C290 II 646.20 Improving bioavailability of 5-hydroxy tangeretin by food grade nanoemulsions. J. Zheng, Y. Li, N. Charoensinphon, W. Nutakul, P. Dong, P. Qiu, D.J. McClements and H. Xiao. Univ. of Massachusetts Amherst and Ocean Univ. of China.


C294 II 646.24 Do intakes of 250-500mg/d of EPA and DHA increase blood biomarkers? A.C. Patterson, A. Chalil, P. Charkhzarin, J.J. Aristizabal Henao, I. Streit, F. Ciobanu and K.D. Stark. Univ. of Waterloo, Canada.


C296 II 646.26 The effects of almonds on the profile and bioaccessibility of isoflavones from a soy soft pretzel. A.L. Simmons, C. Chitchumroonchokchai, M.L. Failla and Y. Vodovoz. The Ohio State Univ.


647. NUTRIENT-GENE INTERACTIONS

Poster

(Sponsored by: Nutrient Gene Interactions RIS)

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C299 II 647.2 Expression of one-carbon metabolism genes in cultured primary lymphocytes. J. Zhu and M. Kohlmeier. Univ. of North Carolina at Chapel Hill, Kannapolis.


C304 I 647.7 Differential regulation of liver gene expression by in vitro digested soy and caseinate. J. Li, P. Liu, M. Cope, S. Crosby, N. Napawan and E.S. Krul. Solae LLC, St. Louis and Washington Univ.


C312 I 647.15 Saturated fat intake interacts with HDL-c genes to influence plasma HDL-c of Filipino women. N. Zubair, L.S. Adair and A. Feranil. Univ. of North Carolina at Chapel Hill and Univ. of San Carlos, Philippines.

C313 II 647.16 ZIP14 regulates tight junction protein expression in response to LPS. G.J. Guthrie, T. Beker-Aydemir and R.J. Cousins. Univ. of Florida.

C314 I 647.17 Retinol tends to reduce activator protein-1 and nuclear factor kappa B mediated gene transcription in cultured human colorectal cancer cells. K. Olds and M.A. Lane. Texas State Univ.-San Marcos.


C318 I 648.3 Green tea supplementation during gestation and lactation modulates heart lipid metabolism and oxidative status in rat offspring born of high-fat, diet-fed dams. B.C.Y. Lam and E.T.S. Li. Univ. of Hong Kong.


649. NUTRIENT-GENE INTERACTIONS IN MODELS OF NEUROGENETIC/NEUROMUSCULAR AND METABOLIC DISEASE

Poster
(Sponsored by: Nutrient Gene Interactions RIS)

C323 I 649.1 Fructose-induced stress signaling in hepatocytes involves methylglyoxal. D. Wang, Y. Wei and M. Pagliassotti. Colorado State Univ.


C329 I 649.7 Genetic variation in the epithelial sodium channel and salt taste perception in humans. A.G. Dias and A. El-Sohemy. Univ. of Toronto.
650. ANIMAL RESEARCH MODELS IN NUTRITION AND MUSCULOSKELETAL DEVELOPMENT

Poster

(Sponsored by: Experimental Animal Nutrition RIS)

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C331 I 649.9 The role of autophagy in radiation induced salivary gland dysfunction. M. Morgan. Univ. of Arizona.

651. ANIMAL RESEARCH MODELS FOR MACRONUTRIENT METABOLISM

Poster

(Sponsored by: Experimental Animal Nutrition RIS)

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C338 II 651.2 Effects of early growth restriction on development and insulin sensitivity in rats. E. Ebanks, B. Lönnerdal and I.J. Griffin. Univ. of California, Davis and Sacramento.

C339 I 651.3 Severe heat stress affects the expression of Hsp90, GLUT4 and b-h2, in liver and leptin in adipose tissue of pigs. H. Garcia, F. Grageola, A. Morales, A. Araiza, N. Arce and M. Cervantes. Autonomous Univ. of Baja California, Mexico.

C340 II 651.4 The effect of dietary selenium intake on numbers of T and B cells in C57BL/6 mice with chronic inflammation. H. Nekatebeb, B.J. Smith, S. Kuvibidila, Y. Wang, A. Girma, S. Peterson and B.J. Stoeker. Oklahoma State Univ.


C342 II 651.6 Effect of conjugated linoleic acid on fatty acid synthesis in soy and coconut oil fed mice. M.W. Sandy, Z. Angius, S.M. Ippagunta and K.M. Barnes. West Virginia Univ.


C348 II 651.12 Serum inosine, and symmetrical dimethyl arginine concentrations were reduced at different time points when dogs were fed a controlled protein and phosphorus food with different fatty acid compositions. D.E. Jewell, M. Yerramilli, E. Obare and M. Yerramilli. Hill’s Pet Nutr., Topeka and IDEXX Labs., Westbrook, ME.

652. LONG-TERM EFFECTS ON NUTRITION

Poster

(Sponsored by: International Nutrition Council (INC))

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C350 I 652.1 Anthropometric assessment of lactating mothers attending public clinics in the Guatemalan highlands in metropolitan Quetzaltenango. L. Oyesiku, C.M. Doak, M. Vossenaar and N.W. Solomons. CeSSIAM, Guatemala City and VU Univ., Amsterdam.


C356 I 652.7 Fetal growth and birth weight are determined by maternal fat mass at mid pregnancy in low-income Brazilian women. T. Toro-Ramos, R. Sichieri and D.J. Hoffman. Rutgers, The State Univ. of New Jersey and State Univ. of Rio de Janeiro.

653. INTERVENTIONS TO IMPROVE DIET AND/OR NUTRITION OUTCOMES

Poster

(Sponsored by: International Nutrition Council (INC))

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


654. COMMUNICATION AND EDUCATION

Poster

(Sponsored by: International Nutrition Council (INC))

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

655. INFLAMMATION AND IMMUNE RESPONSE

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 11:30 AM-1:30 PM


**B176 655.8** The influence of alternative housing on dairy calf innate immune measures after weaning. **L.E. Hubert,** S.M. Calvo, K.C. Klasing and F.M. Mitloehner. Univ. of California, Davis.


**B178 655.10** Fluorescence compared to brightfield detection of CD35 in lymphoid follicles of the monkey to assess immunomodulatory treatment effect. **J. Brodbeck,** F. Chu, M. Gonzales Edick, L. Rangell, S. Bheddah and G. Cain. Genentech.

**656. IMMUNOPATHOLOGY, INFLAMMATION AND VASCULAR CELL BIOLOGY**

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 11:30 AM-1:30 PM

**B179 656.1** α(1,3)-Fucosyltransferases-IV/-VII modulate the prevalence of murine IL-17-producing cells in vivo. **L.C. Mackey,** J.M. Rose and J.W. Homeister. Univ. of North Carolina at Chapel Hill.

**B180 656.2** New method for systemic sclerosis, systemic lupus erythematosus and vascular angiopathy diagnosis. **G. Cattaruzzi,** F. Vitrani, M. Moretti, R. Scorza and F. Curcio. VBC spa, Udine, Univ. of Milan, Univ. of Udine and Azienda Univ. Hosp., Udine, Italy.

**B181 656.3** RAGE signaling influences smoke-induced secretion of pro-inflammatory cytokines by primary alveolar macrophages. **K.D. Johnson,** A.B. Robinson and P.R. Reynolds. Brigham Young Univ.


**B184 656.6** Genetic variation in CARD15 and allergy. **A. Katenta** and S. Guerra. Univ. of Maryland Eastern Shore and Univ. of Arizona.

**B185 656.7** Plasma kinogen and bradykinin receptors are required for collagen antibody-induced arthritis. **A. Yang,** Z. Xie, X. Zhu and Y. Wu. Soochow Univ., China and Temple Univ.

**B186 656.8** VEGFR2 activation during the early onset of flow is ligand-dependent and mediated by the release of autocrine VEGF. **N.G. dela Paz** and J.A. Frangos. La Jolla Bioengin. Inst.


**B189 656.11** Peritoneal mechanobiology and metastatic success in epithelial ovarian cancer. **R.J. Burkhaltter,** Y. Liu, M. Marszow, Z. Sun, G.A. Meininger, D. Wagner and M.S. Stack. Univ. of Missouri-Columbia and Univ. of Notre Dame.

657. ADVANCES IN TUMOR BIOLOGY

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 11:30 AM-1:30 PM


B200 657.3 Putting the more back in morphology: quantitating multiple protein expressions in intact tissue sections. J.R. Mansfield and C. Hoyt. Caliper Life Sci., Hopkinton, MA.


B202 657.5 Calreticulin upregulates VEGF-A and VEGF-C in SK-N-DZ and SH-SY5Y neuroblastoma cell lines. K. Lin, P-Y. Wu and H. Lee. Natl. Taiwan Univ.

B203 657.6 Induced myeloperoxidase activity in ovarian cancer mouse model. R.V. Papineni, G. Mor, W. McLaughlin, J. Holmberg and V. Craveiro. Carestream Hlth. Inc., Woodbridge, CT and Yale Univ.


B208 657.11 The study of androgen effects on LPA-induced ROS in different human prostate cancer cell lines. Y-C. Lin, Y-L. Huang and H. Lee. Natl. Taiwan Univ. and Asia Univ., Taiwan.


B213 657.16 Gene expression in the colon of wild type and knockout Parp1 mice. K. Moua, A. Rod and R. Cormier. Univ. of Minnesota Duluth.


B216 657.19 Recombinant mojastin disintegrins inhibit cell proliferation and migration of SK-Mel-28 cells and migration of HT-144 cells. T.D. Bella, D.A. Gutierrez, R. Bueno and J.G. Soto. San Jose State Univ.

658. PULMONARY PATHOBIOLOGY

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 11:30 AM-1:30 PM


B218 658.2 Human mesenchymal stem cell modulates the stretch-induced inflammatory response in bronchial epithelial cells. C.Y-C. Kuo, J.Y-S. Li, O.K-S. Lee and S. Chien. UCSD and Natl. Yang-Ming Univ., Taiwan.


183


Pharmacology and Experimental Therapeutics

659. DRUGS OF ABUSE—COCAINE

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B1 659.1 The effect of PKMζ inhibition on cocaine-induced place preference and locomotor sensitization. K. Howell, S.A. Carmack and S.G. Anagnostaras. UCSD.


660. DRUGS OF ABUSE—DEPRESSANTS/ CANNABINOIDS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B16 660.3 Age difference in behavior induced from co-administration of nicotine and alcohol. A. Larraga, C.N. Chew, C. Gadalla, J.D. Belluzzi and F.M. Leslie. Univ. of California, Irvine.

661. MONOAMINES/BEHAVIOR

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


661. MONOAMINES/BEHAVIOR

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B30 661.3 Eating high fat chow enhances sensitivity, but does not impact the development of sensitization, to apomorphine-induced yawning in rats. M.G. Baladi, Y.M. Thomas and C.P. France. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.


B32 661.5 Sensitivity to the rewarding and locomotor effects of amphetamine following early treatment with methotrexate and cytarabine in adolescent mice. A.M. Myers, E.B. Bisen-Hersh and E.A. Walker. Temple Univ.

B33 661.6 Pro-social effects of 3,4-methylenedioxyamphetamine in mice. D.W. Curry, K.S. Murnane and L.L. Howell. Emory Univ.


662. PHARMACOLOGY OF PAIN

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


663. GPCR SIGNALING

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B63. 663.1 Role of Rac1 in A2B adenosine receptor and Epac1 signaling to extracellular signal-regulated kinase in human endothelial cells. M. Olah and L. Miller. Col. of Pharm., Ohio Northern Univ.

665. GRKS AND ARRESTINS

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:30 PM-2:45 PM


B76 665.5 Proteolytic activation of PAR1-PAR2 heterodimer by thrombin promotes beta-arrestin dependent ERK1,2 signaling. H. Lin and J. Trejo. UCSD.


668. SYSTEMS PHARMACOLOGY/TOXICOLOGY—
ASTHMA AND COPD

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 12:30 PM-2:45 PM*

B98 668.1 In vitro and in vivo studies of antiasthmatic and mast cell stabilizing activity of Yemeni Sidr honey. A.A. Alzubier and P.N. Okechukuwu. UCSI Univ., Malaysia.

B99 668.2 Epinephrine is required for the IL-13 induced increase in inflammatory cells in murine airways. V.J. Thanawala, N. Al-Sawalha, G.S. Forkuo, O. Omoluabi, B. Knoll and R. Bond. Univ. of Houston.

B100 668.3 Temporal lipid mediator profiles differ between plasma and bronchoalveolar lavage in mice exposed to tobacco smoke. M.L. Nording, J. Yang, L. Hoang, V. Zamora, D. Uyeminami, I. Espiritu, K.E. Pinkerton, B.D. Hammock and A. Luria. Umeå Univ., Sweden and Univ. of California, Davis.

B101 668.4 Inhibition of soluble epoxide hydrolase in mice exposed to tobacco smoke. M.L. Nording, J. Yang, L. Hoang, V. Zamora, D. Uyeminami, I. Espiritu, K.E. Pinkerton, B.D. Hammock and A. Luria. Umeå Univ., Sweden and Univ. of California, Davis.

B102 668.5 Role of beta2-adrenoceptor signaling and mitogen activated protein kinases in IL-13 induced mucus production in human airway epithelial cells. N. Al-Sawalha, I. Pokkunuri, O. Omoluabi, R. Bond and B. Knoll. Univ. of Houston.

669. SYSTEMS PHARMACOLOGY/TOXICOLOGY—
PULMONARY

Poster

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 12:30 PM-2:45 PM*

B103 669.1 Doxycycline protects against right ventricular dysfunction and dilatation caused by acute pulmonary thromboembolism. E.M. Neto Neves, O.S. Santos, K.C. Ferraz, C.S. Ceron, M.D. Romano, L.G. Gali, B.C. Maciel and J.E. Tanus Santos. Univ. of São Paulo and State Univ. of Campinas, Brazil.

B104 669.2 G proteincoupled receptor arrays identify physiologically relevant targets in pulmonary artery smooth muscle cells: mRNA to function. D.S. McDonald, N. Aroonsakool, O. Kwon, P.A. Insel and F. Murray. UCSD and Univ. of Nebraska Med. Ctr.


671. ENDOTHELIAL MECHANISMS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B116 671.1 SIRT1 enhances endothelium-dependent relaxation through an eNOS-independent mechanism. C. Xu, P.M. Vanhoutte and W. Wang. The Univ. of Hong Kong.

B117 671.2 Thyroid hormone affects both endothelial and vascular smooth muscle cells in rat arteries. Y. Cai, G.P.H. Leung and P.M. Vanhoutte. The Univ. of Hong Kong.


B119 671.4 Activated protein C promotes endothelial barrier protection through biased PAR1 signaling mediated by β-arrestin and dishevelled-2 scaffolds. U.J.K. Soh and J. Trejo. UCSD Sch. of Med.


B121 671.6 A phosphodiesterase 3B-based signaling complex integrates exchange protein activated by cAMP 1 and phosphatidylinositol 3-kinase signals in human arterial endothelial cells. D.H. Maurice. Queen’s Univ., Canada.

B122 671.7 Calcium sensitization underlies endothelium-dependent hypoxic augmentation in the porcine coronary artery. P.M. Vanhoutte and C.K. Chan. Univ. of Hong Kong and Chonbuk Natl. Univ., South Korea.


B125 671.10 miR-150 prevents pulmonary inflammation by regulating interleukin-1R associated kinase-2 downstream of focal adhesion kinase. C. Rajput, M. Tauseef, P. Yazbeck, T. Thennes and D. Mehta. Univ. of Illinois at Chicago.

672. PHARMACOLOGY OF NEUROPROTECTION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B126 672.1 Date palm fruits grown in Oman ameliorate amyloid beta protein-induced cytotoxicity. M.E. Musthafa, S. Al-Adawi, A. Al-Asmi, R. Vaishnav, G.J. Gilles and N. Ramachandiran. Sultan Qaboos Univ., Oman and Univ. of New South Wales.


B128 672.3 Protection by a transdermal patch system for the prophylaxis against soman poisoning in rhesus monkey. Y. Cho. Agcy. for Defense Develop., Taejon, South Korea.


B130 672.5 Anti-oxidant and anti-apoptotic effects of fisetin in MPTP-induced PC12 cells. K.E. Benzeroual and M. Patel. Long Island Univ.


673. MECHANISMS OF GENE EXPRESSION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B135 673.2 A major constituent from Zanthoxylum nitidum, compound X, is a naturally occurring antagonist of the human and rat pregnane X receptor. C-Y. Ma and Y-P. Lim. China Med. Univ., Taiwan.


B140 673.7  Selective estrogen-receptor modulators genistein, resveratrol, and catechin fail to stimulate the hepatic expression of estrogen-responsive genes encoding the avian apolipoprotein II and vitellogenin. V.D. Bhatt, K. Chaudhary, A. Bin Ariff, R. Boggeti and W.N. Ratna. Arnold & Marie Schwart Col. of Pharm., Long Island Univ.


B146 673.13  Changes in liver metabolic gene expression after radiation exposure. V.E. Wotring and C.P. Peters. NASA Johnson Space Ctr. and Bethel Univ., MN.


B150 673.17  Lactobacillus rhamnosus GG treatment potentiates intestinal hypoxia-inducible factor, promotes intestinal integrity, prevents inflammation, and ameliorates alcohol-induced liver injury. Y. Wang, Y. Liu, I. Kirpich, C. McClain and W. Feng. Univ. of Louisville.

B151 673.18  Hypoxia-induced lipid accumulation involves a HIF-α independent, oxidative stress-mediated regulation of FGF-21 in HepG2 cells. Y. Liu, Y. Wang, C.J. McClain and W. Feng. Univ. of Louisville.

674. DEVELOPMENTAL PHARMACOLOGY/TOXICOLOGY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B152 674.1  The African clawed frog (Xenopus laevis) is sensitive to pyrene exposure during early development. D.B. Smoke, K.E. Rosato, E.M. Richardson and S.L. Whittmore. Keene State Col., NH.


B155 674.4  Organophosphate pesticide exposure affects zebrafish developmental physiology. H. Garcia, N. Hole, F. Radoniqi, H. Schmidt, G. Orona and E.A. Fradinger. Whittier Col., CA.


Physiology

675. MICROVASCULAR MOLECULAR BIOLOGY/GENETIC APPROACHES

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D12 II 676.11 Cilostazol, a phosphodiesterase 3 inhibitor, enhances prostacyclin receptor-mediated cAMP accumulation and ATP release in erythrocytes of healthy humans and humans with type 2 diabetes. S. Knebel, E.A. Bowles, R.S. Sprague and A.H. Stephenson. Saint Louis Univ.


D18 III 676.17 S-nitrosylation of β-catenin and p-120 catenin: a novel regulatory mechanism in endothelial hyperpermeability. P. Zamorano, N. Marin, R. Carrasco, M. Boric, W.N. Durán and F.A. Sánchez. Southern Univ. of Chile, Valdivia, Catholic Univ. of Chile and UMDNJ-New Jersey Med. Sch.


676. MICROVASCULAR CELL SIGNALING PATHWAYS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D2 I 676.1 Decreased telomerase activity converts the mechanism of FND from NO to H\textsubscript{2}O\textsubscript{2} in human and mouse arterioles. A.M. Beyer and D.D. Gutterman. Med. Col. of Wisconsin.

D3 II 676.2 The impact of arterial network structure on electrical communication. C.H.T. Tran, E.J. Vigmond, D. Goldman and D.G. Welsh. Univ. of Calgary, Canada and Univ. of Western Ontario.


D5 II 676.4 Calcium sparks, BK and SK channels regulate myogenic tone in the gerbil spiral modiolar artery. G. Krishnamoorthy, K. Reimann and P. Wangemann. Kansas State Univ.

D6 II 676.5 Identification of voltage-activated calcium currents in renal afferent and efferent arterioles of the rat. S.V. Smirnov, K. Loutzenhiser and R. Loutzenhiser. Univ. of Bath, U.K. and Univ. of Calgary, Canada.


D10 I 676.9 Neurovascular unit regulation by adenosine triphosphate. H.H. Dietrich. Washington Univ.


D24 II 677.4 Interplay between NO, prostaglandins and KATP channels in the lymphatic pumping dysfunction observed during experimental intestinal inflammation. P.-Y. von der Weid, R. Mathias and S. Rehal. Univ. of Calgary, Canada.


D33 I 677.13 Placental growth factor is a potent dilator of uterine and mesenteric veins isolated from pregnant rats. M. Mandal, S. Kostin and G. Osol. Univ. of Vermont and Univ. of Calabria, Italy.

678. ISCHEMIA-REPERFUSION/FREE RADICAL BIOLOGY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D38 I 678.5 Ethanol preconditioning protects against ischemia/reperfusion-induced cardiac damage via calcitonin gene-related peptide and is initiated by a transient receptor potential vanilloid 1-dependent mechanism. M. Wang, M.Y. Zuidema and R.J. Korthuis. Univ. of Missouri-Columbia.

D39 II 678.6 Ischemia-induced mobilization of lysosomal iron predisposes rat hepatocytes to ischemia-reperfusion injury. X. Zhang, J. Schwartz and J. Lemasters. Med. Univ. of South Carolina.

D40 I 678.7 Effects of endogenously and exogenously elevated bilirubin on myocardial ischaemia reperfusion injury. B. Bakrania and A. Bulmer. Griffith Univ., Australia.


D45 II 678.12 Forty five minutes of ischemia and 24 hours of reperfusion in the Wistar rat induce an acute pre-re nal injury which is not improved by 4 days of pre-ischemia treatment with spironolactone. D.M. Montes Acuña, J.F. López-Rodríguez, M.Z. Calvo-Turrubiartes, N.L. Dávila Varela, L. Llamazares-Azuara and M. Rodríguez-Martinez. Sch. of Med. Autonomous Univ. of San Luis Potosi, Mexico.

D46 I 678.13 Molecular mechanisms underlying netrin-1 postconditioning induced cardioprotection against ischemia-reperfusion injury. J.O. Bouhidel and H.L. Cai. UCLA.


679. INSTRUMENTATION AND LIVE CELL IMAGING

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D57 II 679.4 Superficial neoplasms in BALB/c mice facilitate in vivo multiphoton imaging. I. Schiessl and H. Castrop. Univ. of Regensburg, Germany.

680. INFLAMMATION/LEUKOCYTE-ENDOTHELIUM INTERACTIONS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D58 I 680.1 Effects of circulating C-reactive protein levels on EPC function. B. Nissen, K. Fasing, J. Greiner, B. Stauffer and C. DeSouza. Univ. of Colorado Boulder.


D60 I 680.3 Impact of the EphrinB/EphB8 system on pro-inflammatory monocyte-endothelial cell interaction. H. Liu, J. Braun, M. Hecker and T. Korff. Univ. of Heidelberg and German Cancer Res. Ctr., Heidelberg.


D64 I 680.7 Leukocyte mechanosensitivity to fluid shear stress depends on the subtypes of CD18 integrins. X. Zhang, D. Zhan and H.Y. Shin. Univ. of Kentucky.


D72 II 680.15 Blood cell-associated angiotensin II type-1 receptors and gp91phox mediate the inflammatory and thrombogenic responses elicited by chronic angiotensin II administration. A. Yildirim and D.N. Granger. LSU Hlth. Shreveport.

D73 II 680.16 High fat feeding leads to inflammation and depressed markers of immune system reactivity in rats. T. Liss, R.A. Reiss and K.L. Sweeney. Arizona State Univ., Tempe and New Mexico Inst. of Mining and Technol.
D74 II 680.17 Blunting of endothelium dependent dilation in adipose tissue arteries by tumor necrosis factor alpha is lost after high fat feeding. J.P. McCullagh, G.D. Henson, A.J. Donato and L.A. Lesniewski. Univ. of Utah and VA Salt Lake City Hth. Care Syst.


D80 II 680.23 The melanocortin receptor system in mediating anti-inflammatory protection following cerebral ischemia reperfusion injury. P.M. Holloway, S.J. Getting and F. Gavins. Imperial Col. London and Westminster Univ.


681. ATHEROSCLEROSIS/THROMBOSIS/PLATELETS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D82 I 681.1 Atherosclerosis development is differentially regulated in whole genome versus bone marrow-derived haploinsufficient NFAT5/ApoE null mice. J.A. Halterman, H.M. Kwon and B.R. Wamhoff. Univ. of Virginia and Univ. of Maryland Baltimore.


D84 I 681.3 Enhancement of autophagy by simvastatin through inhibition of Rac1-mTOR signaling pathway. Y-M. Wei, Y. Zhang, X-X. Li, M. Xu and P-L. Li. Virginia Commonwealth Univ.


D89 II 681.8 Subendothelial pericytes in the intima of venous bypass grafts catalyze thromboembolic and atherosclerotic processes. S. Nees, B. Gansera and G. Juchem. Univ. of Munich and Hosp. Bogenhausen, Munich.


D96 I 681.15 Thrombotic and thrombolytic factors in human plasma with aging. K.A. Field, E.P. Murray and M.F. Field. Sch. of Gerontol., Univ. of Southern California and Saint Mary’s Col. of California.

D97 II 681.16 Seasonal variation in thrombotic and thrombolytic factors in human plasma. E.P. Murray, K.A. Field and M.F. Field. Saint Mary’s Col. of California and Univ. of Southern California.

D98 I 681.17 Mannose-binding lectin concentrations correlate with enhanced whole blood aggregation and thrombin-like activity in humans. E. McClure, L.R. La Bonte and G.L. Stahl. Louisiana Col., PA and Brigham and Women’s Hosp.

682. ANGIOGENESIS/MICROVASCULAR REMODELING/INJURY AND REPAIR

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D104 I 682.5 The importance of aquaporin 1 for vascular smooth muscle cell migration after vascular injury. J. Stubbe, S.H. Johansen and B.L. Jensen. Univ. of Southern Denmark.


D110 I 682.11 Endothelial signaling of matrix-bound and diffusible VEGF. E.A. Logsdon, L. Woo and F. Mac Gabbann. Johns Hopkins Univ.


D113 II 682.14 Suppression of vascular network formation by human cardiac endothelial cells with low concentrations of doxorubicin is due to the inhibition of endothelial cell proliferation. E. Konorev and Z. Sun. Univ. of Hawaii-Hilo Col. of Pharm.


D117 II 682.18 Role of p47<sub>phox</sub> and Nox2 in the promotion and impairment of collateral growth. M. DiStasi, D. Ingram, S. Miller and J. Unthank. Indiana Univ., Indianapolis.

D118 II 682.19 Hypoxia-inducible factor-2α regulates intestinal inflammation and colon cancer. Y. Shah and X. Xue. Univ. of Michigan.

683. ANGIOGENESIS AND VASCULAR GROWTH

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D119 I 683.1 Fetal endothelial colony forming cells from pregnancies complicated by intrauterine growth restriction have reduced vasculogenic capacity. S.L. Bourque, P. Sipos, C. Sibley, P. Baker, S. Davidge and I. Crocker. Univ. of Alberta and Univ. of Manchester.


D121 I 683.3 High salt diet suppresses the angiogenic competency of bone marrow-derived mononuclear cells. J.R. Genthe and A.S. Greene. Med. Col. of Wisconsin.


D126 II 683.8 Shear stress upregulates PLGF protein expression in an endothelial cell/vascular smooth muscle cell coculture system. N.A. Rashdan and P.G. Lloyd. Oklahoma State Univ.


684. BLOOD PRESSURE REGULATION

Poster

SUN. 7:30 AM—S AN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D134 II 684.6 Phosphoinositide dependent kinase 1 contributes to intermittent hypoxia-induced hypertension. J.M. Osmond, X.A. DeLeon, B.R. Walker and N.L. Kanagy. Univ. of New Mexico.


D140 II 684.12 Regional blood flow changes underlying the hypotensive action of 5-HT: studies using Doppler and microsphere technologies. B.M. Seitz, A.M. Dorrance, G.D. Fink and S.W. Watts. Michigan State Univ.


D142 II 684.14 Gene silencing of HIF prolyl-hydroxylase 2 in the renal medulla attenuated sodium retention in Dahl S rats. Q. Zhu, M. Liu, W. Han, P-L. Li and N. Li. Virginia Commonwealth Univ.


D144 II 684.16 Critical cardiac and renal developmental windows for atenolol exposure in embryos of the chicken Gallus gallus. J.J. Rossitto and W. Burggren. Univ. of North Texas at Denton.


D150 II 684.22 Sensitization of rats with low dose of angiotensin II through multiple signaling pathways in lamina terminalis. Z. Zhang, B. Xue, F. Guo, T. Beltz and A.K. Johnson. Univ. of Iowa.


685. CEREBRAL CIRCULATION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D159 II 685.2 tPA contributes to aggravation of endothelin- and thromboxane-induced cerebrovascular constriction after hypoxia/ischemia through upregulation of ERK MAPK. W. Armstead, H. Kaczynski, J. Riley, D. Cines and A. Higazi. Univ. of Pennsylvania.

D160 I 685.3 The effects of a 5 second bend over maneuver on cerebral perfusion and autoregulation upon standing from squat. R.F. Bentley, J.J. Walsh, J.M. Kellawan and M.E. Tschakovsky. Sch. of Kinesiol. and Hthl. Studies, Queen’s Univ., Canada.


D162 I 685.5 Cerebrovascular oxidative stress and endothelial dysfunction in response to aldosterone is Nox2-mediated. S. Chrissobolis, F.M. Faraci and C.G. Sobey. Monash Univ., Australia and Univ. of Iowa.
D178 I 685.21 The effects of melatonin and/or forced exercise on reorganization of corticospinal tract after focal cerebral ischemia in rats. S. Lee, M. Lee and Y. Hong. Grad. Sch. of Inje Univ. and Col. of Biomed. Sci. and Engin., Inje Univ., South Korea.


D180 I 685.23 Role for \( \alpha, \beta \) in the regulation of Ca\(^{2+} \) dynamics and myogenic tone development in rat cerebral arteries. R. Mutfi, S.E. Brett and D.G. Welsh. Univ. of Calgary, Canada.


D184 I 685.27 Chronic hypoxia differentially modulates age-dependent responses of ovine middle cerebral arteries to VEGF. J. Silpanisong, M.C. Hubbell and W.J. Pearce. Loma Linda Univ.


D189 II 685.32 Lower body muscle tensing is an effective countermeasure to initial orthostatic hypotension-induced cerebral hypo-perfusion upon standing from a squatted position. J.J. Walsh, R.F. Bentley, J.M. Kellawan and M.E. Tschakovsky. Sch. of Kinesiol. and Hlth. Studies, Queen’s Univ., Canada.


686. DIABETES AND INSULIN RESISTANCE I

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D194 I 686.1 SLC2A2 gene is upregulated in diabetes and downregulated in insulin treatment: participation of HNFs (1\( \alpha \), 3\( \beta \) and 4\( \alpha \)). A.D. Silva, H.S. Freitas, D.T. Furuya, A.C. Poletto, R.S. Silva, M.M. Okamoto and U.F. Machado. Univ. of São Paulo and Fed. Univ. of Alagoas, Brazil.


D197 II 686.4 Soluble epoxide hydrolase deficiency alters pancreatic islet size and improves glucose homeostasis in a model of insulin resistance. A.R. Luria, A. Bettaieb, Y. Xi, H. Inoue, H-J. Tsai, J.D. Imig, F.G. Haj and B.D. Hammock. Univ. of California, Davis, Sacramento and Davis Med. Col. of Wisconsin.


D207 II 686.14 Ang (1-7) reduces ANG II-induced insulin resistance by increasing Akt phosphorylation via a Mas receptor-dependent mechanism in rat skeletal muscle. E.J. Henriksen, M. Prasannarong and F.R. Santos. Univ. of Arizona and Mahidol Univ., Thailand.


687. DIABETIC RENAL DISEASE

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D221 II 687.2 Nuclear transcription factor kappa B (NF-κB) mediates ROS and PKC-induced decrease in TRPC6 protein expression in human glomerular mesangial cells. R. Ma, Y. Wang and M. Ding. Univ. of North Texas Hlth. Sci. Ctr.


D224 II 687.5 Hydrogen sulfide mitigates diabetic nephropathy through NMDA receptor-mediated renal remodeling. S. Kundu, A. Tyagi, D.M. Coley, P. Sathnur and U. Sen. Univ. of Louisville.


D226 II 687.7 Mitochondrial function and superoxide production is reduced in the diabetic kidney and restored by AMPK activation. Y.H. You, L.L. Dugan, R.K. Naviaux and K. Sharma. UCSD.
**688. HORMONE AND AUTACOID EFFECTS ON THE KIDNEY**

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D227 I 688.1 Salt-deficient diet does not attenuate the development of slowly progressive ANG II-dependent hypertension in Cyp1a1-Ren2 transgenic rats. **A.E. Collins, C.G. Howard and K.D. Mitchell.** Tulane Univ.


D229 I 688.3 Cellular localization of P0 (adenine) receptor in rat kidney. **B.K. Kishore, Y. Zhang, I.L. Pop, H. Gevorgyan, C.E. Müller and J. Peti-Peterdi.** Univ. of Utah and VA Med. Ctr., Univ. of Southern California and Univ. of Bonn.


D231 I 688.5 Prostaglandin E2 activates basal EP4 receptors to stimulate chloride secretion via both cAMP and calcium-mediated pathways. **M. Rajagopal, P.P. Kathpalia and A.C. Pao.** Stanford Univ. and VA Palo Alto Hlth. Care Syst.

D232 II 688.6 Endothelin-1-induced inhibition of NKCC2 activity is blunted in thick ascending limbs from angiotensin II-hypertensive rats. **V.D. Ramseyer and J.L. Garvin.** Wayne State Univ. and Henry Ford Hlth. Syst.

D233 I 688.7 Tumor necrosis factor alpha activates RhoA and decreases NO synthase type 3 expression in rat thick ascending limbs. **V.D. Ramseyer, N. Hong and J.L. Garvin.** Wayne State Univ. and Henry Ford Hlth. Syst.

**689. RENAL EPITHELIAL ACID-BASE MECHANISMS**

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D236 I 689.3 Insight into the structural differences in transmembrane segment 1 between NBCe1-A and AE1. **Q. Zhu, D. Newman, L. Kao, W. Liu, R. Azimov and I. Kurtz.** UCLA.

D237 II 689.4 The cysteines in NBCe1-A extracellular loop 3 form intra-molecular disulfide bonds that determines the transporter surface topography. **Q. Zhu, L. Kao, R. Azimov, W. Liu, D. Newman and I. Kurtz.** UCLA.

D238 I 689.5 Differential responses of proximal tubule Na+/H+ exchanger NHE3 to low pH: comparison between metabolic and respiratory acidosis. **P.H.I. Silva, A.C.C. Girardi and N.A. Rebouças.** Univ. of São Paulo.

D239 II 689.6 Characterization of glucose and SGLT mediated effect on NHE3 in renal proximal tubule. **T.D. Pessoa and G. Malnic.** Univ. of São Paulo.

**690. RENAL HEMODYNAMICS AND GLOMERULAR FILTRATION RATE**

**Poster**

**SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D241 II 690.2 Interactions between tubuloglomerular feedback and the myogenic mechanism of the afferent arteriole. **I. Sgouralis and A.T. Layton.** Duke Univ.

D242 I 690.3 Role of adenosine A1 receptors in regulation of arteriolar responses to adenosine and angiotensin II. **X. Gao, M. Carlström, B. Fredholm and E. Persson.** Uppsala Univ., Sweden and Karolinska Inst.


D244 I 690.5 PDGF receptor antagonism with imatinib mesylate improves renal hemodynamics independent of changes in blood pressure in Cyp1a1-Ren2 transgenic rats with ANG II-dependent malignant hypertension. **M-Y. Kwak, C.G. Howard and K.D. Mitchell.** Tulane Univ.


D246 I 690.7 Instigation of NALP3 inflammasome activation and glomerular injury in mice on the high fat diet: role of acid sphingomyelinase gene. **K.M. Boini, M. Xia, J.A. Abais and P-L. Li.** Virginia Commonwealth Univ.


D254 II 690.15 Nebivolol-induced vasodilation of renal afferent arterioles involves β3 adrenergic receptor activation. M-G. Feng and L-G. Navar. Tulane Univ.

D255 II 690.16 Renal responses to severe haemorrhage in conscious lambs. F.G. Smith, M. Samhan and W. Qi. Univ. of Calgary, Canada.


D258 I 690.19 Chronic direct renin inhibition with aliskiren normalizes blood pressure and improves renal hemodynamics in Cyp1a1-Ren2 transgenic rats with ANG II-dependent malignant hypertension. C.G. Howard and K.D. Mitchell. Tulane Univ.


D261 II 690.22 The classic renovascular (Goldblatt) hypertension is mediated by succinate/GPR91 signaling. A.D.M. Riquier-Brison, H.A. Gevorgyan and J. Peti-Peterdi. Univ. of Southern California.


691. OXIDATIVE STRESS AND THE KIDNEY

Poster
SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D263 I 691.1 Pravastatin decreases superoxide production by thick ascending limbs. R. Soca and J. Garvin. Henry Ford Hosp.


D265 I 691.3 Boldine treatment ameliorates kidney damage in rats with 5/6 nephrectomy chronic renal failure. V. Velarde, G. Gomez, C. Cespedes and C.P. Vio. Pontifical Catholic Univ. of Chile.


D267 I 691.5 Activation of Nrf-2 enhances the function of human renal glomerular endothelial cells. Z. Luo, J. Bhupatkar, W.J. Welch and C.S. Wilcox. Georgetown Univ.

D268 II 691.6 Acid sphingomyelinase gene knockout ameliorates hyperhomocysteinemic glomerular injury in mice lacking cystathionine β-synthase. K.M. Boini, M. Xia, C-X. Li, J. Xiong and P-L. Li. Virginia Commonwealth Univ.


D270 II 691.8 Disordered oxygen metabolism in early chronic kidney disease. P. Singh, H. Pham, M. Sharik, A. Murphy, S. Petrostyan, S. Thomson and R. Blantz. UCSD.

D271 I 691.9 Role of different reactive oxygen species in homocysteine-induced NALP3 inflammasome activation in mouse podocytes. J. Abais, K. Boini, M. Xia and P-L. Li. Virginia Commonwealth Univ.

D272 II 691.10 Inhibition of NADPH oxidase attenuates hyperhomocysteinemia-induced NALP3 inflammasome activation in mouse glomeruli. J. Abais, K. Boini, M. Xia and P-L. Li. Virginia Commonwealth Univ.


692. OXIDATIVE STRESS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D282 I 692.8 NADPH oxidase 4 induces cardiac arrhythmia in zebrafish through ROS. Y. Zhang, H. Shimizu, K.L. Siu, J.-N. Chen and H.L. Cai. UCLA.


D284 II 692.10 Moderate hyperoxia treatment increases glutathione levels during direct LPS-induced lung injury in mice. R.D. Britt, M. Velten and L.K. Rogers. The Ohio State Univ. and Nationwide Children’s Hosp.

D285 I 692.11 Apurinic/apyrimidinic endonuclease 1 inhibits oxidative stress in gastric epithelial cells during H. pylori infection through binding and inhibition of Rac1. R. Chattopadhyay, S. Das, E. Hall, A. Ablack, P. Ernst and S. Crowe. UCSD and Univ. of Virginia.


D288 II 692.14 Effect of some antioxidant vitamins on some enzymes of ocular tissues exposed to potassium bromate. V.E. Osagie and P.N. Okolie. Ambrose Alli Univ. and Univ. of Benin, Nigeria.


693. STEM CELLS AND CELL GROWTH, DEVELOPMENT AND DIFFERENTIATION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D291 I 693.1 Protein O-GlcNAcylation – a novel cell survival signal in cardiac stem cells. A. Zafir, Q. Li, R. Bolli and S.P. Jones. Univ. of Louisville.

D292 II 693.2 Eph and ephrin expression during C2C12 myogenesis. X. Fu and M. Du. Washington State Univ.


D295 I 693.5 M-cadherin modulates phosphorylation of beta-catenin N-terminus and promotes myogenic differentiation in a TCF/LEF-independent manner. Y. Wang and S.E. Alway. West Virginia Univ. Sch. of Med.


D297 I 693.7 Adiponectin receptor 1 involves regulating bone formation and osteoblast differentiation. Y.-Y. Lin, S-C. Wu, B-H. Liu, C-Y. Chen, H.J. Mersmann and S-T. Ding. Natl. Taiwan Univ., Taiwan and Baylor Col. of Med., Palm Harbor, FL.


D299 I 693.9 Liquid medium culture effect on some enzymes of ocular tissues exposed to potassium bromate. V.E. Osagie and P.N. Okolie. Ambrose Alli Univ. and Univ. of Benin, Nigeria.

D301 I 693.11 Endothelium differentiation and regeneration from human adipose-derived stem cell by shear stress. Y.-J. Chang, S-C. Lin, S. Chien and C-C. Wu. Natl. Cheng Kung Univ. and Hosp., Taiwan and UCSD.

694. TRANSPORTERS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D303 II 694.2 Analysis and expression pattern of slc12a genes. M. Di Fulvio. Wright State Univ.


D305 II 694.4 Novel KCC3 mouse models to study ACCPN, a degenerative neuropathy disorder. J. Ding, J. Ponce-Coria and E. Delpire. Vanderbilt Univ. Sch. of Med.


D311 II 694.10 Functional expression of MRFP in the ciliary epithelium of the eye. R.M. Pelis and M. Coca-Prados. Dalhousie Univ., Canada and Yale Univ.


D315 II 694.14 Inner gate residues contribute to sugar and Na+ binding in SGLT1. X. Jiang, D.D.F. Loo, B.A. Hirayama and E.M. Wright. UCLA.


695. HYPOXIA: ION CHANNELS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D320 II 695.4 L-type Ca2+ channel current from on-cell patch is augmented by H2O2 in rat aortic smooth muscle-derived A7r5 cells. R. Ochi and S.A. Gupte. Univ. of South Alabama.


D322 II 695.6 N-type Ca2+ channel regulation by the light chain 1 of the microtubule associated protein B (MAP1B). M.A. Gandini, D.R. Henriquez, A. Sandoval, C. González-Billault and R. Felix. Cinvestav-IPN, Mexico City, Univ. of Chile and Natl. Autonomous Univ. of Mexico, Tlalnepantla.


D331 I 695.15 Caveolin-3 regulates subcellular targeting of Kir2.1 channels. Z. Yang and K. Hu. The Ohio State Univ.

D332 II 695.16 Microglial Kv1.3 channels as a potential target for Alzheimer’s disease. D.P. Jenkins, I. Maezawa, H. Wulf and L-W. Jin. Univ. of California, Davis, Davis and Sacramento.


D334 II 695.18 Disease causing mutations affect ENaC gating. V. Kucher, N. Boiko and J.D. Stockand. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

D335 I 695.19 Pickpocket1 is a Drosophila acid-sensing Na+ channel necessary for proprioception. N. Boiko, V. Kucher, B.A. Eaton and J.D. Stockand. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

696. LUNG ION CHANNELS AND FLUID HOMEOSTASIS (POSTERS)

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D337 II 696.2 Comparison of two types of δENaC channels cloned from human lungs. H. Ji, R. Zhao, H. Nie and S. Matalon. Univ. of Texas Hlth. Sci. Ctr. at Tyler, China Med. Univ. and Univ. of Alabama at Birmingham.


D346 II 697.6 Diesel exhaust particulate matter has both direct and indirect effects on cardiomyocyte function. M.W. Gorr, J.D. Rodeman, E. Cormet-Boyaka and L.E. Wold. Nationwide Children’s Hosp. and The Ohio State Univ.
698. LUNG PHYSIOLOGY: ALVEOLAR EPITHELIAL CELL BIOLOGY

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D360 II 698.6 Proliferation of human alveolar epithelial cells downregulates ACE-2 activity. V.X. Dang and B.D. Uhal. Michigan State Univ.


699. HYPOXIA-INDUCED GENE EXPRESSION

Poster

Sun. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D371 II 699.4 Egr1 plays a key role in fetal programming of gender-dependent PKCζ gene expression patterns in the developing heart. M. Chen and L. Zhang. Loma Linda Univ.

D372 I 699.5 Direct inhibitory effect of hypoxia on cardiomyocyte proliferation in fetal rat hearts. W. Tong, F. Xiong, Y. Li and L. Zhang. Loma Linda Univ.


D375 II 699.8 The DNA glycosylase Ogg1 is required for hypoxia-induced activation of VEGF transcription in pulmonary artery endothelial cells. V.M. Pastukh, G.C. Bardwell, M. Patel, A-B. Al-Mehdi and M.N. Gillespie. Univ. of South Alabama.

D376 I 699.9 Mitochondrial biogenesis in hypoxic rat pulmonary artery endothelial cells: possible involvement of DNA oxidation. M.V. Ruchko, O.M. Gorodnya and V.M. Pastukh. Univ. of South Alabama Col. of Med.

D377 II 699.10 Metabolomics reveals the role of hypoxia-inducible factors in hypoxia-induced liver metabolic shift. A. Qu, F. Li, K. Krausz, Y.M. Shah and F.J. Gonzalez. NCI/NIH and Univ. of Michigan Sch. of Med.


D379 II 699.12 Differential anoxia and hypoxia tolerance in two color morphs of the green crab, Carcinus maenas. C.A. Toombs, J.A. Jost and M. Frederich. Univ. of New England and Bradley Univ., IL.
700. HYPOXIC PULMONARY VASOCONSTRICTION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D381 II 700.2 Novel role for copper transport protein CTR1 in hypoxia induced pulmonary hypertension. A.M. Zimnicka, J. Chen and J.X-J. Yuan. Univ. of Illinois at Chicago.


701. AUTONOMIC CONTROL OF VISCERAL FUNCTIONS (POSTERS)

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D386 II 701.2 Selective effects of inhaled methacholine on 3rd generation bronchial blood flow and airway dimensions in awake sheep. S.W. White, D. McLeod, G. Parsons, R. Gunther, D. Cottee and A. Quail. Univ. of Newcastle, Australia, Univ. of California, Davis, Sacramento and John Hunter Hosp., New Lambton, Australia.

D387 I 701.3 Multiple factors working in concert regulate blood pressure over a hibernation bout in the Syrian hamster. M. Saenz, J.S. Hamilton, S. Chau, J. Horowitz, C. Chen and B. Horwitz. Univ. of California, Davis.

D388 II 701.4 Calcium permeability in NMDA receptors in NTS baroreceptive neurons is not decreased at low temperature in Syrian hamsters, a hibernating species. S-i. Sekizawa, J. Horowitz, B. Horwitz and C. Chen. Univ. of California, Davis.

D389 I 701.5 Central TRPV1 signaling regulates systemic blood glucose levels and hepatic PEPCK protein expression. J.D. O’Hare, K. Miyata, T.L. Fourrier, A.M. Krantz, A.V. Derbenev and A. Zsombok. Tulane Univ.

702. NEURAL CONTROL OF CARIORESPIRATORY FUNCTION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D407  I  702.6 Caudal ventrolateral medulla activation by acute hypoxia is independent of changes in arterial blood pressure. T.L. King, C.M. Heesch, S. Friskey, B. Ruyle, D.D. Kline and E.M. Hasser. Univ. of Missouri-Columbia.

D408  I  702.7 The ventilatory response to muscle metaboreflex stimulation during concurrent hypercapnia. R.M. Bruce and M.J. White. Sch. of Sport and Exer. Sci., Univ. of Birmingham, U.K.

D409  I  702.8 Blockade of P2X purinergic receptors of the lateral parabrachial nucleus reduces hypoxia-induced tachypnea. M.F. Menezes, J.V. Menani and P.M. De Paula. UNESP, Araraquara, Brazil.


D411  I  702.10 Arterial pressure and ventilation in sodium-depleted rats. P.M. De Paula, M.T. Favero and J.V. Menani. FOAR-UNESP, Araraquara, Brazil.


D413  I  702.12 The role of melanin concentrating hormone in central chemoreception: a knockdown study by siRNAs in the lateral hypothalamus. N. Li, A. Li and E.E. Nattie. Dartmouth Col.


D415  I  702.14 Cardiovascular deconditioning augments baseline breathing as well as peripheral and central chemoreflex responses. Z. Zhou, T.L. King, D.D. Kline, C.M. Heesch and E.M. Hasser. Univ. of Missouri-Columbia.

D416  I  702.15 Activation of nucleus tractus solitarii neurons that project to the rostral ventrolateral medulla or hypothalamic paraventricular nucleus: role of acute hypoxia. B.C. Ruyle, C.M. Heesch, T.L. King, D.D. Kline and E.M. Hasser. Univ. of Missouri-Columbia.


D418  II  702.17 Serotonin 2A receptors augment synaptic transmission in the nucleus tractus solitarii. J.R. Austgen and D.D. Kline. Univ. of Missouri-Columbia.

703. NEURAL MECHANISMS IN CARDIOVASCULAR DISEASE

Poster

SUN 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D422  II  703.4 Effect of acetylcholinesterase blockade with pyridostigmine on baroreflex and cardiovascular autonomic control in heart failure rats, six to seven weeks after coronary artery ligation. J.P.J. Sabino, C.A.A. da Silva, R. Fazan, Jr. and H.C. Salgado. Sch. of Med. of Ribeirão Preto and Univ. of São Paulo, Ribeirão Preto.


D424  II  703.6 Effect of pyridostigmine on hemodynamics and arrhythmias acutely after myocardial infarction in anesthetized rats. F.M. Santos, C.A. Silva, H.C. Salgado and R. Fazan, Jr. Sch. of Med. of Ribeirão Preto and Univ. of São Paulo, Ribeirão Preto.


D427  II  703.9 Nonclassical G protein coupled receptor kinase 5 regulation of angiotensin II type 1 receptor in CATH.a neurons. C.W. Engler, K.K.V. Haack and I. Zucker. Univ. of Nebraska Med. Ctr.
704. CONTROL OF BREATHING: INTEGRATED RESPONSES

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


I 704.2 Poikilocapnic hyperoxic hyperventilation precedes onset of CNS oxygen toxicity: evidence for the hypothesis that hyperbaric hyperoxia stimulates medullary CO2-chemoreceptors and respiration prior to seizure. R. Pilla, M. Matott, C.S. Landon and J.B. Dean. Univ. of South Florida.

I 704.3 Sex-specific pattern of respiratory control persist in adult mice KO for nuclear progesterone receptors. V. Joseph, A. Dallongeville and V.D. Doan. Laval Univ., Canada.


I 704.11 Spinal respiratory plasticity is impaired by two models of systemic inflammation, lipopolysaccharide and severe intermittent hypoxia. A.G. Huxtable, T. Peterson, S.M. Smith, J.J. Watters and G.S. Mitchell. Univ. of Wisconsin-Madison.

D454 II 704.13 Inacti-vity-induced phrenic motor facilitation following intermitted neural inacti-vity is dependent on spinal atypical PKC. N.A. Baertsch and T.L. Baker-Herman. Univ. of Wisconsin-Madison.


D456 I 704.15 HIF-1α gene deletion in the nucleus tractus solitarii blunts ventilatory acclimatization to hypoxia. A.D. Go, Z. Fu, R.S. Johnson and F.L. Powell. UCSD.


D460 I 704.19 Relationship between total expired air, peak airflow, and cough number in reflex cough. K.W. Hegland and P.W. Davenport. Univ. of Florida.


D462 I 704.21 The opioid-induced suppression of augmented (‘sigh’) breaths is dose-dependent and prevented by co-administration of naloxone. H.J. Bell and G. Pankuch. Penn State Col. of Med.

D463 II 704.22 The effects of two common injectable laboratory anesthetics on the regulation of augmented (‘sigh’) breaths. H.J. Bell, J. Moore, P. Haozzi and A. Van De Louw. Penn State Col. of Med.


D471 II 704.30 Comparison of the respiratory effects of GAL-021 in BK α subunit knockout (Slo1−/−) and wild-type mice. S.M. Baby, T. Hoshi, S. Peng, S.L. Dax, F.J. Golder, D.E. MacIntyre and J.C. Mannion. Galleon Pharmaceut., Horsham, PA and Univ. of Pennsylvania.

705. SYMPATHETIC DYSREGULATION IN OBESITY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D479 II 705.8 Comparative effects of fatty acid synthase inhibitors, C75 and cerulenin, on brown adipose tissue thermogenesis in Wistar rats. P. Cassolla, M.A.R. Garófalo, I.C. Kettelhut and L.C.C. Navegantes. Univ. of São Paulo, Ribeirão Preto.
706. CENTRAL REGULATORY SYSTEMS

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D483 I 706.3 Effects of central orexin 1 receptor blockade on locus coeruleus neurons with lateral hypothalamic input. A.J. Verberne. Univ. of Melbourne.


D485 I 706.5 Cardiovascular effects after glutamate microinjection into the RVLM of MSG obese conscious rats. M.C. Martins-Pinge and N.V. Cunha. State Univ. of Londrina, Brazil.


D488 II 706.8 Increased group I metabotropic glutamate receptor activity contributes to hyperactivity of presymptomatic paraventricular neurons in hypertension. D-P. Li and H-L. Pan. Univ. of Texas MD Anderson Cancer Ctr.

707. BLOOD-BRAIN BARRIER, BRAIN BLOOD FLOW, AND METABOLISM

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D490 II 707.2 Effect of inhibiting interleukin-1β with neutralizing antibody on tight junction protein expression after brain ischemia in ovine fetus. X. Chen, G.B. Sadowska, J. Zhang, E.E. Cummings, Y.P. Lim and B.S. Stonestreet. Women & Infants Hosp. of Rhode Island and ProThera Biologics, East Providence, RI.


D492 II 707.4 The involvement of hypoglycemia in brain glycogen decrease during exhaustive exercise. T. Matsui and H. Soya. Univ. of Tsukuba, Japan.


D495 I 707.7 The effect of hemorrhagic shock and resuscitation on blood-brain barrier integrity. Q. Hao, B. Miyazawa, M. Kucher, R. Vilardi, M.A. Matthey and M.J. Cohen. UCSF.


708. BRAIN DEVELOPMENT AND AGING

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


709. COGNITION AND BEHAVIOR

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D500 I 709.1 EEG brain wave band differentiation during a eustress state of humor associated mirthful laughter compared to a distress state. L. Berk, P. Cavalcanti and G. Bains. Loma Linda Univ.


D503 II 709.4 The role of muscarinic receptors in prefrontal excitability and fear extinction. E. Santini, M.T. Sepulveda-Orengo and J.T. Porter. Nova Southeastern Univ. and Ponce Sch. of Med., PR.

D504 I 709.5 Behavioral, physiological, and morphological outcomes under dynamic oxygen environments in zebrafish. C. Marks, F.B.G. Moore, K.P. Kaut and B. Bagatto. Univ. of Akron.


710. NEURODEGENERATIVE AND NEUROTOXIC DISORDER

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D506 I 710.1 Adenylyl cyclase inhibitors reverse the neurotoxic effects of manganese on post-synaptic dopamine D2 receptors. M. Nelson, C. Ojo, T. Adams, M.A. Carroll and E.J. Catapane. Medgar Evers Col., NY.


D508 I 710.3 EETs pre-treatment improves mitochondrial dynamics against Aβ-induced damage in cultured hippocampal astrocytes. P. Sarkar, I. Zaja, M. Bienengaebre, S. Canfield and D.R. Harder. Med. Col. of Wisconsin.

D509 II 710.4 Cold acclimation and central administration of homocysteic acid in rats: a potential model for schizophrenia. C. Barney, L. Chase, C. Davis, G. Flores, J. Kemink, J. Logan, M. McMurray, L. Reif, A. Sayfie, C. Strahal and A. Wagner. Hope Col., MI.


711. NEUROINFLAMMATION/NEUROPROTECTION/ISCHEMIA

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D519 II 711.8 Brain inflammatory mediators induced by high fat diet are significantly blunted with the deletion of MCP-1. B.T. Gordon, J. McClelland, E.A. Murphy, M.D. Carmichael and J.M. Davis. Univ. of South Carolina Sch. of Med.

D520 I 711.9 Exercise and neuroprotection in an animal model of multiple sclerosis. B. Pryor and L. White. Univ. of Georgia.


712. GESTATION, FETAL, AND NEONATAL BIOLOGY, INCLUDING MAMMARY GLAND AND LACTATION

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D531 II 712.4 Low sodium intake is associated with low birth weight and size only when given in the second half of gestation. F.R. Siqueira, R.M. Souza, I.B. Oliveira, L.N.S. Furukawa and J.C. Heimann. Univ. of São Paulo Sch. of Med.


D533 II 712.6 Acute hypoxic hypoxia decreases active caspase-3 in fetal ovine hippocampus. E.J-L. Chang and C.E. Wood. Univ. of Florida Col. of Med.

714.6 Non-peptide agonist of the receptor MAS, AVE 0991, increases PPARα expression in muscle of rats fed fructose-rich diet. É.G. Mario, R.A.S. Santos and L.M. Botion. Fed. Univ. of Minas Gerais, Brazil.

714.7 Critical role of MCP-1 in n-6 polyunsaturated fatty acids-induced cardiac ER stress in diet-induced obesity. S. Ghosh, S. Halder and R. Bahniwal. Univ. of British Columbia-Okanagan, Canada.


715. PROTEIN, AMINO ACID, AND CARBOHYDRATE METABOLISM, GROWTH, CONNECTIVE TISSUE, BONE, IMMUNOENDOCRINOLOGY

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


715.3 Reduced lung glutamate production is the cause of decreased systemic glutamate availability in hyperdynamic sepsis. G.A. Ten Have, M.P. Engelen, R.R. Wolfe and N.E. Deutz. Donald W. Reynolds Inst. on Aging, Little Rock.


716. PHYSIOLOGICAL GENOMICS OF EXERCISE, RESPIRATION, SKELETAL MUSCLES, NUTRITION, ENDOCRINE METABOLISM, AND THE GI SYSTEM

Poster

SUN. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


716.3 Combined analysis of gene and microRNA expression in natural killer cells in response to exercise. S. Radom-Aizik, F. Zaldivar, Jr. and D.M. Cooper. Univ. of California, Irvine.

716.4 SIRT1-independent epigenetic effects of resveratrol mediated through the estrogen receptor. L.A. Wakeling, F. Alatawi, L.J. Ions, J. Hesketh and D. Ford. NewScot Univ., U.K.

716.5 Hepatocyte nuclear factor 4α in coordination with retinoic acid receptors increases all-trans-retinoic acid-dependent CYP26A1 gene expression in hepatocytes. R. Zolfaghari, Y. Zhang and A.C. Ross. Penn State.


716.8 The effect of vivo-morpholin to target Vmat2 on daily physical activity in mouse soleus compared to scrambled-morpholin control. D.P. Ferguson, E.E. Schmitt and J.T. Lightfoot. Texas A&M Univ.

716.9 Gender-specific pulmonary hypertension and altered skeletal muscle function in lung-specific Tnfα overexpressing mice. K. Tang, Y. Gu, N.D. Dalton, K. Peterson, P.D. Wagner and E.C. Breen. UCSD.


MONDAY, APRIL 23
Across Societies – Experimental Biology

718. COMPUTERS IN RESEARCH AND TEACHING
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education

Presentation time: 11:30 AM-1:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Monday only.

T29 718.1 University student evaluation of e-mail communication for academic purposes. F. El-Sabban. Col. for Women, Kuwait Univ.
T31 718.3 Influence of prior online course experience on the perceived benefit of an online professional development course. M. Byse and M. Lakes Matyas. The American Physiol. Soc., Bethesda.

719. TEACHING, LEARNING AND TESTING IN THE BIOLOGICAL AND BIOMEDICAL SCIENCES III
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education

Presentation time: 12:30 PM-2:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Monday only.

T35 719.3 Perceptions of second year medical students to interactive tools, games, and audience response systems incorporated to teach pharmacology. A.L. Gorman and A. Berry. Univ. of Central Florida Col. of Med.

T37 719.5 Learning the cardiac cycle with a puzzle. F.K. Marcondes. Piracicaba Dent. Sch., Brazil.
T38 719.6 A virtual pharmacology course in a PBL curriculum. K. Karpa. Penn State Col. of Med.
T41 719.9 A new pedagogy for ion channels: they’re permeases, not pores! P.H. Nelson. Benedictine Univ., IL.
T42 719.10 First steps taken for introducing science advocacy into the curriculum at the University of South Florida: teaching tomorrow’s researchers how to translate science for the public and policymakers. J.B. Dean and K.D. Liller. Univ. of South Florida.
T45 719.13 Rethinking the postdoctoral training experience: fellowships in research and science teaching. J. Mercante, E. Hicks, Jr., A. Eisen, J.K. Haynes and D.C. Eaton. Emory Univ. and Morehouse Col.

720. TEACHING, LEARNING AND TESTING IN THE BIOLOGICAL AND BIOMEDICAL SCIENCES IV
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Education

Presentation time: 1:30 PM-3:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2012 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for Monday only.

T47 720.1 The effect of expanding versus uniform retrieval practice on the retention of selected physiology concepts. J. Dobson. Georgia Southern Univ.
721. BIOLOGICAL ANTHROPOLOGY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B233 721.1 Can a single anthropometric feature of the lumbar vertebra result in a correct identification of sex? M. Jelaca-Tavakoli, Southwestern Col., CA.

B234 721.2 Biological sex and tympanic dehiscence. A.S. Bilal and M. Jelaca-Tavakoli. Grossmont Col., CA and Southwestern Col., CA.


B236 721.4 Are they really just big boned? How increased body mass in human juveniles affects bone joint morphology in the lower limb. R.K. Scopa Kelso. Univ. of Tennessee, Knoxville.

722. ANATOMY: FORM AND VARIATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B245 722.9 Musculocutaneous nerve transit through a supernumerary head of the biceps brachii: implications for lateral antebrachial cutaneous and musculocutaneous nerve entrapments, diagnosis, and treatment. J.M.A. Miller and R. Trelease. Geffen Sch. of Med. at UCLA.
723. ANATOMY: FUNCTIONAL ANATOMY AND BIOMECHANICS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B261 723.1 Mechanical properties of incisors in rodents. 

B262 723.2 The expansion and recoil mechanism of the skin of alligators and its implications for their feeding mechanism. B.H. Dubansky and D.G. Homberger. LSU.

B263 723.3 The dirk-tooth Smilodon and the cookie-cutter Xenosmilus, both saber-tooth ambush predators, show differences in killing bite strategy, forelimb musculoskeletal proportions and shoulder and elbow joint ranges of movement, demonstrating there V.L. Naples. Northern Illinois Univ.


B265 723.5 Withdrawn.

B266 723.6 Vertebral dimensions vary among prehensile and nonprehensile primate tails. J.M. Organ and H.L. King. Saint Louis Univ. Sch. of Med.


ANATOMY MONDAY

724. ANATOMY: MUSCLE
Poster
MON, 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B276 724.2 Hypertrophy of the subclavious muscle accompanied by atrophy of the pectoralis muscles post-mastectomy. F. Carey and B.M. Jones. Univ. of New Mexico.


725. ANATOMY: NEURAL
Poster
MON, 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B283 725.2 Sensory contributions to the spinal accessory nerve in humans. K.E. Boehm. A.T. Still Univ., MO.

B284 725.3 The morphology and clinical significance of the meningovertebra ligaments in the lumbosacral epidural space. Z. Ding and B. Shi. Southern Med. Univ., China.


B287 725.6 Ultrastructural investigation of the aortic depressor nerve in Wistar and Wistar-Kyoto rats. M.M. de Amorim, L.O.N. da Silva, V.A.A. Mendes, H.C. Salgado and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B288 725.7 Aortic depressor nerve differences between Wistar and Wistar-Kyoto rats. V.A.A. Mendes, M.M. de Amorim, L.O.N. da Silva, H.C. Salgado and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B289 725.8 Influence of painful procedures in the neonatal period in motor and sensory functions of Wistar rats during development. E.C. do Carmo, N.L.B. Machado, L.S. Sanada and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B290 725.9 Neuronal counting in the spinal cord dorsal horn of male adult Wistar rats after noxious stimuli during neonatal period. N.L.B. Machado, L.S. Sanada, E.C. do Carmo, A.L.R. de Oliveira and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto and UNICAMP, Campinas, Brazil.

B291 725.10 Longitudinal morphometric study of the cervical vagus nerve in young Wistar-Kyoto rats. L.B. Fontanesi, M.C.L. Schiavoni, H.C. Salgado and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B292 725.11 Comparison between morphological and morphometric parameters of recurrent laryngeal nerve in developing spontaneously hypertensive rats. A.C.L. Alcântara, N.M. Tanaka and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B293 725.12 Lateral and longitudinal ultrastructural study of the recurrent laryngeal nerve in adult rats. R.S. Ferreira, M.C.D. Oliveti and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B294 725.13 Is the phrenic nerve myelinated fiber distribution affected in short term experimental diabetes? A.C.L. Alcântara, N.M. Tanaka and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B295 725.14 Does hypertension affect morphometric parameters of phrenic nerves? A.R. Rodrigues, R.S. Ferreira, H.C. Salgado and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.


B297 725.16 The structure of a phalloid organ of buffalo weaver (Bubalornis niger) and its sensory nerve endings? a light- and electron microscopic study. Z. Halata and T.R. Birkhead. 1st Med. Fac., Charles Univ., Czech Republic and Univ. of Sheffield.

B298 725.17 Morphometry of nerves responsible for sensory innervation of the hind limbs in rats. L.O.N. da Silva, V.A.A. Mendes, M.M. de Amorim, L.S. Sanada and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B299 725.18 Sampling method for morphometry of the myelinated fibers of sural nerves in adult rats. F.B.C. Silveira, L.S. Sanada and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.

B300 725.19 Two nerve morphometry methods performed through the same computer program: are they comparable? A.P. Bilego Neto, F.B.C. Silveira, L.S. Sanada and V.P.S. Fazan. Sch. of Med. of Ribeirão Preto, Brazil.


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726. ANATOMY: CARDIOVASCULAR
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B302 726.1 Role of LEK1 in cardiac disease and function. P.M. Miller, E. Dees and D.M. Bader. Vanderbilt Univ.
B303 726.2 Cadaveric research: informing current heart surgery techniques. K.L. Losenno, M. Johnson and M. Chu. Univ. of Western Ontario.
B311 726.10 Videoscopic images of unique septal and medial papillary muscle complexes recorded from reanimated human hearts. M.G. Bateman and P.A. Iaizzo. Univ. of Minnesota, Minneapolis.
B315 726.14 Epicardial HIF1 regulates vascular precursor cell invasion into the myocardium through the VEGF signaling pathway. J. Tao, Y. Doughman, K. Yang, D. Ramirez-Bergeron and M. Watanabe. Case Western Reserve Univ.

727. ANATOMY: GASTROINTESTINAL AND UROGENITAL
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B316 727.1 Immunohistochemical localization of PACAP and VIP receptors in major salivary glands and the effect of PACAP on saliva secretion in mice. N. Nonaka and M. Nakamura. Showa Univ., Japan.
B318 727.3 Autotaxin, a potent inducer of cell motility and differentiation, is differentially expressed in visceral and parietal mesothelia. E.L. Shelton, C.C. Hong and D.M. Bader. Vanderbilt Univ.
B321 727.6 A novel staging system to assess the severity of colorectal polyposis in patients with FAP. Z.A. Lu, E. Hawk, P. Lynch and S. Patterson. Johns Hopkins Univ. and MD Anderson Cancer Ctr.

728. BONES, CARTILAGE AND TEETH: MOLECULAR MECHANISMS
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B328 728.5 The effect of quercitin on oxidative stress-induced bone-like cells (UMR 106-01 BSP). B. McCowan, M. Bria and E.E. Joseph. La Sierra Univ., CA.

729. BONES, CARTILAGE AND TEETH: EXERCISE; BIOMECHANICS; BIOENGINEERING

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B329 729.1 Changes in semicircular canal morphology in response to selective breeding for high voluntary wheel running. H. Schutz, H.A. Jamniczky, B. Hallgrimsson and T. Garland, Jr. California Polytech State Univ., San Luis Obispo, Univ. of Calgary, Canada and Univ. of California, Riverside.

B330 729.2 Effects of mechanical shear on anisotropic tissue engineered construct as potential TMJ repair. A. Mathema and D.K. Mills. Louisiana Tech Univ.


B335 729.7 Changes in femoral bone geometry compensate for lower bone mass and mineralization degree in ovarioctomized Wistar rats. H. Fonseca, D. Moreira-Goncalves, R. Ferreira, F. Amado, M.P. Mota and J.A. Duarte. Univ. of Porto, Univ. of Aveiro and UTAD, Portugal.

730. MUSCLE: STEM CELLS AND REGENERATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B337 730.2 The role of vascular endothelial growth factor in mechanically stimulated muscle-derived stem cell repair. S. Beckman, L. Mikar and J. Huard. Univ. of Pittsburgh.

B338 730.3 Satellite cell pool size expansion is affected by skeletal muscle characteristics. F. Macaluso, N.E. Brooks, C.U. Niesler and K.H. Myburgh. Stellenbosch Univ. and Univ. of KwaZulu-Natal, South Africa.


B340 730.5 The myomere-myoseptal intersections in a lamprey (Petromyzon marinus) and a shark (Squalus acanthias). B.M. Wood, R.J. Andermann and D.G. Homberger. LSU.

Biochemistry and Molecular Biology

731. FUNDAMENTAL MECHANISMS IN GENE REGULATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A5 731.5 An intrinsically unstructured domain in MBD2 recruits the histone deacetylase core complex of NuRD and modifies kinetics of DNA binding. D.C. Williams, M. Desai, G.D. Ginder and N.M. Walavalkar. Virginia Commonwealth Univ.

732. HIGHER ORDER AND ALTERNATIVE CHROMATIN STRUCTURES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


733. NON-CODING RNAs IN GENE REGULATION AND CHROMOSOME STRUCTURE

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A15 733.1 Regulation of microRNA expression by AUF1 through dicer. J.M. Johnson, K. Tominaga, M. Gorospe and K. Abdelmohsen. Univ. of Maryland Eastern Shore and NIA/NIH, Baltimore.


734. REGULATION AND MODIFICATION OF TRANSCRIPTION FACTORS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A20 734.4 Transient exposure to hydrogen peroxide inhibits degradation of phosphorylated IκBα. Y. Lee, J. Choi and D-m. Jue. The Catholic Univ., South Korea.


735. RNA POLYMERASE PAUSING AND ELONGATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A26 735.1 Molecular basis of RNA polymerase II transcription fidelity. D. Wang. UCSD Sch. of Pharm. and Pharmaceut. Sci.


A37 739.6 Withdrawn.

A38 739.7 *E. coli* and *S. cerevisiae* clamp loaders, γ complex and RFC, actively close clamps. J. Hayner and L. Bloom. Univ. of Florida.


740. DNA PROTEIN INTERACTIONS

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

A40 740.1 The binding of G-quadruplex DNA to insulin: from single molecule to bulk methods. K. Sinniah, S. Lynch, C. Timmer and A. Witte. Calvin Col., MI.

A41 740.2 Investigation of the thermodynamics of DNA interactions with the LL-37 peptide. C.E. Dodson, R.K. Zachary and M.L. Craig. Mary Baldwin Col., VA.

A42 740.3 The roles of the N-terminal metal coordinating residues in DNA binding and oligomerization of *Deinococcus radiodurans* Dps-1. K.H. Nguyen and A. Grove. LSU.

A43 740.4 The role of protein sequence and global conformation in DNA binding specificity of members of the Cro family. M.R. Nelson, K. Olson and M.H.J. Cordes. Univ. of Arizona.

A44 740.5 Characterization of a MarR homolog in *Vibrio vulnificus*. T. Lemon and A. Grove. LSU.

A45 740.6 Complex formation between LL-37 and CpG DNA: thermodynamic properties and effects in a prostate cancer progression model. M.L. Craig, C. Dodson, A.S. Gupta and P.D. Deebbe. Mary Baldwin Col., VA.

A46 740.7 Dependence of DNA-protein cross-linking via guanine oxidation upon local DNA sequence. Z.A. Perez and E. Stemp. Mount St. Mary’s Col., CA.

741. DNA REPLICATION MECHANISMS

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

A47 741.1 An active site mutant allele of human Pol ε is a mutator in vitro and in vivo. A. Ayuk Agbor and Z.F. Pursell. Tulane Univ. Sch. of Med.

MONDAY BIOCHEMISTRY

742. DNA
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A49 742.1 The use of molecular approaches to identify changes in soil microbial communities during storage. V. Freeman, N. Patel, S.A. Larson and C. Bailey. Univ. of Nebraska-Lincoln.

A50 742.2 Rapid bacterial DNA extraction from stool samples. M. Duggan, T. Parrish and P. Williams. Evogen Inc., Lenexa, KS.

743. THE SPLICEOSOME: FITTING THE PIECES TOGETHER
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A51 743.1 Investigation of the role of the proteasomal subunit rpn10 in pre-mRNA splicing. E.C. Merkhofer and T. Johnson. UCSD.

A52 743.2 A role for stem-loop 4 of U1 snRNA in splice site pairing. S. Sharma, S. Wongpalee and D. Black. HHMI and UCLA.

744. COORDINATING TRANSCRIPTION WITH RNA PROCESSING
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A53 744.1 Yeast mRNA 5'triphosphatase, Cet1p, represses the accumulation of RNA polymerase II towards the 5'end of active coding sequence in vivo: implications for promoter proximal pausing. S. Lahudkar, G. Durairaj and S.R. Bhaumik. Southern Illinois Univ. Sch. of Med.

745. RIBONUCLEOPROTEINS
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM


746. RIBOSWITCHES
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A57 746.1 Investigating the role of sterics and hydrogen bonding in the preQ1 riboswitch binding site. L.W. Ryon and I.T. Suydam. Seattle Univ.

A58 746.2 Role of the cofactor in the catalytic mechanism of the glmS ribozyme. J. Viladoms Claverol and M.J. Fedor. The Scripps Res. Inst.

747. RNA AND DISEASE
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A59 747.1 Gene expression profiling of oxidative stress on vascular tissue in Puerto Rican diabetic patients undergoing coronary artery bypass grafting. E. Albino-Rodriguez, E. Sottero, L. Ferder and J. Dutil. Ponce Sch. of Med. and Damas Hosp., PR.


A62 747.4 Convergent transcription at the ataxin-7 locus produces dsRNA fragments that are processed by Dicer-1. P.D. Ladd, J.M. Ward, N.S. Lomas, V.V. Pineda and A.R. La Spada. UCSD and Univ. of Washington.


748. RNA SPLICING
Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A65 748.2 Computational prediction of alternative splice site selection. A. Busch and K.J. Hertel. Univ. of California, Irvine.
749. PROTEIN TARGETING AND TRANSLOCATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A69 749.2 Identification of the activator binding residues in protein kinase C theta C1B domain. G.M. Rahman, S. Sanker, N. Lewin, B.V.V. Prasad, P.M. Blumberg and J. Das. Univ. of Houston, Baylor Col. of Med., NCI/NIH.


750. ADAMS AND OTHER PROTEASES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


751. PROTEASE: STRUCTURE AND REGULATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A75 751.2 The role of a second shell hydrophobic interaction in trypsin-fold serine protease function. A. Batt, H. Rafidi and T. Baird, Jr. San Francisco State Univ. and Univ. of California, Davis.

A76 751.3 Probing the role of a ““first shell”” interaction in trypsin-fold serine proteases. A. Sharma and T. Baird, Jr. San Francisco State Univ.

753. CO- AND POST-TRANSLATIONAL PROTEIN TARGETING

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A88 753.1 Cell-specific processing and release of the pro-hormone candidate tumor suppressor, Ecrg4, from the epithelial cell surface. X. Dang, S. Podvin, R. Coimbra, B. Eliceiri and A. Baird. UCSD Sch. of Med.


754. UBIQUITIN PATHWAY AND PROTEASOME TARGETING

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A93 754.1 Human RMND5 proteins function as E3 ubiquitin ligases in prostate cancer cells. A. Louw, J. Harvey and J. Bentel. Royal Perth Hosp. and Univ. of Western Australia.

A94 754.2 Mutational and kinetic analysis of the endosome-associated deubiquitinating enzyme, AMSH. C.W. Davies, M-I. Kim, L.N. Paul and C. Das. Purdue Univ.


A96 754.4 An autoregulatory feedback loop between nuclear receptor SHP and Mdm2 that controls Mdm2, SHP and p53 protein stability. Z. Yang, Y. Zhang and I. Wang. Univ. of Utah Sch. of Med.

A97 754.5 Complementary rather than redundant CYP3A4 ubiquitination by UBC7/gp78 and UbcH5a/CHIP E2/E3 systems. Y. Wang and M.A. Correia. UCSF.


755. CHEMISTRY IN THE SERVICE OF MEDICINE

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


756. ENZYME MECHANISM

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A104 756.3 Protein splicing of a temperature-dependent intein from an extreme thermophile. K.M. Colelli, J.N. Reitter and K.V. Mills. Col. of Holy Cross, MA.

A105 756.4 Protein splicing facilitated by highly similar inteins from two extreme thermophiles. J.E. Williams, J.N. Reitter and K.V. Mills. Col. of Holy Cross, MA.


A108 756.7 Calcium-dependent interactions and electron transfer in NADPH oxidase 5. C-C. Wei, N. Reynolds and C. Palka. Southern Illinois Univ. Edwardsville.

A109 756.8 Structural insights into the mechanism of acetolactate decarboxylase. V. Marlow, D. Rea, M. Wills and V. Fülop. Univ. of Warwick, U.K.

A110 756.9 Characterization of the metal binding in NADPH oxidase 5 by fluorescence, isothermal titration calorimetry, and circular dichroism. C.D. Palka, N. Reynolds, A. Tatro and C-C. Wei. Southern Illinois Univ. of Edwardsville.


A113 756.12 Entrance to a lipoxygenase substrate cavity is defined. B.J. Gaffney, M. Bradshaw, J. Freed and P. Borbat. Florida State Univ. and Cornell Univ.


A115 756.14 The study of a catalytic intermediary of methylenetetrahydrofolate reductase. M. Bierlein De La Rosa and E.E. Trimmer. Grinnell Col., IA.


A118 756.17 From truncated models to full protein QM/MM analysis of the reaction catalyzed by malate dehydrogenase. H. Gutterres and E. Bell. Univ. of Richmond.

A119 756.18 Par-6 activates atypical protein kinase C by pseudosubstrate displacement. C. Graybill and K.E. Prehoda. Univ. of Oregon.


A122 756.21 Oxygen activation in the copper amine oxidases. S.A. Mills, E. Choi, C. Chow, A. Bitsimis and D.J. Sommer. Univ. of San Diego.


757. ROLE OF DYNAMICS IN ENZYME CATALYSIS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A128 757.1 Solution structures of CaM-iNOS and CaM-eNOS peptide complexes: effects of a phosphomimetic CaM mutation. M. Piazza, T. Dieckmann and J.G. Guillemette. Univ. of Waterloo, Canada.

A129 757.2 Do the inter-nucleotide domain loops act as an entropy sink in the catalytic activity and regulation of 3-phosphoglycerate dehydrogenase? C. Meehan, B. Falk and E. Bell. Univ. of Richmond.

A130 757.3 Probing subunit interactions in 3-phosphoglycerate dehydrogenase. B. Falk and E. Bell. Univ. of Richmond.

758. SIGNALING AND METABOLISM

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A132 758.2 Improvement of cell survival by ammonium ions in glutamine-deprived cells. A. Abusneina and E.R. Gauthier. Laurentian Univ., Canada.


A134 758.4 Analysis of ethanol metabolic enzymes in primary human mammary epithelial cells and MCF-10A cell lines: possible participation of CYP2E1 in ethanol-induced oxidative stress and epidermal growth factor receptor activation. L. Rodríguez-Fragoso, A. Leon Buitimea, F. Lauer, T. Thompson, H. Bowels and S. Burchiel. Fac. of Pharm., Autonomous Univ. of State of Morelos, Mexico and Univ. of New Mexico Col. of Pharm.

A135 758.5 NAD(P)H oxidase-dependent H2O2 production and RyR-IP3R activation are required for insulin-induced GLUT4 translocation and glucose uptake in skeletal muscle cells. A. Contreras-Ferrat, C. Vasquez, A. Espinosa, S. Lavandero, A. Klip and E. Jaimovich. Univ. of Chile and Hosp. for Sick Children, Toronto.


A138 758.8 Endoglin is a key mediator of BMP2-mediated adipogenesis. A. Reese. Univ. of Delaware.
759. METABOLISM AND DIABETES

Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

A139 758.9 The JAK kinase Tyk2 and the signal transducer and activator of transcription 3 are required for brown adipose tissue differentiation. A.C. Larner, M. Derecka, A. Gornicka, K. Szczepanek, M. Morgan, V.B. Raje, J. Sisler and S. Keller. Virginia Commonwealth Univ. and Univ. of Virginia.


A141 758.11 Evidence for activation of AMP kinase in nephropathic cystinosis. M. Taub and F. Cutuli. Univ. at Buffalo.


A143 758.13 PKA-induced interaction of phosphorylated PDE3A and Big1 (brefeldin A-inhibited guanine nucleotide exchange protein 1) in cytosolic fractions from human myocardium may be important in regulation of Big1 function. F.A. Khan, N. Szabo-Fresnais, J. Krall, J. Moss, M. Vaughan, M. Movsesian and V.C. Manganiello. NHLBI/NIH and Univ. of Utah.

A144 758.14 Effects of lysophosphatidic acid on CCN1 expression in human prostate cancer cell lines. Z. Zhang, C.R. Bailey and K.E. Meier. Washington State Univ.

A145 758.15 Regulation of PASK function by mTOR signaling pathway. C.K. Kikani and J.P. Rutter. Univ. of Utah.

A146 758.16 PAS kinase regulates hepatic lipid metabolism through activating SREBP-1. X. Wu, I. Dorweiler, A. Walkup and J.P. Rutter. Univ. of Utah.

A147 758.17 Protein stability of wild type and mutant forms of the RET tyrosine kinase. Q. Vega and S. Maslovski. Montclair State Univ., NJ.
761. SIGNAL TRANSDUCTION

Poster

Mon, 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 pm-1:55 pm


A168 761.3 Construction of non-visual arrestins with enhanced specificity for individual G protein-coupled receptors. L.E. Gimenez and V.V. Gurevich. Vanderbilt Univ.

A169 761.4 Glucagon-like peptide-1 signals to PKB and mTORC1 via the activation of the insulin-like growth factor receptor (IGF1R) in islets of Langerhans. N.M. Mostafa, C.E. Moore and T.P. Herbert. Univ. of Leicester, U.K.

A170 761.5 Non-visual arrestins function as simple scaffolds assembling the MKK4–JNK3a2 signaling complex. X. Zhan, T.S. Kaoud, K.N. Dalby and V.V. Gurevich. Vanderbilt Univ. and Univ. of Texas at Austin.

A171 761.6 The cAMP-dependent protein kinase signaling pathway is a key regulator of P body foci formation. K.H. Shah, V. Ramachandran and P.K. Herman. The Ohio State Univ.

A172 761.7 Bone morphogenetic protein 2 and casein kinase 2 regulate the differentiation of osteoblasts. A.M. D’Angelo, B. Bragdon, J. Honor and A. Nohe. Univ. of Delaware.


A175 761.10 The redirection of adipocyte to osteoblast through the alteration of the casein kinase 2 interaction with the bone morphogenetic protein 2 pathway. L.M. Gurski, B. Bragdon and A. Nohe. Univ. of Delaware.


A177 761.12 Conformational switching on AKAP7 modulates the phosphorylation dynamics of anchored PKC. J.M. Redden, E. Greenwald, J. Saucerman and K. Dodge-Kafka. Univ. of Connecticut Hlth. Ctr. and Univ. of Virginia.


A179 761.14 Genetic depletion of the phosphatase PHLPP1 upregulates receptor tyrosine kinase signaling. G.X. Reyes and A.C. Newton. UCSD.

A180 761.15 The effects of the Q-xylosyltransferase mutation on Wg, Hh, and Dpp signaling. A. Liu. Univ. of Delaware.

A181 761.16 Effect of pathway-interconnectors in SEB induced apoptosis related events in human PBMCs. E.A. Banwarth, H. Schneider and C. Mendis. Univ. of Wisconsin-Platteville.

A182 761.17 Characterization of the EMT response in Crybb2Phil mutants. V.H. Roop. Univ. of Delaware.


762. NEUROBIOLOGY

Poster

Mon, 7:30 am—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 pm-1:55 pm


A198 762.5 A study of GABA in bivalve molluscs. T. Cochran, C. Brown, K. Mathew, S. Mathieu, M.A. Carroll and E.J. Catapane. Medgar Evers Col., NY.


A201 762.8 Efficient downregulation of glia maturation factor expression in brain and spinal cord. A. Zaheer, Y. Wu, R. Thangavel, S.K. Sahu and S. Zaheer. Univ. of Iowa and VA Hlth. Care Syst.


A204 762.11 Global and local administration of BDNF regulate dendrite patterning via different pathways. M. Kwon and B.L. Firestein. Rutgers Univ. and Piscataway.

A205 762.12 Temporal and spatial patterns of enteric nervous system regeneration. S. Qi Huang, E. Cuyar, K. Tossas and J.E. Garcia Arraras. Univ. of Puerto Rico, Rio Piedras Campus.

A206 762.13 Examination of the reproductive effects of SIRT1 expression in neurons. E.L. Rickert, J.M. Olefsky and N.J. Webster. UCSD and VA San Diego Healthcare Syst.


A211 762.18 Impaired cognitive function is associated with changes in serotonin receptor activity following prenatal exposure to dexamethasone. K.C. Page, D.S. Shah and V.J. Aloyo. Bucknell Univ. and Drexel Univ. Col. of Med.

763. PROTEIN PHOSPHORYLATION AND DEPHOSPHORYLATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A214 763.3 Endogenous and psychostimulant substrates but not blockers stimulate dopamine transporter phosphorylation at a proline-directed site. S. ChallaSivaKanaka, J.D. Foster and R.A. Vaughan. Univ. of North Dakota.

A215 763.4 Protein kinase Cα phosphorylates argininosuccinate synthase at serine 328 in endothelial cells to affect nitric oxide production. R.J. Haines, K.D. Corbin, L.C. Pendleton and D.C. Eichler. Univ. of South Florida and Univ. of North Carolina at Chapel Hill, Kannapolis.

A216 763.5 Phosphorylation of argininosuccinate synthase at T131 correlates with changes in NO production. L.C. Pendleton, R.J. Haines, K.D. Corbin and D.C. Eichler. Univ. of South Florida and Univ. of North Carolina at Chapel Hill, Kannapolis.

764. ADAPTER PROTEINS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


765. MAP KINASES

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A219 765.1 TAK1 kinase signaling regulates Nrf2 and intestinal homeostasis. A.N. Simmons and J. Ninomiya-Tsujii. North Carolina State Univ.

A221 765.3 The endocrine disruptors cadmium chloride and sodium arsenate induce human lung adenocarcinoma cell proliferation by activating the estrogen receptor-mediated signaling pathway. R.D. Murphy, A.L. Smith, S.L. Todd, J.T. Elpers, B.N. Radde, C.M. Klinge and M.O. Huff. Bellarmine Univ. and Univ. of Louisville.

766. PHOSPHATASES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A222 766.1 The role of PHLPP in regulating cell migration in pancreatic cancer. A. Smith and T. Gao. Univ. of Kentucky.

A223 766.2 Structural and functional studies of plant glucan phosphatases. S. Husodo and M.S. Gentry. Univ. of Kentucky.


A226 766.5 PPP1CC2 levels are highly regulated in testis to ensure normal spermatogenesis and male fertility. S. Dasgupta, N. Sinha and S. Vijayaraghavan. Kent State Univ.

A227 766.6 A simple Arg to Lys mutant of protein phosphatase 1 exhibits catalytic efficiencies toward monoanionic substrates superior to wild type. Y. Chu, A.C. Hengge and N.H. Williams. Utah State Univ. and Univ. of Sheffield, U.K.

A228 766.7 High resolution structure of the phosphatase VHZ explains unexpected substrate specificity, and suggests the presence of metavanadate at the active site. V.I. Kuznetsov, S.J. Johnson and A.C. Hengge. Utah State Univ.

A229 766.8 The phosphoramidase competency of prototypical phosphatase motifs. M.P. Haney and A.C. Hengge. Utah State Univ.

A230 766.9 Identification of methylation-dependent protein phosphatase 2A activity correlated with changes in insulin secretion and glucose tolerance in mice with hypomorphic expression of the LCMT1 protein carboxyl methyltransferase. K.B. MacKay, S. Clarke and S. Young. UCLA.


768. SERINE/THREONINE KINASE

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A237 768.3 Resolving the structure of Bcy1, the regulatory subunit of yeast protein kinase A. L.M. Fernández Núñez, N. González Bardecì, S. Rossi, D. Blumenthal and S. Moreno. Univ. of Buenos Aires and Univ. of Utah.


A239 768.5 Discrepancies in purified and cellular PKMβ inhibition profiles invalidate its proposed role as a mediator of memory. C.L. Schramm, A.X. Wu-Zhang, S. Nabavi, L. Xie, L. Xie, P.E. Bourne, R. Malinow and A.C. Newton. UCSD and Hunter Col, CUNY.

769. SMALL GTPASES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A240 769.1 Regulation of activation of Rac1 and Cdc42 GTPases in CHRF-288-11 cells. R.P. Bhullar and B. Xu. Univ. of Manitoba.


MONDAY BIOCHEMISTRY

770. TYROSINE KINASES
Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

771. CONSTRUCTING NETWORKS
Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

772. NETWORKS AND TIME
Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM

773. BIOPHYSICS
Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM
A250 773.5 The N-terminal actin binding domain (ABD1) of dystrophin is in a closed conformation in solution and undergoes a conformational transition upon binding to F-actin. K. Mallela and S. Singh. Univ. of Colorado Anschutz Med. Campus.

774. GENOMICS
Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM
A256 774.5 Nanoanatomy Museum: creating a protein family ProfileGrid database. A. Roca. ProfileGrid.org, Irvine.

775. HIGH-CONTENT MICROSCOPY
Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:25 PM-1:55 PM
A257 775.1 Comparison of the redox potential in the endocytic pathway of different cell types by imaging live cells via FRET. S. Zilikana, J. Lee, C. Provoda and K-D. Lee. Kalamazoo Col. and Univ. of Michigan.
776. PROTEOMICS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A262 776.4 Isolation and functional studies of eukaryotic ribosomes using HaloTag surface display technology. M. Urh, D. Daniels and J. Mendez. Promega, Madison, WI.


A265 776.7 Specific O-GlcNAcylated peptide enrichment with improved photocleavable chemical/enzymatic tagging methodology. G. Han, J. Ma, X. Liu and G.W. Hart. Johns Hopkins Sch. of Med.

A266 776.8 Direct Detect IR-based system revolutionizes biomolecule quantitation. J. Doty, EMD Millipore, Danvers, MA.


A268 776.10 Proteomic profiling of mouse liver under conditions of hepatitis C virus-mediated oxidative damage and CuZnSOD deficiency. P. Ramachandran, V.C. Chu and T-T. Huang. Stanford Univ.

A269 776.11 Optimizing peptide yields from human hair. J.A. Steenstra, P. Clifford and G. Parker. Utah Valley Univ.


777. QUANTITATIVE BIOLOGY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A273 777.1 Robust and sensitive control of nitrogen sequestration in Escherichia coli. M. Kim, Z. Zhang, D. Yan, A. Groisman and T. Hwa. UCSD and Indiana Univ. Sch. of Med.

778. SYNTHETIC BIOLOGY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


779. ORGANELLE QUALITY CONTROL

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A276 779.1 Protein kinase A is required for resistance to the lysosomotropic drugs quinacrine and chloroquine in the fission yeast, Schizosaccharomyces pombe. Z. Yuan, Y. Wang and S. Marcus. Univ. of Alabama.

780. CARGO SORTING AND VESICLE TARGETING

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


782. CELL DIVISION

Poster

Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM

A280 781.1 Myosin-II is necessary for septum formation in Aspergillus nidulans. X. Wang, W. Du, B.L. Hoge, L. Jackson-Hayes and T.W. Hill. Rhodes Col., TN.

A281 781.2 Myosin light chain plays a role in cell division in the fungus Aspergillus nidulans. K.E. Wendt, M. Pluta, L. Jackson-Hayes and T.W. Hill. Rhodes Col., TN.

782. CELL MIGRATION

Poster

Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM


A283 782.2 LL-37/CpG oligonucleotide complex formation and its effects on prostate cancer progression. A.S. Gupta, M.L. Craig and P.D. Deeble. Mary Baldwin Col., VA.

A284 782.3 Evidence for a role of p53, WWOX and TIAF1 as tumor suppression axis. J.R. Halpert and D.R. Davydov. Mary Baldwin Col., VA.


A287 782.6 Attenuated L1 expression by glioma cells results in decreased cell migration on monolayer co-cultures. H. Bhatti and D. Galileo. Univ. of Delaware.

A288 782.7 BIG2, an ARF guanine nucleotide-exchange protein, regulates cell migration via effects integrin β1 signaling and actin cytoskeleton remodeling. C-C. Li, X. Shen, A. Aponte, R-F. Shen, E.M. Billings, J. Moss and M. Vaughan. NHLBI/NIH.


A291 782.10 Chronic exposure to cadmium increases in the metastatic phenotype of breast cancer cells. E.M. Ponce, N.B. Aquino and M.C. Louie. Dominican Univ. of California.


783. BIOENERGETICS

Poster

Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM

A293 783.1 Mutations that affect the directionality of electron transfer in photosystem 1. S.L. Badshah. Arizona State Univ.

A294 783.2 Differential effects of radio frequency magnetic fields in vitro and in vivo. C.F. Martino, L. Portelli, G. Ackerman and F. Barnes. Univ. of Nevada Reno and Univ. of Colorado Boulder.

A295 783.3 Modulation of H2O2 production in vitro by low level magnetic fields. C.F. Martino and P. Castello. Univ. of Nevada Reno and Univ. of Colorado Boulder.

784. CYTOCHROME P450

Poster

Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 1:05 PM-2:35 PM


A298 784.3 Insecticide toxicity and characterization of cytochrome P450 CYP6B1 and CYP6P10 in Aedes sollicitans larvae. C. Suwanchaichinda and L.B. Brattsten. Rutgers Univ.


A300 784.5 Relative contribution of hepatic CYP3A and CYP2E1 to oxidative stress upon CHIP E3 ligase knockdown. S. Kim, C. Patterson and M.A. Correia. UCSF and Univ. of North Carolina at Chapel Hill.

A301 784.6 Role of SLC10A1 SNPs in regulating cytochrome P450 expression. O. Varechchouk, A. Chaudry and E. Schuetz. SUNY at Geneseo and St. Jude Children's Res. Hosp.
785. OXIDATIVE PHOSPHORYLATION

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 1:05 PM-2:35 PM*


A306 785.2 Effect of propionylcarnitine on mitochondrial energy metabolism in elderly rat heart. **J. Kerner, A. Virmani, A. Koverech and C. Hoppel.** Case Western Reserve Univ. and Sigma-Tau, Pomezia, Italy.

786. METABOLIC BRANCHPOINTS/LIPID CHANNELING

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 1:05 PM-2:35 PM*


787. ENZYMES OF LIPID METABOLISM

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 1:05 PM-2:35 PM*


A310 787.3 Glycosomal localization of dihydroxyacetone phosphate acyltransferase LmFAT is important for lipophosphoglycan biosynthesis. **N. Patel, T. Zhu, S. Dhalladoo and R. Zufferey.** St. John’s Univ., NY.


A313 787.6 Cholecalciferol increases 7-dehydrocholesterol reductase activity in adult human epidermal keratinocytes. **L. Zou and T.D. Porter.** Univ. of Kentucky.

A314 787.7 Investigations into how a lypo-glycerophospholipid acyltransferase alters headgroup acylated glycerophospholipid levels in *Escherichia coli*. **T.A. Garrett.** Vassar Col.

A315 787.8 Physiological variations in plasma sphingomyelin inversely correlate with lecithin-cholesterol acyltransferase activity. **P.V. Subbaiah, X-C. Jiang, N. Belikova, B. Aizezi, Z.H. Huang and C.A. Reardon.** Univ. of Illinois at Chicago, SUNY Downstate Med. Ctr. and Univ. of Chicago.


A317 787.10 Sterol regulation of HMG CoA reductase in the liver. **N. Calhoun and R. Deobse-Boyd.** Univ. of Texas Southwestern Med. Ctr.

A318 787.11 AMPK regulates lipolysis by phosphorylation of desnutrin/ATGL at serine406. **M.J. Abbott and H.S. Sul.** Univ. of California, Berkeley.

788. LIPID TRAFFICKING

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 1:05 PM-2:35 PM*

A319 788.1 Type II pneumocyte lamellar bodies contain components of the Niemann-Pick type C pathway. **B.R. Roszell, J-Q. Tao, K.J. Yu, S. Huang and S.R. Bates.** Univ. of Pennsylvania.

A320 788.2 VLDL selection into VLDL transport vesicle is regulated by CideB. **S. Tiwari, S. Siddiqi, A. Mani and S.A. Siddiqi.** Col. of Med., Univ. of Central Florida.

789. LIPIDOMICS

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 1:05 PM-2:35 PM*

A321 789.1 Comparative lipidomic analysis of the symbioses between *Aiptasia pallida* and *Symbiodinium*. **J.L. Schmeitzel, J. Klein, M. Smith, J. Schwarz and T.A. Garrett.** Vassar Col.

A322 789.2 Omega-3 fatty acids cause dramatic changes in TLR-4 and purinergic eicosanoid signaling in macrophages. **P. Norris and E. Dennis.** UCSD.
790. REGULATION OF LIPID METABOLISM

**Poster**

**Presentation time:** 1:05 PM-2:35 PM


A327  **790.5** Mechanism of AMPK suppression of LXR-dependent Srebp-1c transcription. J. Yang. Univ. of South Alabama Col. of Med.

A328  **790.6** Para-aminobenzoic acid is an alternative aromatic ring precursor of coenzyme Q biosynthesis in mammalian cells. L. Xie, K.J. Williams, B. Marbois, J. Tang and S.J. Bensinger. UCLA.

A329  **790.7** ACSL1 multi-tissue knockout mice are resistant to diet- and age-induced obesity and insulin resistance. T.J. Grevengoed, D.S. Paul, L.O. Li and R.A. Coleman. Univ. of North Carolina at Chapel Hill.

A330  **790.8** Transcription factor Reb1p regulates DGK1-encoded diacylglycerol kinase in Saccharomyces cerevisiae. Y. Qiu, S. Fakas and G. Carman. Rutgers Univ.

A331  **790.9** The role of phosphatidate phosphatase in the biosynthesis of phosphatidylcholine via the CDP-choline pathway. G-S. Han and G.M. Carman. Rutgers Univ. and Rutgers Ctr. for Lipid Res.


A333  **790.11** Bile acids induce diacylglycerol kinase-θ expression in HepG2 liver cells. K. Cai and M.B. Sewer. Skaggs Sch. of Pharm. and Pharmaceut. Sci., UCSD.


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791. STRUCTURAL BIOLOGY AND MECHANISMS OF MEMBRANE LIPID ASSEMBLY

**Poster**

**Presentation time:** 1:05 PM-2:35 PM


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792. TISSUE-SPECIFIC REGULATION OF LIPID METABOLISM

**Poster**

**Presentation time:** 1:05 PM-2:35 PM

A340  **792.1** Alteration of sphingolipid metabolism during 4-HPR induced cell death in the ARPE-19 human retinal pigment epithelial cell line. T. Duncan, W. Samuel, R.K. Kutty and T.M. Redmond. NEI/NIH.

A341  **792.2** Molecular dissection of syndecan-1 mediated triglyceride-rich lipoprotein clearance. J.C. Gonzales, E.M. Foley, P.L. Gordts and J.D. Esko. UCSD.

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793. NOVEL METABOLIC ROUTES OF GLYCOCONJUGATE ASSEMBLY

**Poster**

**Presentation time:** 12:25 PM-1:55 PM

A342  **793.1** Intracellular fate of the non-human sialic acid N-glycolylneuraminic acid. A.K. Bergfeld, O.M.T. Pearce, S. Diaz, T. Pham and A. Varki. UCSD.

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794. ROLES OF GLYCOCONJUGATES IN METABOLISM AND DISEASE

**Poster**

**Presentation time:** 12:25 PM-1:55 PM

A343  **794.1** Impact of exposure to high concentrations of fructose on cell surface chemistry and carbohydrate metabolism. J.L. Sacoman, L. Badish and R.I. Hollingsworth. Michigan State Univ.

796. PROTEIN-CARBOHYDRATE RECOGNITION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


798. APOPTOSIS AND CELL STRESS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A366 798.3 Ghrelin prevents TBI-induced neuronal apoptosis via induction of mitochondrial uncoupling protein 2. L.S. Gaston and N. Lopez. Kalamazoo Coll. and UCSD.


A368 798.5 Leptin reduces hypoxia-reoxygenation-induced Fas/FasL gene overexpression and apoptosis in human L02 cells. S. Zhou, G. Chen, X. Li, S. Li, N. Guo, M.G. Irwin, Z. Xia and Z. Hei. The Third Affiliated Hosp. of Sun Yat-sen Univ., China and Univ. of Hong Kong.


A373 798.10 Cytotoxicity and active component in bitter melon (Momordica charantia) seed extracts. E. Chipp, R. Jayin, A.M. Malkawi, M.A. Mottaleb and R. Islam. Northwest Missouri State Univ.

A374 798.11 AKIP1 regulation of PKA and NF-κB in the heart. M. Sastri, P. Chang, H.N. Fridolfsson, M. Paneerselvam, D. Ng, S. Taylor and H.H. Patel. Univ. of San Diego and UCSD.


A381 798.18 Attachment capabilities of erythroleukemia cells to normal human fibroblasts. C. Barnes and P.J. Birkchibler. Slippery Rock Univ., PA.


A383 798.20 Tissue transglutaminase response in myelogenous leukemia cells following the addition of 8-bromoadenosine 3',5'-cyclic monophosphate. L.T. Miller and P.J. Birkchibler. Slippery Rock Univ., PA.


A385 798.22 Adherence analysis between human erythroleukemia cells and human lung fibroblasts. C.D. Dover. Slippery Rock Univ., PA.

A386 798.23 ATP release is altered in a mouse model for Duchenne muscular dystrophy and signals for proteins that promote cell death. D. Valladares, G. Almarza, M. Pavez and E. Jaimovich. Univ. of Chile.


A389 798.26 Induction of apoptosis by tungsten carbide-cobalt nanoparticles in JB6 cells involves ROS generation through both extrinsic and intrinsic apoptotic pathways. M. Ding, J. Zhao, L. Bowman, S. Leonard and V. Castranova. NIOSH, Morgantown, WV.

A390 798.27 Proteasome inhibitor epoxomicin prevents cardiomyocyte apoptosis through regulation of gene expression. D. Li and G. Babu. UMDNJ, Newark.


799. BIOCHEMICAL PHARMACOLOGY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A395 799.3 The pronociceptive activity of spinal dynorphin A is not due to sensitization of wide dynamic range neurons. A. Cai, K. Bannister and A. Dickenson. Univ. of Arizona and University Coll. London.

800. BIOCHEMICAL MEDIATORS OF THE HOST-PATHOGEN INTERACTION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A402 800.1 Tetracycline therapy against phytodermatoma causing yellowing disease of date palms. M.S. Montasser, A.M. Hanif, H.A. Al Awadhi and P. Suleman. Univ. of Kuwait.

A403 800.2 Isotuberculosinol: an immunomodulatory diterpenoid from Mycobacterium tuberculosis. R.J. Peters. Iowa State Univ.

A404 800.3 Proteolytic processing of Hendra virus fusion protein in cells of the bat reservoir host. F. El Najjar and R.E. Dutch. Univ. of Kentucky.

A405 800.4 A yeast-two hybrid screen against HPV16 capsid proteins indicates dynactin 6 is a potential cellular factor involved in HPV16 infection. A.M. Schlegel, J.A. Chapman and S.K. Campos. Univ. of Arizona.


801. RELATIONSHIP OF HOST AND PATHOGEN

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


802. DRUG DESIGN AND NEW TARGETS FOR M. TUBERCULOSIS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


803. ENZYMEOLOGY OF M. TUBERCULOSIS TARGET PROTEINS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


804. STRUCTURAL BIOLOGY OF MACROMOLECULES FROM M. TUBERCULOSIS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

MONDAY BIOCHEMISTRY/NUTRITION

North Carolina State Univ. and Concordia Univ. Wisconsin.

Neumann, A. Olson, S. Cai and D. Sem.


Bai, S.M. Wunderlich and A.D. Fly.

towards breastfeeding in Arizona.

Subiaco and Griffith Univ., Australia.


Do mother's self-reported reasons for introducing solid foods vary by age at introduction and socio-demographic characteristics? H.B. Clayton, K. Scanlon, C. Garbin, M.J. Paech, P. Hartmann and D. Geddes. Univ. of Western Australia.

806. BREASTFEEDING: DETERMINANTS, INITIATION, DURATION

Poster

(Sponsored by: Lactation RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C1 I 806.1 Dimensions of workplace breastfeeding support and the duration of breastfeeding. Y. Bai, S.M. Wunderlich and A.D. Fly. Montclair State Univ. and Indiana Univ.

C2 II 806.2 Comparison of early sucking dynamics of breastfeeding infants born by either Caesarean section and vaginal birth. J.C. Kent, V. Sakalidis, T. Williams, A. Hepworth, C. Garbin, M.J. Paech, P. Hartmann and D. Geddes. Univ. of Western Australia.


C4 II 806.4 Storage capacity of the human breast. J.C. Kent, T. Williams, V. Sakalidis, P.E. Hartmann and C.T. Lai. Univ. of Western Australia.


C7 I 806.7 Workplace accommodations to support breastfeeding in New Jersey. S. Gaits, Y. Bai and S.M. Wunderlich. Montclair State Univ., NJ.

C8 II 806.8 Nurse knowledge and attitudes towards breastfeeding in Arizona. T. Foster and D.M. Winham. Arizona State Univ.

805. THE CELL BIOLOGY OF MYCOBACTERIA

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


807. BREASTFEEDING AND HUMAN MILK: EFFECT ON THE RECIPIENT INFANT AND/OR LACTATING MOTHER

C9 I 807.9 Infant formula samples: association between sources and breastfeeding outcomes at one month postpartum. A. Thurston, J. Holden and J.C. Chezem. Ball State Univ.


C11 I 807.1 Factors associated with weight change up to 12 months postpartum in HIV-infected women: findings from the HIV prevention of mother-to-child transmission Kesho Bora trial. C. Cames, A. Cournil and K. Bork. Res. Inst. for Develop. (IRD), Montpellier.

C12 II 807.2 Validation of sonographic methods for monitoring gastric volume in preterm infants. T. Valtr, L. Hubbs-Tait, S. Grant, P.E. Hartmann and D. Geddes. Univ. of Western Australia.


808. NUTRITIONAL ASSESSMENT AND STATUS IN OLDER POPULATIONS

Poster
(Sponsored by: Aging and Chronic Disease RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C16 II 807.6 Introduction of complementary feeding for infants: a dilemma for parents and caregivers. J.K. Friel, W. Qasem and T. Fenton. Univ. of Manitoba and Univ. of Calgary, Canada.


809. CORRELATES, CONSEQUENCES AND TREATMENT OF OBESITY IN OLDER ADULTS

Poster
(Sponsored by: Aging and Chronic Disease RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C26 I 809.1 Dietary characteristics associated with abdominal obesity in congregate meal participants. K.N. Porter and M.A. Johnson. Univ. of Georgia.


810. OSTEOPOROSIS AND BONE METABOLISM IN THE AGING

Poster
(Sponsored by: Aging and Chronic Disease RIS)
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C33 I 810.3 Relation between dairy calcium intake, bone mineral density and lipids in obese postmenopausal women. N. Mamed, L. Beeson, D. Fakhrawi, A. Darnel and Z. Cordero-MacIntyre. Loma Linda Univ.


811. CHILD NUTRITION AND GROWTH: ISSUES AND CHALLENGES

**Poster**

*(Sponsored by: Nutritional Epidemiology RIS)*

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


**C41 I 811.2** Freshman Health Initiative Survey: a pilot study. R. Schnoll, R. Curran and S. Burroughs. Brooklyn Col. of CUNY.

**C42 I 811.3** Prevalence and determinants of overweight and obesity in a national sample of 5-12 years old Lebanese children. L. Nasreddine, F. Naja, C. Akl, N. Adra, A. Sibai and N. Hwalla. American Univ. of Beirut.


**C47 I 811.8** Measured versus estimated resting energy expenditure in a clinic population of obese youth. S. Henes, R. Hickner, D. Cummings, J. Houmard, K. Kolasa, S. Lazorick and D. Collier. Georgia State Univ. and East Carolina Univ.


**812. GLOBAL HEALTH: DIETARY INTakes AND HEALTH OUTcomes IN DIVERSE POPulations**

**Poster**

*(Sponsored by: Nutritional Epidemiology RIS)*

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


**C57 I 812.2** Sources of sodium according to income levels in the Brazilian National Dietary Survey. A. de Moura Souza, I. Nogueira Bezzera, R. Alves Pereira and R. Sichieri. State Univ. of Rio de Janeiro Univ. of Michigan Sch. of Publ. Hlth. and Univ. of North Carolina at Chapel Hill.

**C58 I 812.3** School-age children might be the best source of information for their digestive health. S. Kranz, M. Brauchla and K. Miller. Purdue Univ. and Kellogg Co., Battle Creek.
813. WEIGHT MANAGEMENT IN REAL LIFE

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C68 II 813.2 Increased BMI is associated with lower iron status and increased inflammation and oxidative stress in postpartum women. J.M. Jorgensen, Z. Yang, B. Lönnerdal, C.J. Chantry, L.H. Allen and K.G. Dewey. Univ of California Davis, Davis and Sacramento and USDA, Davis.

C69 I 813.3 Prepregnancy BMI and gestational weight gain as determinants of pregnancy complications and outcomes by race/ethnicity. D. Shin and W.O. Song. Michigan State Univ.

C70 II 813.4 Association of body fat indicators with lipid concentrations in U.S. children aged 6-11. M. Masters, K. Stanek-Krogstrand and J.A. Albrecht. Univ. of Nebraska-Lincoln.

C71 I 813.5 Healthy minds but unhealthy bodies: graduating with a 4-year college degree and 7 pounds of body fat. S.S. Gropper, L.J. Connell, K. Simmons and P. Ulrich. Auburn Univ.

C72 II 813.6 Comparison between self-reported nutrient intake from 24-h recall and Food Frequency Questionnaire, at baseline, among Spanish overweight and obese participants in a metabolic trial. M.J. Soto-Méndez, E. Martínez-de-Victoria, G. Lobo, J. Boza, M. Kellerhals, A. Pérez-de-la-Cruz, A. Gil, M-D. Mesa and C-M. Aguiler. CeSSIAM, Guatemala City, Univ. of Granada, Hosp. Virgen de las Nieves, Granada and The Coca-Cola Co., Atlanta and Brussels.


C79 I 813.13 Changes in knowledge, preferences, auto-efficacy and resource availability after a summer program on physical activity promotion. A. Pérez-Lizaur, L.I. Moreno, C. Chaires and K. Haau. Univ. Iberoamericana, Mexico.

814. FEEDING YOUNG CHILDREN

Poster
(Sponsored by: Community and Public Health Nutrition RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C81 I 814.1 Perceptions of key parental benefits from practices that promote intake of calcium-rich foods and beverages in preadolescent children. S.S. Wong, C. Gunther, M. Reicks, R. Richards, C.M. Bruhn, M. Cluskey, S. Misner, C. Watters and M. Bellanos. Oregon State Univ., The Ohio State Univ., Univ. of Minnesota, St. Paul, Brigham Young Univ., Univ. of California, Davis, Univ. of Arizona, Univ. of Hawaii and Washington State Univ.

C82 II 814.2 Quantifying vitamin D production from sunlight exposure. M.G. Kimlin. Queensland Univ. of Technol., Australia.


C84 II 814.4 Socio-cultural factors associated with child feeding practices among Hmong, Latino and White parents. Y. Zhao, A. Roche, C. Wolff and K. Goto. California State Univ., Chico.


C88 II 814.8 Food safety knowledge, attitudes, behaviors and intended behaviors of middle schoolers. V. Quick, K. Corda and C. Byrd-Bredbenner. Univ. of Minnesota, Minneapolis, Univ. of Texas at San Antonio and Rutgers Univ.

C89 I 814.9 Developing and pre-testing nutrition messages for Asian Indian mothers. S.R. Momin and B. Olson. Michigan State Univ.


C91 I 814.11 Attitudes of nutrition education teachers and dietitians on implementation of school breakfast program in Korea. Y-S. Choi and H. Oh. Daegu Univ., South Korea.

815. NUTRITION EDUCATION

Poster
(Sponsored by: Nutrition Education RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C93 II 815.2 Stepping up to the challenge: the development, implementation, and assessment of a statewide, regional leadership program for child nutrition directors. J.J. Bergman, D. Beall and S. Zidenberg-Cherr. Univ. of California, Davis and California Dept. of Educ., Sacramento.


C96 I 815.5 Head Start preschool administrators’ barriers, motivators, and facilitators to implementing nutrition education. S. Riggsbee, V. Carraway-Stage, A. Dipper and M. Anderson. North Carolina State Univ.


C100 I 815.9 Exposure to calcium-rich foods lessons increases nutrition knowledge among 5th-grade students. J. Linnell, M. Briggs and S. Zidenberg-Cherr. Univ. of California, Davis.


C102 I 815.11 Comparison of parent and child reported fruit and vegetable preferences. K. Nanney, V. Carraway-Stage, T.B. Cox, H. Spangler, A. Martin, M. Borges, A. Worf and L.S. Goodell. North Carolina State Univ.
816. CHILDHOOD OBESITY: WHEN SHOULD WE INTERVENE?

**Poster**

*(Sponsored by: Obesity Ris)**

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)*

C103 II 815.12 Teacher-perceived barriers, facilitators, and motivators to providing nutrition education in Head Start classrooms. **A. Dipper, S. Riggsbee, M. Anderson, V. Carraway-Stage and L.S. Goodell.** North Carolina State Univ.


C105 II 815.14 Sensory nutrition education positively impacts willingness to try local vegetables in Western Massachusetts Head Start children. **S. Kannan, J. Joyner, L. Pfau, J. Meshenko, A. Sciallis, A. Krishnakumar and S. Severin.** Univ. of Massachusetts Amherst, Syracuse Univ. and Western Massachusetts Head Start., Greenfield.

C106 I 815.15 Skipping breakfast and having snacks of middle school students in Incheon and factors affecting their dietary habits. **H.-J. Chung and J.-I. Park.** Inha Univ., South Korea.


C109 II 815.2 Differential dietary intake patterns among 2-6 year olds in the U.S. across race/ethnicity, parental education, and poverty levels. **J.L. Butler, D.R. Miles, M.M. Slining and B.M. Popkin.** Univ. of North Carolina at Chapel Hill.

C110 I 815.3 Predictors of excessive weight gain in a low income and diverse population of Massachusetts infants. **E.S. Metallinos-Katsaras, E.C. Siu, L. Brown and S. Edelstein.** Simmons Col.


817. REDEFINE OBESITY: BODY WEIGHT VERSUS ADIPOSITY

**Poster**

*(Sponsored by: Obesity Ris)*

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)*

C114 I 817.1 Relationship between obesity markers and blood pressure among African Americans with and without T2D. **C. Duenas, C. Podesta, G.G. Zarini and F.G. Huffman.** Florida Intl. Univ.

C115 II 817.2 Obesity and serum high sensitivity C-reactive protein in Turkish immigrants with type 2 diabetes. **S.D. Sukram, G.G. Zarini and F.G. Huffman.** Florida Intl. Univ.

818. OBESITY, INFLAMMATION AND CHRONIC DISEASE MODULATION BY DIETARY PHYTONUTRIENTS

**Poster**

*(Sponsored by: Obesity Ris)*

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

*Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)*


C117 II 818.2 The effect of naringenin on the phosphorylation of AMPK in diet-induced obese mice. **J.-Y. Ke, M. Tian, K. Kliewer and M.A. Belury.** The Ohio State Univ.

C118 I 818.3 Hepatoprotective effect of *Paecilomyces japonica* in db/db mice. **J.-I. Kim and Y.-K. Jeong.** Inje Univ. and Dong-A Univ., South Korea.

C119 II 818.4 Hepatic effect of quercetin in rats fed high-fructose diet. **J.-I. Kim and Y.-K. Jeong.** Inje Univ. and Dong-A Univ., South Korea.

C120 I 818.5 Bioavailability, glucose disposal, and anti-inflammatory properties of grape products in high-fat-fed obese mice. **C.-C. Huang, W. Shen, G. Xie, W. Jia and M. McIntosh.** Univ. of North Carolina at Greensboro.

C121 II 818.6 Nutraceutical values of muscadine against obesity and metabolic complications in vivo. **V. Gourineni, N. Shay, S. Chung and L. Gu.** Univ. of Florida and Oregon State Univ.

C122 I 818.7 Impact of Korean pine nut oil on weight gain and immune responses in high-fat diet-induced obese mice. **S. Park, M. Lim, S. Shin and S.N. Han.** Seoul Natl. Univ.
819. OBESITY AND METABOLIC SYNDROME

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C124 I 819.9 Psychological determinants of dietary adherence and intervention outcome in obesity: self-efficacy, dietary and physical exercise counseling. G.M. Trovato, G.F. Martines, F.M. Trovato, P. Pace, C. Pirri, A. Tonzuozo and D. Catalano. Univ. of Catania, Italy.

C125 II 818.10 Broccosprout extract inhibits the nasal allergic response to diesel exhaust particles in atopic individuals. A.M. Wong, Z. Li, M. Garcia-Lloret, A. Zerlin, G. Thomas, Y. Zhang, A. Nel and D. Heber. UCLA.


C128 II 819.2 The diagnostic efficacy of anthropometric and body composition cut-off values in assessing risk factors for cardiovascular disease among university students. S. Nichols and A-M. Edwards. Univ. of West Indies, Trinidad and Tobago.


C130 II 819.4 Anthropometric antecedents of metabolic syndrome and its components among university students. S. Nichols and A-M. Edwards. Univ. of West Indies, Trinidad and Tobago.

C131 I 819.5 The association between serum estrogen, fat mass and type II diabetes in the Boston Puerto Rican Health Study. L. Landry and K.L. Tucker. Tufts Univ., Boston and Northeastern Univ.


C133 I 819.7 Associations among adiposity, inflammation, and iron status in overweight/obese pregnant women. C.P. Stewart, S. Shahab-Ferdows, F.Y.J. Chen, A.H. Lindsay, B. Lönnerdal and J.C. King. Univ. of California, Davis, USDA, Davis and Children’s Hosp. Oakland Res. Inst.


C136 II 819.10 Self perception of body weight status and willingness to adopt healthy eating and activity behaviors among Kentucky adults. C. Wang, L. Huang and C. Butler. Kentucky State Univ.


C139 I 819.13 Ascorbic acid-induced reduction in adiponectin is not improved by alpha tocopherol and is accompanied by a small reduction in protein levels of peroxisome proliferator-activated receptor gamma in 3T3-L1 adipocytes. V. Narayanan, L. David and C. Kane. Florida Intl. Univ.


C143 I 819.17 Acute effects of pistachios on glucose, insulin, gut hormones and satiety in persons with metabolic syndrome. C.W.C. Kendall, J. Campbell, A.L. Jenkins and D.J.A. Jenkins. Univ. of Toronto and Glycemic Index Labs., Toronto.


C145 I 819.19 Non-alcoholic fatty liver disease reversal by a comprehensive nutritional-physical exercise intervention. G.M. Trovato, D. Catalano, A. Pennisi, F.M. Trovato, P. Pace, G.F. Martines and C. Pirri. Univ. of Catania, Italy.

C146 II 819.20 Fat distribution, insulin resistance and serum adiponectin of older women with and without metabolic syndrome. P. Chongwatpol, J.R. Hermann, A. Bogale and B.J. Stoecker. Oklahoma State Univ.

C147 I 819.21 The effect of beverage choice at an ad libitum meal caloric intake and post-meal appetite and glycemia in healthy young men. D. El Khoury, S. Panahi, B.L. Luhovyy and G.H. Anderson. Univ. of Toronto.


C150 II 819.24 BOLD (bief in an optimal lean diet) effects on metabolic syndrome: a preliminary analysis. A.M. Hill, M. Rousseau, S.G. West and P.M. Kris-Etherton. Penn State and Univ. of South Australia.


C152 II 819.26 Relationships between features of metabolic syndrome and fatty acid composition of the diet, plasma, and adipose tissue in older adults. A.M. Rose, M. Asp, A. Collene and M.A. Belury. The Ohio State Univ.


C154 II 819.28 Soybean or fish oil increases adiponectin and nitric oxide levels and decreases blood pressure in metabolic syndrome. I. Dichi, A.N.C. Simão, M.A.B. Lovozoy, H.K. Morimoto, T.N.C. Simão and J.B. Dichi. Univ. of Londrina, Brazil.

C155 I 819.29 Activation of angiotensin type 2 receptor rescues high-fat diet-induced adipocyte size increase in young male mice. S. Nag, M.A. Khan and T. Hussain. Auburn Univ.

C156 II 819.30 A moderate carbohydrate-restricted diet results in weight loss and improves clinical parameters of metabolic syndrome in adult men and women and addition of egg yolk further improves inflammation. C.N. Blesso, C.J. Andersen, J. Barona, B. Volk, J.S. Volek and M.L. Fernandez. Univ. of Connecticut.


C158 II 819.32 Effects of brown seaweed and licorice on blood glucose and weight loss in moderately overweight subjects. S. Talbott, T. Talbott, E. Dingler and J. Talbott. SupplementWatch, Draper, UT.


C172 II 819.46 HPMC supplementation reduces weight gain, intestinal permeability, inflammation, and insulin resistance in diet-induced obese mice. H. Kim, G. Bartley, S.A. Young and W. Yokoyama. Univ. of California, Davis, USDA, Albany, CA and The Dow Chem. Co., Midland, MI.


C174 II 819.48 Inhibition of HO-adiponectin-dependent pathways contributes to metabolic syndrome-like phenotype in spontaneously hypertensive rats on a high fat diet. N. Puri, K. Sodhi and N.G. Abraham. Univ. of Toledo.


C178 II 819.52 Insulin sensitization in female ob/ob mice by an apo-lipoprotein-A1 mimic is independent of effects on body weight. A. Burgess and N.G. Abraham. Univ. of Toledo.


820. ENERGY BALANCE, MACRONUTRIENT AND WEIGHT MANAGEMENT

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)

(Cosponsored by: Obesity RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C182 I 820.3 A review of dietary energy density and obesity. J.P. Karl and S.B. Roberts. USDA at Tufts Univ.

C183 II 820.4 Effects of a novel dietary portion control program on energy intake, energy density, and weight loss. C. Freed, S. Fawcett, D. Weber-Dewitt and C. Melby. Colorado State Univ.


C186 I 820.7 Dietary leucine and alanine supplementation have similar effects in the prevention of high-fat diet-induced obesity. K.J. Petzke, A. Freudenberg and S. Klaus. German Inst. of Human Nutr. in Potsdam-Rehbruecke.

C187 II 820.8 Body weight reduction by exercise is more effective than by dietary restriction even when dietary condition is equal except for energy. T. Yamada, S-I. Kurasawa, M. Matsuozaki and A. Tanaka. Kanto Gakuin Univ. and Kagawa Nutr. Univ., Japan.


C189 II 820.10 Variability in results from predicted resting energy expenditure as compared to measured resting energy expenditure in Korean farmers. A.F. Arif Tsani, S-Y. Ko, S-E. Yeon and E-K. Kim. Gangneung-Wonju Natl. Univ., South Korea.

C190 I 820.11 Smaller decreases in protein and greater decreases in fat may be associated with exercise training before body mass reduction. A. Nakashima, R. Nishijima and K. Okamura. Osaka Univ. of Hlth. and Sport Sci.


C192 I 820.13 Moderate caloric restriction results in significant loss of fat mass, limited decline in resting energy expenditure and preservation of fat-free mass. J.C. Chezem, A. Thomas and J. Holden. Ball State Univ. and Target Metabolism, Carmel, IN.


C195 II 820.16 Black pepper consumption does not influence 24-hour energy expenditure or respiratory quotient in overweight postmenopausal women. A. O’Connor, K.D. Corbin, D.C. Nieman and A. Swick. Univ. of North Carolina at Chapel Hill Nutr. Res. Inst. and Appalachian State Univ.

C196 I 820.17 Ingestion of nutrition bars high in protein or carbohydrate do not impact 24-hour energy intake or respiratory quotient in overweight young adults. C.M. Trier and C.S. Johnston. Arizona State Univ.


C200 I 820.21 Skipping breakfast is associated with lower physical activity energy expenditure in young healthy women. A.P. Marquez, S. Forester, M. Witbracht, C. Campbell, M. Gustafson and N. Keim. Univ. of California, Davis and USDA, Davis.
821. EFFECTS OF DIETARY BIOACTIVE COMPONENTS ON EXPERIMENTAL MODELS OF CHRONIC DISEASE RISK

Poster

(Sponsored by: Dietary Bioactive Components RIS)

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C221 I 821.2 Grape seed extract and delta tocotrienol alone and in combination ameliorates histopathological features in C57BL/6 mouse fed high-fat diet. S. Sodhani, S. Juma, P. Vijayagopal, C. Prasad, V. Imahan and N. Mills. Texas Woman's Univ.


C228 I 821.9 The behavioral actions of creatine vary with duration of intake. K.E. D’Anci, P.J. Allen and R.B. Kanarek. Salem State Univ. and Tufts Univ.


822. DIET AND CANCER: MOLECULAR TARGETS

Poster

(Sponsored by: Diet and Cancer RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C237 I 822.3 Combination of polyphenol floravones and atorvastatin for colon cancer inhibition. M. Song, P. Qiu, J. Zheng, N. Charoensinphong and H. Xiao. Univ. of Massachusetts Amherst and Ocean Univ. of China.


C239 I 822.9 Cinnamon extract inhibits angiogenesis in zebrafish and human endothelial cells by suppressing VEGF and PKC-mediated MAP kinase. R.R. Bansode, P. Randolph and M. Ahmedna. North Carolina A&T State Univ.


C242 II 822.8 Effect of ketone treatment and glycolysis inhibition in brain cancer cells (U87MG) and rat primary cultured neurons exposed to hyperbaric oxygen and amylid beta. A. Bennett, C. Ari, S. Kesli, J. Luke, D. Diamond, J.B. Dean and D. D’Agostino. Univ. of South Florida, Byrd Alzheimer’s Inst. and James A. Haley Veterans Hosp., Tampa.

C243 II 822.9 Parthenolide’s anti-leukemic stem cell activity is enhanced by the inhibition of dipeptidyl peptidase 8 and 9. P. Spagnuolo, R. Hurren, M. Gronda, N. MacLean and A. Schimmer. Princess Margaret Hosp., Toronto.

C244 II 822.10 Broccoli-derived compounds modulate androgen upregulation of C-C chemokine ligand 2 and enhancement of monocyte attraction to prostate cancer cells. E-K. Kim, Y.S. Kim, L. Yu, J.A. Milner and T.T.Y. Wang. Univ. of Maryland College Park, NCI/NIH, Rockville and USDA, Beltsville.


C249 I 822.15 Medicinal herbs inhibit castrate-resistant prostate cancer via mechanisms involving AMPK. Y. Zhao and J. Whelan. Univ. of Tennessee, Knoxville.


823. ANTIOXIDANT AND ANTI-INFLAMMATORY EFFECTS OF DIETARY BIOACTIVE COMPONENTS

Poster

(Sponsored by: Dietary Bioactive Components RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C261 I 823.3 Effect of oregano essential oils on lipid oxidation in storage eggs enriched with dietary omega-3 fatty acids. C. Ariza-Nieto, R. Ortiz, D. Vasquez, O. Mayorga and G. Afanador. CORPOICA, Bogota and Natl. Univ. of Colombia.

C262 II 823.4 Antioxidant and anti-inflammatory properties of tamarillo fruit (Cyphomandra betacea Sendt.) extracts on LPS-activated RAW 264.7 macrophages. X. Villegas-Ruiz, G.K. Harris, M.E. Barcenas-Pozos and C. Jordan. Univ. de las Americas Puebla, Mexico and North Carolina State Univ.

C263 I 823.5 Purple potato, even after processing, suppress oxidative stress and inflammatory markers in high-fat diet consuming pigs. S. Radhakrishnan, L. Reddivari, S.B. Smith, S.W. Kim and J. Vanamala. Colorado State Univ., Texas A&M Univ. and North Carolina State Univ.


C265 I 823.7 Anti-oxidant and anti-inflammatory activity of tocopherol isomers modulates the Nrf-2 and Nrf2B activation in Caco-2 human intestinal cell line. I. Elisia and D. Kitts. Univ. of British Columbia.


C268 II 823.10 Raw and cooked African green leafy vegetables have greater antioxidant and cellular protective properties than spinach. A. Oelofse, N.P. Mavhungu, J. Serem, M. Bester and K.G. Duodu. Univ. of Pretoria, South Africa.


C270 II 823.12 Resveratrol decreases inflammation and oxidative stress in the mdx mouse model of Duchenne muscular dystrophy. B.S. Gordon, P. Weed, E. Learner, D. Schoenling and M.C. Kostek. Univ. of South Carolina.


C274 II 823.16 The major metabolites of 5-hydroxy nobiletin inhibit lipopolysaccharide-induced inflammation in macrophages. H. Xiao, S. Guo, J. Zheng and X. Wu. Univ. of Massachusetts Amherst and Ocean Univ. of China, Qingdao.


C276 II 823.18 Influence of dietary red palm oil on antioxidant status in male Wistar rats. A. Ayeleso, O. Oguntibeju and N. Brooks. Cape Peninsula Univ. of Technol., South Africa.

C277 I 823.19 Polyphenols suppress oxidative stress in bovine articular chondrocytes. H. Yagi, V. Ulici and R.S. Tuan. Univ. of Pittsburgh Sch. of Med.


C280 II 823.22 The increase in flow-mediated vasodilation induced by grape polyphenols is positively correlated with increased expression of inducible nitric oxide. J. Barona, J. Lee, Y. Park and M.L. Fernandez. Univ. of Connecticut and Univ. of Antioquia, Colombia.

C281 I 823.23 The photoprotective effects of almond phytonutrients in a three-dimensional human skin tissue model. J.A. Evans, J. Garlick, E.J. Johnson, X-D. Wang and C-Y.O. Chen. USDA and Tufts Univ.

C282 II 823.24 Tert-butyl-hydroquinone augments intracellular glutathione concentrations and induces antioxidant gene expression in organogenesis-stage rat conceptuses grown in whole embryo culture. K.E. Sant, J.M. Hansen and C. Harris. Univ. of Michigan and Emory Univ.


C284 II 823.26 Anti-inflammatory effects of 4'-hydroxy nobiletin, the major metabolite of nobiletin. X. Wu, S. Guo, G. Xu, J. Zheng and H. Xiao. Univ. of Massachusetts Amherst and Ocean Univ. of China.


C288 II 823.30 Diverse effects of a low dose supplement of lipidated curcumin in healthy middle aged people. R.A. DiSilvestro, E. Joseph and J. Bomser. The Ohio State Univ.


C290 II 823.32 Comparison of the effects of paired organic and conventional wines with different total polyphenol concentrations on plasma antioxidant status. K. Ricklefes, K. Rasmussen and K.R. Martin. Arizona State Univ.

824. OBESITY, INFLAMMATION AND NUTRIGENOMICS

Poster
(Sponsored by: Diet and Cancer RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C305 I 824.3 Turmeric and black pepper inhibit lipid peroxidation in cooked burger. Y. Zhang, Z. Li, R-P. Lee, J. Huang, S. Henning and D. Heber. UCLA Ctr. for Human Nutr.


C310 II 824.8 Differential effects of added dietary fructose on and fat on adipose tissue gene expression in a juvenile pig obesity model. G. Solano-Aguilar, S. Jang, S. Laskman, A. Molokin, G. Bruna, A. Mitchell and J. Urban. USDA, Beltsville, MD and Seysa, Toledo, Spain.

C311 I 824.9 Influence of fructose consumption on inflammatory gene expression in liver and brain in a pig model of juvenile obesity. S. Jang, A. Molokin, S. Laskman, K. Panickar, G. Bruna, J.F. Urban, Jr. and G. Solano-Aguilar. USDA, Beltsville, MD and Seysa, Toledo, Spain.


C313 I 824.11 Anti-obesity and inflammatory effects of Lactobacillus sp. OPK-3 is isolated from kimchi in cell line and in animal model. J-E. Park, Y-J. Moon, S-H. Oh and Y-S. Cha. Chonbuk Natl. Univ. and Woosuk Univ., South Korea.


825. INTESTINAL PHYSIOLOGY AND DIGESTIVE FUNCTION

Poster
(Sponsored by: Experimental Animal Nutrition RIS)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C318 II 825.3 Intestinal damage in weanling pigs following a nutritional insult is transient. C.L. Levesque, K. de Ridder, L.D. Skinner and C.F.M. de Lange. Univ. of Guelph, Canada.

C319 II 825.4 Effects of resistant starch of common and native potato on broiler performance. C. Ariza-Nieto, D. Rodriguez, M. Ariza-Nieto and G. Afanador. CORPOICA, Bogota, Natl. Univ. of Colombia and Cornell Univ.


C321 II 825.6 Ethanol and unsaturated fat diet-induced liver injury is associated with intestinal inflammation in a mouse model of alcoholic liver disease. I. Kirpich, W. Feng, Y. Wang, Y. Liu, S. Barve and C. McClain. Univ. of Louisville.

826. MEASURING DIET AND NUTRITIONAL STATUS

Poster
(Sponsored by: International Nutrition Council (INC))

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C326 I 827.5 Perceptions of diabetic/hypertensive patients and primary healthcare providers regarding disease management (San José, Costa Rica-Chiapas, México). N. Alvarado, A.L. Deng, E. López, M. Castro, L. Peña, I. deBeaussset, H. Martínez and S. Murillo. INCAP, Guatemala City, Univ. of Costa Rica Sch. of Nutr., UNICACH Sch. of Nutr., Mexico and RAND, Santa Monica.


828. DIET, PHYSICAL ACTIVITY, FOOD SECURITY TRENDS AND PATTERNS

Poster
(Sponsored by: International Nutrition Council (INC))

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C337 II 828.2 Assessment of nutrition status and pulse consumption patterns in adolescent girls from Huletegna Choroke Keble, Halaba Special Woreda - Southern Ethiopia. G.A. Zello, K. G/Michael, A. Chala and J. Jaffe. Col. of Pharm. and Nutr., Univ. of Saskatchewan, Hawassa Univ., Ethiopia and Univ. of Regina, Canada.

C338 I 828.3 Energy contribution on non-breast milk items reported for 5-month-old, low-income infants in metropolitan Quetzaltenango, Guatemala. J. Alvey, M. Vossenaar, C.M. Doak and N.W. Solomons. CeSSIAM, Guatemala City and VU Univ., Amsterdam.


C341 II 828.6 The pattern of offering ritual fluids (agüitas) to infants and toddlers in the Guatemalan highlands in metropolitan Quetzaltenango. C.M. Doak, R. van der Staare, I. van Beukoms, M. Campos, M. Vossenaar and N.W. Solomons. VU Univ., Amstersam and CeSSIAM, Guatemala City.
829. PRENATAL NUTRIENT PROGRAMMING

Poster

(Sponsored by: Medical Nutrition Council (MNC))

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C343 I 829.1 Maternal fructose consumption during gestation increases body weight and fat mass in young adult offspring. R.C. Bell, N. Patel, C. Lineker, A. Hoedl, H. Budge and M.E. Symonds. Univ. of Alberta and Univ. of Nottingham, U.K.


C346 II 829.4 Fetal overgrowth is associated with early perturbations in amniotic fluid glucose, insulin and insulin like growth factors in mothers with and without gestational diabetes. D.K. Tisi and K.G. Koski. Sch. of Dietetics and Human Nutr., McGill Univ.


830. NUTRITION AND THE MICROBIOME

Poster

(Sponsored by: Medical Nutrition Council (MNC))

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

831. DIET-GENE INTERACTIONS IN THE ETIOLOGY OF OBESITY AND WEIGHT-RELATED COMORBIDITIES

Poster

(Sponsored by: Medical Nutrition Council (MNC)

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBT
HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C362 I 831.1 Fructose, high fructose corn syrup and sucrose solutions: a comparison of their effects on the hypothalamic control of food intake. T.W. Castonguay and D. Colley. Univ. of Maryland College Park.

C363 II 831.2 Comparison of physiological, sensory, and personality attributes in 6-n-propylthiouracil tasters and non-tasters. M.-J. Ludy, M. Patil and R.D. Mattes. Bowling Green State Univ. and Purdue Univ.


Pathology

832. ANGIOGENESIS, THROMBOSIS AND COAGULATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBT
HALLS A-D

Presentation time: 11:30 AM-1:30 PM

B169 832.1 Fibrinolytic resistance and prothrombotic phenotype is altered in mice lacking α(1,3)-fucosyltransferase-IV and -VII. H. Wang, L.C. Mackey, J.M. Rose and J.W. Homeister. Univ. of North Carolina at Chapel Hill.


B176 832.8 Exchange transfusion therapy and its effects on real-time microcirculation in pediatric sickle cell anemia patients. W.J. To, J.W. Miller, M.G. Miguelino, J. Li, X. Lin, P. Chen, R. Green and A.T.W. Cheung. Univ. of California, Davis Med. Ctr. and UCSD.


B179 832.11 Cavin1 deficiency results in abnormal vascular function in mice. C. Rippe, S. Albinsson and K. Sward. Lund Univ., Sweden.


833. EPITHELIAL BIOLOGY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBT
HALLS A-D

Epithelial Pathobiology

Presentation time: 11:30 AM-1:30 PM

B183  833.2 Differential contribution of desmoglein 2 and 3 to cell adhesion and intracellular signaling in keratinocytes. E. Hartlieb, V. Spindler and J. Waschke. Ludwig Maximilians Univ., Munich.


B188  833.7 Reduction in the intestinal epithelial glutathione redox potential may regulate proliferation in the neonatal murine gut. A. Richardson, L.S. Myers, S-C. Song, L. Ray, A. Berardinelli, J. Hansen and P.W. Denning. Emory Univ. Sch. of Med.

B189  833.8 Effects of claudins-6, -7 or -9 overexpression on migration and invasiveness of breast and hepatocellular cancer cells. B. Salas, E.P. Rendón-Huerta and L.F. Montaño-Estrada. UNAM, Mexico City.


B194  833.13 Effect of naphthalene and copper nanoparticles on three-spined stickleback (Gasterosteus aculeatus). F. Villarreal, E. Falisse, D. Morin, A. Buckpitt and D. Kültz. Univ. of California, Davis and Univ. of Namur, Belgium.

B195  833.14 Accumulation and biochemical effects of microcystin-LR on Patagonian silverside (Odontesthes hatcheri) fed with Microcystis aeruginosa cells. C.M. Luquet, F. Biezczynski and V.A. Bianchi. CONICET, Junin de los Andes, Argentina.


834. MOLECULAR PATHOGENESIS AND TREATMENT OF BREAST CANCER

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 11:30 AM–1:30 PM


B200  834.2 Progesterone receptor B through Sp1 induces the phosphatase and tensin homologue deleted from chromosome 10 (PTEN) gene promoter activity and cell death in breast cancer cell lines. C. Guido, F. De Amicis, M. Santoro, P. Avena, I. Perrotta, I. Casaburi, S. Panza, S. Marsico and S. Andò. Univ. of Calabria, Italy.

B201  834.3 Leptin increases HER2 stability through HSP90 in breast cancer cells. C. Giordano, D. Vizza, D. Rovito, I. Barone, D. Bonofiglio, S. Panza, M. Lanzino, S. Fuqua, S. Catalano and S. Andò. Univ. of Calabria, Italy and Baylor Col. of Med.


B204  834.6 Polychlorinated biphenyls enhance the neoplastic progression of human breast epithelial cells in a xenograft model. H. Pang, F.R. Miller, T.A. Kocarek and M. Runge-Morris. Wayne State Univ.


835. INNATE IMMUNITY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER; EXHIBIT HALLS A-D

Presentation time: 11:30 AM-1:30 PM


B208 835.2 Role and contribution of conserved p38 MAP kinase pathway in Caenorhabditis elegans immunity during Proteus vulgaris infection. K. Balamurugan and G. JebaMercy. Alagappa Univ., India.


B215 835.9 Expression of pentraxin 3 in the lungs of human, horse, cattle and pig. M. Soron and B. Singh. Univ. of Saskatchewan.


B217 835.11 Expression of TLR10 in human lungs and neutrophils. Y. Balachandran, S. Knaus and B. Singh. Univ. of Saskatchewan.


B227 835.21 Changes in the expression of phosphate transporters, inflammatory markers, and bone cytokines with increasing age. M.S. Loayza, L. Shum, V. Ferguson, M. Levi and K. King. Univ. of Colorado Sch. of Med. and Univ. of Colorado Boulder.


B230 835.24 In vivo 129 murine model of salmonella infection is a powerful tool to examine human clinical isolates. J. Harrington, L. Eckmann and D. Guiney. McMaster Univ., Canada.

836. GPCR LIGAND DEVELOPMENT

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:30 PM-2:45 PM


837. GPCR MODIFICATIONS AND TRAFFICKING

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:30 PM-2:45 PM


B9 837.2 REEPs , an ER adapter protein family, have differential effects on GPCR expression. T. Angelotti, V. Ho and C. Hurt. Stanford Univ.


B14 837.7 Elucidation of the phosphorylation profiles of the long and short isoforms of the omega-3 fatty acid receptor-1 (GPR120). R.N. Burns and N.H. Moniri. Col. of Pharm. and Hlth. Sci., Mercer Univ.

838. AGS/RGS PROTEINS

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:30 PM-2:45 PM


B17 838.3 Behavioral and metabolic changes in mice lacking Gβ5-R7 complex. Q. Wang, K. Levay and V. Slepak. Univ. of Miami.


B22 838.8 Structural studies of RGS inhibitors. C.A. Higgins, E. Fuentes and D.L. Roman. Univ. of Iowa.


B24 838.10 Withdrawn.


839. KINASES AND PHOSPHATASES
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:30 PM-2:45 PM
B29 839.3 The CB1 cannabinoid receptor stimulates cooperative signaling between integrin receptors and Fk-1 vascular endothelial growth factor receptors to regulate FAK tyrosine phosphorylation in neuronal cells. G.D. Dalton and A.C. Howlett. Wake Forest Sch. of Med.
B30 839.4 A foorsticin sensitive protein phosphatase, serine/threonine protein phosphatase 4 is required for faithful chromosome segregation and mitotic progression into anaphase. R. Honkanen, B. Theobald and K. Bonness. Univ. of South Alabama.
B31 839.5 Maturation of protein kinase C masks its C1 domains. C.E. Antal, S. Skovsø and A.C. Newton. UCSD and Univ. of Copenhagen, Frederiksberg.
B32 839.6 Activation of PKCα or PKCε as an approach to increase morphine tolerance in respiratory depression and lethal overdose. H.Y. Lin, P-Y. Law and H.H. Loh. Univ. of Minnesota, Minneapolis.
B33 839.7 Scaffolding of the cofilin pathway by β-arrestins. A. Lin and K. DeFea. Univ. of California, Riverside.

840. ENDOTHELIUM DYSFUNCTION
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:30 PM-2:45 PM
B34 840.1 Endothelial NOS-independent release of nitric oxide in the aorta of the spontaneously hypertensive rat. Y. Zhao, S.W.S. Leung and P.M. Vanhoutte. Univ. of Hong Kong.
B35 840.2 Hypertension and CaMKII isoforms in the endothelium of murine mesenteric arteries. C. Charbel, F. Toussaint, A. Blanchette, L.R. Villeneuve and J. Ledoux. Montreal Heart Inst. and Univ. of Montreal.
B38 840.5 Effect of aging in the mechanisms of endothelium-dependent and -independent vasorelaxation of [Ru(terpy)(bdq)NO+][3+] (TERPY) in spontaneously hypertensive rats. F.C. Munhoz, S.R. Potje, R.S. Silva, L.M. Bendhack and C. Antoniali. State Univ. of São Paulo, Aracatuba and Univ. of São Paulo, Ribeirão Preto.
B39 840.6 Mechanisms of oxLDL on endothelial biomechanics. M-J. Oh, T-P. Shentu and I. Levitan. Univ. of Illinois at Chicago, Univ. of California, Riverside.
B40 840.7 In vivo administration of LPS reduces dexmedetomidine-induced contraction in isolated rat aortae. M.M. Manio, R.Y.K. Man, P.M. Vanhoutte and J.K.F. Ng. The Univ. of Hong Kong.
B42 840.9 Lipocalin-2 mediates linoleic acid-induced endothelial dysfunction. E. Song, P. Fan, A. Xu, P.M. Vanhoutte and Y. Wang. The Univ. of Hong Kong.

841. VASCULAR CELL PROLIFERATION AND ANGIogenesis
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:30 PM-2:45 PM
B48 841.1 Tie-2-Cre-mediated inactivation of lipid phosphate phosphatase-3 results in vascular defects. I. Chatterjee and K.K. Wary. Univ. of Illinois at Chicago.
B49 841.2 Sphingosine kinase-1 regulates VEGF-A induced angiogenesis by mediating the interaction between VEGFR2 and S1P1. A.M. Chavez, K.R. Chava and D. Mehta. Univ. of Illinois at Chicago.
B51 841.4 Angiopoietin like-2 stimulates leukocytes adhesion to the native aortic endothelium in LDLr-/-; hApoB40L-/- mice. N. Farhat, N. Thorin-Trescases, L. Villeneuve, B.G. Allen and E. Thorin. Univ. of Montreal and Montreal Heart Inst.


842. PERIPHERAL AND CENTRAL VASCULAR PHARMACOLOGY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B54 842.1 Melatonin inhibits NO-dependent activation of large conductance, calcium-activated potassium channels (BKCa) in porcine coronary artery smooth muscle cells. P. Shukla, C. Sun and S. O’Rourke. North Dakota State Univ.

B55 842.2 Expression of TNF-R1 and Fas in coronary arteries of type 2 diabetic mice. H. Yokoo, S. Yamamoto and Y. Hattori. Univ. of Toyama, Japan.


B57 842.4 Recruitment of the vascular endothelium into neurovascular coupling. T. Longden and M.T. Nelson. Univ. of Vermont.


B60 842.7 Palmitoylethanolamide reduces the severity of brain trauma in a mouse model of controlled cortical impact injury. S. Cuzzocrea, A. Ahmad, D. Impellizzeri, E. Mazzon and E. Esposito. Univ. of Messina and IRCCS Neurol. Ctr. Bonino-Pulejo, Messina.


B64 842.11 Withdrawn.

B65 842.12 TLR4 overexpression after orthotopic liver autotransplantation contributes to acute lung injury in rats. X. Chi, M. Ge, A. Zhang, G. Luo, Z. Xia and Z. Hei. The Third Affiliated Hosp. of Sun Yat-sen Univ., China and Univ. of Hong Kong.


843. NEUROTRANSMISSION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B70 843.2 Activation of adenosine 2A receptors enhances norepinephrine transport into perivenous sympathetic nerves in normotensive, but not DOCA-salt hypertensive rats. S. Sangsiri and J.J. Galligan. Michigan State Univ.

B71 843.3 Impaired K+ channel function leads to increased catecholamine secretion by adrenal chromaffin cells in DOCA-salt hypertension. M.J. Fphaner, J.J. Galligan and G.M. Swain. Michigan State Univ.


B74 843.6 Cleavage of L-glutamate decarboxylase 65 is associated with brain injury. J-Y. Wu. Florida Atlantic Univ.

844. NEUROTRANSMITTER TRANSPORTERS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B81 844.6 Interaction of environment and chronic methylphenidate on anxiety-like behavior and dopamine receptors in adolescent rodents. K.E. Gill, T. Beveridge and L.J. Porrino. Wake Forest Univ.


845. NEURONAL AND GLIAL GROWTH/DIFFERENTIATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B88 845.6 Free radicals are important for dendritic growth in rat embryonic sympathetic neurons. V. Chandrasekaran, C. Lea and P. Lein. Saint Mary’s Col. of California and Univ. of California, Davis Sch. of Vet. Med.

846. ALZHEIMER’S DISEASE APPROACHES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B94 846.6 δ-Endorphin inhibits the expression of amyloid precursor protein in SK-N-SH neuroblastoma cells expressing high levels of mutant APP. R. Boggeti, V.D. Bhatt and W.N. Ratna. Long Island Univ. Arnold & Marie Schwartz Coll. of Pharm.
847. PHARMACOLOGY OF LEARNING AND MEMORY

Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:30 PM-2:45 PM


B102 847.8 Modulation of behavior by methylphenidate. S.A. Carmack, K.K. Howell and S.G. Anagnostaras. UCSD.

B103 847.9 Mechanistic and pharmacologic role of placental growth factor in experimental ulcerative colitis in rats. X. Deng, X. Xiong, T. Khomenko, L. Chen, S. Szabo and Z. Sandor. VA Long Beach Med. Ctr. and Univ. of California, Davis.


B105 847.11 Lactobacillus rhamnosus GG supplementation attenuates chronic alcohol-induced liver injury by inhibiting hepatocyte apoptosis. C. Wang, Y. Wang, Y. Liu, C.J. McClain and W. Feng. Univ. of Louisville.

848. CLINICAL PHARMACOLOGY AND TOXICOLOGY

Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:30 PM-2:45 PM


B107 848.2 Interaction of eNOS and iNOS polymorphisms supports the role of genes related to nitric oxide bioavailability in migraine pathophysiology. F. Magasoni Gonçalves, M.R. Luizzon, A.M. de Oliveira, J.G. Speciali, F. Dach and J.E. Tanus dos Santos. State Univ. of Campinas, Brazil and Univ. of São Paulo, Ribeirão Preto.

849. PHARMACOKINETICS/PHARMACODYNAMICS

Poster
Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:30 PM-2:45 PM


B109 849.2 Pharmacokinetic and pharmacodynamic interactions of indolealkylamine drugs of abuse. A. Yu. Univ. at Buffalo, SUNY.

850. PHASE I/PHASE II DRUG METABOLISM

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B119 850.2 Functional analysis of cytochrome P450 2B6 isoforms using ticlopidine as an active site probe. H-H. Jang, P.R. Wilderman, D. Dalvie and J.R. Halpert. Skaggs Sch. of Pharm. and Pharmacut. Sci., UCSD and Pfizer Global R&D.


B123 850.6 Application of kinetic isotope effects and molecular modeling in understanding the mechanistic complexities of CYP4F12. R.S. Foti, Amgem Inc., Seattle.

B124 850.7 Cytochrome P450 2J2 metabolizes the endocannabinoid, anandamide. V. Walker and P.F. Hollandberg. Univ. of Michigan.


B129 850.12 Breast milk represses UDP-glucuronosyltransferase 1A1 expression in the gastrointestinal tract, increasing the risk for severe hyperbilirubinemia and brain damage. R. Fujiwara, S. Chen and R.H. Tukey. UCSD.


851. DRUG DISCOVERY AND DEVELOPMENT

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B140 851.10 A selective reversible azapetine inhibitor of human neutrophil proteinase 3 derived from a high affinity FRET substrate. B. Korkmaz, C. Kellenberger, M. Cadene, M-C. Vlaut-Massuard and F. Gauthier. INSERM , Tours, CNRS, Marseille, Orléans and Tours.


B144 **851.14** Subcutaneous tissue response of mice to calcium hydroxide-based pastes combined with chlorhexidine or to chlorhexidine gel used as intracanal medication. G. Faria, M.S.S. Pereira, L.A.B. Silva, M.C. Kuga, M. Tanomaru-Filho, J.M.G. Tanomaru and M.A. Rossi. UNESP, Brazil and Univ. of São Paulo, Ribeirão Preto.


**852. MECHANISMS OF CELL INJURY/DEATH**

**Poster**

MON, 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

**Presentation time:** 12:30 PM-2:45 PM


B148 **852.2** Distinct roles of mitochondrial- and ER-localized BCl-XL in apoptosis resistance and Ca\(^{2+}\) homeostasis. C.O. Eno, E.F. Ecknenrode, K.E. Olberding, G. Zhao, K. White and C. Li. Univ. of Louisville and Rosalind Franklin Univ.

B149 **852.3** Protective effects of amino acids on the ischemic myocardium via mTOR/S6 kinase pathway. Y.M. Tsutsumi, K. Tanaka, A. Kasai, N. Kadota and S. Oshita. Univ. of Tokushima, Japan.

B150 **852.4** Multiple cell-death mechanisms are triggered in hepatotoxicity induced by acrolein, an environmental pollutant and lipid peroxidation product. M. Mohammad, D. Avila, J. Zhang, J. Jokinen, G. Arteel, C. McClain, S. Barve and S. Joshi-Barve. Univ. of Louisville and Louisville VA Med. Ctr.


B156 **852.10** Epigenetic alterations caused by decreased cellular methylation potential induce Fas-FasL-mediated apoptotic death in leukemic T lymphocytes. M. Patil, S. Ghare, L. Gobejishvili, S. Joshi-Barve, C. McClain and S. Barve. Univ. of Louisville.


B159 **852.13** Combination photodynamic therapy + sphingolipid analog LCL85 leads to autophagy, defective apoptosis and long-term sensitization. D. Separovic, N. Joseph, P. Breen, Z.H. Saad and A. Bielawska. Wayne State Univ. and Med. Univ. of South Carolina.

B160 **852.14** Regulation of glycogen phosphorylase by the main-lafarin complex. V.V. Dukhade, T.M. Bridges and M.S. Gentry. Univ. of Kentucky Col. of Med.
D4


D5

Endothelium-dependent modulation of cerebral artery myogenic tone by cytoplasmic acid. R. Tam, P.M. Kerr, K. Ondrusova and F. Plane. Univ. of Alberta and Grant MacEwan Univ., Canada.

D6

Downregulation of the α2-isoform of the Na,K-pump inhibits EDHF-like responses in rat mesenteric small arteries. C. Aalkjaer, N.M. Nielsen and V. Matchkov. Aarhus Univ., Denmark.

D7

The functional role of bestrophins and TMEM16A in rat mesenteric small arteries. C. Aalkjaer, V.S. Nielsen and V. Matchkov. Aarhus Univ., Denmark.

D8


D9

Interaction between eNOS translocation and phosphorylation in flow-induced NO production. M.P. Boric, X. Figueroa, D.R. Gonzalez and W.N. Duran. Pontifical Catholic Univ. of Chile, Univ. of Talca, Chile and UMDNJ-New Jersey Med. Sch.

D10

NO-dependent vasodilation is coupled to coordinated activation of connexin- and pannexin-based hemichannels in endothelial cells. M. Lillo, P. Gaete, J. Saez and X. Figueroa. Pontifical Catholic Univ. of Chile.

D11

Key role of pannexin-based hemichannels in flow-induced nitric oxide production in resistance arteries. F.R. Perez, P. Gaete, M. Boric and X. Figueroa. Pontifical Catholic Univ. of Chile.

D12

CGRP released from perivascular sensory nerves downregulates NO signaling through activation of pannexin-based hemichannels in mesenteric resistance arteries. P. Gaete, M. Lillo, F. Perez and X. Figueroa. Pontifical Catholic Univ. of Chile.

D13


D14


D15


D16

Role of SIRT1 in resistance exercise-induced changes in vascular function. L.R. Servidio, S.A. Roberts, M.L. Laycock and M.B. Harris. The Col. of William and Mary.

D17

Effects of exercise training duration on SIRT1 and eNOS expression in rat aortas. R.M. Hoffman, M. Olesiak and M.B. Harris. The Col. of William & Mary.

D18


D19


D20

Adenosine does not vasodilate skeletal muscle arterioles via secondary nitric oxide or prostaglandin production. C.L. Murrant, F. Muckle and K. Inch. Univ. of Guelph, Canada.

D21


D22


D23


D24


D25


854. TISSUE-MICROVESSEL INTERACTIONS/EXTRACELLULAR MATRIX

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D32 I 854.1 Capillaries are embedded in the sarcolemma of murine slow twitch skeletal muscle fibers. B. Glancy, L-Y. Hsu, L. Dao, M. Bakalar, S. French, D.J. Chess, J.L. Taylor, M.P. Daniels, S. Esfahani and R.S. Balaban. NHLBI/NIH.


855. PERMEABILITY/FLUID AND SOLUTE EXCHANGE/GLYCOCALYX

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D34 I 855.1 Increased circulating microparticles in diabetic rats mediate leukocyte adhesion in intact venules. C. Stork and P. He. West Virginia Univ.

D35 II 855.2 Increased nitric oxide is necessary but not sufficient to increase permeability in the absence of calcium influx in intact rat venules. M. Wang, D. Yuan and P. He. West Virginia Univ. and Tasylo Micrirc. Res. Ctr., Beijing.


D38 I 855.5 Sphingosine-1-phosphate from erythrocytes modulates water and macromolecule permeability in rat microvessels. F-R.E. Curry, J.F. Clark and R.H. Adamson. Univ. of California, Davis.


D41 II 855.8 Rhod-dependent upregulation of endothelial contractility and adhesion disassembly contributes to the enhanced permeability responses to inflammation in diabetic venules. D. Yuan and P. He. West Virginia Univ.


D43 II 855.10 Perivascular resident macrophages in the inner ear are essential for blood-labyrinth-barrier integrity. X. Shi. Oregon Hlth. & Sci. Univ.

856. PERICYTES AND STEM CELLS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:52 PM (I); 1:52 PM-3:00 PM (II)


D47 II 856.4 Mesenchymal stem cells isolated from bone marrow and compact bone express both VEGF and PLGF. R.R. Varshney and P.G. Lloyd. Oklahoma State Univ.

D48 I 856.5 GATA-4 gene transfer increases mesenchymal stem cell-mediated myocardial salvage through miRNA regulation and bioactive molecules migration between cells. M. Xu, B. Yu, Z. Pasha and Y. Wang. Univ. of Cincinnati.

D50  I  856.7 Pericytes: not only an anatomical "internet" coordinating coronary vessels, but also key functional players? S. Nees, D.R. Weiss and G. Juchem. Univ. of Munich and FA-Univ. of Erlangen-Nuremberg.

857. MICROVASCULAR PHARMACOLOGY/ THERAPEUTICS
   Poster
   MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
   HALLS A-D
   Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D52  II  857.2 Hypothermia protects against myocardial microvascular damage (no-reflow) even when initiated after coronary artery reperfusion. S.L. Hale and R.A. Kloner. Good Samaritan Hosp. and Keck Sch. of Med., Univ. of Southern California.

D53  I  857.3 SKA-31, an enhancer of SKCa and IKCa channels, increases coronary flow in normotensive rats. R.C. Mishra, D. Belke, H. Wulff and A.P. Braun. Univ. of Calgary, Canada and Univ. of California, Davis.

D54  II  857.4 Quercetin glucuronide preserves cardiac function in porcine hearts during perfusion with human whole blood by inhibiting platelet/neutrophil activation and preserving venular barrier function. G. Juchem, A. Bauer, J. Postrach, B. Reichart and S. Nees. Univ. of Munich.


858. MICROVASCULAR PATHOPHYSIOLOGY/TUMOR MICROCRYOCIRCULATION
   Poster
   MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
   HALLS A-D
   Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D57  II  858.2 Loss of flow mediated dilation accompanies endothelial dysfunction in the preconditioned state. M.D. Frame and A.M. Dewar. Stony Brook Univ.

D58  I  858.3 NO and O2^- interactions as a function of ratio of NO and O2^- production in the microcirculation. S. Kar and M. Kavdia. Wayne State Univ.


859. MICROVASCULAR MECHANICS/ HEMODYNAMICS/RHEOLOGY
   Poster
   MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT
   HALLS A-D
   Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D62  I  859.3 Effect of systemic hemotocrit on blood velocity profiles in arterioles. O. Yalcin, C.-Y. Lee, S. Ranu, M. Jivani, P. Johnson and P. Cabrales. UCSD.

D63  II  859.4 Shear stress generated by different fluid compositions induces differential endothelial signaling in intact venules. S. Xu, D. Yuan and P. He. West Virginia Univ.

D64  I  859.5 Electroacupuncture increases cerebral blood flow in a clinically relevant model of ischemic stroke. H. Lei, G. Davis-Gorman, P. McDonagh and L. Ritter. Univ. of Arizona.

D65  II  859.6 Vasoactive agents result in coordinated changes in vascular smooth muscle cell elasticity and extracellular matrix adhesion. Z. Hong, Z. Sun, Z. Li and G.A. Meiningler. Univ. of Missouri-Columbia.


D69  II  859.10 Simvastatin and GGTI-2133, a gernaylgeranyl transferase inhibitor, increase erythrocyte deformability, but inhibit low oxygen tension-induced ATP release. K.M. Clapp, M.L. Ellsworth, R.S. Sprague and A.H. Stephenson. Saint Louis Univ.


D75  II  859.16 The risks of chronic internal diseases among the workers of uranium-processed enterprise in Kazakhstan. F. Bekenenova and A. Abdudaevya. Med. Univ. of Astana, Kazakhstan.


860. MICROVASCULAR FLOW REGULATION/ OXYGEN DELIVERY/NETWORKS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D78  I  860.1 Real-time contrast-enhanced ultrasound for the determination of flowmotions within skeletal muscle. S. Rattigan, E.M. Bradley, S.M. Richards and M.A. Keske. Univ. of Tasmania, Australia.

D79  II  860.2 Measurement of contraction-induced blood flow in mouse gastrocnemius muscle by optical imaging of fluorescent microspheres. A. Freire Valls, A. Sulaeman, P.D. Wagner and E.C. Breen. Pompeu Fabra Univ., Spain and UCSD.

D80  I  860.3 Oxygen dependence of respiratory rate (VO2) in rat spinoaponeurosis muscle in situ measured with phosphorescence quenching microscopy. A.S. Golub and R.N. Pittman. Virginia Commonwealth Univ.


D85  II  860.8 Simulation of metabolic blood flow regulation in heterogeneous microvascular networks: effects of hematocrit variations. B.C. Fry and T.W. Secomb. Univ. of Arizona.


D91  II  860.14 Inter-individual differences in rapid vasodilatation in older males with and without type 2 diabetes. J.M. Kellawan, M.F. Bravo, J.S. Moynes, J.J. Walsh, R.F. Bentley and M.E. Tschakovsky. Sch. of Kinesiol and Hlth. Studies, Queen's Univ., Canada.

D92  I  860.15 Ankle position modifies tibial anterior muscle perfusion and oxygenation in the human leg. R.B. Crater, B. Zhang and A.R. Hargens. UCSD.


D100  I  860.23 Nitric oxide availability is reduced in intravascular cell-free hemoglobin. P. Deonikar and M. Kaydia. Wayne State Univ.

D101  II  860.24 The ratio of C-peptide to insulin is critical for low oxygen tension-induced ATP release from human erythrocytes. J. Richards, A.H. Stephenson, M.L. Ellsworth and R.S. Sprague. Saint Louis Univ.
861. MICROVASCULAR DEVELOPMENT AND AGING

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D102 I 860.25 Effects of photoperiod, light intensity, and their interaction on blood physiological variables of modern broilers grown to heavy weights. H.A. Olanrewaju, J.L. Purswell, S.D. Collier and S.L. Branton. USDA, Starkville, MS.

D103 I 861.1 Exercise training ameliorates age-related diastolic dysfunction; the role of coronary microvascular function. B. Chen, V.S. Ravikumar and J.M. Muller-Delp. Univ. of Florida.

D104 II 861.2 Aging impairs electrical conduction along resistance artery endothelium via enhanced signal dissipation through $K_{Ca}$ channels. E. Behringer and S. Segal. Univ. of Missouri-Columbia.


D111 I 862.3 Increased formation of functional caveolae due to increased content of fibrinogen. N. Muradashvili, S.J. Khundmiri, R.L. Benton and D. Lominadze. Univ. of Louisville.

D112 II 862.4 Matrix metalloproteinase-9 in homocysteine-induced intestinal microvascular endothelial paracellular and transcellular permeability. C. Munjal, N. Tyagi, D. Lominadze and S.C. Tyagi. Univ. of Louisville.

D113 I 862.5 Hypoxia/reoxygenation stress increases organic anion transporting polypeptide 1a4-mediated transcellular transport at the blood-brain barrier: relevance to CNS drug delivery. P.T. Ronaldson, L.M. Slosky and L. Sanchez-Covarrubias. Univ. of Arizona.


D115 I 862.7 Infection of human pericytes by HIV-1 disrupts the integrity of the blood-brain barrier. M. Toborek and S. Nakagawa. Univ. of Miami Miller Sch. of Med. and Univ. of Kentucky Med. Ctr.


862. MICROVASCULAR PERMEABILITY: PARACELLULAR VERSUS TRANSCELLULAR TRANSPORT

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D109 I 862.1 Co-regulation of transcellular and paracellular leak across microvascular endothelium by dynamin and Rac. W.L. Lee, S. Armstrong, V. Khajoe, C. Wang, T. Wang, J. Tigidi, J. Yin, W.M. Kuebler, M. Gillirie, S. Davis and M. Ho. Univ. of Toronto and Univ. of Calgary, Canada.

D110 II 862.2 Sphingolipids signal rapid loss of P-glycoprotein transport activity at the blood-brain barrier. D.S. Miller, C.R. Campos, B.T. Hawkins and R. Cannon. NIEHS/NIH, Research Triangle Park and Univ. of Washington Sch. of Med.

D111 I 862.3 Increased formation of functional caveolae due to increased content of fibrinogen. N. Muradashvili, S.J. Khundmiri, R.L. Benton and D. Lominadze. Univ. of Louisville.

D112 II 862.4 Matrix metalloproteinase-9 in homocysteine-induced intestinal microvascular endothelial paracellular and transcellular permeability. C. Munjal, N. Tyagi, D. Lominadze and S.C. Tyagi. Univ. of Louisville.

D113 I 862.5 Hypoxia/reoxygenation stress increases organic anion transporting polypeptide 1a4-mediated transcellular transport at the blood-brain barrier: relevance to CNS drug delivery. P.T. Ronaldson, L.M. Slosky and L. Sanchez-Covarrubias. Univ. of Arizona.


D115 I 862.7 Infection of human pericytes by HIV-1 disrupts the integrity of the blood-brain barrier. M. Toborek and S. Nakagawa. Univ. of Miami Miller Sch. of Med. and Univ. of Kentucky Med. Ctr.


863. WIGGERS AWARD FEATURED TOPIC:
CALCIUM HOMEOSTASIS AND ENDOPLASMIC RETICULUM STRESS IN VASCULAR FUNCTION (POSTERS)

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D124 II 863.4 Activation of the ERα and ERβ pathway downregulates voltage-gated Ca2+ channels in coronary arteries. W.R. Gray, R.J. Dalton, G. Sketas and B.J.F. Hill. Univ. of Central Arkansas.

D125 I 863.5 Placenta growth factor is regulated by hydrogen peroxide at the post-transcriptional, but not the transcriptional, level in vascular smooth muscle. J.H. Shaw and P.G. Lloyd. Oklahoma State Univ.


D130 II 863.10 T-type Ca2+channels and the induction of CICR in vascular smooth muscle. K. Bigdely-Shamloo, E.J. Vigmond and D.G. Wheel. Univ. of Calgary, Canada.


864. CARDIAC FUNCTION AND DYNAMICS I

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D133 II 864.2 Understimulation of murine cardiac hemodynamics using invasive catheters. C. Constantinides, S. Angeli, F. Kossivas and P. Ktorides. Univ. of Cyprus.

D134 I 864.3 Infrared contrast imaging, a new visualization technology for vascular, metabolic and physiological monitoring. R.Y. Sostek. Harvard Apparatus, Holliston, MA.


D139 II 864.8 Nitric oxide synthase inhibition weakens beneficial effects of increased plasma viscosity on cardiac function in hemodilution model. S. Chatpun, P. Cabrales, A. Tsai and M. Intaglietta. Prince of Songkla Univ., Thailand and UCSD.


865.  PERIPHERAL CIRCULATION

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D156  II  865.6  Flow mediated dilation variation based on normotensive rat strain. J. Heimlich and D.M. Pollock. Georgia Hlth. Sci. Univ.


D159  I  865.9  Polymine supplementation enhances autophagy and reverses age-related arterial stiffening. T.J. LaRocca, R.A. Gioscia-Ryan, B.S. Feenor and D.R. Seals. Univ. of Colorado Boulder.


D163  I  865.13  Endothelium-dependent dilation is inversely related to hematocrit among healthy young and older adults. G.L. Pierce, A.J. Donato, T.J. LaRocca, K.L. Jablonski and D.R. Seals. Univ. of Colorado Boulder, Univ. of Iowa and Univ. of Utah.

D164  II  865.14  Estimating peripheral blood pressure from central blood pressure by a transfer function method. W.C. Rose, K.A. Schell, A. DiSalutino and M.E. Stillabower. Univ. of Delaware and Christiana Care Hlth. Syst., Newark, DE.


D166  II  865.16  Acute effects of intermittent pneumatic compression-induced hemodynamics on vascular function in humans. R.D. Sheldon, B.T. Roseguini, M.H. Laughlin and S.C. Newcomer. Purdue Univ. and Univ. of Missouri-Columbia.

D167  I  865.17  Sodium nitrite treatment restores vascular endothelial function in old mice with CKD. A.L. Sindler, M.C. Zigler, M. Yoshizawa, C. Baylis and D.R. Seals. Univ. of Colorado Boulder and Univ. of Florida.

866.  VASCULAR PATHOBIOLOGY

Poster

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D168  I  866.1  Influence of cellular magnesium concentration on fibroblast phenotype differentiation. C.M. Battis, T. Kombi, G. Dubyak and A. Romani. Case Western Reserve Univ. Sch. of Med. and Cedarville Univ., OH.


D173 II 866.6 Obesity impairs alpha 1 adrenergic receptor mediated contraction in carotid arteries. A.M. Dorrance and J.L. McClain. Michigan State Univ.


D176 I 866.9 Time course of doxorubicin accumulation and dysfunction in the rat aorta. N.M. Gibson, D.S. Hydock and R. Hayward. Univ. of Northern Colorado.


867. RENAL ION TRANSPORT, TRAFFICKING AND REGULATION

**Poster**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D193 II 867.4 K\(^+\) homeostasis is maintained with knockdown of big-conductance K\(^+\) channel in principal cells of connecting tubule/collecting duct. T. Rieg, R. Lukowski, J.A. Dominguez, M. Sharik, P. Ruth and V. Vallon. UCSD, VA San Diego Healthcare Syst., Univ. of Tübingen and Univ. of Colorado Anschutz Med. Campus.


D195 II 867.6 The trans-tubular K gradients reveal long-term adaptation in mice to Na-deficient, high K diets. K.M. Echtenkamp, L.I. Hatcher, R.J. Cornelius and S.C. Sansom. Univ. of Nebraska Med. Ctr. and Univ. of Nebraska at Omaha.


D200 I 867.11 ENaC is active in the ASDN in the absence of mineralocorticoid. E. Mironova, V. Bugaj and J. Stockand. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.


D204 I 867.15 Calmodulin and CaM kinase II govern MARCKS-mediated PIP2-dependent regulation of ENaC. A.A. Alli, H.F. Bao, A.A. Alli, S. Aldrugh, Y. Zhou, L. Yu and D.C. Eaton. Emory Univ.

D205 II 867.16 Identification of critical residues within the extracellular loop of the epithelial sodium channel. S.R. Swann, T. Whisenant and R.E. Booth. Texas State Univ.-San Marcos.

D206 I 867.17 ENaC activity is increased by collecting duct-specific endothelin B receptor knockout. V. Bugaj, E. Mironova, D. Kohan and J.D. Stockand. Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of Utah.


D211 II 867.22 Renal proximal tubule ion transporters are discrepantly regulated by parathyroid hormone in acute versus chronic hyperparathyroidism. R. Murray, N. Lesousky, S.J. Khundmiri and E.D. Lederer. Univ. of Louisville and Robley Rex VA Med. Ctr.


D228 I 867.39 EAST/SeSAME syndrome mutations partially disrupt trafficking of homomeric Kir4.1 channels and produce non-functional heteromeric Kir2.3/Kir4.1 channels. B. Ortega, D. Li, B-Y. Kim, J.B. Wade and P.A. Welling. Univ. of Maryland Sch. of Med.


868. RENAL PATHOLOGY, TOXICOLOGY AND CYSTIC DISEASES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D233 I 868.3 Role of calcineurin in polycystin protein trafficking to the primary ciliun in LLCPK cells. A.L. Gilder, H.C. Chaplin and M.J. Caplan. Yale Univ. and Univ. of Washington.


D247 I 868.17 Endothelin ETα receptor blockade does not attenuate the rise in early markers of acute kidney injury following bilateral renal ischemia. E.I. Boesen and K.E. Zoll. Georgia Hlth. Sci. Univ. and Univ. of Evansville, IN.


D250 II 868.20 Involvement of TNF-α receptor type 2, but not the type 1, in angiotensin II-induced renal tissue injury in mice. P. Singh, L. Bahrami, A. Castillo and D.S.A. Majid. Tulane Univ. Sch. of Med.
869. DIABETES AND INSULIN RESISTANCE II

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D254 II 869.4 Fasting hyperglycemia blunts the regression of impaired glucose tolerance in older adults after lifestyle modification. S.K. Malin and J.P. Kirwan. Cleveland Cln.


D262 II 869.12 A carbohydrate restricted-high fat diet reduces blood pressure in spontaneously hypertensive rats without causing insulin resistance. T. Jalili, J. Bosse, V. Dolinsky, Q-J. Zhang, E.D. Abel and J.D. Symons. Univ. of Utah and Univ. of Manitoba.


D265 I 869.15 Activation of malonyl-CoA/fatty acid synthase axis is an early event in the effects of insulin in human skeletal muscle myotubes: implication for obesity linked insulin resistance. V. Ritov, A. Chacon, E. Menchikova, J. DeLany and J. Dube. Univ. of Pittsburgh.


D267 I 869.17 Impaired fasting glucose and enhanced endothelin-1 vasoconstrictor tone. J. Ma, K. Diehl, D. Templeton, J. Greiner, B. Stauffer and C. DeSouza. Univ. of Colorado Boulder.


D273 I 869.23 Duration of fast alters fasting glucose levels, response to oral glucose load, and weight in the mouse. P. Schork and K.M.S. Johnson. Beloit Col., WI.


870. VASCULAR SMOOTH MUSCLE

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D279 I 870.5 Interplay between gap junctions and K2P-channels: the switch from PDBut-elicted contractation to the dilation of the thoracic aorta. R. Bychkov, L. Cubano, S. Hayoz and H. Maldonado. Univ. Central del Caribe, PR.


D281 I 870.7 In vitro tolerance after incubation with nitroglycerin is due to increased reactive oxigen species in the endothelial cells. V.B. de Resende Dias, B.R. Silva, L. Pernomian and L.M. Bendhack. Univ. of São Paulo.


D283 I 870.9 TLR-9 activation potentiates the role of ERK1/2 in thrombokane A_2-induced contractions in uterine but not in resistance arteries. S. Goulopoulou, T. Matsumoto and R.C. Webb. Georgia Hlth. Sci. Univ. and Hoshi Univ., Japan.


D285 I 870.11 Integrin-dependent and -independent potentiation of BKCa channel current by cell stretch. P. Gui, A.P. Braun and M.J. Davis. Univ. of Missouri-Columbia and Univ. of Calgary, Canada.

D286 II 870.12 Protein kinase A-mediated inhibition of T-type Ca^{2+} channels in the cerebral circulation. O.F. Harraz and D.G. Welsh. Univ. of Calgary.


D291 I 870.17 Role of L-type voltage dependent calcium and large conductance potassium channels in adenosine A_1 receptor mediated vasoconstriction through Cyp4a. S.S. Kunduri, M.A. Nayem, D.S. Poonoth, S. Tilley and S.J. Mustafa. West Virginia Univ. and Univ. of North Carolina at Chapel Hill.

D292 II 870.18 Enhancement of the large conductance, Ca^{2+}-activated K^- (BK) channel current by cGMP-dependent protein kinase requires multiple phosphorylation sites on the C-terminal tail. B.D. Kyle, S. Hurst and A.P. Braun. Univ. of Calgary, Canada.

D293 I 870.19 Probenecid protects vascular contractile of thoracic aorta in rats under hypotonic condition by blocking pannexin-1. B. Li, X. Kong, X. Guan and Q. Xia. Zhejiang Univ., China.


D296 II 870.22 Comparison of the tolerance on the venous relaxation induced by nitroglycerin and by the new nitrite donor cis-[Ru(bpy)_2(py)(NO_2)](PF_6). M. Palou, R.S. da Silva and L.M. Bendhack. Univ. of São Paulo, Ribeirão Preto.


D300 II 870.26 Phenylephrine stimulates the production of reactive oxygen species in endothelial cells from hypertensive but not in normotensive rat aorta. B.R. Silva, L. Pernomian and L.M. Bendhack. Univ. of São Paulo, Ribeirão Preto.


D304 II 870.30 Hypoxia attenuates the ability of cyclic guanine-dependent protein kinase to increase BK channel activity. R.B. Thorpe, J.M. Williams and W.J. Pearce. Loma Linda Univ.


D308 II 870.34 Pharmacological studies of BK and L-type Ca\(^{2+}\) channel function in mesenteric arteries and veins from obese patients. H. Xu, R.E. Watson, P. Yenumula, R. Fernandes, C.N. Pereira-Hicks, G.D. Fink and J.J. Galligan. Michigan State Univ.

D309 I 870.35 Differences in phosphorylation-mediated K\(^+\) channel regulation between vascular smooth muscle cells from cremenaster and cerebral resistance vessels. Y. Yang, A.P. Braun, M.J. Davis and M.A. Hill. Univ. of Missouri-Columbia and Univ. of Calgary, Canada.


871. LUNG PHYSIOLOGY: VASCULAR REGULATION AND SMOOTH MUSCLE CELL BIOLOGY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


872. HYPERTENSION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D319 II 872.2 Overexpression of Na/Ca exchanger-1 in vascular smooth muscle leads to elevated basal blood pressure and increased responses to angiotensin II. L. Chen, M. Li, W.G. Wier, J. Wang and J. Zhang. Univ. of Maryland Sch. of Med.


D321 II 872.4 Peripheral macrophage depletion impairs phenylephrine mediated contraction in aorta from stroke prone spontaneously hypertensive rats, but does not alter the effect of perivascular fat. A.M. Dorrance, P.W. Pires, J.L. McClain and S.W. Watts. Michigan State Univ.

D322 I 872.5 The differential contribution of splanchnic and renal nerves to the maintenance of Dahl salt-sensitive hypertension. J.D. Foss, J.W. Osborn and G. Fink. Univ. of Minnesota, Minneapolis and Michigan State Univ.

D323 II 872.6 Effect of differentially selective S1P receptor agonists on cardiovascular function after acute and long-term administration in rat suggestive of subtype-specific bradycardia (S1P\(_1\)) and hypertension (S1P\(_3\)). R.M. Fryer, A. Muthukumarana, P.C. Harrison, S.G. Nodop Mazurek and G.A. Reinhart. Boehringer-Ingelheim Pharmaceuts. Inc., Ridgefield, CT.

D324 I 872.7 Morphological characterization of intrinsic cardiac nervous system in left ventricular hypertrophy. M. Gomez, A. Reynoso, R. Giles and G. Flores. Autonomous Univ. of Puebla, Mexico.


D327 II 872.10 Atherogenic index of plasma: a significant indicator for the onset of atherosclerosis during menopause in hypertensive females of Southeast Nigeria. J.C. Igweh. Delta State Univ., Nigeria.
D328 I 872.11 Progression of microalbuminuria in SHR is associated with diminished expression of proteins that belong to the receptor-mediated endocytosis macromolecular complex. B.H. Inoue, M.O. Machado and A.C. Girardi. Univ. of São Paulo.


D330 I 872.13 A small molecule inhibitor of signal transducer and activator of transcription 3 protects against angiotensin II-induced vascular dysfunction and hypertension. A.W. Johnson and F.M. Faraci. Univ. of Iowa.


D335 II 872.18 Proteasome inhibition attenuates angiotensin II-induced hypertension and vascular remodeling. S. Li, X. Wang and D. Martin. Univ. of South Dakota.


D353 II 872.36 PPAR-α regulates NOX2 and SOD expression in the heart during angiotensin II hypertension. J.L. Wilson, K. Sankavaram, R. Duan, J.S. Allard and D.L. Lee.
873. LUNG PHYSIOLOGY: PULMONARY HYPERTENSION
Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D358 I 873.3 Use of protein chaperones to correct BMP receptor processing errors in hereditary pulmonary arterial hypertension. A. Frump and M. de Caestecker. Vanderbilt Univ.


D364 I 873.9 Glucose-6-phosphate dehydrogenase regulates pulmonary artery smooth muscle cell phenotype. S. Chettimada, R. Gupte and S. Gupte. Univ. of South Alabama.


D370 I 873.15 Role of mitochondrial reactive oxygen species and actin polymerization in PKC-dependent constriction of small pulmonary but not mesenteric arteries. J.B. Snow, M.A. Sands, L.V. Gonzalez Bosc, B.R. Walker and T.C. Resta. Univ. of New Mexico.


D372 I 873.17 Hsp90 inhibition prevents monocrotaline-induced pulmonary hypertension in rats, as revealed by high resolution echocardiography. C. Dimitropoulou, L. Meadows, Y. Su, S. Litwin and J.D. Catravas. Med. Col. of Georgia.


D378 I 873.23 Model of pulmonary hypertension induced by reversible pressure-overloaded left heart failure in rats. M. Chovanec and J. Herget. 2nd Med. Sch., Charles
874. GENETICS, GENOMICS, EPIGENETICS AND HYPERTENSION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D382 I 874.3 Long-term interactions between the ACE/Ang II/AT1a receptor axis and the ACE2/Ang(1-7)/Mas receptor axis in wild-type C57BL/6J and AT1a receptor-knockout mice. B.N. Ellis, X.C. Li, E. Miguel-Qin and J.L. Zhuo. Univ. of Mississippi Med. Ctr.


D389 II 874.10 AT1a receptor-mediated blood pressure and renal effects of long-term infusion of a low dose of angiotensin II in C57BL/6J and AT1a receptor-knockout mice. E. Miguel-Qin, X.C. Li, B. Ellis and J.L. Zhuo. Univ. of Mississippi Med. Ctr.


D395 II 874.16 Identification of Rtel1, Edn3, and Dnajc5 as candidate genes for rat chromosome 3 blood pressure quantitative trait loci by gene expression profiling under multiple salt-loading conditions. G.T. Cicila, A. McSweeney, K.M. Pettee, S. Yang, S.A. Khuder and S.J. Lee. Univ. of Toledo Col. of Med. and Life Sci.


876. CARDIOVASCULAR AND RENAL MECHANISMS IN OBESITY AND DIABETES

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D421 I 876.9 Combined effect of advanced glycation end products and physiologically relevant dynamic shear stress on endothelial cell functions. Z. Maria, W. Yin and D.A. Rubenstein. Oklahoma State Univ.

D422 II 876.10 High fat diet increases adipose tissue mass, but does not lead tissue mass in age-relevant postmenopausal mice in association with induction of VEGF expression and angiogenesis in adipose tissue. J-W. Gu, K.L. Makey, M.A. Shareet, E. Chinchar, I. Pei and L. Miele. Univ. of Mississippi Med. Ctr.


D425 I 876.13 Melanocortin 4 receptors in the paraventricular nucleus of the hypothalamus do not mediate chronic metabolic or cardiovascular effects of leptin after established obesity in mice. S.M. Hamza, J.H. Dubinon, A. Adi and J.E. Hall. Univ. of Mississippi Med. Ctr.

877. OBESITY AND SATIETY

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D426 I 877.1 Post-exercise appetite was affected by fructose content but not glycemic index of pre-exercise meals. F. Sun, S.H. Wong, W.Y. Huang and Y. Chen. The Chinese Univ. of Hong Kong.


D429 II 877.4 Effects of the cacao flavanol (-)-epicatechin on a rat model of metabolic syndrome. G. Ceballos, G. Chamorro, P. Ortiz, G. Gutierrez and F. Villarreal. Grad. Sch. of Med.-IPN, Mexico City and UCSD.


D439 II 877.14 Body weight and body fat gain due to ovarian hormone loss is attenuated by inhibiting angiotensin converting enzyme or angiotensin type 1 receptors in Dahl sensitive female rats. H. Ji, W. Zheng, B. Bajaj, X. Wu, J. Liu and K. Sandberg. Georgetown Univ.

878. NOVEL REGULATORY MECHANISMS IN BLOOD PRESSURE CONTROL

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D444 I 878.5 Female spontaneously hypertensive rats have greater increases in NOS in mesenteric arteries than males. M.A. Zimmerman, G.R. Crislip and J.C. Sullivan. Georgia Hlth. Sci. Univ.


879. REGULATION OF BLOOD PRESSURE AND RENAL FUNCTION: IMMUNE CELLS AND INFLAMMATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

880. SEX DIFFERENCES IN BLOOD PRESSURE AND FLUID VOLUME HOMEOSTASIS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D454 I 880.1 Female spontaneously hypertensive rats have higher expression of TGF-β and Smad signaling in mesenteric arteries following the development of hypertension. A.J. Tipton and J.C. Sullivan. Georgia Hlth. Sci. Univ. and Univ. of Mississippi Med. Ctr.


D458 I 880.5 Effect of castration on cardiac index in the spontaneously hypertensive rat. D. Martin, B. Kjelisen and T. Messenger. Univ. of South Dakota.

881. CELL VOLUME, OSMOREGULATION AND WATER TRANSPORT

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D460 II 881.2 Na+-dependent transport of taurine is found only on the abluminal membrane of the blood-brain barrier. H. Rasgado-Flores, A. Mokashi and R. Hawkins. Rosalind Franklin Univ.


D463 I 881.5 Osmosensitive gene expression in C. elegans is regulated by conserved signaling mechanisms that control protein translation initiation. E. Lee and K. Strange. Mount Desert Island Biol. Lab., ME.


D465 I 881.7 Evidence for a Na/K pump in nematocytes isolated from sea anemones. R. Morabito, A. Marino, G. La Spada, N.C. Adragna and P.K. Lauf. Univ. of Messina and Wright State Univ.

D466 II 881.8 Sea water acidification alters cell volume regulation and discharge in jellyfish. A. Marino, R. Morabito, G. La Spada, P.K. Lauf and N.C. Adragna. Univ. of Messina and Wright State Univ.

D467 I 881.9 Regulation of myo-inositol in tilapia (Oreochromis mossambicus) brain during hyperosmotic stress. A.M. Gardell, R. Sacchi and D. Kültz. Univ. of California, Davis.

D468 II 881.10 Hyperosmotic stress induces the myo-inositol pathway by several orders of magnitude in tilapia (Oreochromis mossambicus) gill epithelium. R. Sacchi, A.M. Gardell and D. Kültz. Univ. of California, Davis.

D469 I 881.11 Expression and functions of inositol monophosphatase in seawater adapted euryhaline teleosts such as the european eel (Anguilla anguilla) and tilapia (Oreochromis mossambicus). S. Kalujnaia, S. Gellatly and G. Cramb. Sch. of Med., Univ. of St. Andrews, U.K.


D471 I 881.13 PTG (protein targeting to glycogen) regulates the osmoprotective transcription factor NFAT5 via SHP-1 phosphatase. X. Zhou, M.B. Burg and J.D. Ferraris. Uniformed Svcs. Univ. of Hlth. Sci. and NHLBI/NIH.
882. INTRACELLULAR PH AND ACID/BASE TRANSPORT

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

883. ATPASE-DRIVEN ION PUMPS

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

884. ION CHANNELS (POSTERS)

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)
885. REGULATION OF EPITHELIAL TRANSPORT PROTEINS, ION AND WATER CHANNELS, AND MODULATORY FACTORS I

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D497 I 885.1 Normalization of CFTR brush border membrane trafficking defects in the intestines of myosin 1a/6 double mutant mice. N.E. Hoekstra, M. Mark and N. Ameen. Yale Univ.


D499 I 885.4 Enhancement of cellular Na⁺K⁺ATPase activity in the mouse renal tissue in vitro with low concentration of peroxynitrite. A.K.M. Shamsuddin and P.M. Quinton. UCSD and Univ. of California, Riverside.


D503 I 885.7 DIDS causes Src-dependent inhibition of Na⁺K⁺-ATPase in the ciliary epithelium and slows aqueous humor secretion by the intact porcine eye. N.A. Delamere, A. Mandal and M. Shahidullah. Univ. of Arizona.

D504 II 885.8 Activation of AT2 receptors reduces renal AT1 receptor function and enhances ACE2 activity in obese Zucker rats. G. Ali and T. Hussain. Sch. of Pharm., Auburn Univ.


D508 II 885.12 Role of PKC, in hypertonicity-stimulated urea permeability. Y. Wang, J.D. Klein, O. Froehlich and J.M. Sands. Emory Univ.


886. SCHOLANDER AWARD

Poster

Mon. 7:30 AM—San Diego Convention Center, Exhibit Halls A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D522 I 886.1 Selective breeding of mice for high voluntary exercise alters adaptive plasticity of metabolic phenotypes in skeletal muscle. T.H. Meek, L.I. Smith, J.C. Eisenmann, J.Y.-J. Shyy and T. Garland, Jr. Univ. of Washington, Univ. of California, Riverside and Helen DeVos Children’s Hosp., Grand Rapids, MI.


D525 II 886.4 Cardiovascular plasticity during hypoxic development in snapping turtle and alligator embryos. J. Eme, K.B. Tate, C.E. Slay, Z.F. Kohl, J.W. Hicks and D.A. Crossley II. Univ. of North Texas and Univ. of California, Irvine.

D526 I 886.5 Molecular mechanisms regulating cardiac contractility: subfunctionalization of fish-specific paralogs of troponin C in Danio rerio. C.E. Genge and G.F. Tibbits. Simon Fraser Univ., Canada.


D528 I 886.7 In vitro effects of acute exposure to hyperglycemic conditions on endothelium-dependent vasodilation in mourning doves (Zenaida macroura). C.L. Jarrett and K.L. Sweazea. Sch. of Nutr. and Hlth. Promotion, Arizona State Univ.


D531 II 886.10 Decreased expression of adipose fatty acid transporters CD36 and FATP1 contributes to increased plasma free fatty acids during prolonged fasting in northern elephant seal pups. J.A. Viscarra, R. Rodriguez, J.P. Vazquez-Medina, C.D. Champagne, S.H. Adams, D.E. Crocker and R.M. Ortiz. Univ. of California Merced, Univ. of California, Santa Cruz, Univ. of California, Davis and Sonoma State Univ., CA.

D532 I 886.11 Hydration state of bats may explain frequency of arousals from torpor. M. Ben-Hamo, A. Muñoz-Garcia, C. Korine and B. Pinshow. Ben-Gurion Univ. of Negev, Israel.


D534 I 886.13 Competing energy demands in the hawkmoth Manduca sexta. H.L. Contreras and G. Davidowitz. Univ. of Arizona.


D543 II 886.22 Anaerobic energy stores in emperor penguin muscle: implications for muscle metabolism and dive performance. C.L. Williams, K. Sato, K. Shiomi and P.J. Ponganis. Univ. of California, Irvine, UCSD and Univ. of Tokyo.


D545 II 886.24 The effect of prolonged hypoxic exposure on chemoreceptor morphology of bowfin (Amia calva) with and without access to air. C.S. Porteus, P.A. Wright and W.K. Milsom. Univ. of British Columbia and Univ. of Guelph, Canada.


D547 II 886.26 Examination of avian renal tissue for the presence of sodium-glucose co-transporters. J.M. Isaacs and E.J. Braun. Univ. of Arizona.

D548 I 886.27 Quantification and analysis of advanced glycation end products in avian plasma. M. Gu, D. Ferguson and E.J. Braun. Univ. of Arizona.
D549  II  886.28  Neural responses to looming objects in the dragonfly. E. Gaffin-Cahn and R. Olberg. Union Col., NY.


**887. MITOCHONDRIAL BIOENERGETICS IN COMPARATIVE AND INTEGRATIVE PHYSIOLOGY**

*Poster*

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D553  I  887.2  Evolution of hypoxia-responsive cytochrome c oxidase genes. C. Moyes, K. Kocha and J. Pearlestein. Queen’s Univ., Canada.

D554  I  887.3  Beating anoxia: mitochondrial plasticity in the turtle heart. G.L.J. Galli and J. Richards. Univ. of Manchester and Univ. of British Columbia.

D555  I  887.4  The multifaceted metabolism of reactive oxygen species by mitochondria. J. Treberg. Univ. of Manitoba.


D557  II  887.6  Reversible suppression of mitochondrial respiration in skeletal muscle of the freeze tolerant wood frog Rana sylvatica. C. Hughey, J. Shearer, K.B. Storey and D.S. Hittel. Univ. of Calgary and Carleton Univ., Canada.


D559  II  887.8  Antioxidant enhanced spare capacity in cardiomyocytes as a protective response to oxidative stress induced by hypoxia and redox cycling agent. R. Legmann, J. Mello and D. Ferrick. Seahorse Bioscience, Billerica, MA.

D560  I  887.9  Miner1, mutated in Wolfram syndrome, is an endoplasmic reticulum protein that regulates cellular redox status and Ca2+ homeostasis. S.E. Wiley, A. Andreyev, G. Perkins, J.E. Dixon and A. Murphy. UCSD.


**888. MITOCHONDRIAL FUNCTIONS**

*Poster*

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

889. NEURAL CONTROL OF VISCERAL AND METABOLIC FUNCTION

**Poster**

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D585 I 889.3 The effects of apelin-13 on cardiovascular function mediated by modulating the excitability of SFO neurons. L. Dai, P.M. Smith and A.V. Ferguson. Queen's Univ., Canada.

D586 II 889.4 Nesfatin-1 alters synaptic activity in neurons in the nucleus of the solitary tract. A. Mimee and A.V. Ferguson. Queen's Univ., Canada.


D590 II 889.8 Orexigenic and obesity effects of estrogen deficiency can be attenuated by half-day food deprivation either during the light phase or the dark phase. S. Taguchi, K. Mabuchi, A. Takano, Y. Hara, K. Morimoto and A. Takamata. Nara Women’s Univ., Japan.

D591 I 889.9 Involvement of orexin A and melanin concentrating hormone neurons of the lateral hypothalamic area in the food intake response to reduced glucose availability. A. Takamata, S. Taguchi, S. Ikeda, E. Aida and K. Morimoto. Nara Women’s Univ., Japan.

D592 II 889.10 LPLRFamide causes anorectic effects associated with the brain stem in rats. R.I. Webster and M.A. Cline. Radford Univ., VA.

D593 I 889.11 Nicotinic acetylcholine receptors in supraoptic nucleus neurons: potential role in regulation of food intake. Z. Song. Univ. of Colorado Sch. of Med.

D594 II 889.12 Neuropeptide Y is associated with changes in appetite-associated nuclei but not food intake in a hypophagic avian model. B.A. Newmyer, P.B. Siegel and M.A. Cline. Radford Univ. and VPI and State Univ.

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889. CENTRAL REGULATION OF FOOD INTAKE AND BODY WEIGHT

**Poster**

**MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D583 I 889.1 Specific oral amino acids induce a protective response. J. Jordi, S. Camargo, C. Boyle-Neuner, T. Lutz and F. Verrey. Univ. of Zurch.

D584 II 889.2 Role of brain melanocortin receptor 5 in physical activity in rats. C. Shukla and C.M. Novak. Kent State Univ.
891. CENTRAL AUTONOMIC REGULATION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D600 II 891.4 Carotid body artery removal prevents training-induced plasticity in preautonomic oxytocinergic neurons of the paraventricular nucleus SHR. J.C. Cruz, M.T. Cavalleri and L.C. Michelini. Univ. of São Paulo.


D603 I 891.7 Metabolic and cardiovascular adjustments to hemorrhage in [TGR(ASrAogen)] rats and (mRen2)27 rats. D.C. de Lima, H.A. Shaltout, C.C. Coimbra and D.I. Diz. Fed. Univ. of Minas Gerais, Brazil and Wake Forest Univ. Sch. of Med.


D605 I 891.9 Colocalization of estrogen receptor β with spinally projecting and vasopressinergic neurons in the hypothalamic paraventricular nucleus during pregnancy. K.M. Coldren, R.J. Brown, D.D. Kline, E.M. Hasser and C.M. Heesch. Univ. of Missouri-Columbia.

D606 II 891.10 Pro-inflammatory action of renin-angiotensin-aldosterone system in hypothalamic astrocytes from spontaneously hypertensive rats. V. Rodriguez and C.M. Heesch. Univ. of Missouri-Columbia.

D607 I 891.11 Leptin acts in the forebrain to increase gain of baroreflex control of lumbar sympathetic nerve activity and heart rate. B. Li, P.A. Cassaglia and V.L. Brooks. Oregon Hlth. & Sci. Univ.


D611 I 891.15 Hypertension and pregnancy are accompanied by differential changes in GABAA and NMDA receptor subunit expression in the hypothalamic paraventricular nucleus. S. Cork, P. Chazot and S. Pyner. Sch. of Biol. and Biomed. Sci., Durham Univ., U.K.


D613 I 891.17 Bardet Biedl syndrome genes are required for autonomic control of the circulation. D.A. Morgan, V.C. Sheffield and K. Rahmouni. Univ. of Iowa and HHMI.


D616 II 891.20 Neuropeptide Y type 1 receptors are expressed in pre-autonomic neurons in the hypothalamic paraventricular nucleus. N.M. Clute-Reinig, P.A. Cassaglia and V.L. Brooks. Oregon Hlth. & Sci. Univ.


892. MOLECULAR SENSORS IN AFFERENTS NEURONS THAT CONTRIBUTE TO PAIN, FATIGUE, AND ACTIVATION OF AUTONOMIC REFLEXES IN HEALTH AND DISEASE (POSTERS)

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D619 I 892.1 Acid sensing ion channels (ASICs) in muscle skeletal afferents are heteromultimers with ASIC3 being a necessary component. M. Gautam and C.J. Benson. Univ. of Iowa.

D620 II 892.2 GLT-1 over-expression mitigates chronic bladder inflammation and GLuR1 trafficking. K. Roman and R.L. Stephens, Jr. The Ohio State Univ.

D622 II 892.4 Acute inflammation alters the response to stretch in mouse extensor digitorum longus muscle afferents. K.A. Wilkinson and S. Hochman. Emory Univ.


D624 II 892.6 Evidence for chemosensitive fibers in the aortic depressor nerve in mice but not in rats. H.M. Stauss, D.A. Morgan and K. Rahmouni. Univ. of Iowa.


893. NEURAL CONTROL AND AUTONOMIC REGULATION: TRAINEE FEATURED TOPIC

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D630 II 893.4 (Pro)renin receptor over-expression induces angiotensin II-independent NADPH oxidase activation through PI3K - ERK signaling in neuronal cells. H. Peng, W. Li, D. Seth, N.L. Gabriel and Y. Feng. Tulane Univ.

D631 I 893.5 Downregulation of AT1 receptor in the RVLM induced by mesenchymal stem cells treatment prevent the hypertension and sympathetic hyperactivity in 2K-1C Wistar rats. E.B. Oliveira-Sales, E. Maquigussa, P. Semedo, L.G. Oliveira, N.O.S. Câmara, C.T. Bergamaschi, M.A. Boim and R.R. Campos. Fed. Univ. of São Paulo.


D641 I 893.15 Intravenous ascorbic acid does not block the pressor or sympathetic nerve response to ischemic fatiguing rhythmic handgrip exercise. M.D. Muller, R.C. Drew, J. Cui, C. Blaha, J. Mast and L.I. Sinoway. Penn State Hershey Heart and Vasc. Inst.


894. CONTROL OF BREATHING: CHEMORECEPTION

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D644 I 894.1 Regulation of ventral surface chemoreceptors by purinergic signaling. I.C. Wemker, A. Takakura, T. Moreira and D.K. Mulkey. Univ. of Connecticut and Univ. of São Paulo.
D645 II 894.2 P2Y1-receptors are expressed by CO2/H+-insensitive neurons in the retrotrapezoid nucleus and contribute to the peripheral drive to breathe. I.C. Wenker, A. Takakura, T. Moreira and D.K. Mulkey. Univ. of Connecticut and Univ. of São Paulo.

D646 I 894.3 Vesicular release of ATP by brainstem astrocytes evoked by changes in pH. V. Kasymov, N. Marina, S. Kasparov and A.V. Gourine. University Col. London and Univ. of Bristol.


D650 I 894.7 Central melanin modulates the ventilatory response to hypercapnia but not to hypoxia in anesthetized rats. A.P. Sanchez, A. Delchiaro, J.F.G. Giácomo, J.P. Pupin and M.C. Luzzi. Fac. of Med. of Catanduva, Brazil.

D651 II 894.8 The role of Ca2+ and B3 channels in the firing rate response of locus coeruleus neurons to CO2: controlling the chemosensitive gain. A.N. Imber, C.D. Graham and R.W. Putnam. Wright State Univ.


D656 I 894.13 GABAergic neurons in the medullary raphe possess network independent chemosensitivity in situ. K.E. Iceman, G.B. Richerson and M.B. Harris. Univ. of Alaska Fairbanks and Univ. of Iowa.


D661 II 894.18 Functional expression of calcium sensing receptor in rat vagal pulmonary sensory neurons. Q. Gu, M. Kagira and C. Gilbert. Mercer Univ. Sch. of Med.


D663 II 894.20 Hydrogen sulfide contributes to the enhanced chemoreflex ventilatory response to acute hypoxia in heart failure rats. R. Del Rio, N.J. Marcus, G. Stein and H.D. Schultz. Univ. of Nebraska Med. Ctr.


895. CONTROL OF BREATHING: RHYTHM GENERATION

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D666 I 895.1 Identification of lung priming area in frog brainstem, adjacent to the lung oscillator, distinct from the buccal oscillator: homologous to RTN/pFRG? M. Baghadadwala, M. Ducherer and R.J.A. Wilson. Univ. of Calgary, Canada.


896. COMPENSATORY RESPONSES TO ACUTE OR CHRONIC HYPOXIA EXPOSURE (POSTERS)

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D672 I 896.3 Oxidative stress in the respiratory response to intermittent hypoxia in athletes and sleep apnea patients: similar mechanisms but opposite outcomes. V. Pialoux. Univ. Lyon 1, Villeurbanne.


D675 II 896.6 Severe hypoxia in isolated adult turtle brainstems decreases respiratory motor burst clustering, frequency, and amplitude. M.E. Bartman and S.M. Johnson. Univ. of Wisconsin-Madison.


897. HYPOXIA/OXYGEN SENSING, SIGNAL TRANSDUCTION, SECOND MESSENGERS, AND TRANSMITTERS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D680 I 897.3 Mitochondrial content of carotid body type I cells decreases during the maturation of the hypoxic response. J.E. Paulet, H-T. Tran, H. Jordan, R. Pye, D. Ladle and C. Wyatt. Wright State Univ.

D681 II 897.4 Ion channel regulation by the Lkb1-AMPK signaling pathway: the key to carotid body activation by hypoxia and metabolic homeostasis at the whole body level. A.M. Evans, D.G. Hardie, C. Peers, P. Kumar and C.N. Wyatt. Univ. of Edinburgh, Univ. of Dundee, Univ. of Leeds, Univ. of Birmingham and Wright State Univ.

D682 I 897.5 Intermittent hypoxia induces Fra-1 in rat carotid body cells expressing leptin. S. Messenger, J.M. Moreau and J. Ciruello. Univ. of Western Ontario.

D683 II 897.6 Immunohistochemical expression and nitration of MnSOD in the adrenal gland and the carotid body of rats exposed to chronic intermittent hypoxia. E. Moya, P. Arias and R. Iturriaga. Pontifical Catholic Univ. of Chile.

D684 I 897.7 Carotid body afferent activity stimulation by PACAP is mediated through PKC pathway. A. Roy and R.J.A. Wilson. Hotchkiss Brain Inst., Calgary, Canada.


898. INTERMITTENT HYPOXIA/OXIDATIVE STRESS

Poster
MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D687 I 898.1 VEGF upregulation and vascular area enlargement induced by intermittent hypoxia in the rat carotid body is not secondary to oxidative stress. R. Iturriaga, E.A. Moya and R. Del Rio. Catholic Univ. of Chile.


D689 I 898.3 Combined acute intermittent hypoxiaemia and a high glucose/lipid load augments oxidative stress and exaggerates postprandial hyperglycaemia. H.S. Griffin, K. Pugh, A.J. Wadley, J.E. Turner, S. Aldred, S. Taheri, P. Kumar and G.M. Balanos. Univ. of Birmingham, U.K.


D693 I 898.7 FosB in NTS contributes to persistent increase in mean arterial pressure during exposure to chronic intermittent hypoxia. Q. Wu, B. Cherry and S. Mifflin. Univ. of North Texas Hlth. Sci. Ctr.


D695 I 898.9 Corticosterone modulation of miniature excitatory postsynaptic currents is altered following exposure to CIH. Y. Fan and S. Mifflin. Univ. of North Texas Hlth. Sci. Ctr.


899. CONSEQUENCES OF CHRONIC INTERMITTENT HYPOXIA

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D700 II 899.2 Chronic intermittent hypoxia (cih) alters respiratory rhythmosnesis within the preBötzinger complex. A.J. Garcia, A. Doi, T. Malashchenko, A. Wei, G. Kumar, N.R. Prabhakar and J-M. Ramirez. Seattle Children's Res. Inst., Univ. of Washington and Univ. of Chicago.


D702 II 899.4 Pattern of breathing in a mouse model of Down syndrome. L.R. DeRuisseau, S.L. Murphy, S.A. Zabycz and K.C. DeRuisseau. Le Moyne Col. and Syracuse Univ.


D705 I 899.7 Intermittent hypoxia alters circulating leptin levels and the activity of pro-opiomelanocortin hypothalamic arcuate nucleus neurons. J.M. Moreau, S.A. Messenger and J. Cirillo. Univ. of Western Ontario.

D706 II 899.8 Colocalization of angiotensin converting enzyme 1 and FosB in the median preoptic nucleus following intermittent hypoxia. K.E. Faulk, W.D. Knight, J.T. Little and J.T. Cunningham. Univ. of North Texas Hlth. Sci. Ctr.

D707 I 899.9 Central losartan attenuates CIH-induced hypertension and FosB/ΔFosB expression in hypothalamic autonomic regions. W.D. Knight, A. Saxena, J.T. Little, M. Dutta and J.T. Cunningham. Univ. of North Texas Hlth. Sci. Ctr.


D710 II 899.12 Neuropeptide Y signaling in altered catecholamine synthesis during intermittent hypoxia. G.K. Kumar, G. Raghuraman and N.R. Prabhakar. Univ. of Chicago.


900. NEUROENDOCRINOLOGY/NEUROIMMUNOLOGY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D712 I 900.1 Oxidative stress in hypothalamic neurons may explain the impaired vasopressin secretion observed during sepsis. P.J. Basso, G.R. Oliveira-Pelegrin and M.J.A. Rocha. Univ. of São Paulo, Ribeirão Preto.


D714 I 900.3 Thermal stimulation of vasopressin and oxytocin release from explants of the hypothalmo-neurohypophyseal system. C.D. Sladek, Z. Song and W. Stevens. Univ. of Colorado Sch. of Med.

D715 II 900.4 Does estrogen have immunomodulatory effects on pregnant women diagnosed with multiple sclerosis. A. Brown, K. McNair, R. Rawson, T. Sibley and E. Raynes. Tennessee State Univ.
901. NEURONAL EXCITABILITY (ION CHANNELS AND TRANSPORTERS)

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


902. NEUROPLASTICITY

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D720  I  901.3 Evaluating a possible role for persistent inward currents in firing rate saturation. A.L. Revill and A.J. Fuglevand. Univ. of Alberta and Univ. of Arizona.


D722  I  901.5 Neuronal and non-neuronal steady-state pH and recovery from NH4+ induced acid loads. V.A. Ruffin and W.F. Boron. Case Western Reserve Univ.

903. NEUROTRANSMISSION AND SIGNALING MOLECULES

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D730  I  903.3 Evidence that glial cells modulate synaptic transmission in the NTS neurons sending projections to RVLM. D. Accorsi-Mendonça, L.G.H. Bonagamba and B.H. Machado. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.


904. CENTRAL NERVOUS SYSTEM: OTHER

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D734  II  904.2 Corticotropin-releasing factor involves in promotive effect of restraint on neuronal activation by methamphetamine. Z. Yuan and Y-W. Lin. Tzu Chi Univ., Taiwan.


D738 II 904.6 Electrophysiological analysis of the spinal network function in the in situ adult interverter regulatory factor 8 knockout mice. I. Yazawa, Y. Yoshida, R. Yoshimi, M. O’Donovan and K. Ozato. Showa Univ. Sch. of Med., Japan and NINDS/NIH and NICHD/NIH.

D739 II 904.7 Angiotensin II regulates activity of kinases and phosphatases in neurons. U. Basu, S. Alikunju and M.C. Zimmerman. Univ. of Nebraska Med. Ctr.


905. BIOMEDICAL ENGINEERING

Poster

MON. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D742 I 905.1 Development and characterization of novel extracellular mimicking blended electrospun scaffolds: effect of scaffold hydrophobicity on endothelial cell growth. N. Nosoudi, W. Yin and D.A. Rubenstein. Oklahoma State Univ.


D749 II 905.8 Physiological analysis of the ZO-1 actin binding region on cell adhesion and function in epithelial cells. A.M. Loar, G.A. Winkler, R.C. Brady and J.M. King. Trinity Univ., TX.


D752 I 905.11 A computational model of neural activation, force generation and intracellular bioenergetics during muscle fatigue. D. Callahan, B. Umberger and J. Kent-Braun. Univ. of Massachusetts Amherst.

D753 II 905.12 Mathematical modeling of myeloma bone disease. B.P. Ayati. Univ. of Iowa.


D757 II 905.16 Tracer washout from an organ is predicted from the tracer center of mass. J.B. Bassignthwaighte, G.M. Raymond and J.I.S. Chan. Univ. of Washington.


D759 II 905.18 Mechanisms of the anti-inflammatory action of pulsatile laminar flow: role of AMPK in chromatin remodeling. L. Flores, Y-S. Li and S. Chien. UCSD.

D760 I 905.19 GoαS-targeted AKT activation and intracellular calcium responses to retrograde flow in endothelial cells. B. Melchior and J.A. Frangos. La Jolla Bioengin. Inst.


D763 II 905.22 Neoblast markers piwi and vasa are expressed during regeneration and reproduction in Aeolosoma viride. Y. Hsieh, C. Chu and J. Chen. Inst. of Zoology, Taiwan.

D764 I 905.23 Intramyocardial injection of heat-tolerant derived extracellular matrix improves cardiac function in a rat myocardial infarction model. W. Dai, P. Gerczuk, Y. Zhang, G.L. Kay, A.J. Jyrala and R.A. Cooper. UCSD.


907. DEVELOPMENT AND GROWTH: CRANIOFACIAL

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B236 906.4 MMP expression by intervertebral disc cells is responsive to changes in extracellular osmolarity. Y. Cui, S. Lee, J. Yu and J. Urban. Univ. of Oxford.

B237 906.5 Tissue tension supports the in vitro co-culture of ras-keratinocytes and myofibroblasts. P. Barua, C.C. Lam and M.B. Vaughan. Univ. of Central Oklahoma.


B244 907.7 Mesenchymal condensation sets the stage for intramembranous bone development. J. Jabalee and T.A. Franz-Odendaal. Mount Saint Vincent Univ., Canada.


B248 907.11 Investigating the developmental processes of nasal contour shape. A.D. Wheat. Univ. of Tennessee, Knoxville.


B252 907.15 A novel gene Crispld2 may contribute to facial dysmorphology in a chicken model of Crouzon’s syndrome. X. Li, S. Tropp, N. Young, B. Hallgrimsson and R. Marcucio. UCSF, San Francisco Gen. Hosp. and Univ. of Calgary, Canada.

908. DEVELOPMENT AND GROWTH: LIMBS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B255 908.3 Femoral growth plate is sensitive to loss of cardiac shunt in the American alligator. T. Owerkowicz, J. Yang, J.M. Blank, J. Eme and J.W. Hicks. California State Univ., California Poly State Univ., San Luis Obispo, Univ. of North Texas and Univ. of California, Irvine.


909. DEVELOPMENT AND GROWTH: GENE AND PROTEIN EXPRESSION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B260 909.2 Identification of a regulatory region within the EMX2 locus that is active in the neural tube. J.P. Schober, C.U. Pira and K.C. Oberg. Loma Linda Univ. Sch. of Med.

B261 909.3 Essential role of Zp54, the human RCK/p54 (DDX6) homologue, in zebrafish neuronal development. C.C. Yeh, S-J. Lee and C-Y. Chu. Natl. Taiwan Univ.


910. DEVELOPMENT AND GROWTH: BIRTH DEFECTS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B268 910.4 Analytic view of simultaneous occurrence of sacralisation and congenital anomalies. R. Singh. CSM Med. Univ., India.


911. BIOENGINEERING

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


912. EPIGENETICS AND REGULATORY RNAS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


913. STEM CELLS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B274 913.1 Changes in adult fibroblast populations with passaging reduce reprogramming efficiency. E.J. Su, T. Downing and S. Li. Univ. of California, Berkeley and UCSF.

B276 913.3 Breastmilk contains primitive stem cells from the lactating breast with multi-lineage differentiation potential. F. Hassiotou, L. Filgueira, N. Trengove, C. Tat Lai and P. Hartmann. Univ. of Western Australia, Crawley.

B277 913.4 Embryonic transcription factor upregulation during normal lactation and breast oncogenesis. F. Hassiotou, A. Beltran, N.J. Trengove, C. Tat Lai, P. Hartmann, L. Filgueira and P. Blanchard. Univ. of Western Australia and Univ. of North Carolina at Chapel Hill.

B278 913.5 Umbilical cord matrix stem cells trophic ability and use as a drug delivery vehicle for treatment of melanomas. K.M. Davis. A.T. Still Univ., MO.


B280 913.7 Cell fusion phenomena was detected after xenogenic intra-uterus transplantation of Ds-red porcine amniotic fluid-derived stem cells into EGFP bearing mice. S-Y. Peng, C-J. Chou and S-C. Wu. Natl. Taiwan Univ.

B281 913.8 Effects of laminar shear stress on expression of MT1-MMP in rat bone marrow-derived mesenchymal stem cells. W.H. Qin. Hubei Univ. of Med., China.

914. STEM CELLS: AGING AND DISEASE
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


915. STEM CELLS: WOUND HEALING AND TISSUE REPAIR
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B288 915.1 Identification of neural crest-like synovial stem cells. F. Huang, Z. Tang and S. Li. Univ. of California, Berkeley.


916. WOUND HEALING
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B299 916.8 Caffeic acid phenethyl ester protects burn wounds against oxidative stress and improves wound healing. A. Monte-Alto-Costa and J.S. Santos. State Univ. of Rio de Janeiro.


917. REGENERATIVE MEDICINE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B304 917.3 Proliferation, osteogenic and chondrogenic differentiation of equine-derived bone marrow mesenchymal stem cells on bacterial cellulose scaffolds. P.M. Favi, C. Stephens, N. Neilson, R. Hammonds, R. Benson and M. Dhar. Univ. of Tennessee, Knoxville.


B308 917.7 Tissue engineering bone by recapitulating developmental and repair programs offers improved biological outcomes. C.S. Bahney, D. Hu, T. Mclau and R. Marcucio. UCSF.

918. NEUROBIOLOGY: NEURAL CELL BIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM


B311 918.3 Developing henna-haematoxylin stain as alternative to Nissl stain in delineating the cytoarchitecture of the neocortex and archicortex of the cerebrum. J.N. Alawa, O. Gideon, B. Adetiba and C.B. Alawa. Ahmadu Bello Univ., Nigeria.


B313 918.5 HIF-1alpha and COX-2 expression and mouse brain capillary remodeling during adaptation to hypoxia and re-oxygenation after prolonged moderate hypoxia. G. Bendorro and J.C. LaManna. Case Western Reserve Univ.


B316 918.8 The death of neurons derived from familial Alzheimer’s disease pluripotent stem cells is no different from the death of neurons derived from normal controls. M.A. Shaner, S.H. Yuan and L.S. Goldstein. UCSD.

919. NEUROBIOLOGY: DEVELOPMENT

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B317 919.1 AChR clustering is increased by neuregulin. S.M. Boothe and W.A. Grow. Midwestern Univ., AZ.

B318 919.2 MyoD and myogenin are required for agrin-induced AChR clustering. E.E. Anderson and W.A. Grow. Midwestern Univ., AZ.

B319 919.3 Embryonic origin of microglial progenitors and their routes of entry into the mouse developing central nervous system. W.Y. Chan, T.C. Ng, G.W.H. Chow and P. Rezaie. Sch. of Biomed. Sci., The Chinese Univ. of Hong Kong and The Open Univ., U.K.

B320 919.4 Optogenetic regulation of peripheral sensory or motor axons during chick embryogenesis. A.A. Sharp and S. Fromherz. Southern Illinois Univ. Sch. of Med.

920. NEUROBIOLOGY: BEHAVIOR; NEUROPSYCHIATRIC DISORDERS; DISEASE; AGING

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B321 920.1 Tumor-derived IDO affects the lifespan in a mouse model of glioblastoma. D.A. Wainwright and M.S. Lesniak. Univ. of Chicago.

B330 920.10 Switch in amyloid clearance mechanisms leads to vascular fragility in cerebral amyloid angiopathy. M.K. Zabel, M. Schrag, A. Crofton, S. Tung, H.V. Vinters and W.M. Kirsch. Loma Linda Univ. and UCLA.

921. NEUROBIOLOGY: NEUROPROTECTION AND NEUROIMMUNOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:00 PM

B331 921.1 In vitro generated microglia derived from blood precursors. S. Etemad, M. Ruitenberq and L. Filgueirra. Univ. of Western Australia and Univ. of Queensland Sch. of Biomed. Sci., Australia.

B332 921.2 Potent suppressive effect of resveratrol and apigenin on pro-inflammatory responses in lipopolysaccharide and IFN-γ-activated microglia and macrophages: implications for Alzheimer’s disease therapies. L. Ooi. Univ. of Western Sydney Sch. of Med.
B334 921.4 Extracellular phosphorylation is a novel target for regenerative medicine against spinal cord injury. Y. Takei, K. Suehiro, K. Shimizu and G. Tsujimoto. Kyoto Univ.
B337 921.7 Distribution of nicastrin in the central nervous system of APP/PS1 double transgenic mice. S. Luo and G. He. Chongqing Med. Univ., China.

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922. GENE REGULATION DURING GROWTH AND DEVELOPMENT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A1 922.1 Liganded thyroid hormone receptor induces nucleosome removal and histone modifications to activate transcription during adult stem cell development. Y-B. Shi. NICHD/NIH.


A3 922.3 Expression and characterization of the Cyr61 gene in Medaka fish. R. Monzon and L. Varley. Saint Xavier Univ., IL.

A4 922.4 The role of Brahma-related gene 1 in regulating the expression of microRNAs in colonic smooth muscle cells. M. Chen and P. Herring. Indiana Univ. Sch. of Med.

A5 922.5 Hepatocyte maturation is arrested in mouse liver lacking the splicing factor SRSF3 (SRp20). S. Sen and N.J. Webster. VA San Diego Healthcare Syst.


A9 922.9 Role of actin polymerization during early s-looping of the vertebrate embryonic heart. Q. Chu-LaGraff, K. Benn, J.L. LaGraff and A. Ramasubramanian. Union Col., NY.


A13 922.13 FOXC1 regulates BMP-SMAD activity in a context dependent manner during osteogenic development events. F.B. Berry and F. Mirzayans. Univ. of Alberta.


A17 922.17 Age-dependent regulation of non-coding RNAs in male germ cell development. A.C.S. Luk, S.H. Ng, W-Y. Chan and T-L. Lee. The Chinese Univ. of Hong Kong Sch. of Biomed. Sci.

923. INTERPLAY BETWEEN CHROMATIN STRUCTURE AND THE TRANSCRIPTION MACHINERY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


924. CHANGES IN CHROMATIN DURING GENE ACTIVATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


925. CHROMATIN ARCHITECTURE AND ASSEMBLY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A23 925.1 Transcription factor access to their sites in chromatin. M. Floer and A. Gjidoda. Michigan State Univ.

A24 925.2 Structural studies of the histone chaperone Hif1, a component of the Hat1 chromatin assembly complex. A. Bigeh, E. Pickle, M.J. Bagley, N. Seangmany and R.N. Dutnall. Univ. of San Diego.
926. CHROMATIN CHANGES IN DEVELOPMENT
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A26 926.2 Characterization of the cell morphology differences between pre-diapause and diapause embryos of the killifish Austrofundulus limnaeus. L. Toni and P. Padilla. Univ. of North Texas.

927. CHROMATIN REMODELING
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A27 927.1 Role of the Ccr4-Not complex in histone acetylation. S. Mehrotra and A. Vancura. St. John’s Univ., NY.

928. DYSREGULATION OF GENE EXPRESSION IN DISEASE
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A31 928.3 Changes in genes methylation of the TLR pathway in livers of mice fed DDC. J. Oliva and S.W. French. LA BIOMED.
A33 928.5 Relationship of gene expression and sex hormone receptors in primary breast carcinoma and metastases from the same patient. S.A. Andres and J.L. Wittliff. Univ. of Louisville.
A34 928.6 The β-catenin/Tcf-4 pathway regulates high mobility group a1 expression in colorectal cancers. J.A. Deng, A.T. Brock, B.M. Bush and T.F. Sumter. Winthrop Univ., SC.
A38 928.10 Establishment of an NIH-3T3 transiently transfected Ikaros system to study its effects on gene expression. M. Meyer, T. Van der Steen and G. Dorsam. North Dakota State Univ.
A39 928.11 Deregression of E-cadherin and MTA2 in tamoxifen-resistant breast cancer cells. M.M. Hathaway and M.C. Louie. Dominican Univ. of California.
A40 928.12 Genetic association of SIX1 gene variants and primary open-angle glaucoma in Caucasians. R. Shaw, Y. Wang, Y. Chen, H. Du and K. Zhang. UCSD.

929. REGULATION OF TRANSCRIPTION BY SIGNAL TRANSDUCTION
Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D
Presentation time: 1:05 PM-2:35 PM
A43 929.3 Estrogen and vitamin D control of transcription in MCF-7 cells. J.N. Magill and J.M. Schmitt. George Fox Univ., OR.
A47 929.7 PKCδ regulates MCP-1 expression at the transcription level in vascular smooth muscle cells. J. Ren, S. Morgan, Y. Si and B. Liu. Univ. of Wisconsin-Madison.
930. SIGNALING TO THE NUCLEUS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A48 930.1 The retinoblastoma protein regulates Wnt signaling activity in the MC3T3 osteoblasts. V. Vazquez-Rivera, A. Cruz, R. Noél, Jr. and P. Santiago-Cardona. Ponce Sch. of Med. and Univ. of Puerto Rico, Ponce.


931. TRANSCRIPTIONAL REGULATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A51 931.1 Activation of transcription of hepatic HMG-CoA reductase by insulin requires tristetraprolin. G.C. Ness and J. Edelman. Univ. of South Florida.


A53 931.3 Identification of protein-interacting partners of USF2 in erythroid cells. J. Masannat, J. Barrow and J. Bungert. Univ. of Puerto Rico, Sch. of Med.


A56 931.6 The characteristics and roles of TamR, a MarR family transcriptional regulator from Streptomyces coelicolor. H. Huang and A. Grove. LSU.

A57 931.7 The ELL component of the SEC complex facilitates RNA polymerase II pause site entry and release. J.S. Byun and K. Gardner. NCI/NIH.

A58 931.8 Diaphanous 1 negatively regulates cortical biosynthesis in H295R human adrenocortical cells. D. Li, H. Wang and M. Sewer. Skaggs Sch. of Pharm. and Pharmac eute, UCSD.

A59 931.9 Role of the twist proteins and ADD1 in the regulation of the CHRDL1 gene. J. Casasnovas, H.L. Franco and C.L. Cadilla. Univ. of Puerto Rico Sch. of Med.

A60 931.10 Towards predicting the behavior of E. coli LacI and FadR transcription factors to variations in their operator sequences. T.S. Maity, R. Jha, C. Strauss, J. Dunbar and C. Kuske. Los Alamos Natl. Lab.


A65 931.15 Characterization of a novel overexpression system in Haloferax volcanii. B. Huff, J. Hilty, J. Hemmingsen and M.E. Ginn-Pease. Capital Univ., OH.


A69 931.19 VMP1 is a novel inducible gene which activation is a switch for autophagy. A. Lo Re, M.I. Molejón, A. Ropolo, V. Boggio and M.I. Vaccaro. Univ. of Buenos Aires.

932. COUPLING OF DNA REPAIR AND REPLICATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A70 932.1 Expression and purification of the human xeroderma pigmentosum F (XPF/ERCC1) complex in bacterial cells for protein binding assays and crystallographic studies. J. Anduaga, K. Duprez, E. Hilario and L. Fan. Univ. of California, Riverside.


A72 932.3 A dominant role for an error-prone DNA polymerase in recombination drives evolution. R.T. Pomerantz, I. Kurth, M. Goodman and M. O'Donnell. Rockefeller Univ. and Univ. of Southern California.
933. TELOMERES AND TELOMERASE

*Poster*

**Presentation time:** 12:25 PM-1:55 PM


A75 **933.3** Reciproc telomerase inhibition by human and *Xenopus* PinX1. J. Shampay, D. Constant, J. Gaubatz, P. Fink, G. Bazilevsky, I. Cylinder and J. Pires. Reed Col., OR.

A76 **933.4** Subtelomere recombination is frequent in tumors lacking telomerase. T. Morrish, V. Behera, S. Dria, S.J. Wheelan and C.W. Greider. Johns Hopkins Univ.

A77 **933.5** Telomere homeostasis in budding yeast is regulated by a single mechanism involving replication fork collapse. V. Lundblad and M. Paschini. Salk Inst. for Biol. Studies.

A78 **933.6** NIP45 promotes telomere targeting to PML bodies in ALT cells. D.D. Farley and H. Yu. Univ. of Texas Southwestern Med. Ctr.

A79 **933.7** Telomere dysfunction as a tool to identify novel DNA damage factors. C. Bartocci, J. Yates III and E. Lazzerini Denchi. The Scripps Res. Inst.

934. CELL CYCLE REGULATION

*Poster*

**Presentation time:** 12:25 PM-1:55 PM

A80 **934.1** Extracellular ATP induces the inactivation of FoxO transcription factors and cell cycle progression of MCF-7 cells. P.G. Scodelaro Bilbao and R.L. Boland. Natl. Univ.-CONICET, Bahia Blanca, Argentina.

A81 **934.2** The disruption of the mitotic cell cycle by inositolless death in *Saccharomyces cerevisiae*. B.A. Hanson, P. O’Connor, J. Munezero and V. Croglio. Canisius Col., NY.

A82 **934.3** Structure of human Mad1 C-terminal domain reveals its kinetochore-targeting function. S. Kim, H. Sun, D. Tomchick, H. Yu and X. Luo. Univ. of Texas Southwestern Med. Ctr.

A83 **934.4** Whi3p localizes to cytoplasmic foci during slow growth at high OD in *Saccharomyces cerevisiae*. J.P. Degallier, J. Tembreull, K. Theede and S.P. Segal. Winona State Univ., MN.


935. CHROMOSOME END PROTECTION

*Poster*

**Presentation time:** 12:25 PM-1:55 PM

A87 **935.1** Blocking ubiquitin deposition at telomeres: the molecular mechanism of TRF2-mediated end protection. K. Okamoto and E. Lazzerini Denchi. The Scripps Res. Inst.

936. GENOME REARRANGEMENTS/CHROMOSOMAL INSTABILITY

*Poster*

**Presentation time:** 12:25 PM-1:55 PM

A88 **936.1** Identification and sequence characterization of DNA double strand break hotspots. T.Y. Roh, K. Shin and J. Park. POSTECH, Pohang, South Korea.


937. MEIOSIS

*Poster*

**Presentation time:** 12:25 PM-1:55 PM


938. TELOMERASE

*Poster*

**Presentation time:** 12:25 PM-1:55 PM


939.  TELOMERE LENGTH REGULATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


940.  RIBOSOMES: REGULATION OF ACCESS TO MRNA

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A97  940.1 Specific domains in yeast eukaryotic initiation factor (eIF) 4G bias the RNA unwinding specificity of eIF4F towards duplexes with a 5’-overhang. V. Rajagopal, E-H. Park, A.G. Hinnebusch and J.R. Lorsch. Johns Hopkins Univ. Sch. of Med. and NICHD/NIH.

941.  RNA-BASED REGULATION: A DIVERSITY OF MECHANISMS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A100  941.3 Transgene regulation in plants by alternative splicing of a suicide exon. M.C. Hammond, S.F. Hickey, M. Sridhar, A. Westermann, Q. Qin, P. Vijayendra and G. Liou. Univ. of California, Berkeley and Univ. of Wuerzburg.
945. RNA FOLDING

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A111 945.1 Use of 2-aminopurine to detect positional ambiguity in group II nucleotide bulge loops. E.L. McMichael and M.J. Serra. Allegheny Col., PA.

946. RNA STRUCTURE AND DYNAMICS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A114 946.2 Thermodynamic investigation of the dinucleotide bulge of domain V of group II intron. S.L. Mhlanga and N. Grover. Colorado Col.
A115 946.3 Thermodynamic examination of bulge sequence, ion binding, and helical context of 2X2 and 2X1 bulges in RNA. P. Mahajan and N. Grover. Colorado Col.
A116 946.4 Thermodynamic examination of small symmetric and asymmetric loops containing A•C and G•U base pairs in the context of group I intron. E. Shishkova and N. Grover. Colorado Col.
A117 946.5 Thermodynamic comparison of dinucleotide bulges in DNA and RNA. W.C. Lockwood and N. Grover. Colorado Col.

947. RNA STRUCTURE AND TRANSLATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A131 951.5 Structural basis for the regulation of endothelin-1 mRNA stability by glyceraldehyde-3-phosphate dehydrogenase. J.P. Neal and E.D. Garicn. Univ. of Maryland Baltimore County.

952. SMALL RNAs

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A134 952.3 Dissecting the interactions between human argonaute proteins and RISC components. Y-C. Chen, J-W. Huang and C-Y. Chu. Natl. Taiwan Univ.

A135 952.4 Rapidly evolving microRNAs retain their targets by a co-evolution mechanism. M. Ramaih, E.Y. Shum and M.F. Wilkinson. UCSD.


953. FACTORS MODULATING PROTEIN QUALITY CONTROL

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A139 953.1 Influx of acetyl-CoA into the ER lumen regulates the induction of autophagy during the UPR. L. Puglielli and M. Pehar. Univ. of Wisconsin-Madison.

954. PROTEIN QUALITY CONTROL AND DISEASE

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A142 954.3 Manipulating the ERAD pathway to regulate GABA<sub>B</sub> receptor protein homeostasis. D. Han and T. Mu. Case Western Reserve Univ.

A143 954.4 The ER chaperones BiP and Jem1/Scj1 are genetic modifiers of TorsinA, the AAA+ ATPase associated with the neurological disease primary torsion dystonia. L.F. Zacchi, H-C. Wu, K. Niemeyer, S. Bell, M. Zolkiewski and J. Brodsky. Univ of Pittsburgh and Kansas State Univ.

A144 954.5 Protein disulfide isomerases promote the endoplasmic reticulum associated degradation of diverse substrates using different mechanisms. S. Grubb, L. Guo, E.A. Fisher and J.L. Brodsky. Univ. of Pittsburgh and NYU.

A145 954.6 The ER lumenal chaperone, Lhs1/GRP170, plays a unique role in the degradation of the epithelial sodium channel. T.M. Buck, L. Plavchak, O. Kashlan, T.R. Kleyman and J.L. Brodsky. Univ. of Pittsburgh.


955. MOLECULAR CHAPERONES: MECHANISM AND FUNCTION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A148 955.1 Low-level oxidative stress increases chaperone protein activity and alters steroid receptor•hsp90 heterocomplex formation. O.J. Stone, H.R. Franklin and P.J.M. Murphy. Seattle Univ.


A151 955.4 Characterization of the interaction between Hsp70s and lipids: evolutionary and functional implications. N. Nikolaidis, C. McCallister, G. Donnelly and D. Le. California State Univ., Fullerton.

A152 955.5 Regulation of chaperone activity in the endoplasmic reticulum. K. Gehring and G. Kozlov. McGill Univ.


956. PROTEASES IN DISEASE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A154 956.1 Cisplatin-induced, coordinated transcriptional reprogramming of neurotrypsin and other proteases in cisplatin-resistant ovarian cancer cells. I. Garcia-Basssets and A. Almenar-Queralt. UCSD.


A158 956.5 The role of the vacuolar H+-ATPase subunit c isoforms in secretion and activation of cathepsin L in human breast cancer cells. K.M. Folkers and A.M. Hinton. Denison Univ., OH.

A159 956.6 Impaired lysosomal maturation of pro-cathepsin D to active cathepsin D in a childhood neurodegenerative lysosomal storage disease. G. Chandra, A. Saha, M.R. Moralle, Z. Zhang, C. Sarkar, S. Peng and A.B. Mukherjee. NICHD/NIH.


A161 956.8 The pro-inflammatory but not protective effects of protease-activated-receptor-2 in the airway require β-arrestin-2. H. Nichols and K. DeFea. Univ. of California, Riverside.


957. PROTEASOMES: STRUCTURE AND REGULATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


958. REGULATION OF PROTEIN SYNTHESIS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A166 958.3 Hepatic HRI eIF2α kinase-mediated translational suppression activates nuclear factor kappa B in response to heme-deficiency stress. Y. Liu and M.A. Correia. UCSF.


959. FRONTIERS IN MECHANISTIC ENZYMOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


962. ENZYME KINETICS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM—2:35 PM


A181 962.6 An equation to model fluorescent probe displacement by non-fluorescent competitive ligands. J.D. Beckmann, E.M. Martin and K. Gaffney. Alma Col., MI.


964. ENZYMES AS DRUG TARGETS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

*Presentation time*: 1:05 PM-2:35 PM

A197 964.1 Structural analysis of a secretory phospholipase A2 from *Clonorchis sinensis*: therapeutic implications for hepatic fibrosis. G. Hariprasad, A. Srinivasan, P. Kaur, M. Kumar and T.P. Singh. All India Inst. of Med. Sci., New Delhi.


A201 964.5 Dynamics of induced-fit in HIV reverse transcriptase specificity and resistance. K.A. Johnson, S. Kirmizialtin, V. Nguyen, A. Li and R. Elber. Univ. of Texas at Austin.

A202 964.6 A new approach for the identification of allosteric binding sites in proteins. P. Striebeck and D.J. Manstein. Hannover Med. Sch., Germany.


A206 964.10 Development of an LC-MS/MS based biochemical assay to evaluate isoprenylcysteine carboxyl methyltransferase as a cancer target. P. Bingham and K. Maegley. Pfizer, La Jolla.


965. AGING METABOLISM

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

*Presentation time*: 1:05 PM-2:35 PM

A210 965.1 A novel anti-aging compound extends longevity by remodeling neutral lipid metabolism. V. Titorenko, A. Beach, V. Richard and M. Burstein. Concordia Univ., Canada.


A213 965.4 Decline in adipogenesis contributes to peripheral subcutaneous fat loss in older humans. G. Caso, M.A. McNurlan, I. Mileva, S. Stein and M.C. Gelato. Stony Brook Univ. Med. Ctr.


966. CANCER CELL METABOLISM

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

*Presentation time*: 1:05 PM-2:35 PM


A217 966.3 Role of hyaluronidases in prostate cancer metastasis. L. Labrada, L. Gurski and K. van Golen. Univ. of Delaware.


967. METABOLISM AND CANCER

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A221 967.1 Retinoic acid induces a metabolic switch in SH-SY5Y cells from glycolysis to oxidative phosphorylation. Z. Xun, D-Y. Lee, J. Lim, C. Canaria, A. Barnebey, S. Yanonne, B. Bowen, T. Northen and C. McMurray. Lawrence Berkeley Natl. Lab. and Mayo Clinic, and Fndn.

A222 967.2 Mutational activation of PI3-kinase-α dramatically accelerates BRAFV600E or KRASG12D-induced lung tumorigenesis. C.L. Trejo, S. Greenberg, V. Marsh, W. Phillips and M. McMahon. UCSF and Peter MacAllum Inst., East Melbourne.

A223 967.3 The promise of CD44v6, a therapeutic target for colon cancer. S. Misra, V.C. Hascall, R.R. Markwald and S. Ghatak. Med. Univ. of South Carolina and Cleveland Clinic.

A224 967.4 Inhibition of CYP 3A4 with novel synthetic coumarin and flavanone analogs. D.A. Swift and N. Hopkins. Tulane Univ.


A228 967.8 BRAFV600E and PI3K-activated signaling pathways cooperate to regulate phosphorylation of ribosomal protein S6 in human melanoma cells. J.M. Silva and M. McMahon. UCSF.

968. METABOLISM AND NEURODEGENERATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A231 968.3 Effects of orange juice and vitamin C on the expression of some selected genes (TNF, Sod3, p53, Prg) in Sprague-Dawley rat brain. O.A. Ebuahi, A.B. James, Y. Salami and I. Mgbeadichie. Univ. of Lagos, Nigeria.
970. CELL PROLIFERATION

Poster  
**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM


A248 970.3 Intersectin 1 is required for neuroblastoma tumorigenesis. A. Russo and J. O’Bryan. Univ. of Illinois at Chicago.

A249 970.4 On the mechanism of Pasteurella multocida toxin induced mitogenesis: mTOR mediated upregulation of survivin and aurora kinase B in cultured cells. H. Oubrahim, A. Wong, B. Wilson and P.B. Chock. NHLBI/NIH and Univ. of Illinois at Urbana-Champaign.

971. CYTOKINE AND GROWTH FACTOR SIGNALING

Poster  
**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM

A250 971.1 The structural basis for neuropilin-ligand interactions. M. Parker, X. Li, H-F. Guo, P. Xu and C.W. Vander Kooi. Univ. of Kentucky.

A251 971.2 Ligand induced activation of VEGFr during angiogenesis. X. Li, P. Xu, J.E. Toombs, M.W. Parker, R.A. Brekken and C.W. Vander Kooi. Univ. of Kentucky and Univ. of Texas Southwestern Med. Ctr.


A255 971.6 Chondrocyte phenotype of mice expressing reduced levels of perlecain/HSPG2, an essential component of cartilage. D.A. Lowe, P.P. Srinivasan and C. Kirn-Safran. Univ. of Delaware.


A257 971.8 Brain-derived neurotrophic factor receptor TrkB exists as a preformed dimer in living cells. I. Maruyama and J. Shen. Okinawa Inst. of Sci. & Technol.


972. G PROTEINS AND PROTEIN KINASES

Poster  
**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 1:05 PM-2:35 PM


A262 972.3 The role of PkCa in septum formation in Aspergillus nidulans. J.L. Henley, L. Jackson-Hayes, T. Hill, D. Loprete, O. Dawodu, C. Delbove and A. Poullard. Tougaloo Col., MS, Rhodes Col., TN and Rust Col., MS.


A265 972.6 Epidermal growth factor receptor transactivation and fibronectin matrix assembly by the G-protein coupled receptor, GPER, requires a transmembrane signaling complex consisting of PTPN12, integrin a5b1, and MMP-3. H.T. Magruder and E.J. Filardo. Brown Univ. and Rhode Island Hosp.

A266 972.7 The CC-type chemokine receptor 1 is constitutively associated with [arrestin2: role of receptor domains. C.T. Gilliland, C. Salanga, J. Trejo and T. Handel. UCSD.


973. GTPASES

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A272 973.1 Bacterial GTPases may be regulators of cell wall assembly. J.N. Winters, N. Rizzo and P.E. March. Emmanuel Col., MA.


A274 973.3 The cpSRP54-cpFtsY interaction in the chloroplast SRP pathway. Z.M. Lu, S. Chandrasekar and S.-o. Shan. Wabash Col., IN and Caltech.

A275 973.4 Expression and purification of Cdc42 and PBD46. E.J. Evans and P.D. Adams. Wabash Col. and Univ. of Arkansas.

974. HORMONE RECEPTORS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A277 974.2 AKAP79 controls β1-adrenergic receptor trafficking by multiple regulatory mechanisms. X. Li and S. Bahouth. Univ. of Tennessee Hlth. Sci. Ctr., Memphis.

A278 974.3 Regulation of estrogen receptors and CREB-binding protein following traumatic brain injury. I. Zee and K.A. Duncan. Vassar Col.


A280 974.5 MED1 coactivation of androgen receptor-dependent transcription is mediated by a newly discovered noncanonical binding motif. F. Jin and J. Fondell. UMDNJ, Piscataway.

975. INTEGRATION AND ORGANIZATION OF SIGNALING PATHWAYS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A282 975.2 Vasoactive intestinal peptide receptor 1 and 2 expressing cells result in cellular migration through alternative signaling pathways. T. Van der Steen, M. Meyer, S. Dorsam and G. Dorsam. North Dakota State Univ.

A283 975.3 Biochemical and mutational analysis of intracellular regions of the plexin-B1 guidance receptor as a R-RasGAP. S. Kim, P.K. Hota and M. Buck. Case Western Reserve Univ.

976. SIGNALING IN BACTERIAL RECEPTOR SYSTEMS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM

A284 976.1 IL-1beta loss contributes to reduced toxicity of the TRIF-biased TLR4 agonist monophosphate lipid A. C.A. Embry, S. Ganhapudhi, D. Desta and T. Mitchell. Stetson Univ., Inst. for Cell. Therapeut., Louisville and Univ. of Louisville Sch. of Med.

977. TOXINS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 1:05 PM-2:35 PM


A286 977.2 Gene expression profile of staphylococcal enterotoxin B and lipopolysaccharide-induced human PBMCs. C. Mendis. Univ. of Wisconsin-Platteville.

**978. PROTEOMICS AND BIOINFORMATICS**

**Poster**

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

*Presentation time: 1:05 PM-2:35 PM*


A289  **978.2** Large scale analysis of synaptic phosphorylation and O-GlcNAcylation reveals complex interplay between these post-translational modifications. **J.C. Trinidad, D.T. Barkan, B. Gulledge, A. Thalhammer, A. Sali, R. Schoepfer and A.L. Burlingame.** UCSF and University Col. London.

A290  **978.3** Gene identification in *Pseudomonas aeruginosa*: from bioinformatics to experimental analysis. **S. Oden, Y. Zhang, S. Jin, S. Tornaletti and L. Brocchieri.** Univ. of Florida.

A291  **978.4** In silico modeling of novel analgesic peptides and expression in suitable host organisms. **V.R. Joginapally, C. Pasha, V. Banothu, S. P and J. Kiran.** Osmania Univ. and Srinidhi Inst. of Sci. and Technol., India.

A292  **978.5** Quantitative proteome analysis of proteins and post-translational modifications during the metaphase to anaphase transition after altered O-GlcNAcylation. **S.A. Whelan, E.P. Tan, C.E. Costello, M. McComb and C. Slawson.** Boston Univ. and Univ. of Kansas Med. Ctr.


A294  **978.7** Improving a software system for protein active site determination. **G.J. Dodge, C. Corwin, H.J. Bernstein and P.A. Craig.** Rochester Inst. of Technol. and Dowling Col., NY.


A297  **978.10** An expanded self-antigen peptidome and proteome is carried by the human lymph as compared to the surface modeling. **R.N. Nazar.** UCSD Sch.


A299  **978.12** An integrated experimental workflow to increase throughput and data robustness for analysis of mammalian protein interaction networks. **D. Auerbach, R. Bruderer, T. Uhlmann and M. Rezwan.** Dualsystems Biotech AG, Schlieren, Switzerland.

**979. GLOBAL ANALYSIS OF PROTEIN FUNCTION**

**Poster**

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

*Presentation time: 1:05 PM-2:35 PM*

A300  **979.1** Proteomic analyses of genes regulated by heterogeneous nuclear ribonucleoproteins A/Bs in Jurkat cells. **Y.-m. Yeh, P.-R. Huang, C.-C. Wu and T.-C.V. Wang.** Chang Gung Univ., Taiwan.

**980. PROTEIN PROFILING IN NORMAL AND DISEASE STATES**

**Poster**

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

*Presentation time: 1:05 PM-2:35 PM*

A301  **980.1** Transmembrane-176A and 176B proteins are directly linked to cancer pathology. **V.K. Valluri, W. Podevin, Q. Bui, V. Nguyen and M.P. Cuajungco.** California State Univ., Fullerton.

A302  **980.2** Adiposity, but not chronological age, promotes accumulation of some old and damaged proteins. **R. Grubina, K.A. Klaus, D.M. Morse and K.S. Nair.** Mayo Clin.


**981. GENOMICS**

**Poster**

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

*Presentation time: 1:05 PM-2:35 PM*

A304  **981.1** Use of AFLP to study the genetic variability of *Leishmania* sp. **C.M. Restrepo, E. Pérez Lao, C. De La Guardia, O.E. Sousa, J.E. Calzada and R. Lleonart.** INDICASAT, Univ. of Panama and Gorgas Commemorative Inst., Panama.


**982. TOXICOGENOMICS**

**Poster**

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

*Presentation time: 1:05 PM-2:35 PM*

A306  **982.1** Study of molecular events associated with single wall carbon nanotubes mediated cellular cytotoxicity. **V. Goonavar, P. Ravichandran, S. Biradar and G.T. Ramesh.** Norfolk State Univ.
A307 983.1 Computational analysis between two different hemoglobins from Caspian Sea sturgeons (*Acipenser persicus* and *Acipenser stellatus*) induced by n-dodecyltrimethylammonium bromide. S. Ariaeenejad, S. Jamili, M.H. Rezaei, M.R. Fatemi, N. Poursasan, K. Kavousi and A.A. Moosavi-Movahedi. Islamic Azad Univ., Iran, IFRO, Tehran and Univ. of Tehran.


A310 983.4 Comparative analysis of *M. pneumoniae* models using the cytoSEED plugin for metabolic model visualization. N.L. Hazekamp, J. Kammeraad, B. Bockstege and M. DeJongh. Hope Col., MI and Univ. of Notre Dame.


A312 983.6 Identifying drug response signatures using genome-scale metabolic network analysis of human cell line expression data. D. Zielinski, M. Mo and B. Palsson. UCSD.


A320 986.1 Regulation of I-kappa-B kinase pathway by CARMA 1•Bcl-10•MALT-1 complex promotes SNARE complex formation and secretion in platelets. M. Banerjee, Z. Karim, J. Zhang and S.W. Whiteheart. Univ. of Kentucky.

A321 986.2 An unconventional Rab GTPase is involved in the regulation of unique secretory organelles in *Toxoplasma gondii*. J. Heng, K. Kremer and M. Meissner. Univ. of Glasgow.
988. MEMBRANE TRANSPORT

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A324 988.2 The actions of SNAREs and Munc18 in neuronal vesicle fusion. J. Shen. Univ. of Colorado Boulder.

A325 988.3 Short-hairpin RNA-mediated silencing of NKCC1 in COS7 cells and its effect on cell volume. S.A. Alshahrani and M. Di Fulvio. Wright State Univ.

A326 988.4 Role of cystein residues in the normal operation and assembly of K+-Cl- cotransporter isoform 2. G. Carpenter, L. Caron, M. Jacob-Wagner and P. Isenring. Laval Univ., Canada.


A329 988.7 The V-ATPase subunit d: new roles for functionally and structurally coupling of V1-Vo. E. Weber and K.J. Parra. Univ. of New Mexico.

A330 988.8 Isolation and mass spectrometric analysis of native protein complexes in rat liver mitochondrial contact sites. K. Lee, J. Kerner and C. Hoppel. Case Western Reserve Univ.


A332 988.10 A new functional role of potassium. X. Wu, J. Lee and H. Kim. Univ. of Nebraska-Lincoln.


989. SIGNALING TO THE CYTOSKELETON

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A336 989.2 NMR analysis of actin binding protein coflin. N.J. Audette, S. Yan, D. Kudryashov and T. Polenova. Univ. of Delaware and The Ohio State Univ.

990. LIPID REGULATION OF PROTEIN FUNCTION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A338 990.2 The role of an ER-localized metalloprotease in yeast cell wall integrity. K.A. Hecht, V.A. Wytiaz and J.L. Brodsky. Univ. of Pittsburgh.


991. LIPID SIGNALING, INFECTION AND ATHEROSCLEROSIS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


A344 991.5 Defining the role of SREBPs in viral infection. A.G. York and S.J. Bensinger. UCLA.


**992. ENDOCANNABINOID METABOLISM AND SIGNALING**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM


A349 992.2 Acid ceramidase represses steroidogenic factor 1-dependent gene transcription by binding to the receptor in the nucleus of H295R human adrenocortical cells. N.C. Lucki, D. Li, S. Bandyopadhyay, E. Wang, A.H. Merrill and M.B. Sewer. Skaggs Sch. of Pharm. and Pharmacut. Sci., UCSD and Georgia Tech.


A352 992.5 The role of Nro1p in recognition and signaling the presence of dietary unsaturated fatty acids. M. Willey, J. Stukey and V. McDonough. Hope Col., MI.

**993. LIPID SIGNALING**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM


A351 993.3 Isozyme-specific interaction of protein kinase C δ with mitochondria dissected using live cell fluorescence imaging. A.X. Wu-Zhang and A.C. Newton. UCSD.


A354 993.6 PTEN binding properties for different model membrane morphologies. A. Gericke, A.H. Ross, K.E. King, B.M. Neuman and Z. Jiang. Worcester Polytech Inst., Univ. of Massachusetts Med. Sch. and NHLBI/NIH.

**994. LIPIDS AND CONTROL OF GENE EXPRESSION**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM-1:55 PM


**997. PROTEIN-LIPID INTERACTIONS**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM - 1:55 PM

**A366 997.1** Fatty acids and their thioester derivatives as ligands for human PPARα – a comparison to murine PPARα. D.P. Osval, M. Balanarasimha, A. Kaliappan, S.D. Rider and H. Hostetler. Wright State Univ.


**A368 997.3** Characterization of the effects of lipid-binding on the chaperone activities of 70-kDa heat-shock proteins. C.M. McCallister and N. Nikolaidis. California State Univ., Fullerton.

**A369 997.4** Characterization of the lipid-binding sites of HSPA1A, a member of the 70-kDa heat shock protein family. G. Donnelly, C.M. McCallister, D. Le and N. Nikolaidis. California State Univ., Fullerton.


**A371 997.6** Assessing aggregation and membrane binding of LLO domains. Q. Huang, Y. Wang and M. Roberts. Boston Col. and UCSD.


**A373 997.8** Impact of hydrophobic lipophilic molecules on worm burden in BALB/c mice infected with Heligmosomoides polygyrus. A.C. Foudjet. Concordia Col., MN.

**998. NEW METHODOLOGIES FOR TARGET DISCOVERY AND TARGET VALIDATION**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM - 1:55 PM


**A375 998.2** In vitro evidence that peptides derived from the candidate tumor suppressor gene esophageal cancer-related gene 4 internalize into cells through the innate immunity receptor complex. S. Podvin, X. Dang, A. Kurabi, R. Coimbra, B. Elieceiri and A. Baird. UCSD.

**A376 998.3** A high-throughput screen for inhibitors of xenobiotic detoxification in nematodes. C.K. Leung, A.S. Deonarine and K.P. Choe. Univ. of Florida.


**999. TARGETED CANCER DRUG DEVELOPMENT: DEFINING MOLECULAR PROFILES OF SENSITIVITY**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:25 PM - 1:55 PM

**A378 999.1** Androgen receptor regulation by microtubule-targeting chemotherapeutics in prostate cancer. S. Martin and N. Kyripanou. Univ. of Kentucky.


**A380 999.3** Dualistic role of tumor-directed antibodies on carcinoma progression. O.M. Pearce, P.C. Soto, P. Secrest, N. Varki, P. Crocker, J. Bui and A. Varki. UCSD and Col. of Life Sci., Univ. of Dundee, U.K.

**A381 999.4** Synergistic anti-tumor effect by a combination treatment with the dietary flavonoid luteolin and the chemotherapy drugs Tasigna or Adrucil in human pancreatic cancer cells. E. Aksamitiene, S. Achanta, A. Kiyatkin and J.B. Hoek. Thomas Jefferson Univ.

**A382 999.5** A copper complex, ghn-12, as a sensitization of DNA to UVA offers potential for a novel photochemotherapy. F-J. Hoek.


**A384 999.7** Differential sensitivity of melanoma cell lines with differing B-Raf mutational status to the new oncogenic B-Raf kinase inhibitor UAI-201. M. Lee, J-H. Ahn and S.K. Ahn. Univ. of Incheon and Yuai Co. Ltd., South Korea.

1000. CHEMICAL PROBES AND THEIR USE IN IDENTIFYING NEW THERAPEUTIC TARGETS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A386 1000.1 Activity-based probes for penicillin-binding protein imaging. O. Kocaoglu, B. Lanning, L. Cozy, R. Calvo, D. Kearns and E.E. Carlson. Indiana Univ.

1001. MEMBRANE PROTEINS AS DRUG TARGETS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A388 1001.2 Biological evaluation of cyclized cystine knot peptides targeting human melanocortin receptors. J. Bao, M. Cai, D. Craik and V. Hruby. Univ. of Arizona and Univ. of Queensland, Australia.
A390 1001.4 Relative location of transmembrane regions of GABAA receptors probed by cysteine substitution and crosslinking. J.A. Hicks, C.M. Borghese, R.A. Harris and J.R. Trudell. Univ. of Texas at Austin and Stanford Univ. Sch. of Med.

1002. NEW TARGETS FOR DRUG DISCOVERY: ANTIBACTERIALS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM

A393 1002.1 Characteristic features of human catalytic light chain, 22F6, showing the suppression of influenza virus infection by the different way. N. Fujimoto, E. Hifumi and T. Uda. Oita Univ. and CREST of JST, Saitama, Japan.
A394 1002.2 Characterization of an anti-pathogenic lactonase from Palk Bay metagenome. S.T. Karutha Pandian, C. Nithya and D. Viswawapriya. Alagappa Univ., India.

1003. NEW TARGETS FOR DRUG DISCOVERY: NUCLEAR HORMONE RECEPTORS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:25 PM-1:55 PM


POSTER PRESENTERS:
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Where: E-Poster Counter, Hall D Lobby
Deadline: Wed., April 25, 3:30 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org
Nutrition

1004. INNOVATIVE TOOLS FOR ASSESSMENT OF DIET, PHYSICAL ACTIVITY, AND RELATED BEHAVIORS

Poster

(Sponsored by: Nutritional Epidemiology RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C1 I 1004.1 Development and validation of a quantitative FFQ for Guam. R.T. LeonGuerrero, R. Novotny, L. Wilkens and M. Chong. Univ. of Guam, Univ. of Hawaii at Manoa.

C2 II 1004.2 Mediterranean diet adherence is decreasing in healthy subjects over the years 1996-2010 also in Mediterranean area. G.M. Trovato, G.F. Martines and D. Catalano. Univ. of Catania, Italy.


C4 II 1004.4 Classification of the items (ingredients) in a 40-day rotating menu offered to day-care center attendees in a government-sponsored program (SOSEP) according to the Monteiro scale of food-processing. M.J. Soto-Méndez, L. Hernández and N.W. Solomons. CeSSIAM, Guatemala City.


C7 I 1004.7 Pre-pregnancy micronutrient intake assessed by food frequency questionnaire in the Alberta Pregnancy Outcomes and Nutrition Study. S.M. Ramage, C. Berglund, L.J. McCargar and R.C. Bell. Univ. of Alberta.


C9 I 1004.9 Comparison of the InBody 520 bioimendace analyzer to air displacement plethysmography for body composition measurements in a healthy adult population. A. Barber, K. Hobb and M. Kern. San Diego State Univ.


1005. APPLICATIONS AND CHALLENGES OF PUBLIC USE DATA SETS FOR SECONDARY ANALYSIS NUTRITION RESEARCH

Poster

(Sponsored by: Nutritional Epidemiology RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


1006. LONGITUDINAL AND CROSS-SECTIONAL ANALYSIS OF ASSOCIATIONS BETWEEN DIET AND HEALTH OUTCOMES

Poster

(Sponsored by: Nutritional Epidemiology RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C16 II 1006.1 Adherence to Mediterranean diet assessed using various a priori scores is associated with reduced 6-year risk of metabolic syndrome in French adults. N. Ahluwalia, C. Lassalle, S. Hercberg, L. Fezeu, D. Lairon and E. Kesse-Guyot. Univ. of Paris13, INSERM U557, Bobigny and INSERM UMR1260, Marseille.

C17 II 1006.2 Autoimmune disease in anorexia nervosa and bulimia nervosa. A. Gerhardt. Univ. of California, Davis, Sacramento.

C18 II 1006.3 Long-term physical illness in anorexia nervosa and bulimia nervosa. A. Gerhardt. Univ. of California, Davis, Sacramento.
1007. APPLICATION OF NOVEL STATISTICAL METHODS FOR USE IN NUTRITIONAL EPIDEMIOLOGY

Poster

(Sponsored by: Nutritional Epidemiology RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


1008. DIETARY SUPPLEMENTS AS A POPULATION EXPOSURE IN CAUSATION, PREVENTION, AND MANAGEMENT OF DISEASE

Poster

(Sponsored by: Nutritional Epidemiology RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


1009. INFLUENCES OF WATER AND BEVERAGE CONSUMPTION ON NUTRITION AND HEALTH STATUS

Poster

(Sponsored by: Nutritional Epidemiology RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C27 II 1009.4 Heat-processed carcinogens: what can we learn from the “coffee - cancer paradox”? J.R. Coughlin. Coughlin & Assocs., Viejo, CA.

1010. NUTRITION EDUCATION IN DIVERSE POPULATIONS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C29 II 1010.2 Lessons learned in conducting nutrition-related research in African American older adults. O.T. Babatunde, A. Campa and S.P. Himburg. East Carolina Univ. and Florida Intl. Univ.


C31 II 1010.4 Dietary habits and degree of satisfaction with meal service by students with visual impairment. H-J. Chung and H-J. Park. Inha Univ., South Korea.

C32 I 1010.5 Head Start preschool teachers’ willingness to implement nutrition and agricultural-based learning centers in the classroom. C.E. Dunham, R. Cash, V. Carraway-Stage and L.S. Goodell. North Carolina State Univ. and Bright Horizons at North Carolina State Univ.


C34 I 1010.7 Correction of eating habits and prevention of weight gain by nutrition education in Korean college students. S.Y. Bu. Kyungil Univ., South Korea.

1011. PREVENTING CHILDHOOD OBESITY

Poster

(Sponsored by: Nutrition Education RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C37  I  1011.3  Familial determinants of body mass index in Colombian 5-18-year-old children. I.G. Casanova, A.D. Stein, O.L. Sarmiento and M. Pratt. Emory Univ. and Sch. of Med., Univ. of los Andes, Colombia.


C39  I  1011.5  A conceptual model elucidating the relationships between television and childhood health outcomes. A. Berhaupt-Glickstein, J. Martín-Biggers, J. Worobey and C. Byrd-Bredbenner. Rutgers Univ.

C40  II  1011.6  Relationship of parental dyad feeding styles on children's weight status and related obesogenic behaviors. A.R. Mobley, R.L. Vollmer and M. Sigman-Grant. Univ. of Connecticut and Univ. of Nevada, Las Vegas.

C41  I  1011.7  Don't forget about dad: exploring paternal influences on children's weight status and eating behaviors. R.L. Vollmer, M. Sigman-Grant and A.R. Mobley. Univ. of Connecticut and Univ. of Nevada, Las Vegas.

C42  II  1011.8  The regularity of breakfast could drive teenager to consume more fruits and vegetables. D. Shin and S-M. Lee. Kyungnam Univ., South Korea.

C43  I  1011.9  Summer camp promotes anthropometric changes in overweight youth in Fresno, California. G. George, C. Schneider, D. Ginsburg and L. Kaiser. Univ. of California, Davis.


C46  II  1011.12  Incongruence between mother perceptions and preschooler's actual weight status using BMI categories. A. Lindsay, A. Hite, T. Byington, M. Lu and M. Sigman-Grant. Univ. of Nevada, Las Vegas and Sch. of Community Hlth. Sci., Univ. of Nevada, Reno.


1012. NUTRIGENOMICS: POPULATION, RACIAL/ETHICAL DIFFERENCES

Poster

(Sponsored by: Obesity Ris)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C51  I  1012.1  Genetic polymorphisms in AHR and CYP1A2 are associated with habitual caffeine consumption and are modified by age and smoking. A.R. Josse, L.A. Da Costa, H. Campos and A. El-Soehmy. Univ. of Toronto and Harvard Sch. of Publ. Hlth.

C52  II  1012.2  Leucine and calcitriol modulation of human airway inflammation and hyperreactivity. A. Bruckbauer, J. Biggerstaff and M.B. Zemel. Nutraceut. Discoveries Inc. and Univ. of Tennessee, Knoxville.


C56  II  1012.6  Genetic variation in the vitamin D receptor and the plasma proteome. B. Garcia Bailo, A. Badawi and A. El-Soehmy. Univ. of Toronto and Publ. Hlth. Agcy. of Canada, Toronto.

C57  I  1012.7  Contribution of total and central adiposity to systemic adipokines during weight loss. N. Gletsu-Miller and E. Lin. Purdue Univ. and Emory Univ.

C58  II  1012.8  Leptin and adiponectin are both suppressed upon activation of nucleotide oligomerization domain containing protein 1 during adipocyte differentiation. J.S. Purohit, P. Hu, J. Chen and L. Zhao. Univ. of Tennessee, Knoxville.
1013. PROTEIN AND AMINO ACID METABOLISM

Poster

(Sponsored by: Energy and Macronutrient Metabolism RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C68 1013.10 Dose and time dependent effects of leucine or carbohydrate supplements to reduce AMPK and eEF2 phosphorylation and extend postprandial muscle protein synthesis in rats. G.J. Wilson, D.K. Layman, C.J. Moulton and P.J. Garlick. Univ. of Illinois at Urbana-Champaign.


C72 1013.14 The abundance of the mRNA translation initiation inhibitor PDCD4 in I6 myotubes is regulated by mTORC1 and the proteasome. O.J. Adegoke, D.M. Kakade and N. Islam. York Univ., Canada.

C73 1013.15 Fractional synthesis rate of creatine from arginine in healthy adult men. C. Tomlinson, M. Rafii, R. Kamaleswaran, R.O. Ball and P.B. Pencharz. The Hosp. for Sick Children, Toronto, Univ. of Toronto and Univ. of Alberta.

C74 1013.16 Constitutive activation of mTOR pathway by leucine causes heart hypertrophy which can be blocked by rapamycin. J. Davoodi and S. Hutson. Virginia Tech and Univ. of Tehran.

C75 1013.17 Effects of methionine supplementation on cysteine and glutathione production in malnourished infants. C.O. Green, A. Badaloo, J.W. Hsu, C. Taylor-Bryan, M. Reid, T. Forrester and F. Jahoor. Univ. of West Indies, Jamaica and USDA and Baylor Col. of Med.


C78 1013.20 Dietary cod protein improves skeletal muscle regeneration partly through its high levels of arginine, lysine, glycine and taurine. J. Dort, N. Leblanc, C. Côté and H. Jacques. Laval Univ., Canada.


C80 1013.22 BCATm and BCKDH expression in mouse adipose tissue upon different metabolic challenges. L.G. Noriega, I. Torre-Villalvazo, A. Contreras, N. Torres and M. Kutschenko. Univ. of Alberta and The Hosp. for Sick Children, Toronto.


C83 1013.25 Determination of glutamate requirement in growing rats by indicator amino acid oxidation. R. Sakai, T. Kuwahara, Y. Kawamata, H. Uneyama, K. Tori

C84 II 1013.26 Analysis of extracellular levels of serotonin in rat amygdala after oral administration of large amounts of tryptophan. F. Yoshizawa, M. Honda and K. Sugahara. Utsunomiya Univ., Utsunomiya, Japan.

C85 I 1013.27 Precursors for citrulline synthesis: facts and artifacts. J.C. Marinii, USDA/ARS, Baylor Coll. of Med.


C90 II 1013.32 Partially hydrolyzed soy protein shows enhanced transport of amino acids compared to nonhydrolyzed protein across an intestinal epithelial cell monolayer. N.J. McGraw, N. Napawan, M. Toland, J. Schulze, B. Tulk and E.S. Krul. Solae LLC, St. Louis and Univ. of California, Davis.


Abstract 1013.36 moved to Session 387 at 3:45 PM.

1014. LIPOID AND FATTY ACID METABOLISM AND TRANSPORT

Poster
(Sponsored by: Energy and Macronutrient Metabolism RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C95 I 1014.1 High fasting ghrelin concentrations are related to low fatty acid flux in overweight subjects. Y. Hovhannisyan, J. Lee, M. Ramos-Roman, D. Bradford, M. Valdez and E. Parks. Univ. of Texas Southwestern Med. Ctr.


C100 I 1014.6 Development of a whole-body model of vitamin A metabolism in neonatal rats treated with oil or vitamin A and retinoic acid based on compartmental analysis of retinol tracer kinetics. L. Tan, A.E. Wray, M.H. Green and A.C. Ross. Penn State.


C105 I 1014.11 Rab2 plays a role in lipid metabolism in the intestine. B. Chung and A. Schürmann. German Inst. of Human Nutr., Nuthetal.

TUESDAY NUTRITION

1015. DIETARY FACTORS AFFECTING LIPID METABOLISM

Poster
(Sponsored by: Energy and Macronutrient Metabolism RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C107 I 1015.1 Effects of retinoid catabolism on the gene expression in primary rat hepatocytes and hepatoma cells. Y. Li and G. Chen. Univ. of Tennessee, Knoxville.

C108 II 1015.2 Palm olein increases plasma cholesterol moderately compared with olive oil in healthy individuals. T. Tholstrup, J. Hjerpsted and M. Raff. Fac. of Life Sci., Copenhagen Univ.


C114 II 1015.8 Practical utility of lipid predictive equations in a diabetic population. S.E. Horton, K.A. Sauder, P.M. Kris-Etherton and S.G. West. Penn State.


C116 II 1015.10 Conjugated linoleic acid-induced lipolysis in 3T3-L1 adipocytes. S.M. Ippagunta and K.M. Barnes. West Virginia Univ.


1016. POLYUNSATURATED FATTY ACIDS AND HEALTH

Poster
(Sponsored by: Energy and Macronutrient Metabolism RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C120 I 1016.1 Association between erythrocyte n-3 fatty acid levels and the risk of depression: case-control study in Korea. Y. Park. Hanyang Univ., South Korea.

C121 II 1016.2 The effect of dietary fat and omega-3 fatty acids on whole body lipid oxidation. C. Ainslie-Waldman, L.R. Young, M.S. Kurzer, S.K. Raatz and A.S. Csallany. Univ. of Minnesota, St. Paul and USDA, Grand Forks.

C122 II 1016.3 Fish oil supplementation as adjunct therapy for periodontitis. A. Coates, M. Bartold, T. Hughes and P. Howe. Sch. of Hlth. Sci., Univ. of South Australia and Sch. of Dept., Univ. of Adelaide.

C123 II 1016.4 Twice-weekly consumption of farmed Atlantic salmon increases plasma content of phospholipid n-3 fatty acids. M.J. Picklo, T.A. Rosenberger, G.S. Burr, W.R. Wolters and S.K. Raatz. USDA, Grand Forks, Univ. of North Dakota and USDA, Franklin, ME.


C125 II 1016.6 Effect of chronic fish oil supplementation on renal function parameters of healthy and cachectic rats. R. Fernandez and I. Coelho. Fed. Univ. of Paraana, Brazil.


C127 II 1016.8 Survey of human milk fatty acid levels of U.S. women who provide expressed milk for feeding their preterm infants. C.L. Berseth, S.H. Mitmesser, C. Harris, D.R. Hoffman and D. Diersen-Schade. Mead Johnson Nutr., Evansville and Retina Fndn. of Southwest, Dallas.

C128 II 1016.9 Estimating the RBC omega-3 index and breast milk DHA from dried samples collected on filter paper. W.S. Harris. OmegaQuant LLC, Sioux Falls, SD.


1017. ANTIOXIDANT MICRONUTRIENTS

Poster
(Sponsored by: Vitamins and Minerals RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C133 II 1016.14 The effect of dietary fatty acids on the recruitment of brown-like adipocytes in inguinal white adipose tissue. M. Zhao, H. Guo and X. Chen. Univ. of Minnesota, St. Paul.


C137 II 1016.18 EPA decreases mRNA and protein for endocannabinoid receptors in myoblasts. J. Kim, Y. Li and B.A. Watkins. Univ. of Connecticut.

C138 I 1016.19 Omega-6 to omega-3 fatty acid ratio and higher-order cognitive functions in 7-to-9-year-olds. K. Will, C.L. Cheatham and J. Stegall. Univ. of North Carolina at Chapel Hill, Kannapolis.

C139 II 1016.20 EPA and DHA increase insulin receptor in proliferating but reduce GLUT4 in differentiated C2C12. J. Kim, Y. Li and B.A. Watkins. Univ. of Connecticut.

1018. WATER SOLUBLE VITAMINS

Poster
(Sponsored by: Vitamins and Minerals RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C141 II 1017.2 Dietary zinc intake is inversely associated with systolic blood pressure in obese Korean women. J. Kim and S. Lee. Daegu Univ., South Korea.

C142 II 1017.3 Adequate vitamin B-6 is associated with increased antioxidant enzyme activity in critically ill surgical patients. Y-C. Huang, C-H. Cheng, F-P. Chen and T-Y. Chiang. Sch. of Nutr., Chung Shan Med. Univ. and Taichung Veterans Gen. Hosp., Taiwan.

C143 II 1017.4 Variability of oxidant status in women of childbearing potential. T. Artz, T. Jallili, M. Goodman and M.A. Murtaugh. Univ. of Utah.


C145 II 1017.6 Antioxidant capacity of tomato paste is stable during growing season and shelf-life. B. Meckna, K.J. Reimers and A. Mark. ConAgra Foods, Omaha.


1019. MICRONUTRIENT BIOAVAILABILITY

Poster

(Sponsored by: Vitamins and Minerals RIS)

TUE. 7:30 AM—SANDIEGO CONVENTION CENTER, EXHIBIT

Presenation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C159 II 1019.1 Biofortified maize (Zea mays L.) provides more bioavailable iron than standard maize: studies in poultry (Gallus gallus) and in vitro digestion/Caco-2 model. E. Tako, O.A. Hoekenga, L.V. Kochian and R.P. Glahn. USDA, Iowa State Univ., Mem. Univ. of Newfoundland, Canada.

C160 II 1019.2 α-Tocopherol absorption into a three-dimensional human skin tissue model. J.A. Evans, J. Garlick, E.J. Johnson, X-D. Wang and C-Y.O. Chen. USDA and Tufts Univ.

C161 I 1019.3 Assessment of iron bioavailability in lentils: identifying commercial harvests with high Fe bioavailability. D.M. DellaValle, R.P. Glahn and A. Vandenberg. USDA, Iowa and Univ. of Saskatchewan.


C166 II 1019.8 Zinc transporter gene expression in type 2 diabetes mellitus is coordinated. M. Foster, A. Chu, P. Petocz and S. Samman. Univ. of Sydney and Macquarie Univ., Australia.


C168 II 1019.10 White common beans (Phaseolus vulgaris) have higher in vitro iron bioavailability than colored seed coat varieties. M. Mutambuka, P. Murphy, S. Hendrich and M.B. Reddy. Iowa State Univ.
1022. SELENIUM

Poster

(Sponsored by: Vitamins and Minerals RIS)

Presentation time: 12:45 PM - 1:45 PM (I); 1:45 PM - 2:45 PM (II)


C194 II 1022.2 Selenium inhibits the histone acetyltransferase activity of KAT3B in macrophages. V. Narayan, R. Kodihalli and K.S. Prabhu. Penn State and MIT.

C195 I 1022.3 Association between selenium (Se) intake, plasma Se levels and disease progression in HIV-infected adults in Miami. R. Trivedi, A. Campa, S.S. Martinez, J.B. Page, S. Lai and M.K. Baum. Florida Intl. Univ., Univ. of Miami and Johns Hopkins Univ.

1023. DIET AND CANCER: ANIMAL STUDIES

Poster

(Sponsored by: Diet and Cancer RIS)

Presentation time: 12:45 PM - 1:45 PM (I); 1:45 PM - 2:45 PM (II)


C199 I 1023.2 Suppression of early colon cancer lesions by apigenin and naringenin is in part due to their downregulation of p21, TLR-4, and MCT-1 expression. W.D. Daniels, T.P. Garcia, R.J. Carroll, B.S. Patil and N.D. Turner. Texas A&M Univ.


C206 I 1023.9 Comparative effects of soluble fiber (konjac glucomannan and oligofructose-rich inulin) and insoluble fiber cellulose on the colonic apoptotic response to acute azoxymethane challenge. W-T.I. Wu and H-L. Chen. Sch. of Nutr., Chung Shan Med. Univ., Taiwan.


C208 I 1023.11 Increased carcinogen-induced colon cancer in ERKO compared to wild type mice. R.S. MacDonald, J. Przybyszewski and D.B. Lubahn. Iowa State Univ. and Univ. of Missouri-Columbia.


C210 I 1023.13 Quercetin decreases tumorigenesis in a high fat diet-enhanced mouse model of breast cancer. J. Steiner, J.M. Davis, J. McClellan, J. Green and E.A. Murphy. Univ. of South Carolina, NCI/NIH and Univ. of South Carolina Sch. of Med.


C213 II 1023.16 The citrus flavonone hesperetin inhibits growth of aromatase-expressing MCF-7 tumor and reduces the effective dose in letrozole-treated mice. F. Li, L. Ye, F.L. Chan, S. Chen and L.K. Leung. The Chinese Univ. of Hong Kong and Beckman Res. Inst. of City of Hope.


1024. DIET AND CANCER: TRANSLATIONAL, CLINICAL AND SURVIVORSHIP

Poster
(Sponsored by: Diet and Cancer RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)

C215 I 1024.1 Lipocalin-2 serum levels decrease in a randomized dietary feasibility study for stage II-IV ovarian cancer survivors. C. Garcia-Prieto, R. Paxton, M. Berglund, M. Hernandez, R.A. Hajek, B.C. Handy, J. Brown and L.A. Jones. Univ. of Texas MD Anderson Cancer Ctr.


C218 II 1024.4 Influence of consumption of allyl isothiocyanate or cabbage and mustard on DNA integrity in humans. C.S. Charron, B.A. Clevidence, G.P. Albaugh, M. Kramer, B.T. Vinyard, J.A. Milner and J.A. Novotny. USDA, Beltsville, MD and NCI/NIH, Rockville.


1025. DIETARY BIOACTIVE COMPONENTS OF MEDICINAL, FUNCTIONAL AND WHOLE FOODS INCLUDING PROBIOTICS AND FERMENTED FOODS

Poster
(Sponsored by: Dietary Bioactive Components RIS)
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C221 II 1025.2 Polyphenolic and antioxidant properties of elderberry (Sambucus) fruits. A.M. Finn, S.E. Milliron, K.E. Hummer and T. Wilson. Winona State Univ., MN and USDA, OR.

C223 II 1025.4 Chemical compositions and antioxidant activity of roasted Maengmudong (Liriope platyphylla tubers). K. Lee, B. Kim and E. Choe. Soonchunhyang Univ. and Inha Univ., South Korea.

C224 I 1025.5 Analyses of chemical constituents and chlorophylls of soy sprouts. K. Lee and Y. Kim. Soonchunhyang Univ., South Korea.

C225 II 1025.6 Extractable and non-extractable proanthocyanidins of Nonpareil, Carmel, and Butte California almonds. B. Bolling, A. Roto, K. Kimball and L. Xie. Univ. of Connecticut.


C240 I 1025.21 Increased qualities of doenjang (Korean soybean paste) prepared with mixed starter cultures and its inhibitory effects on induction of acute colitis in mice. K.Y. Park, J-K. Jeong, Y. Zheng and H.S. Choi. Pusan Natl. Univ. and NIAST, RDA, Suwon, South Korea.


C248 I 1025.29 Dairy-derived bioactive compounds as modulators of stromal, adipocyte-like and osteoblast-like cell metabolism. J. Ilich-Ernst, Y. Kim and O. Kelly. Florida State Univ.


1026. CARDIOVASCULAR EFFECTS OF DIETARY BIOACTIVE COMPONENTS

Poster

(Sponsored by: Dietary Bioactive Components RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C258 I 1026.3 Association of vitamin D levels to blood pressure among blacks and whites. R.O.Sakamoto, S. Tonstad, K. Jaceldo-SiegI, E. Haddad, K. Oda and G. Fraser. Loma Linda Univ. and Univ. of Phoenix Sch. of Nursing, CA.


C260 I 1026.5 Low papaya consumption increases risk for low high-density lipoprotein cholesterol in Mexican college applicants. M.A. Mosley, F.C.D. Andrade, J.M. Vargas Morales, C. Aradillas-Garcia and M. Teran-Garcia. Univ. of Illinois at Urbana-Champaign and Autonomous Univ. of San Luis Potosi, Mexico.


C262 II 1026.7 Wild blueberry diets attenuate phenylephrine (Phe)-induced vasconstriction via NO-sGC-cGMP signaling, but not the COX pathway in spontaneously hypertensive rats. A.S. Kristo, A.Z. Kalea, D.A. Schuscheke and D. Klimis-Zacas. Univ. of Maine, University Col. London and Univ. of Louisville.


C264 II 1026.9 Aronia melanocarpa (chokeberry) polyphenol rich extract reduces plasma cholesterol and improves antioxidant function in apolipoprotein E knockout mice. B. Kim, C.S. Ku, T. Pham, Y. Park, D. Martin, L. Xie, R. Taheri, J. Lee and B. Bolling. Univ. of Connecticut.


C268 I 1026.13 RGD-peptide lunasin inhibits PI3-kinase/Akt-mediated NF-xB activation in human and murine macrophages through interaction with cofilin integrins. A. Cam and E. Gonzalez de Mejia. Univ. of Illinois, Urbana.


C270 II 1026.15 Effect of soy nats on inflammation, endothelial function, glucose, and insulin in adults with metabolic syndrome. E.J. Reverri, C.D. LaSalle, C.T. Kappagoda and F.M. Steinberg. Univ. of California, Davis.


1027. NUTRITIONAL IMMUNOLOGY AND IMMUNE MODULATING NUTRACEUTICALS AND FUNCTIONAL FOODS

Poster

(Sponsored by: Nutrition Immunology RIS)

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C281 II 1027.6 Population dynamics of leukocytes in blood during early activation of the chicken immune system by E. coli. V.J. Iseri and K.C. Klasing. Univ. of California, Davis.


C283 II 1027.8 Population dynamics of leukocytes in tissues during immune activation of the chicken immune system by E. coli. V.J. Iseri and K.C. Klasing. Univ. of California, Davis.

C284 II 1027.9 Lessertia frutescens (Sutherlandia), an African herb, modulates reactive oxygen species and nitric oxide generation by murine macrophages. W. Lei, J. Browning, Jr., P. Eichen, C-H. Lu, W. Folk and K. Fritsche. Univ. of Missouri-Columbia.


C286 I 1027.11 Effect of tomato and tocopherols intake on IgE level. M.F. Godoy, N. Slobodianik, F. Carrari and M. Insani. INTA, Buenos Aires and Sch. of Pharm. and Biochem., Buenos Aires.
1028. ADVANCING NUTRITION POLICY AND IMPROVING THE EFFECTIVENESS OF NUTRITION PROGRAMS

Poster
(Sponsored by: International Nutrition Council (INC))

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C312  II  1028.4  Perspectives of Nigerian policy actors concerning NCDs.  O.A. Adeyemi and D. Pelletier.  Cornell Univ.


1030. NUTRITIONAL STATUS, DIET AND DISEASE

Poster
(Sponsored by: International Nutrition Council (INC))

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C316  I  1030.3  Stunting rates in young children aged 6 to 23 months in infants and toddlers born in metropolitan Quetzaltenango, Guatemala.  M. Reurings, C.M. Doak, M. Vossenaar and N.W. Solomons.  CeSSIAM, Guatemala City and VU Univ., Amsterdam.


C320 II 1030.7 Prevalence of rearing by an overweight/obese mother (early exposure to an obesogenic environment) among infants in an urban metropolitan area of the Guatemalan highlands. C.M. Doak, M. Reurings, M. Campos, M. Vossenaar and N.W. Solomons. VU Univ., Amsterdam and CeSSIAM, Guatemala City.


1031. INTERVENTION STUDIES AND GROWTH, MICRONUTRIENTS

Poster

(Sponsored by: International Nutrition Council (INC))

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C331 II 1031.8 Bioavailable carotenoid and cyanogen content of biofortified cassava after food preparation. M.R. La Frano, D. LaPorte and B. Burri. Univ. of California, Davis and USDA, Davis.


C335 II 1031.12 Relations between iron status and cognitive measures in Indian adolescents. S.P. Scott, M.J. Wengen, L. Murray-Kolb, S.A. Udipi, P.S. Ghugre, E. Boy and J.D. Haas. Penn State, Univ. of Oklahoma, SNDT Women's Univ., India, HarvestPlus, Washington, DC and Cornell Univ.


1032. INTERVENTIONS FOR THE TREATMENT AND PREVENTION OF NUTRITION-RELATED DISEASE

Poster

(Sponsored by: Medical Nutrition Council (MNC))

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C342 II 1032.2 Exercise prevents fructose-induced hypertriglyceridemia in healthy young males. L. Egli, F. Theytaz, V. Campos, L. Hodson, P. Schneider, B. Fielding and L. Tappy. Univ. of Lausanne, Univ. of Oxford and CHUV, Lausanne.

C343 I 1032.3 Effects of acute and chronic almond consumption on glyceria in adults at risk for diabetes. S.Y. Tan and R. Mattes. Purdue Univ.


C348 II 1032.8 Does high blood pressure increase perceived healthiness of foods with sodium claims on the label? C.L. Wong, J. Mendoza and M.R. L'Abbé. Univ. of Toronto and Univ. of Guelph, Canada.

C349 I 1032.9 Evaluating the impact of the nutrition facts table and front-of-pack nutrition rating systems on consumers’ product healthiness evaluations. T.E. Emrich, J.E. Mendoza and M.R. L'Abbe. Univ. of Toronto and Univ. of Guelph, Canada.

1033. NUTRITION AND INFLAMMATION

Poster

(Sponsored by: Medical Nutrition Council (MNC))

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-1:45 PM (I); 1:45 PM-2:45 PM (II)


C358 I 1033.9 Tumor progression locus 2 deletion attenuates alcohol-induced hepatic inflammatory foci and cytokine expression in mice. C.A. Peach, S. Hussain, C. Liu, X-D. Wang and A.S. Greenberg. USDA at Tufts Univ.

C360 I 1033.11 Dietary gangliosides improve intestinal integrity and function by decreasing sPLA2 independent NF-κB activation mechanism in a Caco-2 cell model of IBD by DSS. Q. Li, A.B.R. Thomson, V.C. Mazurak, C.J. Field and M.T. Clandinin. Univ. of Alberta.


C364 I 1033.15 Palmitic acid induces but docosahexaenoic acid inhibits inflammasome-mediated secretion of IL-1β in monocytes by modulating the activation of Toll-like receptor 2. R.G. Snodgrass, S. Huang, I-W. Choi, J.C. Rutledge and D. Hwang. Univ. of California, Davis, USDA, Davis and Univ. of California, Davis, Sacramento.


Pathology

1034. MICROBIOLOGY, IMMUNOLOGY, AND GENERAL PATHOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 11:30 AM-1:30 PM


B170 1034.2 Macrophages from patients affected by lysinuric protein intolerance exhibit an impaired phagocytosis. B.M. Rotoli, A. Barilli, R. Visigalli and V. Dall’Asta. Univ. of Parma.


B172 1034.4 The feoB ferrous iron uptake pathway contributes to the intracellular survival of F. tularensis LVS. C.A. Thomas-Charles and H. Zheng. Stony Brook Univ.

1035. NEUROLOGICAL INJURY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 11:00 AM—12:00 PM


B191 1035.4 Reversible tetracyline-controlled transactivator-inducible expression of neuron-targeted Cav-1 and recovery after neuronal injury. A.M.H. Grove, S.E. Kellerhals, C.M. Stary, H.H. Patel, P.M. Patel and B.P. Head. VA San Diego Healthcare Syst. and UCSD.


B196 1035.9 Status of muscle signaling pathways in the early pathogenesis of dystroglycanopathy-type muscular dystrophy. A.M. Beedle, G. Melick, C. Ball and M. Fortunato. Univ. of Georgia.

B197 1035.10 Impact of adenosine signaling on mutant LRRK2 induced neuronal injury. E. Steer and C. Chu. Univ. of Pittsburgh Sch. of Med.


1036. MECHANISMS OF CARDIAC PATHO BIOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Cardiac Pathobiology
Presentation time: 11:30 AM-1:30 PM


B212 1036.5 Flexible sensors to measure intravascular shear stress coupled with rapid and irregular atrial pacing. N. Jen, F. Yu, J. Lee and T. Hsiai. Univ. of Southern California.


B216 1036.9 Loss of cardiac muscle ring finger-1 augments right ventricular hypertrophy following chronic hypoxia-induced pulmonary hypertension. M. Paffett, S. Lucas, T. Anderson, M. Nysus, J. Norenberg, M. Willis and M. Campen. Univ. of New Mexico Col. of Pharm. and Univ. of North Carolina at Chapel Hill.


Pharmacology and Experimental Therapeutics

1037. CANCER CHEMOTHERAPY AND MECHANISMS OF TOXICITY I

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B3 1037.3 LBSO potentiate the effects of Hg in breast cancer cells. K.R. Sanchez, A. Ishaque and E. Egiebor. Univ. of Maryland Eastern Shore.


B5 1037.5 Anti-proliferative effects of carvacrol on human prostate cancer cell line, LNCaP. B. Patel, V.R. Shah and S.A. Bavadekar. Long Island Univ.


B7 1037.7 MCC-555 induces apoptosis through the combination of PPARγ-dependent and -independent pathways in pancreatic cancer cells. K-W. Min and S.J. Baek. Univ. of Tennessee, Knoxville.

1038. CANCER CHEMOTHERAPY AND MECHANISMS OF TOXICITY II

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

B8 1038.1 Synergistic interaction between scriptaid and proteasome inhibitors enhances the sensitivity of human colorectal cancer cells to chemotherapeutic drugs. M.S. Abaza, A-M. Bahman and R. Al-Attiyah. Kuwait Univ.

B9 1038.2 Adenosine A<sub>2b</sub> receptor blockade slows growth of bladder and breast tumors. C. Cekic, D. Sag and J. Linden. La Jolla Inst. for Allergy and Immunol.


B12 1038.5 Disease stage-specific G protein-coupled receptor expression in clinical disorders: chronic lymphocytic leukemia as a model. T. Katakia, F. Murray, L. Zhang, C. Gray and P.A. Insel. UCSD.


B16 1038.9 The role of GPR30 in breast cancer cell migration. H. Doran and R.A. Ross. Sch. of Med. Sci., Univ. of Aberdeen, U.K.


1039. CORTICOTROPIN-RELEASING FACTOR

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B28 1039.3 Dopamine and isoproterenol depolarize corticotrophin releasing factor neurons in the bed nucleus of the stria terminalis: a potential neurocircuit involved in relapse. Y. Silberman, R.T. Matthews and D.G. Winder. Vanderbilt Univ. Sch. of Med.


B30 1039.5 Investigation of the role of corticotropin-releasing factor receptors within the central amygdala and basolateral amygdala during nicotine withdrawal in rats. Y. Ji, J.C. Alexander and A. Bruijnzeel. Univ. of Florida.

1040. DRUGS OF ABUSE—AMPHETAMINES AND OTHER STIMULANTS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B32 1040.2 Effects of methamphetamine self-administration and withdrawal on sleep in rhesus monkeys. M. Perez Diaz, M. Andersen, K.S. Murnane and L.L. Howell. Emory Univ.

B33 1040.3 Acute effects of d-methamphetamine, 3,4-methylenedioxypyrovalerone, 3,4-methylenedioxymethamphetamine, and 4-methylmethcathinone on wheel activity in rats. P-K. Huang, S.M. Aarde, T.J. Dickerson and M.A. Taffe. The Scripps Res. Inst.

B34 1040.4 Antagonism of 5-HT2A receptors attenuates the effects of amphetamine and 3,4-methylenedioxymethamphetamine on wakefulness and dopamine overflow. K.S. Murnane and L.L. Howell. Emory Univ.


B36 1040.6 Methamphetamine-induced locomotor sensitization in C57BL/6 mice requires the MT1 melatonin receptor. A.J. Hutchinson, J. Ma, R.L. Hudson and M.L. Dubocovich. Univ. at Buffalo SUNY.


B40 1040.10 Determining the importance of changes in dopamine when modafinil is used as a treatment for cocaine dependence. A.J. Brewer III and R. De La Garza II. Baylor Coll. of Med. and Michael E. DeBakey VA Med. Ctr.

B41 1040.11 Enhancement and perceptual masking of a nicotine discriminative stimulus in rhesus monkeys. C.S. Cunningham and L.R. McMahon. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

B42 1040.12 Nicotinic acetylcholine and dopamine receptors contribute to the discriminative stimulus effects of nicotine in nonhuman primates. B.L. Blaylock and M.A. Nader. Wake Forest Univ. Sch. of Med.

B43 1040.13 The nicotinic subunit β4 plays a modulatory role on the anti-addictive action of varenicline. J. Dang, H.R. Arias and G. Jackson. Midwestern Univ., AZ.

1041. DRUGS OF ABUSE—OPiates

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B46 1041.3 The effect of chronic morphine treatment on the abundance of cell signaling proteins in the guinea pig longitudinal muscle-myenteric plexus. B.G. Thompson, P. Li, K. Thayne, J. Masterson and D.A. Taylor. Brody Sch. of Med. at East Carolina Univ. and Intrepid Investments LLC, St. Thomas.

**1042. DRUG-BEHAVIORAL INTERACTIONS**

**Poster**

*TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D*

*Presentation time: 12:30 PM-2:45 PM*

**B52 1042.1** Effects of in utero cocaine exposure on cocaine-food delay discounting procedures in adult rhesus monkeys. **R.E. Brutcher and M.A. Nader.** Wake Forest Univ.

**B53 1042.2** Assessing neurobehavioral function with the rat psychomotor vigilance task. **C.M. Davis and R.D. Hienz.** Johns Hopkins Univ. Sch. of Med. and Insts. for Behavior Resources, Baltimore.

**B54 1042.3** A comparison of methylphenidate enantiomers on delay discounting in rats. **J. Sleazak and J.L. Katz.** NIDA/NIH, Baltimore.

**B55 1042.4** Effects of early neurotoxicity from chemotherapeutic agents on learning, novelty, and drug reward. **E.B. Bisen-Hersh, A.M. Myers and E.A. Walker.** Temple Univ.

**B56 1042.5** Effects of the melatonin receptor antagonist (MT2)/inverse agonist (MT1) luzindole on re-entrainment of wheel running activity and spontaneous homecage behaviors in C3H/HeN mice. **E.B. Adamah-Biassi, I. Stepien, R.L. Hudson and M.L. Dubocovich.** Sch. of Med. and Biomed. Sci., Univ. at Buffalo, SUNY.

**B57 1042.6** N-palmitoylethanolamide treatment exhibits antidepressant effects in a mouse model of anxiety/depressive-like behavior. **R. Crupi, E. Mazzon, D. Impellizzeri, E. Esposito and S. Cuzzocrea.** Univ. of Messina and IRCCS Neurol. Ctr. Bonino-Pulejo, Messina.

**B58 1042.7** Development of a mouse autoshaping model to test for short-term memory impairment. **J.S. John and E.A. Walker.** Temple Univ.


**B60 1042.9** SERT and BDNF heterozygous knockout mice display alterations in grooming activity and syntax. **E. Kyzar, S. Gaikwad, J. Green, A. Roth, M. Pham, A. Stewart and A. Kalueff.** Tulane Univ. Med. Sch.


**B64 1042.13** Some histories of response-contingent histamine attenuate the punishing effect of histamine. **Y.N.T. Truong and J.H. Woods.** Univ. of Michigan.

**B65 1042.14** Use of RFID tags to capture dynamic behavior of individual and groups of small fish. **J. Pritchard and J.B. Zurn.** Col. of Psychol. and Liberal Arts, Florida Inst. of Technol., Florida Res. Instruments Inc., Cocoa Beach and Virginia Commonwealth Univ. Sch. of Engin.
1044. CNS PHARMACOLOGY—NEUROTRANSMITTER RECEPTORS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B72 1044.2 Dopamine transporter interacts with sigma-1R. A.M. North and H. Khoshbouei. Meharry Med. Col. and Univ. of Florida.

B73 1044.3 Neuronal nicotinic acetylcholine receptors are involved in nicotine-mediated reversal of ataxia in an animal model. C.S. Lambert, R.M. Philpot, M.E. Engberg and L. Wecker. Univ. of South Florida.

B74 1044.4 Immortalized hippocampal cell line H19-7 express endothelin system genes. B. Kanyicska and H. Liu. Univ. of Mississippi Med. Ctr.

B75 1044.5 Interactions between the orphan receptor GPR37L1 and the dopamine D1 receptor. R. Meyer and R.A. Hall. Emory Univ.

B76 1044.6 Chronic LSD administration produces changes in mPFC gene and protein expression relevant to schizophrenia, as determined by RNA-Seq and DIGE. D.A. Martin, D.E. Nichols and C.D. Nichols. LSU Hlth. Sci. Ctr., New Orleans and Purdue Univ.

1045. NEUROPSYCHIATRIC DISORDERS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B81 1045.5 Role of GluN2C-containing receptors in rodent schizophrenia-like phenotypes. B.G. Hillman, D. Stairs and S. Dravid. Creighton Univ.


1046. NEUROTOXICOLOGY—GENERAL

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B91 1046.3 Magnesium oxide nanoparticles induce cytotoxic and proinflammatory effects in Schwann cells and DRG neurons. V. Idikuda, A. Jaiswal, Y.Y.W. Wong, S. Leung, C. Daniels and J. Lai. Idaho State Univ.


1047. TRANSPORTERS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM

1048. SIGNAL TRANSDUCTION/ION CHANNELS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B109 1048.6 A pharmacodynamic comparison of piperidine and pyridine alkaloid actions at fetal muscle-type nicotinic acetylcholine receptors. B.T. Green, S.T. Lee and K.E. Panter. USDA, Logan, UT.

B110 1048.7 Sodium channel activator-stimulated neuronal development involves BDNF-TrkB signaling. S.V. Jabba and T.F. Murray. Creighton Univ.

B111 1048.8 G protein estrogen receptor regulates Kv11.1 ion channel activity in ERneg breast cancer cells. S. Gentile. Loyola Univ., IL.

B112 1048.9 2me-SATP activates P2X4R and induces a secondary increase of Na+ pump and Na+/Ca2+ currents in cardiac myocytes of P2X4R overexpression transgenic mice. J.B. Shen, A.J. Pappano and B.T. Liang. Univ. of Connecticut Hlth. Ctr.


B120 1048.17 Depolarization potentials in mouse lateral septal nucleus neurons mediated by TRPC4-like channels. J. Tian, Y. Zhu, Y. Lu and M.X. Zhu. Univ. of Texas Hlth. Sci. Ctr. at Houston.

1049. SMOOTH MUSCLE PHARMACOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B123 1049.2 Effects of metformin on bethanechol-induced bladder contractions. J.D. Peuler, J.K. Curtis and L.E. Phelps. Midwestern Univ., IL.

B124 1049.3 Contraction of rat vena cava by endothelin-1 is dependent on phospholipase-Cβ, but independent of IP3 receptor activation. N.R. Tykocki, B.X. Wu, W.F. Jackson and S.W. Watts. Michigan State Univ.


B126 1049.5 Effect of arsenic and arsenic metabolites on LTCC and BKCa expression and activities in vascular smooth muscle. K. McPherson, C. Pace, R. Khalili and J.E. Angermann. Sch. of Community Hlth. Sci., Univ. of Nevada, Reno.

B127 1049.6 Contractions of rat vas deferens are mediated by α1A- and α1D-adrenoceptors. J.R. Docherty. Royal Col. of Surgeons in Ireland.


1050. MECHANISMS OF TOXICITY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B131 1050.3 Desferrioxamine attenuates doxorubicin-induced acute cardiotoxicity through TGF-β/Smad P53 pathway. O.A. Al-Shabanah. Col. of Pharm., King Saud Univ., Saudi Arabia.


B134 1050.6 Evaluation of aminoglycosides-induced cardiotoxicity in zebrafish obtained in a low cost facility. R.A. Vargas. UDCA, Colombia.


B136 1050.8 Increased phosphodiesterase 4B and decreased cellular cAMP regulate LPS-inducible TNF-α in glucose-primed monocytes. E. Chambers, L. Gobejishvili, S. Ghare, C. McClain and S. Barve. Univ. of Louisville.


B139 1050.11 Aliphatic alcohols propagate oxidative stress-responsive cell death signals in the mouse liver and kidneys by perturbing expression of pro- and antiapoptotic genes. V. Lawana, A. Patel and S.D. Ray. AMS Col. of Pharm. & Hlth. Sci., Long Island Univ. and Manchester Col. Sch. of Pharm., IN.


1051. RENAL PHARMACOLOGY/TOXICOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B149 1051.3 Endothelium targeted anti-complement therapy protects renal allografts by modulating T cell response. C. Maldonado, S. Pushpakumar, C.V. Soni and G. Perez-Abadia. Univ. of Louisville.


B151 1051.5 Decreased renal and urinary nephrilysin protein expression in db/db mice. H. Chodavarapu, M. Bradshaw, E. Salem and K. Elased. Wright State Univ.


B154 1051.8 Prolyl hydroxylase domain/hypoxia. A. Ebiogwu and A. Oyekan. Texas Southern Univ.


B157 1051.11 Lipopolysaccharide impairs gap junction function and reduces rat kidney NRK-52E cell proliferation. Y. Wang, J. Wei, Z. Xia, Z. Hei and C. Luo. The Third Affiliated Hosp. of Sun Yat-sen Univ., China and Univ. of Hong Kong.


1052. DRUG METABOLISM DIVISION SESSION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:30 PM-2:45 PM


B166 1052.2 P450 3A5 is primarily responsible for the formation of the most abundant oxidative metabolite of maraviroc. Y. Lu, C.W. Hendrix and N.N. Bumpus. Johns Hopkins Univ. Sch. of Med.


B168 1052.4 Hepatic PXR represses UGT1A1 gene expression during neonatal development. S. Chen and R.H. Tukey. UCSD.
**Physiology**

**1053. CARDIAC ELECTROPHYSIOLOGY**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D1 I 1053.1 Local control model illustrates how action potential morphology affects Ca²⁺ release. L.D. Gauthier, J.L. Greenstein and R.L. Winslow. Johns Hopkins Univ.


D3 I 1053.3 Dronedarone effects on atrial and ventricular electrophysiology in conscious dogs. L.A.A. Neves, J. Buening, J. Huang, P.B. Senese and M.R. Gralinski. CorDynamics Inc., Chicago.


D5 I 1053.5 Differences in ionic currents between myocardial and Purkinje cells of canine heart. M. Vassalle and L. Bocchi. SUNY Downstate Med. Ctr.


D7 I 1053.7 Novel stretchable electronics platform for simultaneous high-density electrical and optical recordings from ex vivo hearts. S.R. Gutbrod, J.I. Laughner, M.S. Sulkin, L. Xu, A.P. Bonifas, M. Ying, A. Yu, J.A. Rogers and I.R. Efimov. Washington Univ. in St Louis and Univ. of Illinois at Urbana-Champaign.

D8 II 1053.8 Cardiomyocyte geometry and stretch effects on longitudinal conduction velocity. E. Pfeiffer, J. Stowe, J. Tan and A.D. McCulloch. UCSD.


**1054. CARDIAC FUNCTION AND DYNAMICS II**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D15 II 1054.6 Short-term ACE inhibition produces long-term protection against NOS inhibitor-induced cardiac dysfunction. L.A. Biwer, H. Xu, C. Carroll, T. Broderick and T.M. Hale. Univ. of Arizona Col. of Med., Phoenix, Univ. of Rochester and Midwestern Univ., AZ.

D16 I 1054.7 Small left heart syndrome and post-coronary artery ligation outcomes in mice. S. Haskell, V. Peotta, G. Hermann, B. Reinking and R. Roghair. Univ. of Iowa.


1055. CORONARY CIRCULATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D24 I 1054.15 Speckle tracking imaging in evaluation of left ventricular mechanics in a swine model of atrioventricular block during cardiac pacing: a comparison study with conventional right ventricular apical pacing therapy. W. Zhou, P. Benharash, K. Yamakawa and A. Mahajan. UCLA Sch. of Med.

D25 II 1054.16 Development of a fluorescent molecular rotor-based approach for concurrent measurement of blood viscosity and hemodynamics. M.P. Craig, M. Haidekker and J. Hove. Univ. of Cincinnati and Univ. of Georgia.

D26 I 1054.17 Increased angiogenesis as a mechanism for the preserved cardiac function in rats with chronic pressure overload. S. Gao, M. Park, Y. Tian, L. Yan, L. Lin, X. Zhao, R. Gelpi, D.E. Vatner and S.F. Vatner. UMDNJ, Newark.


1056. TRANSIENT RECEPTOR POTENTIAL CHANNELS AND ENDOThelial CALCIum REGULATION IN NATIVE CELLS AND WHOLE VESSELS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D42 II 1055.15 CaM kinase II and Ca2+ sensitization mediate enhanced KCl constriction in collateral-dependent coronary arteries of both sedentary and exercise-trained pigs. J.C. Robles and C. Heaps. Texas A&M Univ.


D48 I 1056.5 TRPC1 and TRPV4 are expressed in sensory endings found in regions of venoatrial endocardium where atrial volume receptors are located. F. Shenton, R.W. Banks and S. Pyner. Sch. of Biol. & Biomed. Sci., Durham Univ., U.K.


D50 I 1056.7 Unitary TRPA1-mediated Ca2+ influx events in primary cerebral artery endothelial cells. M.N. Sullivan, M. Francis, M.S. Taylor and S. Earley. Colorado State Univ. and Univ. of South Alabama Col. of Med.

D51 II 1056.8 The causal role of PKC in reduced endothelial Ca2+ signaling and impaired EDHF-mediated uterine vasodilation in diabetic pregnancy. N.I. Gokina and E. Linder. Univ. of Vermont.


D56 I 1056.13 PAR-1 induced AMPK-p38 MAPK signaling axis mediates STIM1 phosphorylation to prevent calcium entry through TRPC channels in endothelial cells. P. Sundivakkam, V. Natarajan, A.B. Malik and C. Tiruppathi. Univ. of Illinois at Chicago.


D59 II 1056.16 (-)-Epicatechin induces calcium and translocation independent eNOS activation in endothelial cells via AKT/HSP90. I. Ramirez-Sanchez, G. Ceballos and F. Villarreal. Grad. Sch. of Med.-IPN, Mexico City and UCSD.

1057. DIABETIC CARDIOVASCULAR DYSFUNCTION: ROS-DEPENDENT AND -INDEPENDENT CAUSES AND COMPLICATIONS (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D63 II 1057.4 Role of BMP4 in eNOS uncoupling in type 2 diabetes. J.Y. Youn and H.L. Cai. UCLA.

D64 I 1057.5 The role of enhanced cardiac fibroblast glycosylation products on collagen synthesis. I. Ramirez-Sanchez, H. Aguilar, L. Maya-Ramos and F. Villarreal. Higher Sch. of Med.-IPN, Mexico City and UCSD.


D66 I 1057.7 Smooth muscle glutathione depletion contributes to increased myogenic tone in resistance arteries of type-2 diabetic mice. G.V. Velmurugan and C. White. Rosalind Franklin Univ. of Med. and Sci.


D70 I 1057.11 Cardiac responses to intravenous glucagon-like peptide 1 are impaired in metabolic syndrome. S.P. Moberly, Z.C. Berwick, M. Kohn, K. Mather and J.D. Huffman. Indiana Univ. Sch. of Med.

**TUESDAY PHYSIOLOGY**


D76 I 1057.17 Ceramide mediates vascular dysfunction in diet-induced obesity by PP2A-mediated dephosphorylation of the eNOS-Akt complex. T. Ruan, A. Ravindran, Q.-Z. Zhang, E.D. Abel and J.D. Symons. Univ. of Utah.


D82 I 1057.23 Diabetes abolishes the cardioprotective effect of estrogen on systolic cardiac function. N. Santiago, M.B. Melo, M. Chappell, J. Varagic, R.A.S. Santos and M.J. Campagnole-Santos. Fed. Univ. of Minas Gerais, Brazil and Wake Forest Univ. Sch. of Med.


**1058. EMERGING PARADIGMS IN MICROVASCULAR SIGNALING (POSTERS)**

Poster

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D91 II 1058.2 Exclusive interaction between α1d-adrenergic receptor and pannexin 1 can mediate vasoconstriction. M. Billaud, A.W. Lohman, Y-H. Chiu, J.K. Sandilos, D.A. Bayliss and B.E. Isakson. Univ. of Virginia.


D93 II 1058.4 Myoendothelial contacts within the skeletal muscle arterial network: a potential mediator for divergent control of vascular tone. B.S. Kirby, A. Breuli and S. Earley. Colorado State Univ.

D94 I 1058.5 eNOS inhibition is protective against oxygen glucose deprivation in brain microvascular endothelial cells by preempting eNOS uncoupling. P.S. Katz, E.A. Wappler, P.V. Katakam and D.W. Busija. Tulane Univ. Sch. of Med.

D96  I  1058.7  Attenuation of conducted vasodilation in the skeletal muscle during hyperhomocysteinemia.  S. Givviman, N. Narayanan, N. Tyagi and S.C. Tyagi.  Univ. of Louisville.

D97  II  1058.8  Manipulating IP3-R-mediated calcium release in permeabilized endothelial cell tubes of resistance arteries.  M.J. Socha, T.L. Domeier and S.S. Segal.  Univ. of Missouri-Columbia.


D99  II  1058.10  Increased tortuosity promotes platelet activation and thrombus formation in microvessels.  J. Chesnutt and H-C. Han.  Univ. of Texas at San Antonio.


D101  II  1058.12  Tuning electrical conduction along endothelial cell tubes via Ca2+-activated K+ channels.  E. Behringer and S. Segal.  Univ. of Missouri-Columbia.


1059. NOVEL REGULATORS OF CARDIAC FIBROBLAST FUNCTION AND FATE (POSTERS)

Poster  

Presentation time: 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D


D105  II  1059.2  Scleraxis works synergistically with Smads to regulate collagen gene expression.  R. Bagchi and M. Czubryt.  Univ. of Manitoba.


D108  I  1059.5  Reversal of cardiac fibroblast-to-myofibroblast transformation by cyclic AMP.  N. Aroonsakol, U. Yokoyama, D. Lu, F. Murray and P.A. Insel.  UCSD.


D113  II  1059.10  G protein-coupled receptor regulation of cardiac fibrosis.  A.N. Snead, S. He and P.A. Insel.  UCSD.


D115  II  1059.12  ATP release and activation of P2Y2 receptors in the regulation of cardiac fibroblasts.  D. Lu, S. Soleymani, R. Madakshire and P.A. Insel.  UCSD.


D117  II  1059.14  Cyclic AMP induces necrotic cell death in cardiac fibroblasts.  H. Yun, A.S. Wilderman, D. Lu, N. Aroonsakool and P.A. Insel.  UCSD.


1060. COMMUNICATION BETWEEN CARDIAC CELLS AND THE EXTRACELLULAR MATRIX (POSTERS)

Poster  

Presentation time: 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

D120  I  1060.1  Matrix metalloproteinase-28 deletion attenuates short-term left ventricular dysfunction but exacerbates cardiac rupture post-myocardial infarction in mice.  Y. Ma, J. Zhang, T.A. Ramirez, A.M. Manicone and M.L. Lindsey.  Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of Washington.

D122 I 1060.3 Cardiac-myoocyte ablation of Talin1 results in a blunted hypertrophic response to chronic pressure overload. A.M. Manso, R. Li, N.M. Cruz, Y. Gu, S.M. Chang, B.J. Rasmusson, K.L. Peterson, D. Abel, S.J. Monkley, D.R. Critchley and R.S. Ross. UCSD Sch. of Med. and VA Healthcare San Diego, Univ. of Utah Sch. of Med. and Univ. of Leicester, U.K.

D123 II 1060.4 S1P induces CCN1 expression through RhoA/MRTF-a activation and protects cardiomyocytes against cell death. E. Ding, S. Miyamoto, X. Zhao, S.Y. Xiang, R.R. Neubig and J. Heller Brown. UCSD and Univ. of Michigan.

D124 I 1060.5 Age-dependent alterations to the cardiac extracellular matrix in heart failure: differences between ventricular and atrial remodeling. M.A. Horn, H. Graham, E. Bode, K. Dibb and A. Trafford. Univ. of Manchester.


D130 I 1060.11 Increased MMP8 and 12 activation correlates with elevated endostatin and angiostatin and impaired coronary collateral growth in the metabolic syndrome. T.Y. Dodd, L. Wiggins, A.M. Musiyenko, E. Smith and P. Roci. Univ. of South Alabama.

D131 II 1060.12 Effect of desmin knockout on skeletal muscle extracellular matrix organization. A. Gilles and R.L. Lieber. UCSD.


D133 II 1060.14 Enhanced proliferation and cardiogenic differentiation of cardiac progenitor cells treated with a naturally derived cardiac extracellular matrix. K.M. French, J.A. DeQuach, K.L. Christman and M.E. Davis. Emory Univ. and UCSD.


D135 II 1060.16 Simulation of physiologic strain to aligned cells anchored in 3D affects proliferation, differentiation, and organization of the actin cytoskeleton. G. Doroudian, A. Gang, M. Curtis and B. Russell. Univ. of Illinois at Chicago.


1061. LUNG PHYSIOLOGY: AIRWAY RESPONSIVENESS AND SMOOTH MUSCLE CELL BIOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D140 II 1061.2 Allergen-induced airway constriction in guinea pig lung slices is attenuated by arginase inhibition via increased nitric oxide production. R.B. Sopi, M. Simoons, M.J. Sanderson, H. Meurs and H. Maarsingh. Univ. of Groningen, Netherlands, Univ. of Pristhana, Kosovo and Univ. of Massachusetts Med. Sch.

D141 I 1061.3 Pharmacological activators of Kv7 potassium channels attenuate methacholine-induced constriction of rat airways. L.I. Brueggemann, S. Tate and K.L. Byron. Loyola Univ. Stritch Sch. of Med.


D143 I 1061.5 Respiratory syncytial virus infections augment airway reactivity in mice exposed to chlorine. W. Song, Z. Yu, N. Ambalavan, S. Garantziotis and S. Mataon. Univ. of Alabama at Birmingham and NIEHS/NIH, Research Triangle park.
1062. LUNG PHYSIOLOGY: DEVELOPMENT AND PLASTICITY

Posters

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D147 II 1062.4 The hyperoxia-mediated decrease in tenasin-C in fetal lung fibroblasts inhibits cell migration. A. DeCoux, J. Chaplin, G. Wilson, J. Benjamin and S. Gebb. Univ. of South Alabama.


1063. CELL-CELL AND CELL-MATRIX ADHESIONS IN CONTROL OF LUNG FLUID BALANCE AND INNATE IMMUNITY: TALKING IS CRITICAL! (POSTERS)

Posters

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D149 I 1063.1 Rap1 and afadin promote interactions between adherens junctions and tight junctions and regulate endothelial permeability. A.A. Birukova, N. Zebda, T. Wu, O. Dubrovskyi, N. Sarich and K.G. Birukov. Univ. of Chicago.

D150 II 1063.2 Src family kinases collaborate with distinct TNF-alpha-induced signaling pathways to regulate actin dynamics at cell-cell junctions and barrier function in endothelial cells. A.P. Adam, A. Lowery and P. Vincent. Albany Med. Ctr.

D151 I 1063.3 Cadherin ectodomains and cadherin-actin linkages regulate the endothelial barrier. S.K. Quadri, L. Sun and J. Bhattacharya. Columbia Univ.


D158 II 1063.10 Real-time observation of cytoskeletal stresses and subsequent focal adhesion remodeling in live cells. S. Huu, N. Ye, D. Verma, F. Meng and F. Sachs. Univ. at Buffalo SUNY.


1064. CELLULAR SIGNALING

Posters

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D167 I 1064.3 Hyposmotic stress-induced cytoplasmic calcium increase involves TRPV4 and Src family kinase activation. A. Mandal, M. Shahidullah and N.A. Delamere. Univ. of Arizona.


D172 II 1064.8 Modified cell signaling with multivalent ligands targeting independent GPCR's. C. Weber, N. Brabez, J. Vagner, V.J. Hruby, R.J. Gillies and R. Lynch. Univ. of Arizona and Moffitt Cancer Ctr., Tampa.


D175 I 1064.11 Signaling from the natriuretic peptide system to ENaC: implications in primary cilium of renal epithelial cells. A.A. Alli, L-J. Guo, D.C. Eaton and H-F. Bao. Emory Univ.


1065. APOPTOSIS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D181 I 1065.1 Recruitment of OCRL and Inpp5B to phagosomes by Rab5 and APPL1 depletes phosphoinositides and attenuates Akt signaling. M. Bohdanowicz, D.M. Balkin, P. De Camilli and S. Grinstein. Hosp. for Sick Children, Toronto and Yale Univ.

D182 II 1065.2 Cytosolic phospholipase A₂ mediates mechanical stretch-induced apoptosis via caspase-3 in human renal proximal tubular epithelial (HK-2) cells. L.D. Alexander. Midwestern Univ., AZ.


D185 I 1065.5 Anticancer effects of α, β-Momorcharin and its mechanism of action on different cancer cell lines. J. Singh and G. Manoharan. Univ. of Central Lancashire, U.K.

D186 II 1065.6 Tauroursodeoxycholic acid improves function in cold storage hearts. K. Porter, T. Mingo, G.A. Garry and M.G. Garry. Univ. of Minnesota, Minneapolis.


1066. MEMBRANE DOMAINS

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D189 II 1066.2 Shank2 regulates NaPiIIa abundance and endocytosis in OK cells. E. Dobrinshkikh, D. Cranston, J. Rachelson, R. Moldovan, T. Lei and R.B. Doctor. Univ. of Colorado Denver, Aurora.


D192 I 1066.5 Anticancer effects of α, β-Momorcharin and its mechanism of action on different cancer cell lines. J. Singh and G. Manoharan. Univ. of Central Lancashire, U.K.

D193 II 1066.6 Tauroursodeoxycholic acid improves function in cold storage hearts. K. Porter, T. Mingo, G.A. Garry and M.G. Garry. Univ. of Minnesota, Minneapolis.

D194 I 1066.7 Spatio-temporal patterns of apoptosis and mitosis during organismal regeneration in a basal chordate. J.P. Gilman and R.J. Lauzon. Union Col., NY.

353
1067. UBIQUITYLATION AND DEUBIQUITYLATION OF ION CHANNELS AND TRANSPORTERS (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D194 I 1067.1 Ubiquitination of the plasma membrane KCa3.1 is not required for channel endocytosis but for its lysosomal targeting. C. M. Balut and D. C. Devor. Univ. of Pittsburgh.

D195 II 1067.2 Loss of renal Nedd4-2 in adult mice leads to PHAII compensated by ENaC downregulation and ROMK upregulation. O. Staub, C. Ronzaud, D. Loffing, A. Debonneville, B. Yang, J. Stokes, R. Koesters, E. Hummler and J. Loffing. Univ. of Lausanne, Univ. of Zurich, Univ. of Iowa and INSERM/Univ. Pierre et Marie Curie, Paris.


D197 II 1067.4 Prolactin-stimulated ubiquitination of the zinc transporter ZnT2 regulates zinc secretion. Y. A. Seo and S. L. Kelleher. Penn State and Penn State Col. of Med.


D199 II 1067.6 Ubiquitination of vesicular acetylcholine transporter. Y. Li, J. L. Freeing and A. Sample. Univ. of South Dakota.

D200 I 1067.7 cGMP induces the degradation of internalized NKCC2 in thick ascending limbs: role of the proteasome. G. Ares and P. Ortiz. Henry Ford Hlth. Syst.


1068. REGULATION OF EPITHELIAL TRANSPORT PROTEINS, ION AND WATER CHANNELS, AND MODULATORY FACTORS II

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D204 I 1068.3 Regulation of ENaC by cholesterol: role of microvilli and PIP2. H. P. Ma. Emory Univ. Sch. of Med.


D207 II 1068.6 Inhibition of αENaC expression and ENaC activity following blockade of the circadian clock-regulatory kinases CKIδ/ε. J. Richards, M. Mitzelfelt, L. Jeffers, K.-Y. Cheng, D. C. Eaton and M. L. Gumz. Univ. of Florida and Emory Univ.

D208 I 1068.7 Modification of ENaC subunits: a model system to study channel degradation. D. M. Collier and P. M. Snyder. Univ. of Iowa Carver Col. of Med.

D209 II 1068.8 Epithelial sodium channel plasma membrane turnover is modified in channels containing δ subunits. D. Alvarez de la Rosa, D. L. Wesch, P. Miranda and T. Giraldez. Univ. of La Laguna and Hosp. N.S. Candelaria, Santa Cruz de Tenerife, +Spain.


D211 II 1068.10 Estradiol increases the density and open probability of epithelial sodium channels in alveolar cells. M. M. Greenlee, B. J. Duke and D. C. Eaton. Emory Univ.

D212 I 1068.11 Downregulation of the (pro)renin receptor by insulin is potentiated by high glucose in mouse renal collecting duct cells. A. A. Gonzalez, M. Rajo, M. Kassan, K. Matrougui and M. C. Prieto. Tulane Univ.

D213 II 1068.12 Mice disrupted for the ammmonia channel RhCG compensate a physiological acid load of high protein diet. L. Bounoure, S. Bourgeois, S. Druart, G. Kuhn, R. Müller, O. Devuyyst and C. Wagner. Univ. of Zurich, UCL, Brussels and ETH, Zurich.


1069. SODIUM AND WATER HOMEOSTASIS: GENETIC AND COMPARATIVE MODELS (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D227 I 1069.1 Osmotic pressure of the cutaneous surface fluid of Rana esculenta. E.H. Larsen and H. Ramlov. Univ. of Copenhagen and Roskilde Univ., Denmark.


D229 I 1069.3 Abundance of sea kraits correlates with precipitation. H.B. Lillywhite and M-C. Tu. Univ. of Florida and Natl. Taiwan Normal Univ.


D236 II 1069.10 Acute changes in dietary sodium lead to sodium retention in the collecting duct NOS1 knockout mouse. K.A. Hyndman, M. Brands, D.M. Pollock and J.S. Pollock. Georgia Hlth. Sci. Univ.


1070. COMPARATIVE OSMOTIC, IONIC, AND ACID-BASE REGULATION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D239 II 1070.2 Pacific oyster mantle, gill and hemocodes express the bicarbonate-sensing enzyme soluble adenylyl cyclase. M.E. Barron, J.N. Bartlett Roa and M. Tresguerres. UCSD.

D240 I 1070.3 Kidney function and sulphate transport in pacific hagfish (Eptatretus stoutii). G.G. Goss, A. Schultz, B.L. Goss and A.M. Clifford. Univ. of Alberta.

D241 II 1070.4 Bicarbonate-sensing soluble adenylyl cyclase in elasmobranch and teleost fishes. J.N. B. Roa, M.E. Barron and M. Tresguerres. UCSD.

D242 II 1070.5 Response of a marine population of three-spine sticklebacks (Gasterosteus aculeatus) to salinity stress. J. Li and D. Kültz. Univ. of California, Davis.

D244 II 1070.7 Rhcg1 and NHE3b are involved in ammonium-dependent sodium uptake by zebrafish larvae acclimated to low-sodium water. T-H. Shih, J-L. Horng, S-T. Liu, P-P. Hwang and L-Y. Lin. Natl. Taiwan Normal Univ., Taipei Med. Univ. and Acad. Sinia, Taipei.

D245 II 1070.8 The role of polyamines in osmotic stress tolerance in Gulf killifish Fundulus grandis. Y. Guan. LSU.

D246 II 1070.9 Functions of ion transporting proteins NKA, NKCC and CFTR on the intestinal epithelia of Fundulus grandis during osmotic challenge. Y. Meng and C. Bodinier. LSU.

D247 II 1070.10 Isolation of the TRPV4 osmoreceptor from the ayovian lower gastrointestinal tract. P.C. Warner and E.J. Braun. Univ. of Arizona.

1071. COMPARATIVE CARDIOVASCULAR AND RESPIRATORY PHYSIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D251 II 1071.4 Fluctuations in oxygen influences facultative endothermy in bumblebees. E.M. Dzialowski, G. Tattersall, S. Nicol and P. Frappell. Univ. of North Texas, Brock Univ., Canada and Univ. of Tasmania, Australia.


D253 II 1071.6 The effect of temperature on the compliance of the rainbow trout heart. H.A. Shiels, H. Rizvi, A. Fenna and D. Samuel. Univ. of Manchester.

D254 I 1071.7 \(\beta\)-Adrenoceptors in the ventricle of the rainbow trout. H.A. Shiels, A. Fenna, S. Pellowe, R. Robinson and R. Taylor. Univ. of Manchester.

D255 II 1071.8 The effects of temperature on cardiac E-C coupling and intracellular Ca\(^{2+}\) buffering in trout cardiomyocytes. D.E. Warren and H.A. Shiels. Saint Louis Univ. and Univ. of Manchester.

D256 I 1071.9 Modulation of the onset of air-breathing of the siamese fighting fish and the blue gourami. J. Mendez Sanchez and W. Burggren. Univ. of North Texas.

1072. COMPARATIVE METABOLIC PHYSIOLOGY, MUSCLE PHYSIOLOGY, AND OTHER COMPARATIVE PHYSIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D264 I 1072.1 Cyanide influence on glycolytic oscillations. P.G. Sørensen and B.O. Hald. Univ. of Copenhagen.


D268 I 1072.5 Embryonic temperature produces persistent effects on the capacity for thermal acclimation in adult zebrafish. G.R. Scott, M.E. Schnurr, Y. Yin and I.A. Johnston. McMaster Univ., Canada and Sch. of Biol., Univ. of St. Andrews, U.K.

TUESDAY

1074. PHYSIOLOGICAL ADAPTATIONS TO INACTIVITY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D282 II 1074.2 Electroacupuncture attenuated muscle atrophy induced by hindlimb suspension in rats. S. Lee, J. Hong, K. Kim and Q. Ni. Texas A&M Intl. Univ.


1075. SIGNALING IN MUSCLE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D284 I 1075.1 Phosphatidic acid and mechanical stimuli activate mTOR signaling via an ERK-independent mechanism. T.A. Hornberger and J.S. You. Univ. of Wisconsin-Madison.


D288 I 1075.5 Manipulating cytosolic ATPases alters both energetics and p38 MAPK activation in contracting fast-twitch muscles from the mouse. R.W. Wiseman, N. Pizzimenti and J. Brault. Michigan State Univ. and East Carolina Univ.


D292 I 1075.9 The generation of reactive oxygen and nitrogen species is not different during injurious lengthening contractions and non-damaging isometric contractions. D. Sloboda and S.V. Brooks. Univ. of Michigan.


D299 II 1075.16 Alterations in Ca\textsuperscript{2+} regulatory proteins and Ca\textsuperscript{2+}-dependent gene expression in skeletal muscle from ALS mice. E.R. Chir, D.A.G. Mazala and D. Chen. Univ. of Maryland College Sch. of Publ. Hlth.


D301 II 1075.18 The effects of IL-6 dosage and duration on the regulation of protein turnover in C2C12 myotubes. S. Gao and J. Carson. Univ. of South Carolina.


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**1076. EXERCISE/NUTRITION AND MUSCLE PROTEIN SYNTHESIS**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)**

D306 I 1076.1 Muscle RING finger-1 inhibits IGF1-dependent Akt activation and exercise-induced cardiac hypertrophy. K.M. Wadosky, J.E. Rodriguez and M.S. Willis. Univ. of North Carolina at Chapel Hill.


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**1077. AGING AND MUSCLE FUNCTION**

**Poster**

**TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D**

**Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)**

D310 I 1077.1 The effects of calorie restriction on skeletal muscle glucose uptake and insulin signaling in 24-month-old rats. D.A. Sequea, N. Sharma, E. Arias and G.D. Cartee. Univ. of Michigan Sch. of Kinesiol.


1078. SKELETAL MUSCLE PHYSIOLOGY

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D318 I 1078.1 Activin IIB receptor blockade improves muscular function in a mouse model of spinal muscular atrophy. M. Liu, E.R. Barton and H.L. Sweeney. Univ. of Pennsylvania.


D323 II 1078.6 Effects of glutamine supplementation on muscle function in a mouse model of spinal cord injury. K. Huey, C. Chamney, M. Godar and E. Garrigan. Drake Univ.

D324 I 1078.7 Angiotensin II depletes the α1 is necessary on muscle function in a mouse model of spinal cord injury. K. Huey, C. Chamney, M. Godar and E. Garrigan. Drake Univ.

D325 II 1078.8 A novel method to measure glucose uptake by single skeletal muscle fibers reveals a similar level of insulin resistance for type IIA, IIB, IIX and IIB/X fibers from obese Zucker rat epitrochlearis muscle. J.G. MacKrrell and G.D. Cartee. Univ. of Michigan Sch. of Kinesiol.


D329 II 1078.12 The effects of cAMP on force of contraction and recovery from fatigue of fast twitch muscle is dependent on stimulation parameters. T.L. MacDonald and C.L. Murrant. Univ. of Guelph, Canada.


D334 I 1078.17 Impaired regeneration in ERα-deficient skeletal muscle. S. LaBarge, M. McDonald and J. Huss. City of Hope.

D335 II 1078.18 Interleukin-6/JAK/STAT3-induced satellite cell proliferation is regulated through induction of Cyclin D1. M. Kurosaka and S. Machida. Tokai Univ., Japan.


D340 I 1078.23 Impact of antenatal inflammation on diaphragm muscle function in the preterm lamb. G.J. Pinniger, T. Lavin, A. Bakker, C. Berry, P. Noble and J.J. Pillow. Sch. of Women and Infant's Hlth., Univ. of Western Australia.


D342 I 1078.25 The transcription factor ATF4 is an essential mediator of skeletal muscle atrophy. S.M. Ebert, S.D. Kunkel, M.C. Dyle, S.A. Bullard and C.M. Adams. Univ. of Iowa.

D344 I 1078.27 Effect of hypoxia on single skeletal muscle fiber contractility at physiological temperature. A.A. Shiah, L. Nogueira, P.G. Gandra and M.C. Hogan. UCSD.


D352 I 1078.35 Muscle size assessment with panoramic ultrasound: measurement reliability among varying body masses. E.J. Salley and E.S. Hayes. Taylor Univ., IN.

D353 II 1078.36 Norepinephrine in vivo restores the low phosphorylation levels of Akt and attenuates the high expression of atrophy- and autophagy-related genes in skeletal muscles of fasted mice. W.A. Silveira, D.A.P. Gonçalves, F.A. Graça, N.M. Zanon, I.C. Kettelhut and L.C.C. Navegantes. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.


1079. THERMAL PHYSIOLOGY: FROM ACUTE RESPONSES TO PROTECTIVE ADAPTATION (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D359 I 1079.1 Heat acclimation mediated cytoprotective memory: do epigenetic mechanisms play a role? A lesson from the heart. M. Horowit. The Hebrew Univ. of Jerusalem.


D361 I 1079.3 Cardiovascular, autonomic, and thermoregulatory effects of repeated exertional heat stress in rats. H.M. Stauss, N. Choudhary, A. Nash, F.O. Liaboe and K.C. Kregel. Univ. of Iowa.


D363 I 1079.5 The impact of IL-6 supplementation on murine intestinal permeability and systemic cytokine levels following heat stroke. N.A. Phillips and T.L. Clanton. Univ. of Florida.


D366 II 1079.8 Integrative physiology of antidepressant drug action. C.A. Lowry, M.W. Hale, K.F. Dady, J.L. Lukkes, K.J. Kelly and C.L. Raison. Univ. of Colorado Boulder, La Trobe Univ., Australia and Univ. of Arizona.


D368 II 1079.10 KCa channels and EETs: major contributors to cutaneous thermal hyperemia. V.E. Brunt and
1080. THE LETHALITY OF TRAUMA: NEW INSIGHTS INTO THE PHYSIOLOGY OF HEMORRHAGE (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D397 I 1080.3 Activation of 5HT1A receptors in the nucleus tractus solitarius contributes to blood pressure compensation with blood loss and peripheral chemoreflex responses in the presence of acidosis. J.E. Vantrease, N. Dudek and K. Scroggin. Loyola Univ. Chicago, Maywood.


D385 I 1080.9 Tolerance to a hemorrhagic challenge during heat stress is improved with inspiratory resistance breathing. R.M. Brothers, M.S. Ganio, R.A.I. Lucas and C.G. Crandall. Texas Hlth. Presbyterian Hosp. Dallas, Univ. of Texas at Austin, Univ. of Arkansas and Univ. of Texas Southwestern Med. Ctr.


1082. DIVING AND HYPERBARIA

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D396 II 1082.2 Simulation of experiments inhaling argon at 1 and 7 atmospheres. J.M. Melendez, L.J. Caucha and J.C. Cruz. Natl. Univ. of Piura and Natl. Univ. of Tumbes, Peru.

D397 I 1082.3 Simulation of expired nitrogen after inhaling argon at 1 atmosphere. J.C. Cruz. Natl. Univ. of Piura, Peru.


D399 I 1082.5 High doses of pseudoephedrine taken 2 hours prior to “diving” to 132 feet of seawater (5 ATA) while breathing pure O2 increases risk for CNS oxygen toxicity in unanesthetized rats. R. Pilla, H.E. Held, C.S. Landon and J.B. Dean. Univ. of South Florida.

D400 II 1082.6 Neuropilin-1 expression in CNS: increased risk of seizure due to hyperbaric preconditioning and kindling effect. R. Pilla, T. Fiorelli, H.E. Held, C.S. Landon and J.B. Dean. Univ. of South Florida.


D402 II 1082.8 Baseline plasma cGMP levels correlates with breath hold capacity in competitive breath hold divers. P. Lindholm, T.A. Schiffer, J.O. Lundberg and E. Weitzberg. Karolinska Inst.

D403 I 1082.9 Microparticle enlargement is a key point of vascular injury caused by decompression stress. M. Yang, T.N. Milovanova, M. Bogush, V. Bhopale and S.R. Thom, Univ. of Pennsylvania and Hosp. of Univ. of Pennsylvania.


D405 I 1082.11 Pseudomonas aeruginosa produce autoantibodies against HSP60 in rats. M. Havnes, C. Ahlén, A. Brubakk and O-J. Iversen. NTNU and SINTEF, Trondheim, Norway.
1085. GRAVITATIONAL AND SPACE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D430 I 1085.1 Impaired cerebrovascular autoregulation and CO₂ response are related to changes in systolic pressure after long-duration spaceflight. R.L. Hughson, K. Zuj, J.K. Shoemaker, A. Blaber, D.K. Greaves and P. Arbeille. Univ. of Waterloo, Canada, Univ. of Western Ontario, Simon Fraser Univ., Canada and Univ. of Tours, France.


1086. MUSCLE PLASTICITY AND GENE REGULATION/ EXPRESSION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D445 II 1086.4 Melatonin and/or therapeutic exercise induces autophagy-mediated muscles remodeling in collagenase-induced osteoarthritic rats. Y. Hong, H. Kim, S. Lee and Y. Hong. Inje Univ., South Korea.


D447 II 1086.6 Similar reductions in expression of proliferative genes are observed in skeletal muscle and organs with age. J.C. Jones and A.C. Dilger. Univ. of Illinois at Urbana-Champaign.


D451 II 1086.10 Markers of autophagy are elevated in cardiac tissue following doxorubicin administration. A.N. Kavazis, A.J. Smuder, K. Min and S.K. Powers. Mississippi State Univ. and Univ. of Florida.


D455 II 1086.14 Effects of varying exercise intensities on GDNF expression and neuromuscular junction morphology. A.M. Gyorkos, M. McCullough and J. Spitsbergen. Western Michigan Univ.


D457 II 1086.16 Differential myogenic and cell cycle gene translation following unaccustomed resistance loading may contribute to disparate myofiber hypertrophy potential during resistance training. M.J. Stec, A. Thalacker-McKerrow, X. Cui, E. Merritt and M. Baman. Univ. of Alabama at Birmingham.


D459 II 1086.18 A molecular mechanism for frequency dependent skeletal muscle fiber plasticity. E. Jaimovich, G. Jorquera, S. Buvinic and M. Casas. Univ. of Chile.


D465 II 1086.24 Rapamycin prevents muscle growth and the increase inMHCIIa induced by voluntary wheel running. B. Patchen and S.J. Swoap. Williams Col.

1087. NEURAL CONTROL OF THE CIRCULATION DURING EXERCISE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D470 II 1087.1 A role for central command in the generation of the exaggerated cardiovascular response to exercise in hypertension. N. Liang, M. Mizuno, R. Downey, J.H. Mitchell and S.A. Smith. Univ. of Texas Southwestern Med. Ctr. and Hiroshima Univ.

D471 II 1087.2 Cardiac output and total vascular conductance responses to simulated carotid hypertension in young women: exercise and ovarian hormones. A. Kim, J.P. Fisher, S.H. Deo, L.C. Vianna and P.J. Fadel. Univ. of Missouri-Columbia and Sch. of Sport & Exer. Sci., Univ. of Birmingham, U.K.


D474 II 1087.5 Sequential effects of training on GABAergic neurons in central autonomic areas. L.C. Micheliní, T.T. Zampieri, S.D. Silva, Jr., A. Ceroni and A. Ruggeri. Univ. of São Paulo.


D476 II 1087.7 Characterize ASIC3 in muscle sensory neurons with femoral artery occlusion. J. Xing, J. Lu and J. Li. Penn State Col. of Med.

D477 II 1087.8 Neutralization of NGF attenuates augmented sympathetic nerve responses to activation of chemosensitive muscle afferents in rats with femoral artery occlusion. J. Lu, J. Xing and J. Li. Penn State Col. of Med.

D478 II 1087.9 Baroreflex responsiveness is attenuated in African Americans during steady-state leg exercise. S.W. Holwerda, M.R. Samels and D.M. Keller. Univ. of Texas at Arlington.

D479 II 1087.10 Sympathetic response to fatiguing handgrip and muscle metaboreflex activation is attenuated in smokers compared to non-smokers. R. Drew, M.D. Muller, J. Cui, C. Blaha, J. Mast and L.I. Sinoway. Penn State Col. of Med.


1088. CONTROL OF BREATHING: CENTRAL CONNECTIVITY, NEUROMODULATION AND NEUROTTRANSMISSION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D490 II 1088.8 Microglia attenuate the opioid-induced depression of preBötzinger complex inspiratory rhythm in vitro via a TLR4-independent pathway. J.D. Zwicker, Y. Zhang, M.R. Hutchinson, K.C. Rice, L.R. Watkins and G.D. Funk. Univ. of Alberta, Univ. of Adelaide, NIDA/NIH and Univ. of Colorado Boulder.

D491 II 1088.9 Methylxanthine reversal of opioid-induced respiratory depression in the in situ neonatal rat working heart-brainstem preparation. E. Ferguson, P. Ciechanski, A. Roy, K. Ballanyi and R. Wilson. Univ. of Calgary and Univ. of Alberta.

1089. CONTROL OF BREATHING: DEVELOPMENT

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D496 II 1089.4 Developmental changes in NMDA receptor subunits alter burst frequency of neonatal rat brainstem slices containing the preBötzinger complex. P.M. Getsy, D. Kaufman, K. Anagnostos and C.G. Wilson. Case Western Reserve Univ.

D497 I 1089.5 Supplementation of L-arginine and/or inhibition of arginase enhance the effect of inhaled NO on airway function of hyperoxia-exposed rat pups. A. Zaidi, A. Jafri and S.I.A. Zaidi. Solon High Sch. and Case Western Reserve Univ.

1090. DEVELOPMENT OF THE CONTROL OF BREATHING (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D499 II 1090.2 Gestational stress promotes apneas in newborn rats. R. Kinkead, S. Fournier, S. Steele, C. Dolbec and A. Bairam. Univ. Laval, Canada and Univ. of Ottawa.


D505 II 1090.8 The effects of chronic nicotine exposure on chemosensitivity of medullary 5-HT neurons. J. Avraam, Y. Wu and G.B. Richerson. Univ. of Iowa.


1091. NEURAL CONTROL OF CARDIOVASCULAR FUNCTION

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D511 I 1091.3 Inhibition of AT1 receptors alters remodeling of the guinea pig cardiac plexus following chronic MI. J.C. Hardwick, S.E. Ryan, M.J. Wilson, E.M. Southerland and J.L. Ardell. Ithaca Col. and East Tennessee State Univ.

D512 II 1091.4 Opioid receptors modulate excitatory cardiovascular reflex responses to myocardial ATP stimulation through a P2 receptor mechanism. L-W. Fu, S. Barvarz, J. Ho and J.C. Longhurst. Univ. of California, Irvine.

D513 I 1091.5 Comparison of the cardiovascular effects produced by interference with GABA transmission in the left and right sides of dorsomedial hypothalamus in conscious rats. M.A.P. Fonse and A.C. Oliveira. Fed. Univ. of Minas Gerais, Brazil.

D514 II 1091.6 Angiotensin II type 1A receptors in the brain mediate the effects of the brain RAS on fluid balance in the DOCA-salt model. A.M. Hilzendege, J.L. Grobe, A.L. Mark and C.D. Sigmund. Univ. of Iowa.

D516 II 1091.18 Effects of medullary administration of nitric oxide precursor on cardiovascular responses and neurotransmission during static exercise in stroke rats. A. Ally, S. Phattanarudee, E. Shafique and T. Maher. South Col. Sch. of Pharm., TN, Chulalongkorn Univ., Thailand, Univ. of Chicago and Massachusetts Col. of Pharm. and Hlth. Sci.


D519 I 1091.11 Reduced translocation of the TRPv1 receptor in afferent neurons of cardiomyopathic rats. M.M. Nguyen, L.E. Stout, Q. Li and M.G. Garry. Univ. of Minnesota, Minneapolis.


D521 I 1091.13 Fos expression in the FoxP2 and Lmx1b neurons of the parabrechial nucleus following cardiovascular changes. R. Miller, M. Knuepfer and A. Loewy. Washington Univ. Sch. of Med.


D526 II 1091.18 Immunoreactivity for the NR1 subunit of the NMDA receptor occurs in spinally-projecting catecholamine and serotonin neurons of the rat ventral medulla. I.J. Llewellyn-Smith and P.J. Mueller. Flinders Univ., Australia and Wayne State Univ. Sch. of Med.

D527 I 1091.19 Hemodynamic responses to electrical stimulation of the aortic depressor nerve, in conscious rats, after α2 adrenergic receptor blockade. M.T. Durand, L.O. Dias, J.A. Castania and H.C. Salgado. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo, Ribeirão Preto and State Univ. of Santa Cruz, Brazil.


D530 II 1091.22 PGE₂ facilitates the activation of renal sensory nerves by a positive feedback mechanism involving activation of PLC and COX-2. U.C. Kopp and M.Z. Cicha. Univ. of Iowa Carver Col. of Med. and VA Med. Ctr.


D536 II 1091.28 Aα adenosine receptors modulate cardiopulmonary chemoreflex control of regional sympathetic outputs via activation of GABAergic neurons within the caudal portion of the nucleus of the solitary tract: functional and anatomical evidence. Z. Minic, I.J. Llewellyn-Smith, D.S. O'Leary and T.J. Scislo. Wayne State Univ. and Flinders Univ., Australia.


D542 II 1091.34 Carotid baroreflex control of blood pressure to simulated hypotension in young and older women. A. Kim, J.P. Fisher and P.J. Fadel. Univ. of Missouri-Columbia and Sch. of Sport and Exer. Sci., Univ. of Birmingham, U.K.

D543 I 1091.35 Assessment of HD-X11 transmitter (DSI) for telemetric measurement of arterial pressure, electrocardiogram, heart rate and autonomic function in conscious mice. R. Sabharwal and M.W. Chapleau. Univ of Iowa and VA Med. Ctr.

D544 II 1091.36 Aldosterone acts in the nucleus of the solitary tract to alter stress responsiveness. N. Cho, M. McCowan and D.A. Scheuer. Univ. of Florida.


D551 I 1091.43 Ubiquitination is involved in the alteration of peripheral acetylcholine mediated in the aging heart. J.L. Freeling and Y. Li. Univ. of South Dakota.

D552 II 1091.44 Combined vasopressin V1a and oxytocin receptor antagonism prevents vasopressin-induced pressor response and sympathoexcitation in awake rats. N.F. Rossi and M. Maliszewska-Scislo. Wayne State Univ. and John D. Dingell VA Med. Ctr.

D553 I 1091.45 Role of cardiac output versus peripheral vasoconstriction in mediating the muscle metaboreflex pressor response during dynamic exercise and post-exercise muscle ischemia. M.D. Spranger, J.A. Salamercado, M. Coutos, J. Kaur, D. Stayer and D.S. O’Leary. Wayne State Univ. Sch. of Med.


D560 II 1091.52 The 2-nitrate-1,3-dibuthoxypropan, a nitric oxide donor, alters autonomic function in spontaneously hypertensive rats. M.S. França Silva, M.M.O. Monteiro, I.A. Medeiros and V.A. Braga. Fed. Univ. of Paraíba, Brazil.


D562 II 1091.54 Physical (in)activity dependent changes in the morphology of RVLM neurons. N.A. Mishel, I.J. Llewellyn-Smith and P.J. Mueller. Wayne State Univ. Sch. of Med. and Flinders Univ., Australia.


D566 II 1091.58 Acute effects of different continuous positive airway pressures on cardiovascular autonomic control in healthy subjects. E. Tobuldini, M.A. Wu, C.B. Cogliati, D. Torzillo, M. Pecis, L. Mellace, K.F. Morris, A. Porta and N. Montano. Univ. of Miami and Sacco Hosp. and Univ. of South Florida Hlth.


D570 II 1091.62 Acute hypernatremia increases the discharge of sympathetic-vasomotor neurons in the rostral ventrolateral medulla. S.D. Stocker. Penn State Col. of Med.


D575 I 1091.67 The cardiovascular responses to chemoreflex activation are not changed by isolated blockade of NMDA or non-NMDA receptors in the dorsomedial hypothalamus. N.T. Silva and A.S. Haibara. Fed. Univ. of Minas Gerais, Brazil.


D578 II 1091.70 Aldosterone (aldo) interacts with PKA, MAPKs and PLC pathway to sensitize angiotensin II-induced hypertension. B. Xue, Z. Zhang, F. Guo and A.K. Johnson. Univ. of Iowa.


D580 II 1091.72 The role of macrophage migration inhibitory factor in the paraventricular nucleus during acute stress. B. Erdos, R. Clifton, M.L. McCowan, C. Summers and D.A. Scheuer. Univ. of Florida.


D583 I 1091.75 Baroreflex rhythms regulate synaptic amplification in sympathetic ganglia. M.G. Springer and J.P. Horn. Univ. of Pittsburgh.


D585 I 1091.77 Photostimulation of caudal C1 catecholaminergic neurons reduces arterial pressure and heart rate. C.J. Madden. Oregon Hlth. & Sci. Univ.

D586 II 1091.78 Changes in peripheral but not central pulse wave velocity with estradiol administration is positively correlated with muscle sympathetic nerve activity. J.A. Miner, J.C. Miner, P.F. Kaplan and C.T. Minson. Univ. of Oregon and Oregon Hlth. & Sci. Univ.

D587 I 1091.79 Cerebral autoregulation is enhanced at higher levels of exercise intensity. M. Falvo, J. Witkowski and J. Serrador. VA New Jersey Hlth. Care Syst., East Orange and Harvard Med. Sch.

D588 II 1091.80 Spontaneous baroreflex control of muscle sympathetic nerve activity: impact of baseline duration. S.W. Holwerda, L.C. Vianna and P.J. Fadel. Univ. of Missouri-Columbia.


1092. NEUROVASCULAR RESPONSES TO AGING AND DISEASE: ADAPTATIONS AND INTERVENTIONS (POSTERS)

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D592 II 1092.3 Cardiovascular baroreceptor sensitivity and peak oxygen consumption in chronic obstructive pulmonary disease. H. Edgell, C. Steinback, M. Reiger, N. Vogan, E. Wong, M. Bhutani and M. Stickland. Univ. of Alberta and Univ. of Calgary, Canada.


1093. CARDIOVASCULAR ENDOCRINOLOGY, INCLUDING RENIN-ANGIOTENSIN-ALDOSTERONE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D603 II 1093.3 mTOR/S6K signaling: a novel effector of neuronal action of angiotensin II. K. Muta, J.L. Grobe, C.D. Sigmund and K. Rahmouni. Univ. of Iowa.


D605 I 1093.5 Age dependent cardiovascular responses to angiotensin II in conscious mice. W. Qi, E.S.S.B. Gera and F.G. Smith. Univ. of Calgary, Canada.


D607 I 1093.7 Losartan attenuates cardiac remodeling but does not prevent vascular dysfunction in isoproterenol-treated rats. A.P. Davel, J.A. Victorio, S.P. Clerici and L.V. Rossoni. UNICAMP, Campinas and Univ. of São Paulo.


1094. NEUROENDOCRINOLOGY, HYPOTHALAMUS, PITUITARY, STRESS AND TRAUMA INCLUDING ADRENAL GLAND

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D618 II 1094.2 Negative regulation of the human growth hormone gene by insulin in primary pituitary cell cultures and a possible role for hypoxia inducible factor. H. Vakili, Y. Jin and P.A. Cattini. Univ. of Manitoba.
D619 I 1094.3 Effect of the peroxisome proliferator-activated receptor gamma agonist rosiglitazone on the hypothalamic GT1-7 cell line. V. Hwang, M.O. Fernandez and N.J. Webster. UCSD and VA San Diego Healthcare Syst.

D620 II 1094.4 Effect of brain specific deletion of PPARγ on puberty onset, hypothalamic gene expression and diet-induced obesity in C57BL/6 mice. M.O. Fernandez, S. Sharma, V. Hwang, J.M. Olefsky and N.J. Webster. UCSD and VA San Diego Healthcare Syst.

D621 I 1095.5 SIRT1 acutely modulates glucose sensing of POMC neurons in the hypothalamus. X. Shi, D. Li, L. Chan and X. Guan. Baylor Col. of Med. and Univ. of Texas MD Anderson Cancer Ctr.


1095. REPRODUCTION AND SEX HORMONES

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D626 II 1095.2 Rescue of obesity-induced infertility in female mice due to an ovarian theca cell-specific knockout of the insulin receptor. S. Wu, F. Wondisford and A. Wolfe. Johns Hopkins Univ.


D628 II 1095.4 The importance of testes function in mouse models of cachexia. J.P. Hardee, J.P. White, M.J. Puppa, J.D. Aartun, A.A. Narsale, S. Sato and J.A. Carson. Univ. of South Carolina.


D630 II 1095.6 Depression and anxiety behaviors are influenced by sex and estrous cycle stage. J.K. Alvarado, J.S. Rivera, E.A. Jimenez, D.L. Ramos-Oortolaza and A. Torres-Reveron. Univ. of Puerto Rico and Nova Southeastern Univ., Ponce and Ponce Sch. of Med. and Hlth. Sci., PR.


1096. SEX DIFFERENCES IN RENAL FUNCTION AND DISEASE

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D637 II 1096.6 Role of the sex chromosomal complement (XX or XY) to impact blood pressure and natriuresis in the model of aldosterone escape. L. Li, S. Tsukerman, H. Ji, K. Sandberg and C. Ecelbarger. Georgetown Univ.


1097. BLOOD PRESSURE AND FLUID VOLUME REGULATION IN PREGNANCY AND DEVELOPMENTAL PROGRAMMING

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D641  I  1097.1 Pulmonary inflammation and airway hyperresponsiveness associated with placental ischemia-induced hypertension in rat dams and offspring. A.C. Johnson, R.S. Eskuri, J.S. Gilbert and J.F. Regal. Univ. of Minnesota Med. Sch. Duluth and Univ. of Oregon.


D645  I  1097.5 Sildenafil administration attenuates placental ischemia and sFlt-1 induced hypertension in pregnant rats. E.M. George, K. Cockrell, M. Arany and J.P. Granger. Univ. of Mississippi Med. Ctr.

D646  II  1097.6 Hyperinsulinemia increases blood pressure and pup weight in pregnant rats. A.T. Palei, E. George, K. Cockrell, M. Arany and J. Granger. Univ. of Mississippi Med. Ctr.


TUESDAY

1098. PHYSIOLOGICAL GENOMICS AND NOVEL TECHNOLOGIES OF CARDIOVASCULAR AND RENAL DISEASES

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D657  I  1098.5 Impact of SOD on endothelial cell-free radical distribution during eNOS uncoupling. S. Kar and M. Kavdia. Wayne State Univ.


1099. RENAL ORGANIC SOLUTE TRANSPORT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1100. RENAL WATER TRANSPORT, UREA TRANSPORT AND COUNTERCURRENT MECHANISMS

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D676 I 1100.1 Renomedullary interstitial hyaluronan is important for hydration-induced diuresis. P. Hansell, F. Palm and S. Stridh. Uppsala Univ., Sweden.


D680 II 1100.5 GPR91 deletion improves lithium-induced nephrogenic diabetes insipidus. L. Lam, H.A. Gevorgyan, A.D.M. Riquier-Brison and J. Peti-Peterdi. Univ. of Southern California.


D682 II 1100.7 Relationship of three-dimensional architecture of thin limbs of Henle’s loops to the renal inner medullary concentrating mechanism. K.Y. Westrick, W.H. Dantzler and T.L. Pannabecker. Univ. of Arizona.


1101. ORIGINS OF IMPAIRED CARDIOVASCULAR-RENAL FUNCTION AND BODY FLUID BALANCE

**Poster**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

**D689 I 1101.1** Antioxidant treatment during development prevents low birth weight, hypertension, and enhanced sensitivity to mild renal ischemia in offspring exposed to placental insufficiency. **N.B. Ojeda, S. Wilkening, J. Dasinger, B.T. Alexander, G. Graves and P. Rhodes.** Univ. of Mississippi Med. Ctr.


**D691 I 1101.3** Gestational chronic intermittent hypoxia causes asymmetric growth restriction and alters cholesterol homeostasis in the liver of Sprague-Dawley rats. **W. Iqbal, E. Barry, D. Hardy and J. Ciriello.** Univ. of Western Ontario and McMaster Univ., Canada.


**D693 I 1101.5** Dissection of the renal failure-3 QTL. **N.C. Yeo, C. O’Meara, J. Lazar and H.J. Jacob.** Med. Col. of Wisconsin.

**D694 II 1101.6** Epigenomic markers for heritable risk of preeclampsia. **C.M. Anderson, M.L. Wright, J.L. Ralph, E.O. Uthus and J.E. Ohm.** Univ. of North Dakota and USDA, Grand Forks.


**D696 II 1101.8** A prospective, longitudinal study of the improvement of vascular function and cardiac autonomic control following renal transplantation. **K.P. Ferrante, H.M. St. Sauss and R.S. Kall.** Univ. of Iowa.

**D697 I 1101.9** Hydrochlorothiazide exacerbates metabolic syndrome in the SHROB rat model. **P. Ernsberger, A. Agarwal, B. Lute and R.J. Koletsky.** Case Western Reserve Univ.


**D700 II 1101.12** Fetal betamethasone exposure and age influence the expression of AT7/mas receptors in the solitary tract nucleus. **A.C. Marshall, H.A. Shaltout, M. Nautiyal, M.C. Chappell and D.J. Diz.** Wake Forest Univ.

**D701 I 1101.13** Role of angiotensin II in the hypertension and renal hemodynamic changes in rats with an altered nephrogenesis: age- and sex-dependent differences. **F.J. Salazar, V. Reverte, A. Tapia, J. Gambini, I. Gimenez, J.M. Moreno and M.T. Linas.** Univ. of Murcia, Univ. of Valencia and Univ. of Zaragoza, Spain.


1102. DEVELOPMENTAL PROGRAMMING AND CARDIO-RENAL FUNCTION IN ADULTS

**Poster**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

**D703 I 1102.1** Early life stress-induced exaggerated AngII aortic vasoconstriction is transmitted to the F1 generation. **A.S. Loria, T. Cunningham and J.S. Pollock.** Georgia Hlth. Sci. Univ.


**D705 I 1102.3** Effects of prenatal betamethasone exposure and unilateral nephrectomy on sodium uptake in ovine renal proximal tubule cells from young adult male sheep. **Y. Su, J. Bi, L. Tang, J.P. Figueroa and J.C. Rose.** Wake Forest Univ. Hlth. Sci.


**D708 II 1102.6** Effects of low maternal aldosterone on offspring cardiovascular development. **T. McKee and P. Knoblich.** Minnesota State Univ. Mankato.

**D709 I 1102.7** Perinatal taurine imbalance induces insulin resistance via the renin-angiotensin system in adult female rats. **S. Roysommuti, A. Thaeomor, D. Jirakulsomchok and J.M. Wyss.** Khon Kaen Univ., Thailand and Univ. of Alabama at Birmingham.
II 1103. WATER AND ELECTROLYTE HOMEOSTASIS: PATHOPHYSIOLOGY AND PHYSIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D710 I 1103.1 Circadian expression of H,K-ATPase type 2 contributes to the stability of plasma K⁺ levels. G. Crambert, G. Centeno, D. Firsov and A. Salhi. INSERM, UPMC-CNRS, Paris and Univ. of Lausanne.


D714 I 1103.5 Regulated intramembrane proteolysis contributes to control of the osmoprotective transcription factor, NFAT5. Y. Izumi, M.B. Burg and J.D. Ferraris. NHLBI/NIH.

D715 II 1103.6 Estradiol prevents increased cortical AQP2 expression and urine osmolality in rats subjected to ovariectomy for 7 days. R. Norregaard, Y. Wang, W. Miller-Little and J. Frokiaer. Aarhus Univ., Denmark.

D716 I 1103.7 A single-amino acid mutation converts human aquaporin 5 to an anion channel. X. Qin and W.F. Boron. Case Western Reserve Univ.

D717 II 1103.8 Exploring CO₂ permeability of plant aquaporins. X. Qin, H. Hu, J.I. Schroeder and W.F. Boron. Case Western Reserve Univ. and UCSD.


D721 II 1103.12 Sodium reabsorption in the distal convoluted tubule is enhanced in the 11β-hydroxysteroid dehydrogenase type 2 knockout mouse. R.W. Hunter, L. Mullins, M.A. Bailey and J.J. Mullins. Univ. of Edinburgh.


D725 II 1103.16 Potassium adaptation is impaired in hypophysectomized rats. J.H. Youn and Y.T. Oh. Univ. of Southern California Keck Sch. of Med.


D729 II 1103.20 Angiotensin II receptor subtype 1a (at1ar) gene silencing in neurons of the subfornical organ prevents increased drinking behavior in bile duct ligated rats. J.D. Walch and J.T. Cunningham. Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of North Texas Hlth. Sci. Ctr., Fort Worth.

D730 I 1103.21 Co-localization of dynorphin with inducible cAMP element represor in the supraoptic nucleus. H.D. Bengs, Y. Rangel, C. Franklin, G.M. Toney and H.B. Gottlieb. Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of Incarnate Word Feik Sch. of Pharm.

D731 II 1103.22 Regulation of TRPV2 in magnocellular neurons of the supraoptic nucleus in rat. T.P. Nedungadi, J.D. Walch and J.T. Cunningham. Univ. of North Texas Hlth. Sci. Ctr. and Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

D732 I 1103.23 TRPC4 expression in supraoptic (SON) and paraventricular (PVN) magnocellular neurosecretory cells. T.P. Nedungadi, J.D. Walch and J.T. Cunningham. Univ. of North Texas Hlth. Sci. Ctr. and Univ. of Texas Hlth. Sci. Ctr. at San Antonio.


1104. NEUROHUMORAL MECHANISMS OF BLOOD PRESSURE REGULATION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D737 II 1104.2 Angiotensin II increases transient receptor potential vanilloid 4 channel expression and phosphorylation in hypothalamic cell line 4B. A. Saxena, T.P. Nedungadi, F. Carreno, M. Bachelor and J.T. Cunningham. Univ of North Texas Hlth. Sci. Ctr.


D739 II 1104.4 Tonic and reflex control of renal sympathetic nerve activity are altered by a discrete increase in sodium intake in renovascular hypertensive rats. C.G. Shimoura, G.S. Lincevicius, C. Bergamaschi and R. Campos. Fed. Univ. of São Paulo.


D746 I 1104.11 Influence of renin sympathetic nerve activity on mean arterial pressure during reduced renal perfusion pressure. F. Karaaslan, R. Hester and T. Lohmeier. Univ. of Mississippi Med. Ctr.


1105. RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM IN REGULATION OF BLOOD PRESSURE AND RENAL FUNCTION

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D751 I 1105.3 Differential effects of ACE and chymase in the metabolism of exogenous angiotensin-(1-12) in Wistar-Kyoto rats. N. Moniwa, J. Varagic, S. Ahmad and C.M. Ferrario. Wake Forest Univ. Sch. of Med.

D752 II 1105.4 Effects of combination therapy with valsartan and aliskiren on arterial pressure, cardiac hypertrophy and urinary protein excretion in hypertensive rats. N. Moniwa, J. Varagic, S. Ahmad and C.M. Ferrario. Wake Forest Univ. Sch. of Med.


D755 I 1105.7 Lack of specificity for AT1 angiotensin receptor antibodies in Western blot analysis. M. Herrera, M.A. Sparks and T.M. Coffman. Duke Univ.

D756 II 1105.8 Stimulation of renal sodium transporters’ abundance and phosphorylation during chronic angiotensin II (All) infusion requires intrarenal All formation. N.K. Fletcher, A.A. McDonough, M.T.X. Nguyen, T. Janjulia, K.E. Bernstein and R.A. Gonzalez-Villalobos. Keck Sch. of Med. of Univ. of Southern California and Cedars-Sinai Med. Ctr.


D764 II 1105.16 Cyclooxygenase-2 inhibition prevents angiotensin II-induced oxidative stress but not hypertension in humans. V. Pialoux and S.B. Ahmed. Univ. Lyon 1, France and Univ. of Calgary, Canada.


1106. ALCOHOLIC AND NONALCOHOLIC FATTY LIVER DISEASES

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D767 II 1106.2 Dietary palmitate and palmitate accumulation in the steatotic rat liver confounds fructose-induced endoplasmic reticulum stress. C.R. Patel, V. Douard, M. Siegel and R. Ferraris. UMDNJ, Newark.

1107. BARRIER FUNCTION AND REPAIR

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D771 II 1107.4 Simulated microgravity modifies intestinal epithelial barrier function and alters expression of tight junction proteins. C.A. Stork, R.R. Marchelletta, G.K. Prisk and D.F. McCole. UCSD.


D773 II 1107.6 MUC17 expression is differently regulated by TLRs interaction with their ligands. S. Resta-Lenert and S. Ho. VA San Diego Healthcare Syst.

D774 I 1107.7 Expression of intestinal mucins may be affected by the dietary protein source. E.M. Onyango and B.M. Habiyambere. East Tennessee State Univ.

D775 II 1107.8 Localized mobilization of intracellular calcium promotes epithelial repair in vivo. E. Aihara and M.H. Montrose. Univ. of Cincinnati.

1108. INTESTINAL INFLAMMATION AND PATHOPHYSIOLOGY

Poster

TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D776 I 1108.1 Lactobacillus rhamnosus GG and Bifidobacterium longum attenuate cytokine expression in the lungs of weanling mice with peritonitis-induced sepsis. L. Khailova, P. Wischmeyer and J.A. Dominguez. Univ. of Colorado Anschutz Med. Campus.

D777 II 1108.2 Antioxidant therapy targeted to the folate receptor ameliorates intestinal inflammation and injury in a model of colitis. S. Knight, K. Kundu, D. Weiss, N. Murthy and W.R. Taylor. Emory Univ. and Georgia Tech.


D780 I 1108.5 Toll-like receptor 5 (TLR5), but not TLR4 or 3, induces TNFα production by intestinal epithelial cells, which is enhanced by suppressor of cytokine signaling 3. I. Thagia and R. Rigby. Lancaster Univ., U.K.


D782 I 1108.7 Estrogen deficiency alters intestinal physiology to promote bone loss. J. Zhang, R. Irwin, S. Raehltz, R. Britton and L.R. McCabe. Michigan State Univ.
1109. INTESTINAL SOLUTE TRANSPORT IN INFLAMMATION (POSTERS)

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D783  I  1109.1  The effect of Helicobacter typhlonius infection on colonic ion transport in the IL10 knockout mice. A. Lindstrom, S. Fan, M. Schultz and G. Butt. Univ. of Otago, New Zealand.

D784  II  1109.2  Leptin receptor deficiency causes intestinal hyperplasia and altered membrane abundance of glucose transporters. J.A. Dominguez and T. Rieg. Univ. of Colorado Anschutz Med. Campus, UCSD and VA San Diego Healthcare Syst.


D786  II  1109.4  Duox?a novel antimicrobial duodenal defense mechanism. M. Higashiyama, Y. Akiba, S. Rudenkyy, P.H. Guth, E. Engel and J.D. Kaunitz. UCLA and West Los Angeles VA Med. Ctr.

1110. LIVER PHYSIOLOGY AND PATHOPHYSIOLOGY

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D790  II  1110.4  Endothelins induce choleris through ET<sub>B</sub> receptors coupled to nitric oxide release and vago-vagal reflexes. M.R. Rodriguez, M.S. Ventimiglia, A.C. Najenson, M.S. Vatta and L.G. Bianciotti. Sch. of Pharm. and Biochem., Univ. of Buenos Aires.

D791  I  1110.5  Hydrogen sulfide protects against hepatocyte cell death and mitochondrial reactive oxygen during hypoxia. E. Norris, F. Schleser, C. Cuberson and M.G. Clemens. Univerist of North Carolina at Charlotte.

D792  II  1110.6  Hepatic foxO1 acetylation is regulated by menin and influenced by insulin signaling. L. Wuescher, K. Angeles and E. Mensah-Osman. Univ. of Toledo Col. of Med.


1111. MECHANISMS OF INTESTINAL NUTRIENT, WATER AND ELECTROLYTE TRANSPORT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


D795  II  1111.2  The gate residue F101 regulates coupling of Na and sugar cotransport in hSGLT1. B.A. Hirayama, D.D.F. Loo, X. Jiang and E.M. Wright. UCLA.

D796  I  1111.3  Comparative sugar transport by crustacean hepatopancreas and intestine. duka, a. and ahearn, g. a. dept. of biology, university of north florida, jacksonville, florida 32224. A. Duka and G.A. Ahearn. Univ. of North Florida.

D797  II  1111.4  3H-D-glucose transport is both Na<sup>-</sup>- and K<sup>-</sup>-dependent in the marine shrimp, Litopenaeus setiferus. G.A. Ahearn, I. Obi and K.M. Sterling. Univ. of North Florida.

D798  I  1111.5  Functional and structural regulation of urate handling by human SLC2A9 isoforms in the Xenopus laevis oocyte expression system. C.I. Cheeseaman, K. Witkowska and T. Long. Univ. of Alberta.

1112. METAL ION TRANSPORT

Poster
TUE. 7:30 AM—SAN DIEGO CONVENTION CENTER, EXHIBIT HALLS A-D

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

D799  I  1112.1  Direct uptake of copper from ceruloplasmin by cells with and without CTR1, and potential involvement of a copper reductase. M. Ishida, D. Ramos, D. Mar, K.J. Lee and M.C. Linder. California State Univ., Fullerton.

D800  II  1112.2  Intestinal divalent metal-ion transporter-1 is critical for iron homeostasis but is not required for maintenance of Cu or Zn. A. Shawki, S.R. Anthony, Y. Nose, T. Barrientos De Renshaw, D.J. Thiele and B. Mackenzie. Univ. of Cincinnati Col. of Med. and Duke Univ. Sch. of Med.

D801  I  1112.3  No evidence that copper is a transported substrate of the iron transporter DMT1. A. Shawki, E.J. Niespodzany and B. Mackenzie. Univ. of Cincinnati Col. of Med.

Expression of a MAPEG GST from Leishmania tarentolae. N.Y. Osei-Owusu, J. Hearne and R. Currington. Univ. of Maryland Eastern Shore.


Cyclosporin A, but not FK506, induces osmotic lysis of pancreas zymogen granules, intra-acinar enzyme release and lysosome instability by activating a K+ channel. F. Thévenod, W-K. Lee, M. Braun and C. Langelüddecke. Univ. of Witten/Herdecke, Germany and Univ. of Oxford.

Purinergic regulation of ion transport in capan-1 cell monolayers. J. Wang and I. Novak. Univ. of Copenhagen.

WEDNESDAY, APRIL 25
Pharmacology and Experimental Therapeutics

1114. CARDIOPROTECTION

Poster
WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION
Presentation time: 12:30 PM-2:45 PM

S1 1114.1 Cardiac inflammation and dysfunction during dengue virus infection in mice. L. Kangussu, V. Costa, V. Olivon, M. Melo, F. Soriani, M. Rachid, R. Santos, M. Teixeira, D. Souza and D. Bonaventura. Fed. Univ. of Minas Gerais, Brazil.


S3 1114.3 Antioxidants N-acetylcysteine and allopurinol synergistically enhance cardiac HIF-1α and heme oxygenase-1 and attenuate postischemic myocardial injury in diabetic rats. X. Mao, Y. Liu, T. Wang, S. Lei, M.G. Irwin, P.M. Vanhoutte and Z. Xia. The Univ. of Hong Kong.

S4 1114.4 Lipocalin-2 mediated myocardial extracellular matrix remodeling is correlated with Akt/P38 activity in hearts. B. Yang, P.M. Vanhoutte and Y. Wang. The Univ. of Hong Kong.


S7 1114.7 Angiopoietin-1 reduces myocardial apoptosis and promotes cardiac repair via recruitment of hematopoietic progenitor cells in diabetic db/db mice. J-X. Chen and H. Zeng. Univ. of Mississippi Med. Ctr.


S13 1114.13 Acute, NO-mediated, effects of erythropoietin are not associated with its cardioprotective properties. M.I. Talan, I. Ahmet and E.G. Lakatta. NIA/NIH, Baltimore.


S16 1114.16 A2B adenosine receptors stimulate release of IL-6, CXCL1/IL-8 and vascular growth factor from cardiac stromal cells. S. Ryzhov, A.E. Goldstein, S. Novitskly, I. Biagioni and I. Feoktistov. Vanderbilt Univ.


S18 1114.18 Cardiac myocyte-specific caveolin-3 overexpression alters β-adrenergic receptor activity. A.R. Busija, D.M. Roth, P.A. Insel and H.H. Patel. UCSD.


S20 1114.20 Fibroblast’s phenotypic changes in chronic heart failure-induced pulmonary fibrosis. M-F. Doursout, J. Chu, Y.Y. Liang, S.J. Dou and K. Uray. Univ. of Texas Med. Sch. at Houston.


1115. VASCULAR SYSTEMS PHARMACOLOGY

Poster
WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION
Presentation time: 12:30 PM-2:45 PM

S22 1115.1 Vascular PI3K-Akt signaling contributes to peripheral NMDAR-mediated pressor response in conscious rats. M. McGee and A. Abdel-Rahman. East Carolina Univ.

S23 1115.2 Ethanol attenuation of peripheral NMDAR-mediated pressor response. M. McGee and A. Abdel-Rahman. East Carolina Univ.

S24 1115.3 Vasooactive effect of SWCNT exposure to oral mucosal arterioles. M.D. Frame, B. Sitharaman, S.M. Chowdhury and P. Avti. Stony Brook Univ.


S29 1115.8 Oxidative stress and NADPH oxidase participation on the hypertensive responses of [Ru(terpy)(bdo)]NO+3+ (TERPY) in spontaneously hypertensive rats. S.R. Potje, F.C. Munhoz, M.C. Hildebrand, R.S. Silva, L.M. Bendhack and C. Antoniali. State Univ. of São Paulo, Araçatuba and Univ. of São Paulo, Ribeirão Preto.


S34 1115.13 Enhanced catabolism to acetaldehyde in rostral ventrolateral medullary neurons accounts for the pressor effect of ethanol in SHRs. M.M. El-Mas and A.A. Abdel-Rahman. Sch. of Med., East Carolina Univ.

S35 1115.14 Role of rostral ventrolateral medullary ERK/JNK/p38 MAPK signaling in the pressor effects of ethanol and its oxidative product acetaldehyde in SHRs. M.M. El-Mas, M. Fan and A.A. Abdel-Rahman. Sch. of Med., East Carolina Univ.


S41 1115.20 Interdependence of PPARα/cytochrome P-450 epoxigenase and adenosine receptors in hypoxia-induced angiogenesis. Y. Rizvi, R. Kasturi, O. Mathew, C. Myung and A. Oyekan. Texas Southern Univ.


1116. CARDIOVASCULAR PHARMACOLOGY—THROMBOSIS

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:30 PM-2:45 PM


S44 1116.2 Transient receptor potential channel 6; role in hemostasis and thrombogenesis. E.V.P. Espinosa, J.P. Murad, H.J. Ting and F.T. Khasawneh. Western Univ. of Hlth. Sci.

S45 1116.3 Depletion of platelet serotonin with a selective serotonin reuptake inhibitor does not improve survival in a mouse model of thromboembolism. H.F. Liu, C. Campbell, S. Hegde and A. McNamara. Theravance, South San Francisco.


1117. TARGETING MYOCARDIAL FUNCTION

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:30 PM-2:45 PM

S47 1117.1 Antioxidants N-acetylcyesteine and allopurinol attenuation of postischemic myocardial injury in diabetic rats involve Akt and STAT3 mediated eNOS activation. T. Wang, X. Mao, S. Qiao, S. Lei, K.F.J. Ng, M.G. Irwin and Z. Xia. The Univ. of Hong Kong.

**1118. IMMUNE CELL PHARMACOLOGY**

**Poster**

**Presentation time:** 12:30 PM-2:45 PM

S59 1119.1 Cell-intrinsic adenosine A2A receptor signaling is required for T cell homeostasis and tumor surveillance. C. Cekic, D. Sag and J. Linden. La Jolla Inst. for Allergy and Immunol.


S65 1119.7 Exposure to tributyltin alters the secretion of tumor necrosis factor alpha from human lymphocytes. K. Hurt and M.M. Whalen. Tennessee State Univ.


**1120. IMMUNE PHARMACOLOGY**

**Poster**

**Presentation time:** 12:30 PM-2:45 PM


S72 1120.5 Immune-modulator metallo-peptide effect on an in vivo model of rheumatoid arthritis. L. Rodriguez-Fragoso, C.A. Arjona-Canul and J. Reyes-Esparza. Autonomous Univ. del Estado de Morelos, Mexico.


S75 1120.8 Impact of rosiglitazone and metformin on serum pro-inflammatory molecules and adipocytokines in rats with chronic fructose diet. S. Sigrist-Flores, J.P. Pardo, M. Murguía-Romero, R. Villalobos-Molina and R. Jimenez-Flores. FESI-UNAM, Tlalnepantla, Mexico and UNAM, Mexico City.

S76 1120.9 Macrophage pro-angiogenic miRNA, miR-27b, is under NF-kB transcription regulation. H. Pan, B. Clarke and S.A. Wickline. Washington Univ. Sch. of Med.

S77 1120.10 ET-1 induces COX-2/PGE2 expression via an ETA/B/PKCδ/c-Src/Pi3K/Akt-dependent pathway in murine osteoblast-like MC3T3-E1 cells. Y.-Y. Li and C.-M. Yang. Chang Gung Univ., Taiwan.


1121. REGENERATIVE PHARMACOLOGY

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:30 PM-2:45 PM


S80 1121.2 Interplay of epoxides and heme oxygenase system suppress adipogenic regulators in mesenchymal stem cell-derived adipocytes. L. Vanella and N.G. Abraham. Univ. of Michigan.


S83 1121.5 Deficiencies in Toll like receptors 4 impair the functional recovery in a mouse model of spinal cord trauma. D. Impellizzeri, E. Mazzon, A. Ahmad, E. Esposito and S. Cuzzocrea. Univ. of Messina and IRCCS Neurol. Ctr. Bonino-Pulejo, Messina.


S87 1121.9 Taste and smell receptors depend upon growth factor secretion to maintain normal taste and smell function. R.L. Henkin. The Taste and Smell Clin., Washington, DC.

1122. PHARMACOPROTEOMICS

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:30 PM-2:45 PM


S92 1122.5 Characterization and identification of red diamond back rattlesnake venom proteins. A.N. Joshi, S. Krishna, W.C. Grunwald, Jr. and D.R. Cool. Wright State Univ. and Central State Univ., OH.


1123. OPIOID/CANNABINOID THERAPEUTICS

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:30 PM-2:45 PM


S95 1123.2 Roles of MOP and NOP receptors in regulating buprenorphine-induced physiological responses in monkeys. C.M. Cremeans, E. Gruley, D.J. Kyle and M-C. Ko. Univ. of Michigan and Purdue Pharma LP, Stamford, CT.

S103 1124.4 Assessment of safety of and embryotoxicity of (-)-epigallocatechin-3-gallate. L. Rodríguez-Fragoso, A.I. Gonsaga-Morales and J. Reyes Esparza. Autonomous Univ. of State of Morelos, Mexico.

S104 1124.5 Acute and repeated dose toxicity studies of methanol extract of Bauhinia variegata leaves. Y.A. Kulkarni and S. Warrier. SPP-Sch. of Pharm. & Technol. Mgmt. and SVKM’s NMIMS Univ., Mumbai.


S106 1124.7 Flavonoids and fibrate modulate ApoE4-induced processing of amyloid precursor protein in rat neuronal cells. V.R. Davra and K.E. Benzeroual. Long Island Univ.

S107 1124.8 Peripheral mechanisms involved in the pressor response to L-proline into the supraoptic nucleus. S.L. Azevedo, C. Busnardo and F.M.A. Corrêa. Univ. of São Paulo, Ribeirão Preto.


S109 I 1125.1 Inquisitive doctor, reluctant patient: the story of Alexis St. Martin’s gastric fistula and America’s first physiologist, Dr. William Beaumont, who discovered gastric juice and the physiology of digestion (1822-1833; video shown by permission of the Macki J.B. Dean. Univ. of South Florida.

S110 II 1125.2 Zuntz revisited: contributions to exercise physiology. C.M. Tipton. Univ. of Arizona.

S111 I 1126.1 Effect of severe burn and dissease on metabolism and overall activity levels in rats. L. Baer and C.E. Wade. Univ. of Texas Hlth. Sci. Ctr.-Houston.


S117 I 1126.7 From Bohr-Haldane effect on Hb-O2 binding to electrical regeneration in CHD. A.R. Delgado-Almeida. Univ. of Carabobo, FL.

S118 II 1126.8 β3 Integrin/PDGF receptor synergistic signaling mediates cardiac fibrosis in a mouse model of pressure overload hypertrophy. S. Balasubramanian, H. Kasigangan, L. Quinones, A. Bradshaw and D. Kuppuswamy. Med. Univ. of South Carolina.

1127. TARGETED PROTEOMIC ANALYSES OF HEART FAILURE (POSTERS)

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S123 I 1127.3 Mitochondrial mechanism of right ventricular failure. N. Qipshidze, N. Tyagi, N. Metreveli and S.C. Tyagi. Univ. of Louisville.


S125 I 1127.5 Proteomic analyses on mitochondria in rats model of heart failure. T. Liu, L. Chen, E. Kim and A. Knowlton. Univ. of California, Davis, St. Mary’s Hosp. of Daejeon Catholic Univ., South Korea.

S126 II 1127.6 Stress induced increase in protein O-linked-β-N-acetylglucosamine levels is CaMKII dependent. L. Zou, C. Zou and J.C. Chatham. Univ. of Alabama at Birmingham.

S127 I 1127.7 Reactive aldehydes formed from peroxidation of n-6 and n-3 PUFAs have differential effects on mitochondrial function in heart. E.J. Anderson, H-B. Kwak, T.A. Mattoo, L. Katunga and K. Thayne. East Carolina Univ. and Inha Univ., South Korea.


S129 I 1127.9 Cardiac linker histones are differentially regulated following hypertrophic stimuli. M.S. Parvatiyar, S. Franklin, H. Chen, Y. Wang and T.M. Vondriska. David Geffen Sch. of Med. at UCLA.

1129. ENDOTHELIAL CELL BIOLOGY

Poster

WED 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S144 I 1129.3 Rate of desensitization of coronary vasoconstriction induced by polymers of angiotensin II is determined by the polymer molecular weight. D. Torres-Tirado and R. Rubio. Autonomous Univ. of San Luis Potosi, Mexico.


S146 I 1129.5 Reduction of contractions to phenylephrine by L-NAME in the carotid artery of mice with endothelial overexpression of endothelin-1. O. Baretella, F.Y.L. Li, S.K. Chung and P.M. Vanhoucke. Univ. of Hong Kong.

S147 II 1129.6 The endothelial cells of ductus arteriosus have a unique gene profile to control vascular morphology. N. Liu, T. Yokota, S. Maekawa, U. Yokoyama, T. Kato and S. Minamisawa. Waseda Univ. and Yokohama City Univ., Japan.


S149 I 1129.8 Role of superoxide anion in coronary endothelial dysfunction in type 2 diabetic mice. Y-F. Cho, M. Pangare and A. Makino. Univ. of Illinois at Chicago.

S150 I 1129.9 Hypoxia increases endothelial cell reactive oxygen species production and reduces thioredoxin 2 levels. S.E. Adesina, K.M. Porter, C.M. Hart and R.L. Sutliff. Emory Univ./Atlanta VA Med. Ctr.


S154 I 1129.13 Dynamics of focal adhesion kinase and paxillin in lamellipodial protrusion of migrating endothelial cells. Y-L. Hu, S. Lu, Y. Wang and S. Chien. UCSD and Univ. of Illinois at Urbana-Champaign.


S156 I 1129.15 Resveratrol protects against diabetes-induced endothelial dysfunction in high-fat diet fed mice. D-E. Li and L-M. Hung. Chang Gung Univ., Taiwan.

S157 II 1129.16 Endogenous H2S opposes vasoconstriction in conjunction with NO in rat aorta. D.A. Paredes, O. Jackson-Weaver, X. DeLeon and N. Kanagy. Univ. of New Mexico.


S159 II 1129.18 Hypoxia stimulates pulmonary artery endothelial proliferation via 5-lipoxygenase. K.M. Porter and R.L. Sutliff. Emory Univ. and Atlanta VA Med. Ctr.

S160 I 1129.19 Cytokines, glucose and angiotensin II and the expression of connexin 37, 40 and 43 in cultured microvascular endothelial cells. B. Braam, W. Zhumag and W.A. Cupples. Univ. of Alberta and Simon Fraser Univ., Canada.

S161 II 1129.20 PDE6s are heterogeneously distributed in native endothelium of mesenteric arteries from mice. A. Blanchette, F. Toussaint, C. Charbel, P. Comtois and J. Ledoux. Heart Inst. of Montreal and Univ. of Montreal.


S163 II 1129.22 CaMKII regulates intracellular calcium stores of native endothelial cells from mesenteric arteries. F. Toussaint, C. Charbel, A. Blanchette, L. Villeneuve and J. Ledoux. Montreal Heart Inst. and Univ. of Montreal.

S164 II 1129.23 Evidence for a role of endothelial cell-derived PLFG in paracrine communication. L. Xiang and P.G. Lloyd. Oklahoma State Univ.


S171 II 1129.30 Stimulation of cyclooxygenase-2 pathway in human coronary artery endothelial cells by histamine involves ERK and p38 activation but not early growth response factor-1. X. Tan, V.V. Ravendran, H.H. Krishnan and K.N. Dileepan. Univ. of Kansas Med. Ctr.

**1130. LUNG PHYSIOLOGY: ENDOTHELIAL CELL BIOLOGY AND FLUID BALANCE**

**Poster**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S174 II 1130.2 Lack of PEDF promotes a proinflammatory phenotype in lung endothelial cells. E.S. Shin, C.M. Sorenson and N. Sheibani. Univ. of Wisconsin-Madison.


S179 I 1130.7 Membrane localization of FK506-binding proteins FKBP51 and FKBP52, immunophilins that are part of the endothelial store-operated calcium entry heterocomplex. P.I. Kadeba, J.G. Scammell and D.L. Cioffi. Univ. of South Alabama.

S180 II 1130.8 Role of the TRPC4 proline rich region in regulation of the endothelial store-operated calcium entry. X. Wang, H. Chen, S. Wu and D.L. Cioffi. Univ. of South Alabama.

S181 I 1130.9 Loss of cell-surface sialic acids activates calcium entry in pulmonary endothelial cells. E.A. Cioffi, E.S. Crockett and D.L. Cioffi. Univ. of South Alabama.


S184 II 1130.12 Mitochondrial DNA damage-associated molecular patterns are released in response to oxidant stress in rat pulmonary artery endothelial cells. J.K. Hill, S. Mulekar, V.M. Pastukh and M.N. Gillespie. Univ. of South Alabama.


**1131. NITRIC OXIDE/CARBON MONOXIDE/ VASOACTIVE MOLECULES**

**Poster**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S189 II 1131.2 Role of membrane permeability and extracellular diffusion in nitric oxide transport to the red blood cells. P. Deonikar and M. Kavdia. Wayne State Univ.


S191 II 1131.4 Role of NO in the organization of ciliated cells in the lateral brain ventricle. A.-D.N. Fowajuh, N. Peunova and G. Enikolopov. Univ. of Maryland Eastern Shore and Cold Spring Harbor Lab., NY.


S193 II 1131.6 Hydrogen sulphide influences the excitability of neurons in the paraventricular nucleus of the hypothalamus. C.S. Khademullah and A.V. Ferguson. Queen's Univ., Canada.

S194 I 1131.7 Complex interplay between pannexin 1 cysteine residues and channel regulation. A.W. Lohman, J.L. Weaver, M. Billaud, D.A. Bayliss and B.E. Isackson. Univ. of Virginia.

S195 II 1131.8 sGC in SMC acts as nitrite reductase leading to NO formation. K.J. Madrasi, N. Tsoukias and M. Joshi. Florida Intl. Univ.


1132. SHOCK

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S203  I  1132.1  Trypsin and MMP-9 levels and activity increase in plasma, peritoneal space, and vital organs during hemorrhagic shock. A.E. Altshuler, A.H. Penn, J. Yang, G.-R. Kim and G.W. Schmid-Schönbein. UCSD.


S206  II  1132.4  Early myocardial contractility depression in female endotoxemic rats. R.P.M. Goncalves, J.E.S. Santos, K.L. Guarido and J. Assreuy. Fed. Univ. of Santa Catarina, Brazil.


S209  I  1132.7  Proteolytically-derived inflammatory peptides from the bowel may circulate systemically in shock. E.B. Kistler, T. Alsaigh, M. Chang, M. Richter and G.W. Schmid-Schönbein. UCSD.

S210  II  1132.8  Hemodynamic response after hypovolemic shock and resuscitation with low-volume 6% hetastarch and high-volume lactated Ringer’s solution. F.A. Nunez, V. Kislikun, T.L. Smith, M.F. Callahan, L. Burnett and M.E. VanDyke. Wake Forest Sch. of Med., Transsonic Syst., Ithaca and KerenaNetics LLC, Winston-Salem.

S211  II  1132.9  Variations in the density of blood during hemorrhage. F.A. Nunez, V. Kislikun, N. Thurmalla, N. Krivitski, M.F. Callahan and T.L. Smith. Wake Forest Sch. of Med. and Transsonic Syst., Ithaca, NY.


1133. EXTRACELLULAR MATRIX AND CARDIAC REMODELING

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S218  II  1133.4  Rap 1a small GTPase alters extracellular matrix deposition in response to TGF-β1. S.C. Jeyaraj, N.T. Unger, J.A. Stewart and M.A. Chotani. Nationwide Children's Hosp., Columbus and Mississippi State Univ.

S219  I  1133.5  The role of inflammation and adaptive immunity in aortic stiffening. J. Wu, S. Thabet, W. Chen, A.E. Goldstein, M. Madhur, B. Hudson and D.G. Harrison. Vanderbilt Univ. and Emory Univ.

### 1134. GENE EXPRESSION AND CARDIOVASCULAR FUNCTION

**Poster**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

<table>
<thead>
<tr>
<th>Poster Session</th>
<th>Poster Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>S222 I</td>
<td>1134.9 Tissue-specific expression of angiotensin-converting enzyme 2 from two promoter regions is unaffected by elevated levels of renin and angiotensinogen.</td>
<td>V.K. Nguyen, K.B. Pedersen, H. Xia and E. Lazartigues. Tulane Univ. and LSU Hlth. Sci. Ctr., New Orleans.</td>
</tr>
<tr>
<td>S226 I</td>
<td>1134.15 In vivo screening of chromatin remodelers in zebrafish reveals proteins governing cardiac growth.</td>
<td>E. Monte, K. Mouillessaux, T. Kimball, T.M. Vondriska, J-N. Chen and S. Franklin. UCLA.</td>
</tr>
<tr>
<td>S227 II</td>
<td>1134.18 Role of PI3K/Akt in the biphasic inotropic effects of ethanol on the heart.</td>
<td>V. Cousins, K. Sankavaram, M. El-Rubaei, J.S. Allard, B. Kinfemichael and G.E. Haddad. Howard Univ.</td>
</tr>
<tr>
<td>S228 I</td>
<td>1134.19 MnSOD reduction causes mtDNA damage in HAEC under oscillatory shear stress.</td>
<td>K. Quigley, K. Fang, N. Jen, R. Li and T. Hsiai. Univ. of Southern California.</td>
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### 1135. GENETIC MODELS OF CARDIOVASCULAR FUNCTION

**Poster**

**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

<table>
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<tr>
<th>Poster Session</th>
<th>Poster Title</th>
<th>Authors</th>
</tr>
</thead>
</table>
1136. MYOCARDIAL ISCHEMIA/MYOCARDIAL METABOLISM

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S245 II 1135.4 Abnormal heart rate control in SCN5A-[Delta]KPQ mice. M.A. Wu, V. Bari, L. Calvilio, L. Crotti, P.J. Schwartz, A. Porta and N. Montano. Univ. of Milan and Univ. of Pavia.


S248 I 1136.1 Thyroid hormone preserves myocytes in the border zone of myocardial infarction. Y. Chen, S. Youmans, N.Y. Weltman, X. Li, D. Crause and A.M. Gerdes. New York Inst. of Technol., Univ. of South Dakota and Johns Hopkins Univ.

S249 II 1136.2 Anti-arrhythmic effect of remote ischemic preconditioning is accompanied by changes in the salvage kinases in the rat heart non-ischemic area. B.Z. Simkhovich, J. Dow and R.A. Kloner. Good Samaritan Hosp., Los Angeles and Univ. of Southern California Keck Sch. of Med.


S252 I 1136.5 Novel rapid-multiple-short-cycle preconditioning stimuli induces robust cardioprotective signaling mechanisms and protects the heart against in vivo ischemia reperfusion injury: an effective approach with clinical justification. J.L. Zweier, F. Yang, Y. Nishijima, C.-A. Chen, C. Yang, S. Varadhajin and M.A.H. Talukder. Davis Heart and Lung Inst., Columbus, OH.


S254 I 1136.7 In cardiomyocytes LPS-induced activation of IκBα and COX-2 expression are mediated in part by the hexosamine biosynthesis pathway. X.T. Lu, L. Zou and J.C. Chatham. Univ. of Alabama at Birmingham.

S255 II 1136.8 Detrimental effects of antitreviral treatment on contractile function of the rat heart. K.M.S.E. Reyskens and M.F. Essop. Stellenbosch Univ., South Africa.


S257 II 1136.10 Stepwise ischemic preconditioning mitigates prolonged ischemia/reperfusion injury. K. Yamakawa, W. Zhou and A. Mahajan. UCLA.


S262 I 1136.15 Fibroblast growth factor 8 inhibits apoptosis mediated by PTEN and Akt pathway in the infarcted myocardium. D. Singla and L. Abdelli. Univ. of Central Florida.


S264 I 1136.17 Estrous cycle phase does not influence myocardial infarction but may alter arrhythmogenicity in isolated rat hearts. C.R. Frasier, M.D. Rosenbaum, R.C. Sloan, B. Hayes and D.A. Brown. East Carolina Univ.


S267 II 1136.20 Late preconditioning induced by transgenic cardiac overexpression of α1A adrenergic receptors in rats. X. Zhao, J. Park, D. Ho, S. Gao, L. Yan, H. Ge, S. Ismam, L. Lin, B. Tian, D.E. Vatner, R. Graham and S.F. Vatner. UMDNJ, Newark and Victor Change Cardiac Res. Inst., Darlinghurst, Australia.

1137. FREE RADICAL SIGNALING, OXIDANT STRESS, AND INJURY

**Poster**  
**WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION**  
**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

**S269 I**  
**1137.1** Vitamin E attenuates *P. aeruginosa*-mediated injury in pulmonary endothelial cells. N. Anjum, K.E. Illes, M.G. Traber, J. Creighton, S. Matalon and J-F. Pittet. Univ. of Alabama at Birmingham and Oregon State Univ.

**S270 II**  

**S271 I**  

**S272 II**  

**S273 I**  

**S274 II**  
**1137.6** Elevated reactive oxygen species and increased mononuclear NADPH oxidase expression in type 2 diabetes patients. S.H. Deo, M.C. Zimmerman and P.J. Fadel. Univ. of Missouri-Columbia, and Univ. of Nebraska Med. Ctr.

**S275 I**  

**S276 II**  
**1137.8** Sickle mouse red cells activate endothelium by heme-mediated peroxide generation and promote red cell and leukocyte adhesion. D.K. Kauf, J. Shah, S. Suzuka and M.E. Fabry. Albert Einstein Col. of Med.

**S277 I**  
**1137.9** Opening of mitochondrial BK(Ca) channels at reoxygenation protects ventricular myocytes against injury via redox signaling. F. Kolar and G.H. Borchert. Inst. of Physiol., Acad of Sci., of Czech Republic, Prague.

**S278 II**  

**S279 I**  

**S280 II**  

**S281 I**  

**S282 II**  

**S283 I**  

**S284 II**  
**1137.16** A differential effect of FGF-2 on resistance to doxorubicin-induced necrotic versus apoptotic-like damage in neonatal rat cardiomyocyte cultures. J. Wang, M. Bock and P.A. Cattini. Univ. of Manitoba.

**S285 I**  

**S286 II**  
**1137.18** Role of mitochondria in hyperoxia adaptation. H. Zhao and G.G. Haddad. UCSD and The Rady Children's Hosp.

1138. CARDIOVASCULAR RESPONSES TO EXERCISE

**Poster**  
**WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION**  
**Presentation time:** 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

**S287 I**  
**1138.1** Voluntary physical activity modulates hypoxia response of sickle cell disease SAD mice. C. Martin, E. Aufradet and V. Pialoux. Univ. of Lyon.

**S288 II**  
**1138.2** Physical activity blunts oxidative stress response to exercise in sickle cell trait carriers. V. Pialoux, E.N. Chirico, C. Faes, E. Aufradet, L. Féasson, L. Messonnier and C. Martin. Univ. Lyon 1, Univ. of Saint-Etienne and Univ. of Savoie, France.

**S289 I**  
**1138.3** Racial difference in central stiffness and arterial structure following aerobic exercise training. S. Ranadive, H. Yan, A.D. Lane, P. Sun, R. Kappus, M.D. Cook and B. Fernhall. Univ. of Illinois at Urbana-Champaign.

**S290 II**  

**S291 I**  

**S292 II**  
S296  II  1138.10  Reduced large elastic artery stiffness in older exercising adults is associated with suppressed nuclear factor kappa B signaling. K.L. Jablonski, A.J. Donato, B.S. Fleenor, M.J. Russell, A.E. Walker and D.R. Seals. Univ. of Colorado Boulder.
S298  II  1138.12  Physical training promotes different cardiac autonomic adaptations after premature and physiological ovarian failure in aged rats. G.C.S.V. Tezini, D.P.M. Dias and H.C.D. Souza. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.
S305  I  1138.19  Reductions in nitric oxide production within the nucleus tractus solitarius contributes to exercise pressor reflex overactivity in hypertension. M.N. Murphy, M. Mizuno, R. Downey and S.A. Smith. Univ. of Texas Southwestern Med. Ctr.
S317  I  1138.31  Effects of prior endurance exercise on postprandial lipemia-induced changes in circulating angiogenic cytokines in young men. R.Q. Landers-Ramos, N.T. Jenkins, E.E. Spangenberg, J.M. Hagberg and S.J. Prior. Univ. of Maryland College Park, Univ. of Maryland Sch. of Med. and Baltimore VA GRECC.


S324  II  1138.38 Effect of a cold pressor test on the cardiovascular responses to static handgrip exercise and peak force production. D. Kimmelner and R. Chisholm-Drane. Sch. of Hlth. and Human Performance, Dalhousie Univ., Canada.

S325  I  1138.39 Impact of cholinergically-mediated vasodilation on blood pressure at the onset of exercise in humans. L.C. Vianna, P.J. Fadel, N.H. Secher and J.P. Fisher. Univ. of Missouri-Columbia, Univ. of Copenhagen and Univ. of Birmingham Sch. of Sport & Exer. Sci.


S332  II  1138.46 Nifedipine does not open intrapulmonary arteriovenous anastomoses in healthy human subjects during exercise breathing 100% O2. J. Elliott, S. Laurie and A. Lovering. Univ. of Oregon.


S334  II  1138.48 Middle cerebral artery blood velocity during running: interactions of heart and stride impact rates. E. Wasson, C. Harper, A. Subudhi, S. Schneider, N. Maestas, D. Gutierrez, R. Roach and E. Greene. Univ. of New Mexico, Univ. of Colorado Denver, Aurora and New Mexico Highlands Univ.


S336  II  1138.50 Effect of a simulated functional magnetic resonance imaging scanner on resting and exercise-induced changes in cardiovascular function. A. Kates, H. Van Gestel and D. Kimmelner. Sch. of Hlth. and Human Performance, Dalhousie Univ., Canada.


1139. CARDIAC MUSCLE PHYSIOLOGY

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S339  II  1139.2 Juncophilin 2 is reduced in the border zone 3 hours after a myocardial infarction in sheep heart. C. Ingalls, C. Baumann, N. Gahlot, W. Santamore, J.H. Gorman and R.C. Gorman. Georgia State Univ., Temple Univ. and Univ. of Pennsylvania.


S341  II  1139.4 Ghrelin ameliorates doxorubicin-induced cardiomyopathy and cardiac fibrosis. P.M. Siu, X.M. Pei, I.F. Benzie and M. Ying. Hong Kong Polytech Univ.

S342  II  1139.5 NOS1-dependent S-nitrosylation of cardiac calcium-handling proteins (RyR2, SERCA, and L-type Ca2+ channel) modulates basal contractility and adrenergic inotropicism. A.Z. Viela, G. Eller, D.R. González and M.P. Boric. Pontifical Catholic Univ. of Chile and Univ. of Talca, Chile.

S343  II  1139.6 Modulation of the ubiquitin proteasome system in thyroid hormone-induced cardiac hypertrophy. C.A. Lino and M.L.M. Barreto-Chaves. Univ. of São Paulo.

S344  II  1139.7 α-Dystrobrevin functions to reinforce the interaction between dystrophin and the membrane, loss of α-dystrobrevin results in significant loss of cardiac reserve. D. Townsend, J. Dean and K. Sharpe. Univ. of Minnesota, Minneapolis.
S345 II 1139.8 Role of AT2 receptor in the cardioprotective response induced by thyroid hormone. M.L.M. Barreto-Chaves, D.A. Gomes and F.M. Tavares. Univ. of São Paulo.

S346 I 1139.9 Role of AMPK in the cardiomyocyte hypertrophy induced by thyroid hormone. A.P.C. Takano, G.P. Diniz and M.L.M. Barreto-Chaves. Univ. of São Paulo.

S347 II 1139.10 Pregnancy induces cardiac hypertrophy with hypercontractile ventricular myocytes. K. Kennard, L. Foster-Bey, D. Yanessa and B.A. Bailey. Ursinus Col., PA.


1140. SMOOTH MUSCLE PHYSIOLOGY AND PHARMACOLOGY

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S350 I 1140.1 Conditional inactivation of the splicing regulator Tra2β shifts myosin phosphatase isoforms and enhances smooth muscle sensitivity to cGMP-mediated relaxation. B. Bhetwal, K. Fu, Y. Mende, B. Perrino, B. Wirth and S. Fisher. Univ. of Nevada Reno, Case Western Reserve Univ., Univ. of Cologne and Univ. of Maryland Baltimore.

S351 II 1140.2 Bisphenol A decreases BK channel expression in rat aorta via genomic mechanisms. S. Asano, I.S. Fancher and G.M. Dick. West Virginia Univ.


S355 II 1140.6 Substance P-induced increase in brain-derived neurotrophic factor expression and secretion by intestinal smooth muscle is mediated by a rise in intracellular Ca2+. M.A. Alqudah, S. Mahavadi, K. Srinivasa and J.R. Grider. Virginia Commonwealth Univ. and JUST, Jordan.


S359 II 1140.10 Inhibition of phosphodiesterases relaxes urinary bladder smooth muscle via activation of the large conductance voltage- and Ca2+-activated K+ channels. W. Xin, Q. Cheng, R.P. Soder and G.V. Petkov. Univ. of South Carolina.


1141. MECHANICAL MUSCLE DAMAGE (POSTERS)

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S361 I 1141.1 Titin is not the weak link in the Z-disk streaming induced by plyometric exercise. F. Macaluso, A.W. Isaacs and K.H. Myburgh. Stellenbosch Univ., South Africa.


S363 I 1141.3 Dysferlin maintains the integrity of transverse tubules and the junctional sarcoplasmatic reticulum following contraction-induced injury. J.A. Roche, W.G. Resneck, A.L. Mueller and R.J. Bloch. Univ. of Maryland Sch. of Med.

S364 II 1141.4 In vivo studies of motor nerve re-growth following skeletal muscle damage by lengthening contractions. A. Vasilaki, A. Kayani, T. Pearson, A. McDardle and M. Jackson. Univ. of Liverpool.

S365 I 1141.5 Differences in alcohol versus aqueous extracts of North American gingsey in protecting against eccentric exercise-induced muscle damage in rats. M. Estaki and E.G. Noble. Univ. of Western Ontario Sch. of Kinesiol.

S366 II 1141.6 Rate of force recovery immediately following lengthening contractions for various mouse models of muscular dystrophy. E.P. Rader, R. Han, J.R. Levy, D. Bansal and K.P. Campbell. Univ. of Iowa and Loyola Univ. Med. Ctr.

S367 I 1141.7 Contractile properties of mice deficient in dystrophin and the NADPH subunit p47phox. J.A. Engle, E.P. Rader and K.P. Campbell. Univ. of Iowa.

1142. EXERCISE RESPONSES AND TRAINING

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

WEDNESDAY  

PHYSIOLOGY


S384 1  1142.17 Heterogeneity in total body fat changes after aerobic exercise training is similar in women with lower and higher amounts of body fat. B. Sawyer, D. Bhrammar, S. Angadi, D. Ryan, J. Ryder and G. Gaesser. Arizona State Univ.


S393 1  1142.26 Genetics shift the angio-adaptive balance in skeletal muscle of mice selected for high running capacity. G.N. Audet, T.H. Meek, T. Garland, Jr. and I.M. Olfter. West Virginia Univ. Sch. of Med. and Univ. of California, Riverside.

S394 1  1142.27 Upregulation of endogenous antioxidant defenses by Nrf2 activation does not blunt exercise-induced mitochondrial biogenesis in rats. D. Reuland, L. Biela, F. Peelor, J. Drake, B. Miller and K. Hamilton. Colorado State Univ.


S397 II 1142.30 Mild exercise elicits de novo synthesis of hippocampal dihydrotestosterone and enhanced neurogenesis in adult male rats. M. Okamoto, Y. Hojo, K. Inoue, T. Matsu, M.C. Lee, S. Kawato and H. Soya. Univ. of Tsukuba, Japan Soc. for Promotion of Sci., Chiyoda-ku and Univ. of Tokyo.


S399 II 1142.32 Central NO-signaling is important to PVN activation, improving heat dissipation and exercise performance. P.M. Lima, H.P. Santiago and C.C. Coimbra. Fed. Univ. of Minas Gerais, Brazil.

S400 I 1142.33 Involuntary exercise is a better stimulus than voluntary exercise to increase GDNF protein content in adult rat spinal cord. M.J. McCullough, A.M. Gyorkos and J.M. Spitsbergen. Western Michigan Univ.

S401 II 1142.34 Exercise-induced cardioprotection is dependent on enhanced glutathione reductase activity. C.R. Frasier, R.C. Sloan, B. Hayes and D.A. Brown. East Carolina Univ.

S402 I 1142.35 Exercise blood pressures are lower after aquatic compared to land treadmill training. S.F. Crouse, B.S. Lambert, N.P. Greene, T.W. Constanzo and S.E. Martin. Texas A&M Univ. and Univ. of Virginia.

S403 II 1142.36 Racial differences in blood pressure after exercise in young individuals. H. Yan, S.M. Ranadive, P. Sun, A.D. Lane, R.M. Kappus, C.A. Fahs, L. Rossow and B. Fernhall. Univ. of Illinois at Urbana-Champaign, East China Normal Univ. and Univ. of Oklahoma.


S407 II 1142.40 Exercise-induced angiogenesis, fiber size and muscle mass are reduced in skeletal myofiber-specific VEGF gene-deleted mice. H. Delavarr, K. Tang, P.D. Wagner and E.C. Breen. UCSD.


S410 I 1142.43 Growth hormone response to the strenuous training in professional skiers has longer recovery time than expected. S. Köks, E. Unt, V. Tillmann, K. Fischer, M. Alaver, T. Kiudma and A. Terasmaa. Univ. of Tartu, Estonia and Estonian Ski Assn., Tallinn.

S411 II 1142.44 The repeated-bout effect is compromised in the tibialis anterior muscles of mdx mice. T.A. McBride and R. Reynolds. California State Univ., Bakersfield.

S412 II 1142.45 Previous day’s exercise does not affect indicators of physiological stress measured during practice in male collegiate soccer players. V.M. Dautermann and K.M.S. Johnson. Beloit Col., WI.


S418 I 1142.51 MCP-1⁺ mice show blunted inflammatory cytokine response and improved recovery following exercise-induced muscle damage. B.T. Gordon, J. McClellan, E.A. Murphy, M.D. Carmichael and J.M. Davis. Univ. of South Carolina.


S424 I 1142.57 Diaphragm contractile function differs among murine strains. S. Stasko and M.B. Reid. Univ. of Kentucky.


1143. BONE-MUSCLE CROSSTALK (POSTERS)

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S429 II 1143.2 Wnt3a is a potent modulator of myogenic differentiation and muscle cell function. S. Romero-Suarez and M. Brotto. Sch. of Nursing, Univ. of Missouri-Kansas City.

S430 I 1143.3 Cellular mechanisms of tendon-muscle crosstalk. E. Abreu, S. Romero-Suarez, L. Broto, C. Mo and M. Brotto. Univ. of Missouri-Kansas City Schs. of Nursing, Pharm. and Med.


S432 I 1143.5 Bad to bone: homocysteine. N. Tyagi, N. Narayanan, S. Givvimani and S.C. Tyagi. Univ. of Louisville.


S436 I 1143.9 Skeletal muscle OGT and OGA expression: associations with hormone replacement therapy, physical activity and muscle area in postmenopausal women. M.H.M. Toivonen, E. Pöllänen, M. Ahtianen, H. Suominen, D. Taaffe, S. Cheng, T. Takala, U. Kujala, M. Tammi, S. Sipilä and V. Kovanen. Univ. of Jyväskylä, Finland, Univ. of Newcastle, Australia, Univ. of Oulu, Finland and Univ. of Eastern Finland.


1144. METABOLISM IN MUSCLE

Poster

Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1146. RESPIRATORY RESPONSES TO EXERCISE

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1147. CONTROL OF BREATHING: RESPIRATORY MOTONEURONS AND MUSCLES

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S467 II 1147.4 Incorporation of realistic intracellular calcium dynamics into a hypoglossal motoneurone computational model. K.G. Horn and I.C. Solomon. Stony Brook Univ.


S469 II 1147.6 Nitric oxide activates hypoglossal motoneurons by cGMP-dependent inhibition of task channels and cGMP-independent activation of HCN channels. I.C. Wenker, X. Chen, H. Liu, R. Horner and D.K. Mulkey. Univ. of Connecticut and Univ. of Toronto.

1148. RESPIRATORY PATTERN VARIABILITY: INSIGHTS INTO RESPIRATORY CONTROL MECHANISMS IN HEALTH AND DISEASE (POSTERS)

Poster
WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S471 II 1147.8 Increased pentobarbital insensitivity in hypoglossal (XII) motoneurons during late pregnancy is consistent with increased epsilong subunit expression in GABAA receptors. S.M. Turner and S.M. Johnson. Univ. of Wisconsin-Madison.

S472 I 1147.9 State dependent modulation of breathing in rats during urethane anesthesia. S. Pagliardini, J.J. Greer and C.T. Dickson. Univ. of Alberta.


S475 I 1148.1 Electrophysiological properties of RVLM pre-synaptic and CVLM neurons involved with the sympatho-inhibitory component of the baroreflex in rats submitted to chronic intermittent hypoxia. D.J.A. Moraes, D.B. Zoccal and B.H. Machado. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.


S477 I 1148.3 Ventilatory long-term facilitation following acute intermittent or continuous hypoxaemia in awake humans: the role of carotid chemoceptors and ventilatory drift to sustained hypercapnia. H.S. Griffin, K. Pugh, P. Kumar and G.M. Balanos. Univ. of Birmingham, U.K.


S481 I 1148.7 Cystic fibrosis mice display different breathing patterns than non-CF mice. C.K. Campanaro, R.J. Darrah, T.E. Dick, M.L. Drumm and F.J. Jacono. Case Western Reserve Univ.

S482 II 1148.8 Ventilatory pattern variability is associated with long-term recovery following cardiac arrest and resuscitation in rats. K. Xu, Y. Kuang, T.E. Dick and F.J. Jacono. Case Western Reserve Univ and Louis Stokes VA Med. Ctr.

S483 I 1148.9 Influence of different classes of anesthetics on burst-to-burst variability of basal phrenic nerve discharge in adult in vivo rat. T. Rahim, A. Kiridly, I.M. Reid and I.C. Solomon. Stony Brook Univ.


S485 I 1148.11 A stochastic and integrative model of breathing with temporal scaling characteristics. B.F. BuSha and S. Fronc. The Col. of New Jersey.


1149. ANABOLIC RESISTANCE TO EXERCISE WITH AGING OR DISEASE (POSTERS)

Poster
WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

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1150. ALTITUDE AND HYPOXIA

Poster
WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILLION

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


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S500 II 1150.10 Genome-wide P-element screen for hypoxia tolerance genes in Drosophila melanogaster. G.G. Haddad and P. Azad. UCSD.

1151. TRANSCRIPTOMES, GENE EXPRESSION, REGULATORY RNA AND PROTEOMICS

Poster

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S506 II 1151.6 On the diagnostic ability of microRNA for pancreatic cancer. G.D. Swanson. California State Univ., Chico.


S512 II 1151.12 Differential expression of candidate genes associated with voluntary physical activity levels in inbred mice. M. Dawes, D.P. Ferguson and T. Lightfoot. Texas A&M Univ.

S513 I 1151.13 Receptors for advanced glycation end-products are transcriptionally inhibited by FoxA2 in diverse pulmonary cell types. A.W. Farmer and P.R. Reynolds. Brigham Young Univ.


S515 I 1151.15 Controlling proteome degradation in Daphnia pulex. C.J. Kemp and D. Kültz. Univ. of California, Davis.


1152. REGULATION OF EPITHELIAL TRANSPORT PROTEINS, ION AND WATER CHANNELS, AND MODULATORY FACTORS III

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)

S518 I 1152.1 Acute angiotensin II effects on NCC are dependent on WNK4. B. Ko, L. Hansen, A. Mistry, R. Mallick and R. Hoover. Univ. of Chicago, Emory Univ. and Atlanta VA Hosp., Decatur.


S525 II 1152.8 Sexual dimorphism and estrogen regulation of KCNE3 modulates the functional properties of KCNQ1 K⁺ channels. B.J. Harvey, R. Alazamora, F. O’Mahony, V. Bustos, R. Rapetti-Mauss, V. Urbach, P. Cid and F. Sepúlveda. Royal Col. of Surgeons in Ireland and Ctr. for Sci. Studies, Valdivia, Chile.

S526 I 1152.9 Zn²⁺ has biphasic effects on KCNQ1/KCNE3 K⁺ channels. M.E. Duffey, K. Mongiardo, J. Hallman and J.K. Crane. Univ. at Buffalo SUNY.

S527 II 1152.10 Membrane trafficking produces distinct beta-adrenergic signaling for Cl secretion and K secretion in guinea pig distal colonic mucosa. S. Halm, J. Zhang and D. Halm. Wright State Univ.


S534 I 1152.17 Anion transporter links to urolithiasis and hepatotoxicity. D. Markovich, S. McLeay and S. Lee. Univ. of Queensland, Australia.


S537 II 1152.20 Coordinate adenosine A₁ and A₂A receptors regulation of the Na⁺/H⁺ exchanger 3 in ischemia/reperfusion injury. V. Babich, K. Vadnaga, O.W. Moe and F. Di Sole. Univ. of Texas Southwestern Med. Ctr.

S538 I 1152.21 Insulin activates intestinal NHE3 via IRBIT. P. He, M. Yanda, M. Anitha, S. Srinivasan and C. Yun. Emory Univ.


1153. NUCLEAR RECEPTORS IN THE LIVER AND GI TRACT

Poster

WED. 7:30 AM—SAN DIEGO CONVENTION CENTER, SAILS PAVILION

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S543 I 1153.1 E2F1 is a potential novel regulator of liver fibrosis by targeting Egr-1 through nuclear receptor SHP. Y. Zhang and L. Wang. Univ. of Utah.

S544 II 1153.2 Role of pregnane X receptor in diet-induced obesity. M.A. Gyamfi, D. Jones and E.M. Awumey. North Carolina Central Univ.
1154. GASTROINTESTINAL NUTRIENT SENSORS

Poster
Wed. 7:30 AM—San Diego Convention Center, Sails Pavilion
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1155. GASTROINTESTINAL PHYSIOLOGY AND THE MICROBIOME (POSTERS)

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S547 I 1155.1 Characterization of bile acid homeostasis in germ-free mice. F. Selwyn and C.D. Klaassen. Univ. of Kansas Med. Ctr.

S548 II 1155.2 Dietary fat-induced taurocholic acid production promotes pathobiont and colitis in IL-10 -/- mice. S. Devkota, Y. Wang, V.A. Leone, M. Musch, A. Nadimpalli, D. Antonopoulos, B. Jabri and E. Chang. Univ. of Chicago and Argonne Natl. Lab.


S550 II 1155.4 Feeding of probiotic formulation protects from obesity and diabetes. H. Yadav and S.G. Rane. NIDDK/NIH.


S552 II 1155.6 Hibernation alters the gut microbial community in ground squirrels. H.V. Carey, W.A. Walters and R. Knight. Univ. of Wisconsin-Madison, Univ. of Colorado Boulder and HHMI.

S553 I 1155.7 Dynamics of the cecal microbial community of an extreme hibernator, the arctic ground squirrel. T. Stevenson, L. Buck, B. Quinlan and K. Duddleston. Univ. of Alaska Anchorage.

S554 II 1155.8 Diverse gut microbes facilitate ingestion of dietary toxins in herbivores. M.D. Dearing, K. Kohl, C. Dale and R. Weiss. Univ. of Utah.

1156. HOST RESPONSES TO GASTROINTESTINAL INFECTIONS (POSTERS)

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Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S556 II 1156.2 Changes in innate immune pathway and proteins of Caenorhabditis elegans during Cronobacter sakazakii infection. K. Balamurugan and B.S. Sivamaruthi. Alagappa Univ., India.


S558 II 1156.4 Inflammation causes important changes in stomach tight junction structure and function. S.J. Hagen, S. Zhang, J.H. Seo and J.G. Fox. Beth Israel Deaconess Med. Ctr. and MIT.


S560 II 1156.6 A molecular mechanism for suppression of colonic inflammation by gut bacteria. A. Gurav, N. Singh and V. Ganapathy. Georgia Hlth. Sci. Univ.

1157. MEMBRANE TRAFFICKING AND SECRETION IN DIGESTIVE EPITHELIA

Poster
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S561 I 1157.1 Genistein diet: effects on jejunum from the R117H cystic fibrosis mice. S. Polito, M.L. Drumm and L. Al-Nakkash. Midwestern Univ., AZ and Case Western Reserve Univ.


1158. GI HORMONES, PEPTIDES AND RECEPTORS

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S566 II 1158.2 Multiple players vying for one target: regulation of developmental signaling fate of corticotropin-releasing factor receptor 1. S. Mahajan, B. Hasdemir, M. Liao and A. Bhargava. UCSF.


1159. GROWTH FACTORS, PROLIFERATION, DIFFERENTIATION AND APOPTOSIS

Poster

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1160. GI AND LIVER STEM CELLS

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


1161. GASTROINTESTINAL CANCER AND METASTASIS

Poster

Presentation time: 12:45 PM-2:00 PM (I); 2:00 PM-3:15 PM (II)


S575 I 1161.3 CCN1 induces death of esophageal adenocarcinoma: trick or TRAIL? J. Chai, M. Norng, J. Pham, S-Y. Wu and M.M. Jamal. VA Long Beach Healthcare Syst. and Univ. of California Irvine Healthcare.


1162. GASTROINTESTINAL DEVELOPMENT

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1163. GASTROINTESTINAL MOTILITY

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S578 I 1163.1 17β-Estradiol relaxes cholecystokinin and KCl-induced tension in female guinea pig gallbladder strips by inhibiting extracellular Ca2+ entry. L. Kline and E. Karpinski. Univ. of Alberta.

S579 II 1163.2 Although at rest, the rat esophagus is tensed anisotropically in situ. M. Lorber. Georgetown Univ.


Hyperhomocysteinemia decreases intestinal motility leading to constipation. S. Givvimani, C. Munjal, N. Narayanan, G. Tyagi, N. Metreveli and S.C. Tyagi. Univ. of Louisville.


Late-Breaking Poster Sessions are scheduled Wednesday, April 25, 2012 in the San Diego Convention Center, Sails Pavilion.

See the Late-Breaking Program for details.
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BOOTH NUMBERING SYSTEM

Exhibit space has been arranged in a grid pattern using numerical designations. The designation of each row is indicated by large overhead signs. A floor plan of the exhibit area is shown on the following pages.

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Sunday..........................April 22......................9:00 AM – 4:00 PM
Monday..........................April 23......................9:00 AM – 4:00 PM
Tuesday..........................April 24......................9:00 AM – 4:00 PM

LISTINGS OF EXHIBITORS AND SERVICES

An alphabetical listing of all exhibiting companies is provided in this program on the pages following the floor plan of the exhibit area. You can also view the exhibits online at www.experimentalbiology.org.

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<td><a href="http://www.alpcocom">www.alpcocom</a></td>
</tr>
<tr>
<td>ALPCO</td>
<td>26-G Keewaydin Drive</td>
<td>800-592-5726</td>
<td>603-898-6854</td>
<td>web@alpcocom</td>
<td><a href="http://www.alpcocom">www.alpcocom</a></td>
</tr>
<tr>
<td>ALZET® OSMOTIC PUMPS/DURECT CORPORATION</td>
<td>10260 Bubb Road</td>
<td>408-367-4036</td>
<td>408-865-1406</td>
<td><a href="mailto:alzet@durect.com">alzet@durect.com</a></td>
<td><a href="http://www.alzet.com">www.alzet.com</a></td>
</tr>
<tr>
<td>ALZET® OSMOTIC PUMPS/DURECT CORPORATION</td>
<td>10260 Bubb Road</td>
<td>408-367-4036</td>
<td>408-865-1406</td>
<td><a href="mailto:alzet@durect.com">alzet@durect.com</a></td>
<td><a href="http://www.alzet.com">www.alzet.com</a></td>
</tr>
<tr>
<td>ALZET® OSMOTIC PUMPS/DURECT CORPORATION</td>
<td>10260 Bubb Road</td>
<td>408-367-4036</td>
<td>408-865-1406</td>
<td><a href="mailto:alzet@durect.com">alzet@durect.com</a></td>
<td><a href="http://www.alzet.com">www.alzet.com</a></td>
</tr>
</tbody>
</table>

- Indicates advertiser in this program. See Index of Advertisers on page 405.
A-M SYSTEMS .......................................................... 249
PO Box 850
Carlsborg, WA 98324
Phone: 360-683-8300
Email: jbakin@a-msystems.com
Web: a-msystems.com
Amplifiers
Data Acquisition Equipment
Dissecting Microscopes
Electrodes
Electrometers
Electrophysiological Instruments
Fiber Optic Illumination Products
Microscopes
Pipette Holders, standard and recording
Pulse Generators

AMERICAN ASSOCIATION FOR LABORATORY
ANIMAL SCIENCE .................................................. 1722
9190 Crestwyn Hills Drive
Memphis, TN 38125
Phone: 901-754-8620
Fax: 901-753-0046
Email: john.mccutchen@aalas.org
Web: www.aalas.org

AMERICAN ASSOCIATION OF
ANATOMISTS (AAA) .............................................. 945
9650 Rockville Pike
Bethesda, MD 20814
Phone: 301-634-7910
Fax: 301-634-7965
Email: mkraft@anatomy.org
Web: www.anatomy.org

Books, Journals, Publications
Education Materials
Educational Research
Meeting Information
Membership Information
Training Opportunities

AMERICAN HEART ASSOCIATION ....................... 1117
7272 Greenville Avenue
Dallas, TX 75231
Phone: 214-706-1943
Email: julie.davis@heart.org
Web: www.my.americanheart.org

Books, Journals, Publications
Education Materials
Educational Research
Meeting Information
Membership Information

AMERICAN INSTITUTE FOR CANCER
RESEARCH .......................................................... 521
1759 R Street NW
Washington, DC 20009
Phone: 202-328-7744
Fax: 202-328-7226
Email: research@aiicr.org
Web: www.aiicr.org

AMERICAN PHYSIOLOGICAL SOCIETY,
THE ................................................................. 122, 430
9650 Rockville Pike
Bethesda, MD 20814
Phone: 301-634-7164
Fax: 301-634-7241
Email: info@the-aps.org
Web: www.the-aps.org

AMERICAN RADIOLabeled CHEMICALS, INC.... 735
101 ARC Drive
Saint Louis, MO 63146
Phone: 314-991-4545
Fax: 314-991-4692
Email: arcinc@arc-inc.com
Web: www.arc-inc.com

Biochemicals
Carbohydrates
Phospholipids
Radioactive Products
Radiochemicals
Radionuclides
Toxins

* Indicates advertiser in this program. See Index of Advertisers on page 405.
AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY (ASBMB).............. 1401
11200 Rockville Pike, Suite 302
Rockville, MD 20852
Phone: 240-283-6600
Fax: 301-881-2080
Email: jhoma@asbmb.org
Web: www.asbmb.org

AMERICAN SOCIETY FOR INVESTIGATIVE PATHOLOGY (ASIP)...................................... 1030
9650 Rockville Pike
Bethesda, MD 20814
Phone: 301-634-7130
Fax: 301-634-7990
Email: ASIP@asip.org
Web: www.asip.org

AMERICAN SOCIETY FOR NUTRITION (ASN)........... 529
9650 Rockville Pike
Bethesda, MD 20814
Phone: 301-634-7050
Fax: 301-634-7892
Email: info@nutrition.org
Web: www.nutrition.org

AMERICAN SOCIETY FOR PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS (ASPET)..... 801
9650 Rockville Pike
Bethesda, MD 20814
Phone: 301-634-7060
Fax: 301-634-7061
Email: info@aspet.org
Web: www.aspet.org

Advertising Information
Books, Journals, Publications
Future Meetings
Meeting Information
Membership Information

AMERICANS FOR MEDICAL PROGRESS................. 738
526 King Street, Suite 201
Alexandria, VA 22314
Phone: 703-836-9595
Fax: 703-836-9594
Email: info@amprogress.org
Web: www.amprogress.org

Activity Monitoring
Education Materials

AMIRSYS ............................................................... 421
2180 South 1300 East, Suite 570
Salt Lake City, UT 84106
Phone: 949-348-2208
Email: crystalh@amirsys.com
Web: www.amirsys.com

Anatomical Models
Books, Journals, Publications
Computer Software
Computers
Education Materials
Scientific Software
Software

ANASPEC, INC. ..................................................... 1606
34801 Campus Drive
Freemont, CA 94555
Phone: 510-791-9560
Fax: 510-791-9573
Email: admin@anaspec.com
Web: www.anaspec.com

Antibodies
Biochemical Reagents
Cloning Kits, PCR-based
Custom Antibody Production
Custom Synthesis
DNA Custom Synthesis
DNA Preparation Services
Dyes and Labeling Reagents
Fluorescence Reagents
Fluorescent Antibody
Monoclonal Antibodies
PCR Products (Polymerase Chain Reaction)
Peptide Synthesis Custom Service
Phospho-specific Antibodies

ANATRACE PRODUCTS FROM AFFYMETRIX, INC. ............................................................... 1704
434 West Dussel Drive
Maumee, OH 43537
Phone: 419-740-6600
Fax: 419-740-6630
Email: anatrasesupport@affymetrix.com
Web: www.anatrace.affymetrix.com

Lipids
Proteins/Protein Array

• ANNUAL REVIEWS.................................................................................. 412
4139 El Camino Way
Palo Alto, CA 94306
Phone: 650-493-4400
Fax: 650-424-0910
Email: mdrucker@annualreviews.org
Web: www.annualreviews.org

Books, Journals, Publications

APPLIED BIOPHYSICS, INC. .......................................................... 606
185 Jordan Road
Troy, NY 12180
Phone: 518-880-6860
Fax: 518-880-6860
Email: info@biophysics.com
Web: www.biophysics.com

Cell Biology Products
Cell Culture Chambers
Tissue Culture Apparatus
Tissue Culture Apparatus Labware
Tissue Culture Chambers

ARBOR ASSAYS ................................................................. 1437
1514 Eisenhower Place
Ann Arbor, MI 48108
Phone: 734-677-1774
Fax: 734-677-6860
Email: russ@arborassays.com
Web: www.arborassays.com

Antibodies
Bioproduct Development
Contract Research and Development
Custom Antibody Production
Diagnostic Test Kits
Dyes and Labeling Reagents
Fluorescent Antibody
Imunoassay Services

Imunochemicals
Monoclonal Antibodies
Nitric Oxide Meters and Sensors
Radioimmunoassay Kits

ART ROBBINS INSTRUMENTS .................................................... 1315
1293 Mountain View Alviso, Road, Suite D
Sunnyvale, CA 94089
Phone: 408-734-8400
Fax: 408-734-8420
Email: info@artrobbins.com
Web: www.artrobbins.com

Dispensers, Microliter and Injection
Microbiological Products

ASI/APPLIED SCIENTIFIC INSTRUMENTATION ..... 830
29391 West Enid Road
Eugene, OR 97402
Phone: 541-461-8181
Fax: 541-461-4018
Email: info@asiimaging.com
Web: www.asiimaging.com

Detection Systems
Fluorescence Image Analysis Equipment
Injectors
Micromanipulators
Microplate Readers
Microscope Illuminators
Microscopes

ASN HISTORY OF NUTRITION .............................................. 523
9650 Rockville Pike
Bethesda, MD 20814
Phone: 301-634-7050
Web: www.nutrition.org

ASPECT IMAGING ............................................................. 348
522 University Avenue
Toronto, ON M5G 1W7
Canada
Phone: 647-260-1991
Email: mmoran@aspectimaging.com
Web: aspectimaging.com

Animal Anesthesia Equipment
Computer 3-D Reconstruction
Image Analysis Software
Image Analyzer
In Vivo Imaging
Laboratory Apparatus, miscellaneous
Laboratory Workstation, automated
Pre-clinical Imaging or Small Animal Imaging
MRI (Magnetic Resonance Imaging)

• Indicates advertiser in this program. See Index of Advertisers on page 405.
ASSAY BIOTECHNOLOGY, INC........................................... 1330
562 E. Weddell Drive, Suite 8
Sunnyvale, CA 94089
Phone: 408-747-0185
Fax: 408-747-0145
Email: order@assaybiotech.com
Web: www.assaybiotech.com

Antibodies
Antisera
Biochemical Reagents
Biochemicals
Cytokines
Dyes and Labeling Reagents
Enzyme Immunoassay Kits
Fluorescence Immunoassay System
Fluorescent Antibody
Immunochemicals
Phospho-specific Antibodies

AVANTI POLAR LIPIDS, INC................................. 1330
700 Industrial Park Drive
Alabaster, AL 35007
Phone: 205-663-2494
Fax: 205-663-0756
Email: info@avantilipids.com
Web: www.avantilipids.com

Analytical Services or Test Systems
Analytical Test Systems
Biochemical Reagents
Lipids
Phospholipids

AVES LABS, INC.................................................. 715
12571 SW Main Street
Tigard, OR 97223
Phone: 503-598-8766
Fax: 503-598-8746
Email: info@aveslab.com
Web: www.aveslab.com

Antibodies
Cell Biology Products
Custom Antibody Production
Custom Synthesis
Fluorescent Antibody
Peptide Synthesis Custom Service
Reagents

AVIVA SYSTEMS BIOLOGY................................. 1238
5754 Pacific Center Boulevard, Suite 201
San Diego, CA 92121
Phone: 858-552-6979
Email: kzhou@avivasybio.com
Web: www.avivasybio.com

Antibodies

AXIS-SHIELD POC .................................................. 1510
PO Box 6863, Rodelokka
Oslo
Norway
Phone: 472-405-6000
Fax: 472-405-6010
Email: bjh@axis-shield.com
Web: www.axis-shield-density-gradient-media.com

Cell Separation Media
Density Gradient Media

AXXORA LLC .................................................... 1550
6181 Cornerstone Court East Suite 103
San Diego, CA 92121
Phone: 800-900-0065
Fax: 858-550-8825
Email: tmoore@axxora.com
Web: www.axxora.com

Antibodies
Biochemical Reagents
Biochemicals
cDNA Products
Dyes and Labeling Reagents
Enzyme Immunoassay Kits
Enzyme Reagents
Fluorescence Reagents
Fluorescent Antibody
Microplates
Monoclonal Antibodies
Nucleotides
Proteins-Protein Array
Purified Proteins

B

BACHEM AMERICAS INC. ................................. 1236
3132 Kashiwa Street
Torrance, CA 90505
Phone: 310-539-1471
Email: cheryljohnson@bachem.com
Web: www.bachem.com

Antibodies
Biochemical Reagents
Biochemicals
Custom Synthesis
Enzyme Immunoassay Kits
Enzyme Substrates and Inhibitors
Immunoassay Services
Immunochemicals
Organic Laboratory Chemicals
Peptide Synthesis Custom Service
Radiochemicals
Radioimmunoassay Kits
Reagents
BEMIS COMPANY INC .......................................................... 237
30 Old Kings Highway South
Darien, CT 06820
Phone: 203-202-2109
Fax: 203-202-1600
Email: michael.lemoult@bemis.com
Web: www.parafilm.com
Laboratory Film-sealing

BERTIN CORP ........................................................................... 740
9700 Great Seneca Highway, Suite 662
Rockville, MD 20850
Phone: 240-428-1047
Email: duval@bertin-corp.com
Web: www.precel.lys.com
Air Samplers
DNA Preparation Services
Shakers

BETHYL LABORATORIES, INC ............................................. 1538
25043 W FM 1097
Montgomery, TX 77356
Phone: 800-338-9579
Fax: 936-597-6105
Email: bethyl@bethyl.com
Web: www.bethyl.com
Antibodies
Antiserums
Electrophoresis Accessories
Electrophoresis Gels Pre-cast
Enzyme Immunoassay Kits
Enzyme Substrates and Inhibitors
Fluorescent Antibody
Immunochemicals
Monoclonal Antibodies
Phospho-specific Antibodies
Purified Proteins
Reagents
Serums
Western Blotting Equipment

BIOMEDICAL ENGINEERING SOCIETY (BMES) .... 217
8201 Corporate Drive Suite 1125
Landover, MD 20785-2224
Phone: 301-459-1999
Fax: 301-459-2444
Email: info@bmes.org
Web: www.bmes.org
Meeting Information
Membership Information

BIOSERVE ........................................................................... 737
Siegburger Strasse 35
Sankt Augustin, NRW 53757
Germany
Phone: 49 2241 3974 200
Fax: 49 2241 3974 299
Email: Dawid.eckert@bioserve.com
Web: www.bioserve.com
Activity Monitoring
Animal Behavior Research Equipment and Systems
Animal Feeding Monitors
Behavioral Research Equipment
Data Acquisition Equipment
Data Processing Systems

BIOCHEMICAL JOURNAL ............................................... 401
Commerce Way
Colchester Essex
United Kingdom
Phone: 44 1206 796351
Email: gemma.mead@portlandpress.com
Web: www.portlandpress.com
Books, Journals, Publications

BIODATA ............................................................................. 1632
11 Ha’avoda st.
Rosh Ha’ayin 48017
Israel
Phone: 972-3-717-6900
Email: maya.amichay@biodata.com
Web: www.labguru.com/
Software

BIOMED CENTRAL ............................................................. 438
236 Grays Inn Road
London WC1X 8HB
United Kingdom
Phone: 44 (0) 20 3192 2009
Fax: 44 (0)20 3192 2100
Email: info@biomedcentral.com
Web: www.biomedcentral.com/
Books, Journals, Publications

BIOMEDICAL RESEARCH MODELS, INC ............... 741
67 Millbrook Street
Oxford, MA 01606
Phone: 508-459-7544
Fax: 508-459-7548
Email: cfox@biomere.com
Web: www.biomere.com/
BIOMETECHOLOGY .................................................. 839
1047 Serpentine Lane #200
Pleasanton, CA 94566
Phone: 925-931-0007
Fax: 925-931-0300
Email: info@biometertech.com
Web: www.biomertech.com

Antibodies
Antiserums
Peptide Synthesis Custom Service
Phospho-specific Antibodies

BIOMETROLOGY / NANOANALYTICS ...................... 324
1448 East 52nd Street, Suite 372
Chicago, IL 60615
Phone: 773-941-0113
Email: cellscope@biometrology.com
Web: www.biometrology.com

Analytical Services or Test Systems
Contract Research and Development
Electrodes
Electrophysiological Instruments
Laboratory Apparatus, miscellaneous
Pharmaceutical Development Equipment
Physiological Recorders

BIOTEX .............................................................. 1219
6201 Progressive Avenue 200
San Diego, CA 92154
Phone: 619-690-7333
Fax: 619-690-7334
Email: fb@biontex-usa.com
Web: www.biontex-usa.com

Agarose
Biochemical Reagents
Transcription Reagents

BIOPAC SYSTEMS, INC. ........................................... 336
42 Aero Camino
Goleta, CA 93117
Phone: 805-685-0066
Fax: 805-685-0067
Email: info@biopac.com
Web: www.biopac.com

Amplifiers
Analog-to-Digital Converters
Blood Pressure Monitors
Data Acquisition Equipment
Data Loggers
Education Materials
Electrodes
Evoked Potential Systems
Physiological Recorders
Respiratory Gas Analyzers
Software

Telemetering Systems
Tissue Organ Baths, Constant Temperature
Transducers

BIO-RAD LABORATORIES ..................................... 1415
2000 Alfred Nobel Drive
Hercules, CA 94547
Phone: 510-741-1000
Fax: 510-741-5630
Email: lsg.orders@bio-rad.com
Web: www.bio-rad.com

Cytokines
DNA Amplification Equipment
Electrophoresis Cells
Electrophoresis Equipment
Electrophoresis Gels Pre-cast
Electroporation
Gene Transfer Device
Image Analysis Software
PCR Products (Polymerase Chain Reaction)
Power Supplies
Proteins/Protein Array
Thermal Cyclers
Transcription Reagents
Western Blotting Equipment

BIO-SERV .......................................................... 705
One 8th Street, Suite 1
Frenchtown, NJ 08825
Phone: 570-730-6055
Fax: 908-996-4123
Email: kthek@bio-serv.com
Web: www.bio-serv.com

Animal Diets

BIO-SYNTHESIS, INC. ............................................ 1706
612 E. Main Street
Lewisville, TX 75057
Phone: 972-420-8505
Fax: 972-420-0442
Email: biosyn@biosyn.com
Web: www.biosyn.com

Analytical Services or Test Systems
Antibodies
Carbohydrates
Custom Antibody Production
Custom Synthesis
DNA Custom Synthesis
Fluorescent in situ Hybridization (FISH) Services
Oligonucleotides
Peptide Synthesis Custom Service
Phospho-specific Antibodies
Probes
BIOVISION, INC. .............................................................. 1544
155 South Milpitas Road
Milpitas, CA 95035
Phone: 408-493-1800
Fax: 408-493-1801
Email: support@biovision.com
Web: www.biovision.com
Biochemical Reagents
Biochemicals
Biologicals
Cell Biology Products
Cytokines
Enzyme Immunoassay Kits
Enzyme Reagents
Enzyme Substrates and Inhibitors
Enzymes
Growth Factors
Immunochemicals
Monoclonal Antibodies
Phospho-specific Antibodies
Signal Transduction Reagents

BONE CLONES, INC. .......................................................... 802
21416 Chase Street, #1
Canoga Park, CA 91304
Phone: 818-709-7991
Fax: 818-709-7993
Email: info@boneclones.com
Web: www.boneclones.com
Anatomical Models

BRANDTECH SCIENTIFIC, INC. ........................................ 1215
11 Bokum Road
Essex, CT 06426
Phone: 860-767-2562
Fax: 860-767-2563
Web: www.brandtech.com
Microplates
PCR Products (Polymerase Chain Reaction)
 Pipettes
 Plastic Laboratory Ware
 Pumps

BRITISH PHARMACOLOGICAL SOCIETY ................. 432
16 Angel Gate, 326 City Road
London EC1V 2PT
United Kingdom
Phone: 44 (0) 20 7239 0184
Email: jb@bps.ac.uk
Web: www.bps.ac.uk

BRUKER CORPORATION ............................................. 346
112 Robin Hill Road
Santa Barbara, CA 93117
Phone: 805-967-1400
Fax: 805-967-7717
Email: productinfo@brucker-nano.com
Web: www.bruker-axs.com

BTX/HARVARD APPARATUS ........................................ 306
84 October Hill Road
Holliston, MA 01748
Phone: 508-893-8999
Email: techsupport.btx@harvardapparatus.com
Web: www.btxonline.com

BUXCO RESEARCH SYSTEMS ................................. 1002
2033 Corporate Drive
Wilmington, NC 28405
Phone: 910-794-6980
Fax: 910-794-6981
Email: sales@buxco.com
Web: www.buxco.com
Activity Monitoring
Computer Software
Computers
Data Acquisition Equipment
Plethysmographs
Respiratory Gas Analyzers
Respiratory setups
Software
Temperature Probes

C

C & A SCIENTIFIC CO., INC. ................................. 739
7241 Gabe Court
Manassas, VA 20109
Phone: 703-330-1413
Fax: 703-330-7510
Email: brian@cnascientific.com
Web: www.cnascientific.com
Cameras
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Microscope Slides
Microscope, Cover Glasses
Microscopes
Petri Dishes
Pipettes
Plastic Laboratory Ware
Shakers
Stirrers
Tissue Baths, Preparatory
Water Baths

CAMBRIDGE ELECTRONIC DESIGN LTD. ............. 148
4 The Science Park, Milton Road
Cambridge CB40FE
United Kingdom
Phone: 800 345-7794
Fax: 44 1223 420488
Email: info@ced.co.uk
Web: www.ced.co.uk
Amplifiers
Analog-to-Digital Converters
Behavioral Research Equipment
Data Acquisition Equipment
Digital-to-Analog Converters
Electrocardiographic Systems
Electroencephalographs
Electromyographs
Evoked Potential Systems
Motor Activity Recorders
Physiological Recorders
Pulse Generators
Recorders

CAMPDEN INSTRUMENTS................................................. 703
PO Box 8148
Loughborough, Leics
United Kingdom
Phone: 44-1509-814790
Email: uksales@campdeninstruments.com
Web: www.campdeninstruments.com

Activity Monitoring
Animal Behavior Research Equipment and Systems
Behavioral Research Equipment
Microtomes
Tissue Culture Apparatus

CARESTREAM MOLECULAR IMAGING......................... 316
4 Research Drive
Woodbridge, CT 06525
Phone: 203-786-5600
Fax: 203-786-5630
Email: molecular-info@carestreamhealth.com
Web: www.mi.carestreamhealth.com

Image Analysis Software
Image Analyzer
Ultraviolet Analyzers
Western Blotting Equipment

CARL ZEISS MICROSCOPY, LLC ...................... 702
One Zeiss Drive
Thornwood, NY 10594
Phone: 800-233-2343
Fax: 914-681-7379
Email: micro@zeiss.com
Web: www.zeiss.com/micro

Cameras
Image Analysis Software
Microscopes
Software

CAYMAN CHEMICAL COMPANY............................. 632
1180 East Ellsworth Road
Ann Arbor, MI 48108
Phone: 734-971-3335
Fax: 734-971-3420
Email: sales@CaymanChem.com
Web: www.caymanchem.com

Antibodies
Biochemicals
Cell Biology Products
Contract Research and Development
Custom Synthesis
Enzyme Immunoassay Kits
GMP Facility
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Imunoassay Services
Immunochemicals
Lipids
Phospholipids
Purified Proteins
Signal Transduction Reagents
CELL APPLICATIONS, INC............................................... 836
5820 Oberlin Drive, #101
San Diego, CA 92121
Phone: 858-453-0848
Fax: 858-453-2862
Email: m.vengrow@cellapplications.com
Web: www.cellapplications.com

Antibodies
Biologicals
Cell Biology Products
Cell Culture Media
Cell Cultures
Culture Media

CELL SIGNALING TECHNOLOGY .............................. 935
3 Trask Lane
Danvers, MA 01923
Phone: 978-867-2300
Fax: 978-867-2400
Email: info@cellsignal.com
Web: www.cellsignal.com

Antibodies

CENTERCHEM, INC .................................................. 1636
20 Glover Avenue
Norwalk, CT 06850
Phone: 203-822-9800
Fax: 203-822-9820
Email: biochemicals@centerchem.com
Web: www.centerchem.com

Biochemical Reagents
Biochemicals
Diagnostic Test Kits
Enzyme Substrates and Inhibitors
Reagents

CHARLES RIVER .................................................... 917
251 Ballardvale Street
Wilmington, MA 01887
Phone: 781-222-6000
Fax: 978-988-9236
Email: askcharlesriver@crl.com
Web: www.criver.com

Animals
Antibodies
Antiserums
Biologicals
Contract Research and Development
Custom Antibody Production
Education Materials
Endotoxins
Enzyme Immunoassay Kits
Fluorescence Reagents
Isolators
Laboratory Animals
Reagents

CHEMGLASS LIFE SCIENCES................................. 1518
3800 North Mill Road
Vineland, NJ 08360
Phone: 800-843-1794
Fax: 856-696-7366
Email: customer-service@cglifesciences.com
Web: www.cglifesciences.com

Cell Biology Products
Culture Flasks or Bottles
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Plastic Laboratory Ware
Probes
Shakers
Stirrers
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Water Baths

CINCINNATI CHILDREN’S RESEARCH FOUNDATION .................................................. 1621
3333 Burnet Avenue
Cincinnati, OH 45229
Phone: 513-636-8918
Fax: 513-636-2066
Email: cindy.bachurski@cchmc.org
Web: www.cincinnatichildrens.org

Postdoctoral Fellowship Training
Research Information

CLEVER SYS INC...................................................... 1115
11425 Isaac Newton Square South, Suite 202
Reston, VA 20190
Phone: 703-787-6946
Fax: 703-757-7467
Email: yqliang@cleversysinc.com
Web: www.cleversysinc.com

Animal Behavior Research Equipment and Systems
Behavioral Research Equipment
Computer Software
Computers
Data Acquisition Equipment
Image Analysis Software
Image Analyzer
Laboratory Workstation, automated
Light Sources
Software
Video Cameras
Video Systems Measuring
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Phone: 516-422-4100
Fax: 516-422-4097
Web: www.cshlpress.com

Books, Journals, Publications

COLUMNS................................................................. 431
103 Balcourt Drive
Princeton, NJ 08540
Phone: 609-688-0019
Fax: 609-688-0019
Email: cho@morganclaypool.com
Web: www.morganclaypool.com/page/lifesci

Books, Journals, Publications

COLUMBUS INSTRUMENTS INTERNATIONAL CORPORATION .................................................... 1137
950 North Hague Avenue
Columbus, OH 43204
Phone: 614-276-0861
Fax: 614-279-9607
Email: sales@colinst.com
Web: www.colinst.com

Activity Monitoring
Animal Behavior Research Equipment and Systems
Animal Feeding Monitors
Animal Respirators
Behavioral Research Equipment
Blood Pressure Monitors
Cardiac Output Analyzers Computers
Metabolic Cages
Motor Activity Recorders
Oxygen Uptake Instrumentation
Pulmonary Function Equipment
Respiratory Gas Analyzers
Treadmills

CONQUER SCIENTIFIC.................................................. 1217
6259 Progressive Avenue 300
San Diego, CA 92154
Phone: 619-690-7300
Fax: 619-690-7334
Email: fb@conquerscientific.com
Web: www.conquerscientific.com

Balances
Centrifuges
Chromatographs, Gas
Chromatographs, Liquid
DNA Sequencers
Electrophoresis, Capillary
Fermentation Equipment
Freezers
HPLC Systems
Mass Spectrometers
Microplate Readers
Spectrometers
Thermal Cyclers
Water Purification Equipment

CORDYNAMICS.......................................................... 1122
2242 West Harrison Street
Chicago, IL 60612
Phone: 312-421-8876
Fax: 312-873-3710
Email: tlg@cordynamics.com
Web: www.cordynamics.com

Contract Research and Development

CORN REFINERS ASSOCIATION................................. 636
1701 Pennsylvania Avenue, NW, Suite 950
Washington, DC 20006
Phone: 202-331-1634
Fax: 202-331-2054
Web: www.cornsugar.com

Education Materials

COSMO BIO USA.......................................................... 1502
2792 Loker Avenue West, Suite 101
San Diego, CA 92010
Phone: 760-431-4600
Fax: 760-431-4604
Email: rosen.ed@cosmobiouusa.com
Web: www.cosmobiouusa.com

Antibodies
Cell Biology Products
Density Gradient Media
Electrophoresis Equipment
Electrophoresis Gels Pre-cast
Enzyme Immunoassay Kits
Immunocleamicals
Lectins
miRNA Products
Monoclonal Antibodies
Phospho-specific Antibodies
Purified Proteins
Reagents
Spectrofluorometers

COULBOURN INSTRUMENTS................................. 304
5583 Roosevelt Street
Whitehall, PA 18052
Phone: 610-395-3771
Fax: 610-391-1333
Email: sales@coulbourn.com
Web: www.coulbourn.com

Activity Monitoring
Amplifiers
Animal Behavior Research Equipment and Systems
Animal Feeding Monitors
Calorimeters
Pumps
Respiratory Gas Analyzers
Video Systems Measuring
COY LABORATORY PRODUCTS ................................. 222
14500 Coy Drive
Grass Lake, MI 49240
Phone: 734-475-2200
Fax: 734-475-1846
Email: sales@coylab.com
Web: www.coylab.com

Animal Behavior Research Equipment and Systems
Behavioral Research Equipment
Cell Culture Chambers
Culture Apparatus
Dissolved Oxygen Meter
Dissolved Oxygen Meter and Sensor
Environmental Chambers
Glove Boxes
Incubators
Oxygen Uptake Instrumentation
Tissue Culture Chambers

CRC PRESS - TAYLOR & FRANCIS .......................... 424
6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487
Phone: 561-994-0555
Fax: 561-361-6018
Email: orders@crcpress.com
Web: www.crcpress.com

Books, Journals, Publications

D

DATA SCIENCES INTERNATIONAL .......................... 221
119 14th Street NW, Suite 100
St. Paul, MN 55112
Phone: 651-481-7400
Fax: 651-481-7417
Email: sales@datasci.com
Web: www.datasci.com

Activity Monitoring
Amplifiers
Behavioral Research Equipment
Biosensors
Blood Pressure Monitors
Data Acquisition Equipment
Electrocardiographic Systems
Electroencephalographs
Electromyographs
Infusion Products
Physiological Transducers
Pulmonary Function Equipment
Software
Telemetering Systems

DICON/SCOPELED ............................................ 340
1689 Regatta Boulevard
Richmond, CA 94804
Phone: 510-620-5000
Fax: 510-620-4100
Email: sella@diconfiber.com
Web: www.diconfiber.com

Diagnostic Test Kits
Dissecting Instruments
Dissecting Microscopes
Fiber Optic Illumination Products
Fluorescence Filter Sets
Fluorescence Image Analysis Equipment
Fluorescence Immunoassay System
Fluorescent Antibody
HPLC Systems
Light Sources
Luminometers
Microdissecting Instruments
Microscope Illuminators
Video Cameras

DMT-USA, INC ..................................................... 140
201 East Liberty Street
Ann Arbor, MI 48104
Phone: 770-612-8014
Email: sales@dmtdk.com
Web: www.dmt-usa.com

Animal Tissues
Data Acquisition Equipment
Flowmeter Kits
Image Analysis Software
Organ Baths
Pulse Generators
Software
Tissue Culture Chambers
Tissue Organ Baths, Constant Temperature

DRUMMOND SCIENTIFIC .................................... 1423
500 Parkway
Broomall, PA 19008
Phone: 610-353-0200
Fax: 610-353-6204
Email: info@drummondsci.com
Web: www.drummondsci.com

Cell Biology Products
Injectors
Laboratory Apparatus, miscellaneous
Liquid Dispensers
Micromanipulators
Pipettes
Tissue Culture Apparatus Labware

* Indicates advertiser in this program. See Index of Advertisers on page 405.
**DUALSYSTEMS BIOTECH AG**................................. 1630

Grabenstrasse 11a
Schlieren
Switzerland
Phone: 41 44 738-50 00
Fax: 41 44 738-50 05
Email: auerbach@dualsystems.com
Web: www.dualsystems.com

Antibodies
Custom Synthesis
Protein Binding Studies
Protein Purification System
Receptor/Ligand Interaction
Signal Transduction Reagents
Transcription Reagents

**DYETS, INC.......................................................... 746**

2508 Easton Avenue
Bethlehem, PA 18017
Phone: 610-868-7701
Email: sales@dyets.com
Web: www.dyets.com

**EBIOSCIENCE.................................................... 1306**

10255 Science Center Drive
San Diego, CA 92121
Phone: 888-999-1371
Fax: 858-642-2046
Email: contact@ebioscience.com
Web: www.ebioscience.com

Adhesion Molecules
Antibodies
Cell Biology Products
Custom Antibody Production
Cytokines
Dyes and Labeling Reagents
ELISPOT Reagents
Enzyme Immunoassay Kits
Fluorescein Reagents
Fluorescence Immunoassay System
Fluorescence Reagents
Fluorescent Antibody
Growth Factors
Monoclonal Antibodies

**EICOM CORPORATION ........................................ 204**

7313 Carroll Road Suite F
San Diego, CA 92121
Phone: 888-680-7775
Email: info@eicom-usa.com
Web: www.eicom-usa.com

Biosensors
Electrochemical Instrumentation
HPLC Accessories
HPLC Columns

**EMD MILLIPORE ............................................. 1309, 1310**

290 Concord Road
Billerica, MA 01821
Phone: 800-225-3384
Email: orders@millipore.com
Web: www.millipore.com

Antibodies
Biochemicals
Cell Biology Products
DNA Purification Kits
Enzyme Substrates and Inhibitors
Filters
Fluorescent Antibody
Lentiviral Clone Products
Magnetic Beads
Membrane Filters
PCR Products (Polymerase Chain Reaction)

**ELECTRON MICROSCOPY SCIENCES ..................... 931**

1560 Industry Road
Hatfield, PA 19440
Phone: 215-412-8400
Fax: 215-412-8450
Email: sgkck@aol.com
Web: www.emdiasum.com

Books, Journals, Publications
Education Materials

**ELSEVIER, INC.................................................. 501**

1600 JFK Boulevard, Suite 1800
Philadelphia, PA 19103
Phone: 215-239-3490
Fax: 215-239-3494
Email: j.hayes@elsevier.com
Web: www.elsevierhealth.com

**EMBI TEC.......................................................... 1335**

7738 Arjons Drive
San Diego, CA 92126
Phone: 858-684-3190
Email: inquiry@embitec.com
Web: www.embitec.com

Electrophoresis Accessories
Electrophoresis Cells
Electrophoresis Equipment
Electrophoresis Gels Pre-cast
Gel Electrophoresis Equipment
Light Boxes
Light Sources
PCR Products (Polymerase Chain Reaction)
Power Supplies

• Indicates advertiser in this program. See Index of Advertisers on page 405.
Phospho-specific Antibodies
Protein Purification System
Water Purification Equipment

**emka TECHNOLOGIES** .......................................................... 206
307 Annandale Road, Suite 203
Falls Church, VA 22042
Phone: 703-237-9001
Fax: 703-237-9006
Email: emkatech@emkatech.com
Web: www.emkatech.com

Blood Pressure Monitors
Data Acquisition Equipment
Electrocardiographic Systems
Electroencephalographs
Electrophysiologic Instruments
Implantable Instrumentation
Infusion Products
Organ Baths
Plethysmographs
Pressure Transducers, Implantable
Pulmonary Function Equipment
Scientific Software
Telemetering Systems
Tissue Organ Baths, Constant Temperature

**ENDOCRINE SOCIETY, THE** .............................................. 321
8401 Connecticut Avenue, Suite 500
Chevy Chase, MD 20815
Phone: 301-941-0224
Fax: 240-482-0103
Email: societieservices@endo-society.org
Web: www.endo-society.org

**EPITOMICS, INC.** .............................................................. 1441
863 Mitten Road, Suite 103
Burlingame, CA 94010
Phone: 650-583-6688
Fax: 650-583-6680
Email: tradeshow@epitomics.com
Web: www.epitomics.com

Antibodies
Fluorescent Antibody
Imunochemicals
Monoclonal Antibodies
Peptide Synthesis Custom Service
Reagents
Signal Transduction Reagents
Transcription Reagents

**EXPEDEON** ....................................................................... 1716
11211 Sorrento Valley Road, Suite A
San Diego, CA 92121
Phone: 858-457-7978
Fax: 858-457-7939
Email: edward.marsh@us.expedeon.com
Web: www.expedeon.com/

Chromatographs, Affinity, Matrices
Electrophoresis Accessories
Electrophoresis Cells
Electrophoresis Equipment
Electrophoresis Gels Pre-cast
Gel Electrophoresis Equipment
Protein Purification System

**EY LABORATORIES, INC.** .................................................. 1542
107 North Amphlett Boulevard
San Mateo CA 94401
Phone: 650-342-3296
Fax: 650-342-2648
Email: sales@eylabs.com
Web: www.eylabs.com

**FACULTY OF 1000** ............................................................. 322
Middlesex House, 34–42 Cleveland Street
London W1T 4LB
United Kingdom
Phone: 44 (0)20 7323 0323
Fax: 44 (0)20 7580 1938
Email: Eva.Fong@f1000.com
Web: www.f1000.com
Books, Journals, Publications

**FASEB** ............................................................................. 1610
9650 Rockville Pike
Bethesda, MD 20814
Phone: 301-634-7213
Email: sbradham@faseb.org
Web: www.faseb.org
Education Materials
Future Meetings
Meeting Information
Membership Information

**FINE SCIENCE TOOLS** .................................................... 224
373-G Vintage Park Drive
Foster City, CA 94404
Phone: 800-521-2109
Fax: 800-523-2109
Email: info@finescience.com
Web: www.finescience.com

**FLEXCELL INTERNATIONAL CORP.** ................................ 704
437 Dimmocks Mill Road, Suite 28
Hillsborough, NC 27278
Phone: 919-732-1591
Fax: 919-732-5196
Email: info@flexcellint.com
Web: www.flexcellint.com
Cell Biology Products
Cell Culture Chambers
Culture Apparatus

• Indicates advertiser in this program. See Index of Advertisers on page 405.
Image Analysis Software
Incubators
Infusion Products
Laminar Flow Equipment
Microscope Slides
Pumps
Tissue Culture Apparatus
Tissue Culture Apparatus Labware

**FLUXION BIOSCIENCES**................................................. 146
384 Oyster Point Boulevard, #6
South San Francisco, CA 94080
Phone: 650-241-4777
Fax: 650-873-3665
Email: info@fluxionbio.com
Web: www.fluxionbio.com

Cell Biology Products

**FORTEBIO**................................................................. 1705
1360 Willow Road, Suite 201
Menlo Park, CA 94025
Phone: 650-322-1360
Fax: 650-322-1370
Email: gmlan@fortebio.com
Web: www.fortebio.com

Protein Binding Studies
Protein Purification System
Proteins/Protein Array

**FULL MOON BIOSYSTEMS, INC.**................................. 1218
754 North Pastoria Avenue
Sunnyvale, CA 94085
Phone: 408-737-1702
Fax: 408-732-7230
Email: info@fullmoonbiosystems.com
Web: www.fullmoonbiosystems.com

Antibodies
Imunoassay Services
Monoclonal Antibodies
Phospho-specific Antibodies
Proteins/Protein Array

**GENECOPOEIA, INC.**..................................................... 1435
9620 Medical Center Drive, #101
Rockville, MD 20850
Phone: 301-762-0888
Fax: 301-762-3888
Email: inquiry@genecopoeia.com
Web: www.genecopoeia.com

Antibodies
Biochemical Reagents
cDNA Products
Clone Constructs
Expression Clones
miRNA Products
PCR Products (Polymerase Chain Reaction)
Purified Proteins
Reagents

**GENECOPREOIA, INC.**..................................................... 1435
9620 Medical Center Drive, #101
Rockville, MD 20850
Phone: 301-762-0888
Fax: 301-762-3888
Email: inquiry@genecopoeia.com
Web: www.genecopoeia.com

Antibodies
Biochemical Reagents
cDNA Products
Clone Constructs
Expression Clones
miRNA Products
PCR Products (Polymerase Chain Reaction)
Purified Proteins
Reagents

**GENHUNTER CORPORATION**........................................ 1223
624 Grassmere Park Drive, Suite 17
Nashville, TN 37211
Phone: 800-311-8260
Fax: 615-832-9461
Email: info@genhunter.com
Web: www.genhunter.com

Antibodies
cDNA Microarrays
Cloning Kits, PCR-based
Gel Electrophoresis Equipment
Membrane Filters
PCR Products (Polymerase Chain Reaction)
 Pipettes
Protein Binding Studies
Proteins/Protein Array
Receptor/Ligand Interaction
RNA Detection Kits
RNA Isolation Kits

* Indicates advertiser in this program. See Index of Advertisers on page 405.
Shakers
Western Blotting Equipment

GILSON, INC................................................................. 630
PO Box 620027
Middleton, WI 53562
Phone: 800-445-7661
Fax: 608-821-4403
Email: sales@gilson.com
Web: www.gilson.com

Pipettes

GLENBROOK TECHNOLOGIES................................. 1216
11 Emery Avenue
Randolph, NJ 07869
Phone: 973-361-8866
Email: gzweig@glenbrooktech.com
Web: www.glenbrooktech.com
Animal Behavior Research Equipment and Systems
Animal Surgery Tables
Animal Surgical Instruments
Array Scanner
Autoradiography Products
Cardiac Monitors
Contract Research and Development
Electrophysiological Instruments
Laboratory Animals
Patient Monitoring Systems
Photomicrographic Equipment
Surgical Instruments
Visual Research Equipment

GLOBALTOWN MICROTECH, INC. ......................... 822
5645 North Tuttle Avenue
Sarasota, FL 34243
Phone: 941-358-8887
Fax: 941-358-8881
Email: info@globaltowns.com
Web: www.globaltowns.com

GRAPHPAD SOFTWARE, INC. ............................... 515
2236 Avenida de la Playa
La Jolla, CA 92037
Phone: 858-454-5577
Fax: 858-454-4150
Email: info@graphpad.com
Web: www.graphpad.com
Computer Software
Scientific Software
Software

GRASS TECHNOLOGIES / ASTRO-MED, INC...... 1302
600 East Greenwich Avenue
West Warwick, RI 02893
Phone: 401-828-4000
Fax: 401-822-2430
Email: grass@astromed.com
Web: www.grasstechnologies.com
Amplifiers
Data Acquisition Equipment
Electrodes
Electroencephalographs
Electrophysiological Instruments
Physiological Recorders
Physiological Transducers
Recorders

GREATER BOSTON CONVENTION & VISITORS BUREAU........................................ 1718
Two Copley Place, Suite 105
Boston, MA 02116
Phone: 617-867-8230
Web: www.bostonusa.com
Meeting Information

GUBENER PLASTINATE GMBH................................. 545
Alte Poststrasse 26
Guben 03172
Germany
Phone: 49 3561 5474 120
Fax: 49 3561 5474 263
Email: d.seifert@guben.plastination.com
Web: www.guben.plastination.com
Analytical Test Systems
Anatomical Models
Animal Surgical Instruments
Animals
Bioproduct Development
Computer 3-D Reconstruction
Computer Modeling
Dissecting Instruments
Education Materials
Laboratory Animals
Skin Measuring Instruments
Specimen Labels
Training Opportunities
Visual Research Equipment

• Indicates advertiser in this program. See Index of Advertisers on page 405.
HAMMOND LABS, INC. ........................................... 1409
4970 Energy Way
Reno, NV 89502
Phone: 775-858-3000
Fax: 775-856-7259
Email: sales@hammondlabs.com
Web: www.hammondlabs.com

High Pressure Systems
Microinjectors
Biphasic Pumps
Stereotaxic Instruments

HARLAN LABORATORIES, INC. ......................... 1609
8520 Allison Pointe Boulevard, Suite 400
Indianapolis, IN 46250
Phone: 317-806-6080
Fax: 317-806-6085
Email: twice@harlan.com
Web: www.harlan.com

Animal Diets
Animal Surgical Instruments
Antibodies
Catheters
Laboratory Animals

HARVARD APPARATUS ............................................ 301
84 October Hill Road
Holliston, MA 01746
Phone: 508-893-8999
Fax: 508-429-2784
Email: bioscience@harvardapparatus.com
Web: www.harvardapparatus.com

Animal Anesthesia Equipment
Animal Behavior Research Equipment and Systems
Animal Respirators
Animal Surgery Tables
Animal Surgical Instruments
Blood Pressure Monitors
Brain Probes
Microdialysis Equipment and Supplies
Pumps
Stereotaxic Instruments

HATTERAS INSTRUMENTS, INC. ......................... 247
105 Southbank Drive
Cary, NC 27518
Phone: 919-816-9905
Email: jg@hatterasinstruments.com
Web: www.hatterasinstruments.com

Blood Pressure Monitors
Cage Racks
Cortical Impactor
Data Acquisition Equipment
Metabolic Cages
Software

HILLTOP LAB ANIMALS, INC. ......................... 1316
PO Box 183
Scottsdale, PA 15683
Phone: 724-887-8480
Fax: 724-887-3582
Email: edmiedel@hilltoplabs.com
Web: www.hilltoplabs.com

Animal Tissues
Animals
Biologicals
Contract Research and Development

HISTOCHEMICAL SOCIETY, THE ..................... 1619
PO Box 85630, University Station
Seattle, WA 98145-1630
Phone: 425-329-2610
Fax: 425-483-1058
Email: mail@histochemicalsociety.org
Web: www.histochesmicalsociety.org

Books, Journals, Publications
Education Materials
Educational Research
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Membership Information
Training Opportunities

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84 October Hill Road
Holliston, MA 01746
Phone: 508-893-8999
Fax: 508-429-5732
Email: sales@hoeferinc.com
Web: www.hoeferinc.com

Agarose
DNA Sequencers
Electrophoresis Accessories
Electrophoresis Cells
Electrophoresis Equipment
Electrophoresis Media, Membrane
Gel Electrophoresis Equipment
Hybridization Transfer Membranes
Isoelectric Electrophoresis Supplies
Power Supplies
Safety Shields
Water Baths
Western Blotting Equipment

**HUGO SACHS ELEKTRONIK/HARVARD APPARATUS** ................................................. 303
  Gruenstrasse 1
  March-Hugstetten
  Germany
  Phone: 49 7665-92-00-0
  Fax: 49 7665-92-00-90
  Email: info@hugo-sachs.de
  Web: www.hugo-sachs.de

Amplifiers
Analog-to-Digital Converters
Biosensors
Blood Flow Meters
Blood Pressure Monitors
Cameras
Dissolved Oxygen Meter and Sensor
Electrodes
Organ Baths
pH Sensors
Physiological Recorders
Software
Tissue Organ Baths, Constant Temperature

**I**

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  419 Venture Court
  Verona, WI 53593
  Phone: 608-845-3270
  Fax: 608-845-3271
  Email: ibidiusa@ibidi.com
  Web: www.ibidi.com

Cell Biology Products
Cell Culture Chambers
Cell Culture Media
Fluorescence Image Analysis Equipment
Microscope Slides
Pumps
Tissue Culture Apparatus Labware
Tissue Culture Chambers

**IDEXX RADIL** .............................................................. 1701
  4011 Discovery Drive
  Columbia, MO 65201
  Phone: 800-669-0825
  Email: idexx-radil@idexx.com
  Web: www.idexx.com

Animals
Biologicals
Diagnostic Aids
Laboratory Animals
PCR Products (Polymerase Chain Reaction)
Research Information
Tissue Cultures

**IITC INC** ................................................................. 229
  23924 Victory Boulevard
  Woodland Hills, CA 91362
  Phone: 818-710-8843
  Fax: 818-992-5185
  Email: iitcinc@iitcinc.com
  Web: www.iitcinc.com

Activity Monitoring
Animal Anesthesia Equipment
Animal Behavior Research Equipment and Systems
Animal Restrainers
Behavioral Research Equipment
Catheters
Hot Plates
Motor Activity Recorders
Pumps
Temperature Controllers
Temperature Probes
Treadmills

**IMPLEN, INC.** ............................................................ 1341, 1342
  5655 Linderer Canyon Road, Suite 521-23
  Westlake Village, CA 91362
  Phone: 818-748-6400
  Fax: 818-449-0416
  Email: info@implen.com
  Web: www.implen.com

**INDUS INSTRUMENTS** .................................................. 345
  721 Tristar Drive, Suite C
  Webster, TX 77598
  Phone: 281-286-1130
  Fax: 281-461-8168
  Email: gsattler@indusinstruments.com
  Web: www.indusinstruments.com

Animal Surgery Tables
Animal Surgical Instruments
Bioproduct Development
Cardiac Monitors
Cardiotachometers
Data Acquisition Equipment
Electrocardiographic Systems
Electrodes
Patient Monitoring Systems
Probes
Pulmonary Function Equipment
Temperature Controllers
Temperature Probes
Transducers
INNOVATIVE INSTRUMENTS, INC........................................ 717
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Tampa, FL 33637
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Fax: 813-914-8686
Email: ztaha@att.net
Web: www.2in.com
Dissolved Oxygen Meter and Sensor
Electrochemical Instrumentation
Hydrogen Sulfide Sensors
Leak-Free Reference Electrodes
Nitrate Reductor
Nitric Oxide Analyzer and Accessories
Nitric Oxide Meters and Sensors
pH Sensors

INSTECH SOLOMON..................................................... 1205
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Plymouth Meeting, PA 19462
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Fax: 610-941-0134
Email: krutledge@instechlabs.com
Web: www.instechlabs.com
Automatic Samplers
Catheters
Infusion Products
Microdialysis Equipment and Supplies
Pumps
Syringes
Tubings

INTEGRATED DNA TECHNOLOGIES............................. 1129
1710 Commercial Park
Coralville, IA 52241
Phone: 319-626-8455
Email: jheddens@idtdna.com
Web: www.idtdna.com
Custom Synthesis
DNA Custom Synthesis
DNA Probes
DNA Sequencing Services
GMP Facility
Microbiological Products
miRNA Products
Oligonucleotides
PCR Products (Polymerase Chain Reaction)
Probes
Reagents
RNAi Template Sequencing
Sequence Analysis Software
Site-Directed Mutagenesis

INVIVGEN ................................................................. 1602
3950 Sorrento Valley Boulevard, Suite A
San Diego, CA 92121
Phone: 858-457-5873
Fax: 858-457-5843
Email: sales@invivogen.com
Web: www.invivogen.com
Antibodies
Biologicals
Cell Biology Products
Cell Culture Media
Cell Cultures
Cytokines
Endotoxins
Fluorescent Antibody
Lentiviral Clone Products
RNAi Screening
RNAi Template Sequencing

IONOPTIX ................................................................. 136
309 Hillside Street
Milton, MA 02186
Phone: 617-696-7335
Fax: 617-698-3553
Email: info@ionoptix.com
Web: www.ionoptix.com
Culture Apparatus
Data Acquisition Equipment
Fluorescence Filter Sets
Fluorescence Image Analysis Equipment
Image Analysis Software
Scientific Software
Video Cameras
Video Systems Measuring

iPRECIO® INFUSION PUMPS BY
PRIMETECH CORPORATION................................. 1224
1-3-25 Koishikawa Daikoku Building 9F
Bunkyo-ku, Tokyo
Japan
Phone: 81 3 3816 0851
Fax: 81 3 3814 5080
Email: iprecio@primetech.co.jp
Web: www.iprecio.com
Implantable Instrumentation
Infusion Products
Pumps

iWORX SYSTEMS, INC............................................... 116
62 Littleworth Road
Dover, NH 03820
Phone: 603-742-2492
Fax: 603-742-2455
Email: info@iworx.com
Web: www.iworx.com
Amplifiers
Analog-to-Digital Converters
Blood PO, Measuring Instruments
Blood Pressure Monitors
Computer Software
Data Acquisition Equipment
Dissolved Oxygen Meter and Sensor
Electrocardiographic Systems
Electroencephalographs
Electromyographs
Implantable Instrumentation
Organ Baths
Physiological Transducers
Pressure Transducers, Implantable

J

JACKSON IMMUNORESEARCH
LABORATORIES, INC. ................................................... 1530
872 West Baltimore Pike
West Grove, PA 19390
Phone: 800-367-5296
Fax: 610-869-0171
Email: cuserv@jacksonimmuno.com
Web: www.jacksonimmuno.com

Antibodies
Antiserum
Blood Proteins
Fluorescent Antibody
Immunocochemicals
Monoclonal Antibodies
Purified Proteins
Sera

JOURNAL OF VISUALIZED EXPERIMENTS .......... 446
17 Sellers Street
Cambridge, MA 02139
Phone: 617-945-9051
Email: robert.ainslie@jove.com
Web: www.jove.com

Books, Journals, Publications

K

KENNEDY KRIEGER INSTITUTE GENETICS
LABORATORIES....................................................... 1729
Kennedy Krieger Institute
707 North Broadway, Room 500T
Baltimore, MD 21205
Phone: 443-923-2757
Fax: 443-923-2775
Email: tiffany@kennedykrieger.org
Web: www.genetics.kennedykrieger.org

KENT SCIENTIFIC CORPORATION ..................... 102
1116 Litchfield Street
Torrington, CT 06790
Phone: 860-626-1172
Fax: 860-626-1179
Email: sales@kentscientific.com
Web: www.kentscientific.com

Animal Anesthesia Equipment
Animal Restrainters
Animal Surgical Instruments
Blood PO, Measuring Instruments
Blood Pressure Monitors
Infusion Products
Mice and Rat Euthanasia Equipment
Microdissecting Instruments
Physiological Recorders
Pulmonary Function Equipment
Pumps
Surgical Instruments
Syringes
Temperature Controllers

KINEXUS BIOINFORMATICS CORPORATION ...... 1040
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Email: csutter@kinexus.ca
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Blood Pressure Monitors
Cardiac Monitors
Dissolved Oxygen Meter and Sensor
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Laboratory Apparatus, miscellaneous
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Pumps
Tissue Culture Chambers
Water Purification Equipment
Water Purification Reverse Osmosis

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PO Box 5729
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Reagents
Western Blotting Equipment

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Dissecting Microscopes
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Email: getinfo@lktlabs.com
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PCR Products (Polymerase Chain Reaction)

Tissue Culture Media
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Reagents
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6076 Corte Del Cedro
Carlsbad, CA 92011
Phone: 877-602-8549
Fax: 760-602-8575
Email: info@sciencecellonline.com
Web: www.sciencecellonline.com
cDNA Products
Cell Attachment Factors
Cell Biology Products
Cell Culture Media
Cell Cultures
Culture Media
miRNA Products
PCR Products (Polymerase Chain Reaction)
Reagents

SCIENTIFIC INDUSTRIES, INC. ................................. 1305
70 Orville Drive
Bohemia, NY 11716
Phone: 631-567-4700
Fax: 631-567-5896
Email: info@scientificindustries.com
Web: www.scientificindustries.com

SCIREQ USA INC. ........................................................... 1036
PO Box 12212
Chandler, AZ 85248
Phone: 877-572-4737
Fax: 480-559-9885
Email: sales@scireq.com
Web: www.scireq.com
Data Acquisition Equipment
Laboratory Apparatus, miscellaneous
Plethysmographs
Pulmonary Function Equipment
Respiratory setups
Software
Toxins
Transducers

SCISENSE ...................................................................... 209
3397 White Oak Road, Unit 3
London ON N6E 3A1
Canada
Phone: 519-680-7677
Fax: 519-680-7718
Email: news@scisense.com
Web: www.scisense.com
Biosensors
Blood Flow Meters
Blood Pressure Monitors
Cardiac Monitors
Catheters
Data Acquisition Equipment
Electrocardiographic Systems
Electrophysiological Instruments
Laser Doppler Flowmeters
Physiological Recorders
Physiological Transducers
Pressure Transducers, Implantable
Transducers

SEAHORSE BIOSCIENCE, INC. ................................. 1601
16 Esquire Road
North Billerica, MA 01862
Phone: 978-671-1600
Fax: 978-671-1611
Email: marketing@seahorsebio.com
Web: www.seahorsebio.com
Analytical Services or Test Systems
Cell Biology Products
Oxygen Uptake Instrumentation
Respiratory Gas Analyzers
Respiratory setups
Respirometers
SHAMROCK SCIENTIFIC SPECIALTY SYSTEMS, INC.......................... 706
34 Davis Drive
Bellwood, IL 60104
Phone: 800-323-0249
Fax: 800-248-1907
Email: sales@shamrocklabels.com
Web: www.shamrocklabels.com

Autoclave Tapes and Labels
Microscope Slide Labels
Specimen Labels

SHIMADZU SCIENTIFIC INSTRUMENTS, INC........ 1204
7102 Riverwood Drive
Columbia, MD 21046
Phone: 410-381-1227
Fax: 410-381-1222
Email: webmaster@shimadzu.com
Web: www.shimadzu.com

Balances
Chromatographs, Gas
Chromatographs, Liquid
Chromatography Systems
HPLC Systems
Mass Spectrometers
Particle Size Analyzers
Spectrometers
Spectrometers, Atomic Absorption
Spectrophotometers
Thermal Analysis Equipment

SIEMENS HEALTHCARE .................................................. 845
2501 North Barrington Road
Hoffman Estates, IL 60192
Phone: 847-304-7529
Fax: 847-304-7712
Email: rick.ryba@siemens.com
Web: www.siemens.com/preclinical

Image Analysis Software
Image Analyzer
Radioactive Products
Radioisotope Services

SIGMA LIFE SCIENCE .............................................. 642
3050 Spruce Street
St. Louis, MO 63103
Phone: 314-771-5765
Fax: 314-286-7817
Email: steven.suchyta@sigal.com
Web: www.wherebiobegins.com

Animals
Antibodies
Cell Biology Products
Cell Culture Media
Cell Cultures
Chemicals
DNA Microarrays

DNA Probes
Enzymes
miRNA Products
Nucleotides
PCR Products (Polymerase Chain Reaction)
RNA Isolation Kits
RNAi Screening

SILK SCIENTIFIC, INC. ............................................ 1516
PO Box 533
Orem, UT 84059
Phone: 801-377-6978
Fax: 801-228-2448
Email: info@silkscientific.com
Web: www.silkscientific.com

Computer Software
Densitometers
Densitometers, Gel Electrophoresis
Densitometers, Thin Layer Chromatography
DNA Sequencers
Electrophoresis Equipment
Gel Electrophoresis Equipment
Image Analysis Software
Image Analyzer
PCR Products (Polymerase Chain Reaction)
Scientific Software
Sequence Analysis Software
Software
Western Blotting Equipment

SOCIETY FOR NEUROSCIENCE ......................... 437
1121 14th Street, NW, Suite 1010
Washington, DC 20005
Phone: 202-962-4000
Fax: 202-962-4946
Email: info@sfn.org
Web: www.sfn.org

SPRINGER ......................................................... 440
233 Spring Street
New York, NY 10013
Phone: 212-460-1500
Fax: 201-460-1575
Email: exhibits-ny@springer.com
Web: www.springer.com

Books, Journals, Publications

ST. JUDE CHILDREN'S RESEARCH HOSPITAL ....... 1536
262 Danny Thomas Place, MS 276
Memphis, TN 38105
Phone: 901-595-2750
Email: fellowships@stjude.org
Web: www.stjude.org/education

Postdoctoral Fellowship Training
STANFORD PHOTONICS, INC ................................................... 1004
1032 Elwell Court, Suite 104
Palo Alto, CA 94303
Phone: 650-969-5991
Email: info@stanfordphotronics.com
Web: www.stanfordphotronics.com

SURMODICS IVD .................................................................. 729
9924 West 74th Street
Eden Prairie, MN 55344
Phone: 952-500-7200
Fax: 952-500-7201
Email: orders@surmodics.com
Web: www.surmodicsivd.com

Antibodies
Biochemical Reagents
Biochemicals
Biologicals
cDNA Microarrays
cDNA Products
Custom Antibody Production
DNA Microarrays
Fluorescein Reagents
Fluorescence Reagents
Fluorescent Antibody
Imunochemicals
Monoclonal Antibodies

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One Digital Drive
Novato, CA 94949
Phone: 415-883-0128
Fax: 415-883-0572
Email: info@sutter.com
Web: www.sutter.com

Electrophysiological Instruments
Fluorescence Image Analysis Equipment
Injectors
Light Sources
Micromanipulators
Microscope Illuminators
Microscopes
Pipette Pullers

SYNTECON, INCORPORATED ........................................... 648
8044 El Rio
Houston, TX 77054
Phone: 713-741-2582
Fax: 713-741-2588
Email: cawino@synthecon.com
Web: www.synthecon.com

Cell Culture Chambers
Cell Cultures
Culture Flasks or Bottles
Tissue Culture Apparatus
Tissue Culture Apparatus Labware
Tissue Culture Chambers

T

TAYLOR-WHARTON ......................................................... 317
4075 Hamilton Boulevard
Theodore, AL 36582
Phone: 251-443-2254
Fax: 251-408-4515
Email: lmckay@taylorwharton.com
Web: www.taylorwharton.com

Cryogenic Equipment/Accessories

THE JACKSON LABORATORY ............................................ 745
610 Main Street
Bar Harbor, ME 04609
Phone: 207-288-6029
Email: orderquest@jax.org
Web: www.jax.org

THE NEW YORK TIMES ................................................... 411
c/o On The Avenue, 613 South Avenue
Weston, MA 02493
Phone: 781-890-2664
Fax: 781-890-2799
Email: info@ontheavenuemarketing.com
Web: www.nytimes.com

Books, Journals, Publications
Education Materials
Educational Research

THERMO SCIENTIFIC NANODROP PRODUCTS .... 1042
3411 Silverside Road
Wilmington, DE 19810
Phone: 302-479-7707
Email: nanodrop@thermofisher.com
Web: www.nanodrop.com

Spectrophotometers

THIEME PUBLISHERS .................................................... 423
333 Seventh Avenue
New York, NY 10001
Phone: 212-760-0888
Fax: 212-947-1112
Email: customerservice@thieme.com
Web: www.thieme.com

Books, Journals, Publications

• THOMSON REUTERS ..................................................... 1524
5901 Priestly Drive, Suite 200
Carlsbad, CA 92008
Phone: 800-722-1227
Email: ariana.townsend@thomsonreuters.com
Web: www.science.thomsonreuters.com/researchsoftware

Computer Software
Scientific Software
Software

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**THORLABS INC** ............................................................ 1330
435 Route 206 South
Newton, NJ 07860
Phone: 973-300-3000
Fax: 973-300-3600
Email: cvogel@thorlabs.com
Web: www.thorlabs.com

Cameras
Detection Systems
Detectors, Light
Education Materials
Filters
Fluorescence Filter Sets
Fluorescence Image Analysis Equipment
Isolators
UV Fluorescence Diagnostic Equipment

**TIEMANN SURGICAL INSTRUMENTS** .......................... 1201
25 Plant Avenue
Hauppauge, NY 11788
Phone: 631-273-0005
Fax: 631-273-6199
Email: dave@georgetiemann.com
Web: www.georgetiemann.com

Animal Surgical Instruments
Dissecting Instruments
Microdissecting Instruments
Surgical Instruments

**TOCRIS BIOSCIENCE** .................................................. 1016
16144 Westwoods Business Park
Ellisville, MO 63021
Phone: 800-421-3701
Fax: 800-483-1993
Email: customerservice@tocrisusa.com
Web: www.tocris.com

**TOKAI HIT CO., LTD.** .................................................. 1336
306-1 Gendoji-cho Fujinomiya City
Shizuoka-ken
Japan
Phone: 81 544 24-6699
Fax: 81 544 24-6641
Email: sales-os@tokaihit.com
Web: www.tokaihit.com

Cell Biology Products
Cell Culture Chambers
Environmental Chambers
Hot Plates
Incubators
Pharmaceutical Development Equipment
Temperature Controllers
Temperature Probes
Tissue Culture Apparatus
Tissue Culture Chambers
Tissue Cultures

**TOOLS FOR MOLECULAR BIOLOGY** ............................. 1105
175 Sarasota Center Boulevard
Sarasota, FL 34240
Phone: 941-371-1003
Fax: 866-230-0162
Email: jam@wpinc.com

Centrifuges
Dispensers, Microliter and Injection
Dissecting Instruments
Dissolved Oxygen Meter and Sensor
Gel Electrophoresis Equipment
Glassware
Hot Plates
Magnetic Stirrers
Nitric Oxide Meters and Sensors
Pipettes
Pumps
Shakers
Stirrers
Surgical Instruments

**TOUCH OF LIFE TECHNOLOGIES** ............................... 949
12635 East Montview Boulevard, #123
Aurora, CO 80045
Phone: 720-859-4140
Fax: 720-859-4110
Email: karen.storck@toltech.net
Web: www.toltech.net

Education Materials
Software

**TRANSONIC SYSTEMS, INC.** ....................................... 110
34 Dutch Mill Road
Ithaca, NY 14850
Phone: 607-257-5300
Fax: 607-257-7256
Email: support@transonic.com
Web: www.transonic.com

Amplifiers
Blood Flow Meters
Blood Pressure Monitors
Brain Probes
Cardiac Monitors
Data Acquisition Equipment
Flowmeter Kits
Implantable Instrumentation
Laser Doppler Flowmeters
Physiological Recorders
Physiological Transducers
Pressure Transducers, Implantable
Telemetering Systems
Transducers
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TRIANGLE BIOSYSTEMS INTERNATIONAL .......... 1338
2224 Page Road, Suite 108
Durham, NC 27703
Phone: 919-361-2663
Fax: 919-544-3061
Email: mcalarco@trianglebiosystems.com
Web: www.trianglebiosystems.com
Activity Monitoring
Behavioral Research Equipment
Biosensors
Contract Research and Development
Data Acquisition Equipment
Electrodes
Electrophysiological Instruments
Laboratory Apparatus, miscellaneous
Recorders
Software
Telemetering Systems

TRILINK BIOTECHNOLOGIES, INC................. 1522
9955 Mesa Rim Road
San Diego, CA 92121
Phone: 858-546-0004
Fax: 858-546-0020
Email: info@trilinkbiotech.com
Web: www.trilinkbiotech.com
DNA Microarrays
DNA Probes
Dyes and Labeling Reagents
miRNA Products
Nucleotides
Oligonucleotides

• TSE SYSTEMS, INC ...................................................... 730
17826 Edison Avenue
Chesterfield, MO 63005
Phone: 866-466-8873
Fax: 866-467-8873
Email: info@TSE-Systems.com
Web: www.tse-systems.com
Activity Monitoring
Animal Behavior Research Equipment and Systems
Animal Feeding Monitors
Animal Surgery Tables
Behavioral Research Equipment
Data Acquisition Equipment
Data Loggers
Metabolic Cages
Organ Baths
Stereotaxic Instruments
Syringes
Tissue Organ Baths, Constant Temperature
Treadmills
Video Systems Measuring

UGO BASILE NORTH AMERICA, INC............... 1102
414 West Main Street
Collegeville, PA 19426
Phone: 484-973-6581
Fax: 484-973-6582
Email: info@ugobasileUSA.com
Web: www.ugobasileusa.com
Activity Monitoring
Animal Anesthesia Equipment
Animal Behavior Research Equipment and Systems
Pharmaceutical Development Equipment

USB PRODUCTS FROM AFFYMETRIX, INC .......... 1702
26111 Miles Road
Cleveland, OH 44128
Phone: 800-321-9322
Fax: 216-464-5075
Email: usbcustomerservice@affymetrix.com
Web: www.usb.affymetrix.com
Agarose
Biochemicals
DNA Purification Kits
Enzymes
PCR Products (Polymerase Chain Reaction)
Reagents
Site-Directed Mutagenesis

UVP, LLC ................................................................. 1506
2066 West 11th Street
Upland, CA 91786
Phone: 909-946-3197
Email: info@uvp.com
Web: www.uvp.com
Animal Anesthesia Equipment
Cameras
Colon Counters
Densitometers, Gel Electrophoresis
Fluorescence Image Analysis Equipment
Gel Electrophoresis Equipment
Image Analysis Software
Image Analyzer
Incubators
Light Boxes
Light Sources
Ovens
Ultraviolet Analyzers

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VACUMED, INC................................................................. 650
4538 Westinghouse Street
Ventura, CA 93003
Phone: 805-644-7461
Fax: 805-654-8759
Email: susan@vacumed.com
Web: www.vacumed.com
Activity Monitoring
Filters
Respiratory setups
Spirometers
Treadmills
Valves

VERSA LABORATORIES ............................................. 1221
6201 Progressive Avenue, Suite 200
San Diego, CA 92154
Phone: 619-518-2828
Email: fb@versalaboratories.com
Web: www.versalaboratories.com
Air Samplers
Analytical Services or Test Systems
Analytical Test Systems
Chromatography Systems
DNA Sequencers
Electrochemical Instrumentation
HPLC Systems
Laboratory Apparatus, miscellaneous
Mass Spectrometers
Microplate Readers
Microplate Spectrophotometer
PCR Products (Polymerase Chain Reaction)
Spectrometers
Water Purification Equipment

VISUALSONICS.................................................................. 824
3080 Yonge Street, Suite 6100
Toronto, ON M4N 3N1
Canada
Phone: 416-484-5000
Fax: 416-484-5001
Email: info@visualsonics.com
Web: www.visualsonics.com
Animal Anesthesia Equipment
Image Analysis Software
Image Analyzer

W.H. FREEMAN & COMPANY................................. 405
41 Madison Avenue
New York, NY 10010
Phone: 212-576-9400
Fax: 212-689-2383
Email: jseltzer@bfwpub.com
Web: www.whfreeman.com
Books, Journals, Publications

WAKO LABORATORY CHEMICALS ....................... 1730
1600 Bellwood Road
Richmond, VA 23237
Phone: 877-714-1920
Fax: 804-271-7791
Email: labchem@wakousa.com
Web: www.e-reagent.com
Antibodies
Biochemical Reagents
Biochemicals
Biologicals
Cell Biology Products
Chemicals
Column Packing
DNA Purification Kits
Dyes and Labeling Reagents
Enzymes
Fluorescence Reagents
HPLC Columns
Organic Laboratory Chemicals
Signal Transduction Reagents

WARNER INSTRUMENTS ........................................ 305
1125 Dixwell Avenue
Hamden, CT 06514
Phone: 203-776-0664
Fax: 203-776-1278
Email: sales@warneronline.com
Web: www.warneronline.com
Amplifiers
Biosensors
Electrometers
Fiber Optic Illumination Products
Injectors
Iontophoresis Instruments
Isolators
Light Sources
Micromanipulators
Microscope, Cover Glasses
Petri Dishes
Pipette Holders, standard and recording
Temperature Controllers
Tissue Organ Baths, Constant Temperature

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WORLDBLACKWELL .............................................................. 402
350 Main Street
Malden, MA 02148
Phone: 781-388-8200
Fax: 781-338-8212
Email: twalsh@wiley.com
Web: www.wiley.com

Books, Journals, Publications

WORLD PRECISION INSTRUMENTS ............................. 330
175 Sarasota Center Boulevard
Sarasota, FL 34240
Phone: 941-371-1003
Fax: 866-230-0162
Email: sales@wpiinc.com
Web: www.wpiinc.com

Amplifiers
Biosensors
Electrophysiological Instruments
Injectors
Isolators
Microdissecting Instruments
Micromanipulators
Nitric Oxide Meters and Sensors
Pulse Generators
Pumps
Surgical Instruments
Tissue Organ Baths, Constant Temperature
Transducers
Ussing Chambers

WORTHINGTON BIOCHEMICAL CORPORATION ......................... 901
730 Vassar Avenue
Lakewood, NJ 08701
Phone: 732-942-1660
Fax: 732-942-9270
Email: jzacka@worthington-biochem.com
Web: www.worthington-biochem.com

Biochemical Reagents
Biochemicals
Biologicals
Bioproduct Development
Enzyme Substrates and Inhibitors
Enzymes
Purified Proteins

ZYMO RESEARCH CORP ....... 731
17062 Murphy Avenue
Irvine, CA 92614
Phone: 949-679-1190
Fax: 949-266-9452
Email: info@zymoresearch.com
Web: www.zymoresearch.com

Antibodies
Biological Reagents
Cell Biology Products
Chemicals
Culture Media
DNA Purification Kits
Enzymes
Microbiological Products
Molecular Weight Standards
Monoclonal Antibodies
Nucleotides
Pharmaceutical Development Equipment
Reagents
RNA Isolation Kits

ZYGEN ................................................................. 1736
10225 Barnes Canyon Road, Suite A205
San Diego, CA 92121
Phone: 858-546-0720
Fax: 858-546-0736
Email: izwain@zyagen.com
Web: www.zyagen.com

Animal Tissues
Antibodies
Biochemical Reagents
Biologicals
cDNA Products
Cell Biology Products
Contract Research and Development
Immunoassay Services
Immunochemicals
Microscope Slides
Monoclonal Antibodies
Nucleotides
Pharmaceuticals
Proteins/Protein Array

ZENBIO, INC. .......................................................... 1332
3200 East Highway 54, Suite 100
Research Triangle Park, NC 27709
Phone: 919-547-0692
Fax: 919-547-0693
Email: will@zenbio.com
Web: www.zen-bio.com

Analytical Services or Test Systems
Bioproduct Development

• Indicates advertiser in this program. See Index of Advertisers on page 405.
GOVERNMENT EXHIBITS

ARMY MEDICAL RECRUITING ........................................ 439
Munoz Building 206, 9th Calvary Regiment Road
Fort Knox, KY  40121
Phone: 502-626-1981
Fax: 502-626-0854
Email: shawn.davis@usaac.army.mil
Web: www.healthcare.goarmy.com

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CHTN ................................................................. 435
6130 Executive Boulevard
Rockville, MD  20892
Phone: 866-462-2486
Fax: 888-820-6852
Email: chtn@chtnt.org
Web: www.chtn.nci.nih.gov

The CHTN is an NCI supported prospective biospecimen resource that provides human biospecimens to researchers. Malignant, benign, diseased and normal samples are provided fresh, frozen, and/or fixed, according to individual researchers’ protocols.

NIH BRIDGS AND TRND ..................................... 436
9800 Medical Center Drive
Rockville, MD  20850
Phone: 301-827-2533
Email: bridgs@mail.nih.gov
Web: www.nihroadmap.nih.gov/raid/

BrIDGs makes available late-stage preclinical resources for therapies for all diseases. TRND is part of a congressionally-mandated effort to discover and develop therapies for rare and neglected diseases. Both NIH programs generate data in support of INDAs by awarding in-kind access to in-house and contract therapy development resources. Regulatory affairs assistance is also available.

NIH OFFICE OF DIETARY SUPPLEMENTS ............. 1118
6100 Executive Boulevard Room 3B01
Bethesda MD  20892
Phone: 301-315-2851
Email: ods@nih.gov
Web: www.ods.od.nih.gov

The mission of the NIH Office of Dietary Supplements (ODS) is to strengthen knowledge and understanding of dietary supplements. Visit booth #1118 to hear about our free mobile app, My DS, the new features on our website, http://ods.od.nih.gov; our current programs, and to receive educational materials.

NATIONAL RESEARCH COUNCIL OF THE
NATIONAL ACADEMIES .................................... 602
500 Fifth Street NW, Keck 568
Washington, DC  20001
Phone: 202-334-2760
Fax: 202-334-2759
Email: jdellamo@nas.edu
Web: www.national-academies.org/rap

National Research Council of the National Academies offers awards to graduate, postdoctoral and senior researchers for independent research to be conducted in residence at participating U.S. federal laboratories and affiliated institutions. Additional information can be found online at www.nationalacademies.org/rap or at the National Research Council exhibit booth #602.
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Flexcell International Corp ......................................... 704
Synthecom, Incorporated ............................................ 648
Tokai Hit Co., Ltd ...................................................... 1336
Tissue Culture Apparatus Labware
Applied BioPhysics, Inc. .................................................. 606
Chemglass Life Sciences .................................................. 1518
Drummond Scientific ......................................................... 1423
Flexcell International Corp. ................................................. 704
ibidi, LLC ........................................................................... 1212
Sarstedt, Inc. ................................................................. 710
Synthecon, Incorporated .................................................... 648

Tissue Culture Chambers
Applied BioPhysics, Inc. .................................................. 606
Coy Laboratory Products .................................................. 222
DMT-USA, Inc. ............................................................... 140
ibidi, LLC ........................................................................... 1212
Labconco Corporation ....................................................... 915
Physiologic Instruments, Inc. .............................................. 310
Synthecon, Incorporated .................................................... 648
Tokai Hit Co., Ltd ............................................................. 1336

Tissue Culture Media
Lonza .................................................................................. 610
PromoCell GmbH ............................................................. 541
ZenBio, Inc. ........................................................................ 1332

Tissue Cultures
Accurate Chemical & Scientific Corp. .................................. 1512
IDEXX RADIL ................................................................. 1701
Mirus Bio LLC ..................................................................... 1615
NACALAI USA, INC. ......................................................... 646
NuAire, Inc. .......................................................................... 1022
Tokai Hit Co., Ltd ............................................................. 1336
ZenBio, Inc. ........................................................................ 1332

Tissue Organ Baths, Constant Temperature
BIOPAC Systems, Inc. ....................................................... 336
DMT-USA, Inc. ............................................................... 140
emka TECHNOLOGIES .................................................... 206
GlobalTown Microtech, Inc. ................................................. 822
Hugo Sachs Elektronik/Harvard Apparatus .......................... 303
Living Systems Instrumentation ........................................ 245
TSE Systems, Inc. ............................................................. 730
Warner Instruments .......................................................... 305
World Precision Instruments ............................................. 330

Toxins
Abcam Biochemicals ......................................................... 923
Accurate Chemical & Scientific Corp. .................................. 1512
American Radiolabeled Chemicals, Inc. ............................. 735
Cedarlane ................................................................. 1242
SCIREQ USA Inc. ............................................................. 1036

Training Opportunities
American Association of Anatomists (AAA) ......................... 945
Gubener Plastinate GmbH ................................................... 545
Histochemical Society, The ............................................... 1619
Science/AAAS .............................................................. 1202

Transcription Reagents
Biontex ................................................................. 1219
Bio-Rad Laboratories ...................................................... 1415
Dualsystems Biotech AG ................................................. 1630
Epitomics, Inc ................................................................. 1441
Marker Gene Technologies, Inc. ........................................ 1318
New England Biolabs ...................................................... 1210

Transducers
ADInstruments ............................................................... 1139
BIOPAC Systems, Inc. ....................................................... 336
GlobalTown Microtech, Inc. ................................................. 822
Indus Instruments ............................................................ 345
Millar Instruments ............................................................ 323, 1010, 323
OZ Biosciences ............................................................... 1337
Physitemp Instruments, Inc. ................................................. 342
SCIREQ USA Inc. ............................................................. 1036
Scisense ................................................................. 209
Transonic Systems, Inc. ..................................................... 110
World Precision Instruments ............................................. 330

Treadmills
AEI Technologies, Inc. ......................................................... 241
Columbus Instruments International Corporation .................. 1137
IITC Inc. ........................................................................... 229
Mouse Specifics, Inc. .......................................................... 1540
Panlab ................................................................. 302
TSE Systems, Inc. ............................................................. 730
VacuMed, Inc ................................................................. 650

Tubings
Accurate Chemical & Scientific Corp. .................................. 1512
Instech Solomon ............................................................ 1205
ReCathCo ................................................................. 539

Ultraviolet Analyzers
Carestream Molecular Imaging ........................................ 316
UVP, LLC ................................................................. 1506

Ussing Chambers
Physiologic Instruments, Inc. .............................................. 310
World Precision Instruments ............................................. 330

UV Fluorescence Diagnostic Equipment
Thorlabs Inc ................................................................. 1230

Values
Hamilton Company .......................................................... 1409
VacuMed, Inc ................................................................. 650
Visit the Exhibits

Sunday – Tuesday, 9:00 AM – 4:00 PM

Take advantage of this unique opportunity to view the best products and services available. There are more than 400 companies offering you a chance to discuss your specific needs.

Visit Exhibitor Product Workshops

Sunday – Tuesday, 8:00 AM – 5:00 PM
Hall A – Show Floor
EXHIBITOR PRODUCT WORKSHOPS
EB 2012
San Diego Convention Center
San Diego, CA

Sunday, April 22

Full Implantable Transit Time Blood Flow

Konigsberg Instruments
2000 East Foothill Boulevard
Pasadena, CA 91107
Phone: 626-585-4032
Fax: 626-585-4068
Email: w.j.mills@konigsberginc.com
Web: www.itstelemetry.com

10:00 AM – 11:00 AM – Room A (Hall A) – Show Floor

Presenter: Steve Pettinger

A discussion of the research applications and surgical techniques developed for the use of a revolutionary new fully implantable telemetry system that will measure Cardiac Output and Peripheral Blood Flow using Transit Time technology. The new T27 series encoder coupled with the TU7 implantable flow-meter permits full cardiac analysis in non-human primates, canines and swine. The battery life exceeds one year of continuous operation.

A New Generation of Bruker AFMs for Biophysicists

Bruker Corporation
112 Robin Hill Road
Santa Barbara, CA 93117
Phone: 805-967-1400
Fax: 805-967-7717
Email: productinfo@bruker-nano.com
Web: www.bruker-axs.com

11:00 AM – 12:00 PM – Room B (Hall A) – Show floor

Presenter: James E. Shaw, PhD

In this tutorial Bruker will present the latest advances in their full-line of atomic force microscopes (AFM) that continue to put their AFM systems at the forefront of biophysical research. Data will be presented from various application areas demonstrating the use of the self-optimizing ScanAsyst® Mode for ultra-low force high-resolution imaging of soft biological samples and PeakForce QNM® for correlative spatial mapping of sample nano-mechanical properties. We will present the latest in functionally integrated AFM and optical microscopy for live cell studies. We will also discuss how Bruker’s advances in high-speed AFM imaging are improving research productivity and providing biophysicists with unprecedented opportunities to directly observe the dynamics of biologically-related processes.

EndoGear: A Fully Implantable Biotelemetry System to Measure Flow Velocity, Pressure and ECG in Cardiovascular Research Models

Transonic Systems
34 Dutch Mill Road
Ithaca, NY 14850
Phone: 607-257-5300
Fax: 607-257-7256
Email: support@transonic.com
Web: www.transonic.com

1:00 PM – 2:00 PM – Room B (Hall A) – Show Floor

Presenters: Koullis Pitsillides and Ghassan Kassab

Telemetry is an established technique for obtaining valuable data from unrestrained animals both in the laboratory and the field. Telemetry systems that can measure simple data including ECG and blood pressure using fluid-filled catheters have previously been available, but telemetry systems that can provide measurements of both blood pressure and blood flow dynamics have only recently been introduced. Such implantable telemetry systems can provide a more complete picture of the physiological status of the animal model under investigation.

EndoGear is a new, fully implantable biotelemetry system that measures the critical parameters for a complete hemodynamic study profile: blood flow velocity using Doppler ultrasound technology, arterial and ventricular pressure using miniature solid-state pressure catheters, ECG and temperature.

This workshop will introduce the unique capabilities of these implants, discuss details of the sensors used, identify and describe animal model applications where combined blood flow velocity and blood pressure measurements are key considerations and examine some of the data obtained using the EndoGear system.
Monday, April 23

Genetically Modified Cell Lines to Drive Your Research: Targeted Genome Editing with ZFNs to Create Powerful New Cellular Models

Sigma Life Science
3050 Spruce Street
St. Louis, MO 63103
Phone: 314-771-5765
Email: brad.keller@sigal.cm

12:00 PM – 1:00 PM – Room B (Hall A) – Show Floor

Presenter: Bradley T. Keller, PhD

Zinc finger nucleases allow rapid and permanent modification of gene loci to construct gene knockouts, targeted knock-ins or reporter-tagged cell lines. Using ZFN technology, we are creating in vitro models with human cancer cells that have specific mutations for colon, lung and breast cancers. These cells contain patient-relevant mutations of disease-specific genes providing ideal models to study an individual’s drug sensitivity and resistance, e.g., personalized medicine. ZFNs are also used to modify cellular genes with fluorescent reporters, thus facilitating live-cell imaging of tagged proteins at endogenous expression levels. This allows evaluation of complex protein dynamics in processes such as receptor-mediated endocytosis. In addition to off-the-shelf cell lines, Sigma’s Cell Design Studio uses ZFN technology to create custom genome modifications in mammalian cell lines tailored to highly specific research needs. Thus, our exciting cell line portfolio offers customers the perfect tools for their particular research applications.

Utilizing Pressure-Volume Loops and Coronary Blood Flow to Assess Cardiac Efficiency in Miniature Swine with Compensated Heart Failure Following Low-Intensity Interval Exercise

Scisense Systems Inc.
3397 White Oak Road, Unit 3
London, ON N6E 3A1
Canada
Phone: 519-680-7677
Email: news@scisense.com
Web: www.scisense.com

1:00 PM – 2:00 PM – Room A (Hall A) – Show Floor

Presenter: Craig A. Emter, PhD
University of Missouri - Columbia

Despite decades of research, the exact mechanisms underlying changes in coronary vascular function during the development of heart failure and its subsequent impact on metabolic and LV function have yet to be clearly determined. In this workshop, Dr. Craig Emter will explain how he uses PV loop and flow measurements in a complimentary manner in his own lab to better understand cardiac physiology in vivo.
Ensuring Accuracy in Multiplex Immunoassay Results

R&D Systems, Inc.
614 McKinley Place NE
Minneapolis, MN 55413
Phone: 612-379-2956
Fax: 612-379-6580
Email: Info@RnDSystems.com
Web: www.RnDSystems.com

2:00 PM – 3:00 PM – Room B (Hall A) – Show Floor

Presenter: Jane Schmidt

Multiplex immunoassays are an efficient tool for evaluating multiple biomarkers simultaneously. With multiplex technology, a single assay using less than 100 μL of sample can generate results that, with a traditional ELISA, would require several mL of sample and weeks of experimentation. However, one must keep in mind that the potential for cross-reactivity or interference in these assays also multiplies with the complexity of the panel. Multiplex assays must be fully validated to ensure accurate, precise, and reproducible results for the user.

R&D Systems has decades of experience developing immunoassays that are recognized as the best available. In this workshop we will discuss some of the factors that can negatively impact the performance of an immunoassay and how these can be magnified in a multiplex experiment. We will discuss practical ways to evaluate the performance of a multiplex immunoassay, including calibration, spike recovery, dilution linearity, sensitivity, precision and specificity, and how to evaluate product literature. We will also discuss how to assess your results against the current knowledge of the biomarker itself.

The Digital Journey: A Microscope to Publication Image Primer

The Histochemical Society
PO Box 85630
Seattle, WA 98145-1630
Phone: 206-832-9853
Fax: 426-483-1058
Email: mmcgough@histochemicalsociety.org
Web: www.histochemicalsociety.org

4:00 PM – 5:00 PM – Room B (Hall A) – Show Floor

Presenter: Jerry Sedgewick

Moving from mounted labeled specimens on a microscope slide to publication quality images requires skills in three areas: Microscopy, Digital Photography and Post-Processing. These skills are usually taught independent of each other but this tutorial will follow the entire workflow from a fluorescently labeled microscope slide to a publication quality image. We include learning about the components of a microscope and how to take advantage of microscope features; which settings in camera software are most important; and the post-processing steps done in Photoshop© or in similar programs. This course is taught by a microscopist, who authored two books on scientific imaging and who directed a core light microscopy facility at the University of Minnesota for 15 years.
Tuesday, April 24

Electric Cell-Substrate Impedance Sensing: A Label-Free, Non-Invasive Method of Cell Measurement

Applied Biophysics
185 Jordon Road
Troy, NY 12180
Phone: 518-880-6860
Email: info@biophysics.com
Web: www.biophysics.com

10:00 AM – 11:00 AM – Room A (Hall A) – Show Floor

Presenter: Christian Renken

This workshop will provide an overview of the use of impedance to detect cell morphological changes. Emphasis will be placed on the use of different AC frequencies to distinguish cell parameters. Applications include barrier function, permeability, invasion/extravasation, signal transduction, and proliferation.

Knockout Rat Models from SAGE Labs to Drive Research of Cholesterol Disequilibria

Sigma Life Science/SAGE Labs
3050 Spruce Street
St. Louis, MO 63103
Phone: 314-771-5765
Email: jeff.xue@sial.com
Web: www.sageresearchmodels.com

12:00 PM – 1:00 PM – Room A (Hall A) – Show Floor

Presenter: Jeff S. Xue, PhD

Cholesterol homeostasis has been correlated to several human disease pathologies including obesity, diabetes, atherosclerosis, Alzheimer’s disease and Huntington’s disease. To develop a better understanding of the mechanisms of cholesterol regulation we have created rats with manipulations in the genes Apoe, Ldr and Lep. These mutants were created by injection of zinc finger nucleases (ZFN) into one-cell Sprague-Dawley rat embryos. Dimerization of ZFN pairs around their target DNA locus allows for FOKI nuclease activity, creating a double stranded break (DSB). DSBs are most commonly repaired by a mechanism called non-homologous end joining (NHEJ), which functions at varying fidelity. This introduces frameshift mutations and leads to a lack of functional protein. Phenotypic characterization of homozygous null animals demonstrated high serum cholesterol level and insulin resistance at early age. The three knockout rat models developed at SAGE Labs will be helpful in the study of the etiology of several human pathologies related to cholesterol homeostasis.
**Society Special Functions**

**Daily Listing**

**Thursday, April 19, 2012**

*ASBMB Finance Committee Meeting—8:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Leucadia)*

*ASBMB Council Executive Committee Meeting—5:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Leucadia)*

*ASBMB Council Reception and Working Dinner—5:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)*

*ASIP Council Meeting—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASPET Finance Committee Meeting—5:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)*

**Friday, April 20, 2012**

*AAA Board Meeting—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Presidio)*

*APS Extracellular Nucleotides and Nucleosides in the Regulation of Kidney Function—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Solana)*

APS Section Advisory Committee Meeting—3:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Malibu)*

*ASBMB Council Meeting—9:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)*

*ASBMB Graduate/Postdoctoral Travel Award Keynote Lecture—5:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 4)*

*ASBMB JBC AE’s Reception and Working Dinner—5:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)*

*ASBMB Graduate/Postdoctoral Travel Award Poster Session and Reception—6:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)*

*ASIP Meetings & Courses Task Force Meeting—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Program Committee Meeting—9:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Publications Committee Meeting—10:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Public Affairs Working Group—12:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Membership Committee Meeting—1:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Education Committee Meeting—3:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

*ASIP Committee for Career Development, Women & Minorities Meeting—4:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)*

ASN Satellite Symposium: The Global Nutrition Transition: The Role of Lipid Supplementation—8:30 AM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom D)*

ASN CARIG RIS Annual Symposium—1:00 PM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom C)*

ASN Satellite Symposium - What Do We Really Know About Whole Foods Digestibility and Energy Values?—1:00 PM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom G/H)*

ASN Industry Forum—5:30 PM  
(San Diego Hilton Bayfront Hotel, Room 310)*

ASN CARIG VARIG Social and Poster Competition—6:30 PM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom B)*

*ASN Reception for Partners and Leaders—7:00 PM  
(San Diego Wine & Culinary Event Center, 200 Harbor Drive, Suite 120)*

*ASPET Council Meeting—8:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)*

*ASPET Council of Division Chairs Meeting—1:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 1)*

ASPET Behavioral Pharmacology Society Meeting—6:00 PM  
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)*

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org*
Saturday, April 21, 2012

AAA Career Networking Break—10:00 AM
(San Diego Convention Center, Room 7A)

*AAA Fellows Circle Meeting—12:45 PM
(San Diego Convention Center, Room 12)

*AAA Publications Committee Meeting—2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Wiley Reception—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado and Coronado Terrace)

*AACBNC Reception—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

APS Animal Care and Experimentation Committee—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*APS Epithelial Transport Group Young Investigator Symposium—8:00 AM
(San Diego Convention Center, Room 28A)

APS Refresher Course on Endocrinology—8:00 AM
(San Diego Convention Center, Room 24)

*APS Central Nervous System Section Steering Committee Meeting—11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Dana Point)

APS Cardiovascular Section Program Committee—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Renal Section Steering Committee Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Miramar)

APS Teaching Section Steering Committee Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Porter Physiology Development Committee Meeting—1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*APS Frontiers in Physiology Research Teacher Orientation—2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*APS Neural Control and Autonomic Regulation Section Steering Committee Meeting—2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

*APS/NIDDK Minority Travel Fellow Orientation and Porter Reception—3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon G)

APS WEH Section Trainee Award Finalists Session and Data Diuresis—3:15 PM
(San Diego Convention Center, Room 25A)

APS Undergraduate Orientation Session—3:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

APS 125th Anniversary Beach Party—7:00 PM
(North Embarcadero) ‘Ticket required.’

*ASBMB Journal of Biological Chemistry Editorial Board Orientation—8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE)

ASBMB Fostering Partnerships between Colleges, Universities and K-12 Schools Workshop—9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*ASBMB Professional Development Program for Graduate Students and Postdoctoral Trainees—9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 4)

ASBMB, Powering Up!—11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Chicago/Atlanta)

*ASBMB Journal of Biological Chemistry Editorial Board Luncheon—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon G)

ASBMB 16th Annual Undergraduate Student Research Poster Competition—1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

*ASBMB Journal of Biological Chemistry Editorial Board Meeting—1:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—SATURDAY

ASBMB Speed Dating, Finding Your Perfect Career “Match” (A Workshop for Undergraduates)—4:45 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)

ASBMB Opening Lecture: Herbert Tabor/Journal of Biological Chemistry Lectureship—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 4-6)

ASBMB Opening Reception, immediately following Herbert Tabor/JBC Lectureship
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

ASIP Pathobiology for Basic Scientists: Cell Injury and Inflammation: New Riffs on a Classical Score—8:30 AM
(San Diego Convention Center, Room 16A)

ASIP Graduate Education in Pathology Workshop—11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

ASIP Breast Cancer Scientific Interest Group Networking Session—11:45 AM
(San Diego Convention Center, Room 1B)

ASIP Highlights: Graduate Student Research in Pathology—1:30 PM
(San Diego Convention Center, Room 15B)

ASIP Excellence in Science Award Lecture: Mechanisms of TDP-43 Mediated Neurodegeneration in ALS and FTLD—3:30 PM
(San Diego Convention Center, Room 15B)

ASIP Trainee Welcome Reception—4:00 PM
(San Diego Convention Center, Room 15A)

ASIP Outstanding Investigator Award Lecture: Lost in Ubiquitination, Found by Mass Spectrometry: Identification of E3 Ligase Substrates Controlling Critical Cellular Events and Cancer—5:00 PM
(San Diego Convention Center, Room 16A)

*ASIP American Journal of Pathology Editorial Board Dinner—6:15 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASN Nutritional Sciences Council Business Meeting and Breakfast—7:00 AM
(San Diego Hilton Bayfront Hotel, Room 310)

*ASN RIS Chairs Luncheon—12:00 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN PhenHRIG 2012: The Human Microbiome and Bioactive Flavonoid—1:00 PM
(San Diego Convention Center, Room 30A/B)

ASN Medical Nutrition Council Business Meeting—1:30 PM
(San Diego Hilton Bayfront Hotel, Room 313)

ASN First-Time Attendee and New Member Orientation Organized by the Membership Committee—2:00 PM
(San Diego Convention Center, Room 33C)

*ASN Publications Operations Committee Meeting—2:00 PM
(San Diego Hilton Bayfront Hotel, Room 312)

*ASN Membership Committee Meeting—3:00 PM
(San Diego Convention Center, Room 33B)

ASN Nutrition Immunology RIS Business Meeting—4:00 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Energy and Macronutrient Metabolism RIS “Hot Topics” Seminar and Business Meeting—5:00 PM
(San Diego Hilton Bayfront Hotel, Room 304)

ASN History of Nutrition Committee Meeting—5:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)

ASN Joint Reception and Poster Competition: Dietary Bioactive Components, Nutrient-Gene Interactions, and Vitamins & Minerals RIS—5:00 PM
(San Diego Convention Center, Room 20B/C)

ASN Community and Public Health Nutrition RIS Business Meeting—5:30 PM
(San Diego Convention Center, Room 33C)

ASN Experimental Animal Nutrition RIS Poster Competition & Business Meeting—6:00 PM
(San Diego Convention Center, Room 24)

ASN Energy and Macronutrient Metabolism RIS “Hot Topics” Reception—6:30 PM
(San Diego Hilton Bayfront Hotel, Room 306B)

ASN Dietary Bioactive Components RIS Business Meeting—7:00 PM
(San Diego Convention Center, Room 25A)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
ASN Nutrient-Gene Interactions RIS Business Meeting—7:00 PM  
(San Diego Convention Center, Room 22)

ASN Vitamins & Minerals RIS Business Meeting—7:00 PM  
(San Diego Convention Center, Room 25B)

ASN Reception for Membership and University Mixer—8:00 PM  
(San Diego Hilton Bayfront Hotel, Sapphire Ballroom DHLP)

APSET Behavioral Pharmacology Society Meeting—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

*APSET Program Committee Meeting—12:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

APSET Business Meeting—6:00 PM  
(San Diego Convention Center, Room 20D)

APSET Opening Reception—7:30 PM  
(San Diego Convention Center, Center Terrace)

EB Exhibit Hall Lounges—8:00 AM  
(San Diego Convention Center, Halls A-D)

*Expert Working Group on Metabolomics in Epi studies to investigate Cancer Risk—11:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Point Loma)

Cornell/Penn State Nutrition Mixer—5:00 PM  
(San Diego Hilton Bayfront Hotel, Room 500)

The Microcirculatory Society Awards Banquet—12:00 PM  
(San Diego Hilton Bayfront Hotel, Sapphire Ballroom D/H)

*National SMART Team Reception—7:30 PM  
(San Diego Convention Center, Room 6B)

*SEBM Council / Members’ Business Meeting—12:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

University of Michigan Department of Pharmacology Social Hour—9:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Laguna)

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**Sunday, April 22, 2012**

*AAA New Member Welcome Breakfast—7:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Cardiff)*

*AAA Past President’s Luncheon—12:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)*

AAA Undergraduate Poster Session—3:30 PM  
(San Diego Convention Center, Sails Pavilion)

AAA Young Investigator Symposium—5:00 PM  
(San Diego Convention Center, Room 9)

AAA Socializer—7:00 PM  
(San Diego Convention Center, West Terrace/West Lobby)

APS Environmental & Exercise Physiology Section Steering Committee Meeting—6:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Physiology Understanding Week Poster Session—7:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

APS Respiration Section Trainee Highlights Breakfast—7:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

*APS Bruce Award Poster Judging—8:00 AM  
(San Diego Convention Center, Sails Pavilion)*

APS Comparative and Evolutionary Physiology Section Steering Committee—8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

APS Red Blood Cell Mechanisms of Tissue Blood Flow Control Coffee Break—8:00 AM  
(San Diego Convention Center, Room 26)

APS Senior Physiologists Lounge—9:00 AM  
(San Diego Convention Center, Room 28C)

APS Teaching of Physiology Section Roundtable Box Luncheon—11:30 AM  
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*APS Cardiovascular Section Steering Committee—12:00 PM  
(San Diego Marriott Marquis & Marina Hotel, La Costa)*

APS Career Opportunities in Physiology Committee Meeting—12:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Coronado)

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*By invitation only. For up-to-date information, please visit www.experimentalbiology.org*
Special Functions—SUNDAY

*APS Endocrinology and Metabolism Steering Committee Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

APS International Physiology Committee—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Dana Point)

APS Science Policy Committee—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Medical Physiology Course Directors Meeting—2:00 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

APS Respiration Section Steering Committee Meeting—2:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

*APS Physiologists in Industry Committee Meeting—2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Undergraduate Poster Session and David Bruce Awards Reception—3:30 PM
(San Diego Convention Center, Sails Pavilion)

*APS Renal Section Posters and Professors—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Physiologists in Industry Mixer—6:45 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*ASBMB Breakfast with Award Scientists—7:00 AM
(San Diego Convention Center, Room 11A)

*ASBMB Publications Committee Meeting—9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

*ASBMB Lipid Research Division Steering and Advocacy Committee Meeting—12:30 PM
(San Diego Convention Center, Room 13)

ASBMB Workshop on LIPID MAPS Lipidomics Tools—12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB Teaching Session with Stuart Kornfeld—1:30 PM
(San Diego Convention Center, Room 6B)

*ASBMB Undergraduate Affiliate Network Committee Meeting—1:30 PM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

ASBMB Business Meeting—6:15 PM
(San Diego Convention Center, Room 11A)

*ASBMB Welcome Reception, hosted by the Minority Affairs Committee—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

ASIP Career Development Workshop and Breakfast: Getting Your Dream Job: Preparing Your CV and Managing Your Interview—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

*ASIP Associate Editors Meeting—8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

ASIP 12th Annual Career Development Program and Lunch: Fundamental Basics for Success: How to Write Award-Winning Grants—11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

ASIP Rous Whipple Award Lecture: The Many Roles of VEGF in the Adult—5:00 PM
(San Diego Convention Center, Room 16B)

ASIP Club Hepatomania—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)

ASIP Der Schadenklub - Cell Injury Scientific Interest Group Networking Reception—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E)

ASN Graduate Student Breakfast Supported by National Dairy Council—6:45 AM
(San Diego Hilton Bayfront Hotel, Room 304)

*ASN Advances in Nutrition Editors’ Meeting—8:00 AM
(San Diego Hilton Bayfront Hotel, Room 312)

ASN Diet and Cancer RIS Business Meeting, Poster Competition, and Reception—12:00 PM
(San Diego Convention Center, Room 33A)

ASN Obesity RIS Business Meeting & Student Research Poster Competition—12:00 PM
(San Diego Convention Center, Room 33B)

*ASN Nutrition Education RIS Professional Development and Mentorship Luncheon—12:30 PM
(San Diego Convention Center, Room 14A)

*ASN Meet the Editors—12:45 PM
(San Diego Convention Center, Room 32B)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

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*ASN Publications Management Committee Meeting—
2:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)

ASN Sponsors and Awardees Meet and Greet—5:00 PM
(San Diego Hilton Bayfront Hotel, Room 206)

ASN Aging and Chronic Disease RIS Business Meeting—
5:30 PM
(San Diego Convention Center, Room 33A)

ASN Awards Ceremony—6:00 PM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom A/E)

ASN Event for Young Professionals and Postdocs—7:30 PM
(San Diego Hilton Bayfront Hotel, Room 311)

*ASN Supporting Members and Donors Reception—
7:30 PM
(San Diego Hilton Bayfront Hotel, Elevation Room)

*ASPET All-Divisions Executive Officers’ Meeting—
7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Chicago/Atlanta)

ASPET Diversity Committee Mentoring Breakfast—
7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Anaheim)

ASPET WiP into Shape Networking Walk—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Concierge Desk)

ASPET JPET Associate Editors Breakfast Meeting—
7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 2)

*ASPET Neuropharmacology Division Executive Committee Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)

ASPET Building a Pharmacology Course from Scratch: Benefits & Pitfalls of a Cut and Paste Pharmacology Course—9:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)

*ASPET Cardiovascular Pharmacology Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

*ASPET Drug Discovery, Drug Development & Regulatory Affairs Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

*ASPET Drug Metabolism Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Chicago/Atlanta)

*ASPET Integrative Systems, Translational and Clinical Pharmacology Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 2)

ASPET Adapting TBL Techniques to Teach Pharmacology to Graduate, Professional & Medical Students (Kumar)—3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)

ASPET Cardiovascular Pharmacology Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 5B)

ASPET Association of Medical Schools Pharmacology Chairs Reception—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, New York)

ASPET Best Abstract Competition—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 3-4)

*ASPET Board of Publications Trustees Joint Editorial Boards Dinner—7:30 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon C)

Christian Fellowship Meeting—7:00 PM
(San Diego Hilton Bayfront Hotel, Room 501)

The Microcirculatory Society Business Meeting—4:45 PM
(San Diego Convention Center, Room 23)

The Microcirculatory Society International Liaison Committee for Microcirculation Meeting—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*SEBM Editorial Board Meeting—11:00 AM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*SEBM Socializer and Awards Presentation—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Monday, April 23, 2012

AAA Education Roundtables—8:00 AM
(San Diego Convention Center, Room 11A)

*AAA Public Affairs Committee—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Scientific Affairs Committee—10:30 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA 125th Anniversary Task Force Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

AAA Keynote and Business Meeting—5:00 PM
(San Diego Convention Center, Room 8)

AAA Student Posters & Reception—7:00 PM
(San Diego Convention Center, West Terrace/West Lobby)

Annual Business Meeting of Association of Scientists of Indian Origin in America (ASIOA)—4:30 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)

*APS Awards Committee Meeting—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS/NIDDK Minority Travel Fellow Networking Breakfast—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

APS Membership Committee Meeting—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

*APS Physiology for Life Science Teachers & Students—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E)

APS Senior Physiologists’ Lounge—9:00 AM
(San Diego Convention Center, Room 28C)

APS Careers Symposium: Do I Need Another Degree?—10:30 AM
(San Diego Convention Center, Room 28A)

APS Senior Physiologists Committee Meeting—11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

*APS Bodil Schmidt-Nielsen Distinguished Mentor and Scientist Award Reception—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 2)

*APS Chapter Advisory Committee (CAC) Business Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS History Group Business Meeting and Presentation—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

*APS Physiology for Life Science Student Workshop—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

*APS Perkins Memorial Award Committee—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

*APS Physiology for Life Science Teachers Workshop—1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

APS Gastrointestinal & Liver Section Trainee Symposium—3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

APS Association of Chairs of Departments of Physiology (ACDP) Meeting—4:30 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Central Nervous System Section Reception and Awards—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Teaching of Physiology Section Business Meeting—5:45 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Comparative and Evolutionary Physiology Section Business & Dinner Meeting—6:00 PM
(The Horton Grand Hotel, 311 Island Avenue, San Diego, CA 92101)

APS NCAR Reception/Awards Presentations—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Point Loma)

APS Cell and Molecular Physiology Section Banquet—6:30 PM
(The Fleetwood, 639 J Street, San Diego, CA 92101)

APS Respiration Section Awards Presentation and Banquet—6:30 PM
(Holiday Inn on the Bay, 1355 N. Harbor Drive, San Diego, CA 92101)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
APS Cardiovascular Section Reception and Dinner—7:00 PM
(California Spirit, Fifth Avenue Landing)

APS EEP Section Business Meeting—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)

APS Endocrinology and Metabolism Section Awards Reception and Business Meeting—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

APS Renal Section Banquet and Business Meeting—7:00 PM
(Hotel Solamar, Solstice Ballroom, 435 6th Avenue at J Street, San Diego, CA 92101)

APS Teaching of Physiology Section Dinner—7:00 PM
(La Fiesta Mexican Cuisine & Lounge, 628 5th Avenue, San Diego, CA 92101)

APS Environmental & Exercise Physiology Section Social—8:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*ASBMB Breakfast with Award Scientists—7:00 AM
(San Diego Convention Center, Room 11A)

*ASBMB AMGDB Chairs Meeting—12:30 PM
(San Diego Convention Center, Room 13)

ASBMB Effectively Communicating Your Science, Public Policy Session—12:30 PM
(San Diego Convention Center, Room 6B)

ASBMB Lipid Droplets: Basic Working Principles Workshop—12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB Thematic Fermentation Hour—6:00 PM
(San Diego Convention Center, West Mezzanine Terrace)

ASBMB 1st Annual Poetry Contest Reading—7:00 PM
(San Diego Convention Center, Ballroom 6 Lobby)

ASIP Cotran Early Career Investigator Award Lecture: Molecular Engines that Build and Break Epithelial Barriers—8:30 AM
(San Diego Convention Center, Room 16A)

*ASIP APC at ASIP—12:45 PM
(San Diego Convention Center, Room 33B)

ASIP Lunch & Learn: Best Practices of Biobanking and Specimen Collection—12:45 PM
(San Diego Convention Center, Room 14A)

ASIP Veterinary Pathology Scientific Interest Group/Networking Event—12:45 PM
(San Diego Convention Center, Sails Pavilion)

ASIP Awards Presentation & Business Meeting—5:00 PM
(San Diego Convention Center, Room 16A)

ASIP Awards Reception—6:00 PM
(San Diego Convention Center, Mezzanine Foyer)

*ASN Advances in Nutrition Editorial Board Meeting—7:00 AM
(San Diego Hilton Bayfront Hotel, Room 500)

*ASN The American Journal of Clinical Nutrition Editorial Board Meeting—7:00 AM
(San Diego Hilton Bayfront Hotel, Room 313)

ASN Department Heads Breakfast supported by Kellogg—7:00 AM
San Diego Hilton Bayfront Hotel, Room 310

ASN Journal of Nutrition Editorial Board Meeting—7:00 AM
San Diego Hilton Bayfront Hotel, Room 311

ASN Nutritional Epidemiology RIS Business Meeting—8:30 AM
(San Diego Convention Center, Room 33A)

*ASN Public Information Committee Meeting—10:00 AM
(San Diego Hilton Bayfront Hotel, Room 312)

ASN Students Meet the Fellows—10:30 AM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Fellows, 50-Year Members, and Past Presidents Luncheon—11:30 AM
(San Diego Hilton Bayfront Hotel, Room 304)

ASN Nutrition Translation RIS Business Meeting and Networking Mixer—12:30 PM
(San Diego Convention Center, Room 33A)

*ASN Graduate and Professional Education Committee with Sub-Committees Business Meeting—1:45 PM
(San Diego Convention Center, Room 33C)

ASN Nutrition Education RIS Business Meeting—5:00 PM
(San Diego Convention Center, Room 33C)

ASN Annual Business Meeting—5:30 PM
(San Diego Convention Center, Room 31)

ASN KNS Global Synergies for Food and Health: KNS and Fooeopolis (Korean National Food Cluster)—6:00 PM
(San Diego Hilton Bayfront Hotel, Room 520)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—MONDAY

ASN International Nutrition Council Business Meeting and Kellogg Prize in International Nutrition Research Lecture—6:00 PM
(San Diego Hilton Bayfront Hotel, Room 306)

ASN KNS Korean Scientists Night Reception supported by FOODOPOLIS—7:00 PM
(San Diego Hilton Bayfront Hotel, Room 500)

*ASN Journal Reception—7:30 PM
(Roy’s Hawaiian Fusion, 333 West Harbor Drive)

ASN Speed Mentoring for Students (SIG/YPIG)—7:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 1)

ASN International Nutrition Council Reception—8:00 PM
(San Diego Hilton Bayfront Hotel, Room 308)

*ASPET Behavioral Pharmacology Executive Business Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

*ASPET Molecular Pharmacology Editorial Board Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

*ASPET Pharmacology Education Division Executive Committee Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

ASPET Drug Discovery, Drug Development & Regulatory Affairs Division Business Meeting—12:15 PM
(San Diego Convention Center, Room 5B)

ASPET Diversity Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

*ASPET Molecular Pharmacology Division Executive Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

*ASPET Pharmacological Reviews Editorial Board Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Behavioral Pharmacology Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 2)

ASPET Drug Metabolism Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 3)

ASPET Integrative Systems, Translational and Clinical Pharmacology Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 5A)

ASPET Pharmacology Education Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 5B)

ASPET Molecular Pharmacology Division Business Meeting and Mixer—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

ASPET Pharmacology Education Division, Drug Discovery, Drug Development and Regulatory Affairs Division, and Integrative Systems, Translational, and Clinical Pharmacology Division Joint Mixer—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Solana)

*ASPET Mentoring: A Formula for Success—8:00 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

Association of African Biomedical Scientists (AABS) Inc. Annual General and Scientific Meeting—4:00 PM
(San Diego Convention Center, Room 15B)

*The Friedman School and Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University Alumni and Friends Cocktail Reception—6:00 PM
(San Diego Hilton Bayfront Hotel, Elevation Room)

German Science Breakfast—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

Iowa State University Reception—7:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)

The University of Arizona Dept of Chemistry & Biochemistry Reception for Alumni & Friends—5:00 PM
(San Diego Convention Center, Room 12)

University of Illinois Nutrition Mixer—7:00 PM
(San Diego Hilton Bayfront Hotel, Room 503)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Tuesday, April 24, 2012

*AAA-ASE Editorial Board Meeting—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Membership Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*AAA Educational Affairs Committee—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA Professional Development Committee—10:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*AAA - AR Editorial Board Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA Terminology Committee—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Solana)

AAA Awards Reception—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE Foyer)

AAA Awards Banquet—7:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE)

*APS Gastrointestinal & Liver Section Steering Committee—6:30 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS Education Committee Meeting—7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Senior Physiologists’ Lounge—9:00 AM
(San Diego Convention Center, Room 28C)

*APS Respiration Section Program Committee Meeting—11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS Women in Physiology Committee Meeting—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

*APS Frontiers in Physiology Research Teacher Fellowship Awards Luncheon—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

APS Business Meeting—6:00 PM
(San Diego Convention Center, Room 20A)

APS Gastrointestinal and Liver Section Banquet, Business Meeting and Awards—7:00 PM
(Roma Thai Restaurant, 327 Fourth Avenue)

*ASBMB Work-Life Balance and Time Management: A Professional Development Workshop for Students, Postdocs and Junior Faculty—12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB Women Scientists’ Panel and Networking Reception—6:00 PM
(San Diego Convention Center, Room 11A)

ASIP Scientific Sleuthing of Human Disease for High School Teachers—8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Solana)

ASIP Neuropathology Scientifics Interest Group Lunch/Networking Session—11:45 AM
(San Diego Convention Center, Room 33A)

ASIP Endothelial and Epithelial Contributions to Homeostasis and the Inflammatory Response Special Interest Group Reception—5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASN Minority Affairs Committee MARC Travel Awardees Poster Session and Networking Breakfast—7:00 AM
(San Diego Convention Center, Room 33A)

ASN Lactation RIS/ISRML Business Meeting & Luncheon—12:00 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN ARS W.O. Atwater Memorial Lecture Reception—1:45 PM
(San Diego Convention Center, Room 20B/C)

ASN Student Career Discussion—5:30 PM
(San Diego Hilton Bayfront Hotel, Room 310)

*ASPET Drug Metabolism and Disposition Editorial Board Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

*ASPET Nominating Committee Meeting—7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

*ASPET Board of Publications Trustees Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Graduate Recruitment & Education Committee Meeting—12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—TUESDAY/WEDNESDAY

ASPET WiP Career Roundtable—1:00 PM
(San Diego Convention Center, Room 12)

ASPET Neuropharmacology Division Business Meeting—5:45 PM
(San Diego Convention Center, Room 3)

ASPET Toxicology Division Executive Committee and Business Meeting—5:45 PM
(San Diego Convention Center, Room 5A)

ASPET Cardiovascular Pharmacology Division Mixer—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

ASPET Drug Metabolism Division & Toxicology Division Joint Mixer—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

ASPET Neuropharmacology Division Mixer—7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Solana)

ASPET Student/Postdoc Mixer—9:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 2)

Calcutta University Alumni Dinner Meeting—6:30 PM
(Royal India, 329 Market Street, 619-269-9999)
Contact: Dipak K. Banerjee, 787-758-2552, Ext. 1624

WVU-HSC Alumni Mixer for Biomedical Sciences—5:30 PM
(San Diego Convention Center, Room 12)

Wednesday, April 25, 2012

*AAA Program Committee Meeting—10:00 AM
(San Diego Convention Center, Room 13)

APS Mentoring Symposium: Conflict Resolution: How to Keep Everyone Happy!—8:00 AM
(San Diego Convention Center, Room 25C)

APS Trainee Symposium: E-Media Tools for the Professional Scientist—10:30 AM
(San Diego Convention Center, Room 25C)

*APS/NIDDK Minority Travel Fellow Luncheon—12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

APS Noble Prize in Physiology of Medicine Lecture—4:30 PM
(San Diego Convention Center, Ballroom 20A)

APS Closing Dinner—6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E/F) Ticket required.

ASPET Closing Reception—6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Poolside Terrace)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Society Special Functions
Alphabetical Listing

*AAA 125th Anniversary Task Force Meeting—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA - AR Editorial Board Meeting—Tuesday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

AAA Awards Reception and Banquet—Tuesday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon DE and Foyer)

*AAA Board Meeting—Friday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

AAA Career Networking Break—Saturday, 10:00 AM
(San Diego Convention Center, Room 7A)

AAA Education Roundtables—Monday, 8:00 AM
(San Diego Convention Center, Room 11A)

*AAA Educational Affairs Committee—Tuesday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA Fellows Circle Meeting—Saturday, 12:45 PM
(San Diego Convention Center, Room 12)

AAA Keynote and Business Meeting—Monday, 5:00 PM
(San Diego Convention Center, Room 8)

*AAA Membership Meeting—Tuesday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*AAA New Member Welcome Breakfast—Sunday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

*AAA Past President’s Luncheon—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Professional Development Committee—Tuesday, 10:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*AAA Program Committee Meeting—Wednesday, 10:00 AM
(San Diego Convention Center, 13)

*AAA Public Affairs Committee—Monday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Publications Committee Meeting—Saturday, 2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Scientific Affairs Committee—Monday, 10:30 AM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

AAA Socializer—Sunday, 7:00 PM
(San Diego Convention Center, West Terrace/West Lobby)

AAA Student Posters & Reception—Monday, 7:00 PM
(San Diego Convention Center, West Terrace/West Lobby)

*AAA Terminology Committee—Tuesday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Carlsbad)

*AAA Wiley Reception—Saturday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado and Coronado Terrace)

AAA Young Investigator Symposium—Sunday, 5:00 PM
(San Diego Convention Center, Room 9)

*AACBNC Reception—Saturday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

Annual Business Meeting of Association of Scientists of Indian Origin, in America (ASIOA)—Monday, 4:30 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)

APS 125th Anniversary Beach Party—Saturday, 7:00 PM
(North Embarcadero) Ticket required.

APS 125 Years of Physiology Timeline—Saturday- Wednesday, 7:30 AM
(San Diego Convention Center, Sails Pavilion)

APS Animal Care and Experimentation Committee—Saturday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Association of Chairs of Departments of Physiology (ACDP) Meeting—Monday, 4:30 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*APS Awards Committee Meeting—Monday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS Bodil Schmidt-Nielsen Distinguished Mentor and Scientist Award Reception—Monday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 2)

*APS Bruce Award Poster Judging—Sunday, 8:00 AM
(San Diego Convention Center, Sails Pavilion)

APS Business Meeting—Tuesday, 6:00 PM
(San Diego Convention Center, Room 20A)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

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Special Functions—ALPHABETICAL

APS Cardiovascular Section Program Committee—
Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Cardiovascular Section Reception and Dinner—
Monday, 7:00 PM
(California Spirit, Fifth Avenue Landing)

*APS Cardiovascular Section Steering Committee—
Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Career Opportunities in Physiology Committee Meeting—Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Careers Symposium: Do I Need Another Degree?—
Monday, 10:30 AM
(San Diego Convention Center, Room 28A)

APS Cell and Molecular Physiology Section Banquet—
Monday, 6:30 PM
(The Fleetwood, 639 J Street, San Diego, CA 92101)

APS Central Nervous System Section Reception and Awards—Monday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

*APS Central Nervous System Section Steering Committee Meeting—Saturday, 11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Dana Point)

*APS Chapter Advisory Committee (CAC) Business Meeting—Monday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Closing Dinner—Wednesday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E/F) **Ticket required.**

APS Comparative and Evolutionary Physiology Section Business & Dinner Meeting—Monday, 6:00 PM
(The Horton Grand Hotel, 311 Island Avenue, San Diego, CA 92101 619-544-1886)

APS Comparative and Evolutionary Physiology Section Steering Committee—Sunday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

*APS Education Committee Meeting—Tuesday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS EEP Section Business Meeting—Monday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)

APS Endocrinology and Metabolism Section Awards Reception and Business Meeting—Monday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

*APS Endocrinology and Metabolism Steering Committee Meeting—Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

APS Environmental & Exercise Physiology Section Social—Monday, 8:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

APS Environmental & Exercise Physiology Section Steering Committee Meeting—Saturday, 8:00 AM
(San Diego Convention Center, Room 28A)

*APS Extracellular Nucleotides and Nucleosides in the Regulation of Kidney Function—Friday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Solana)

*APS Frontiers in Physiology Research Teacher Fellowship Awards Luncheon—Tuesday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*APS Frontiers in Physiology Research Teacher Orientation—Saturday, 2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

*APS Gastrointestinal & Liver Section Steering Committee—Tuesday, 6:30 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Gastrointestinal & Liver Section Trainee Symposium—Monday, 3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

APS Gastrointestinal and Liver Section Banquet, Business Meeting and Awards—Tuesday, 7:00 PM
(Rama Thai Restaurant, 327 Fourth Avenue, San Diego, CA 92101)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
APS History Group Business Meeting and Presentation—Monday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS International Physiology Committee—Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Dana Point)

APS Medical Physiology Course Directors Meeting—Sunday, 2:00 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

APS Membership Committee Meeting—Monday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Mentoring Symposium: Conflict Resolution: How to Keep Everyone Happy!—Wednesday, 8:00 AM
(San Diego Convention Center, Room 25C)

APS NCAR Reception/Awards Presentations—Monday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Point Loma)

*APS Neural Control and Autonomic Regulation Section Steering Committee Meeting—Saturday, 2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Mission Hills)

*APS/NIDDK Minority Travel Fellow Luncheon—Wednesday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

*APS/NIDDK Minority Travel Fellow Networking Breakfast—Monday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

*APS/NIDDK Minority Travel Fellow Orientation and Porter Reception—Saturday, 3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon G)

APS Noble Prize in Physiology of Medicine Lecture—Wednesday, 4:30 PM
(San Diego Convention Center, Ballroom 20A)

*APS Perkins Memorial Award Committee—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

*APS Physiologists in Industry Committee Meeting—Sunday, 2:30 PM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Physiologists in Industry Mixer—Sunday, 6:45 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

*APS Physiology for Life Science Student Workshop—Monday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

*APS Physiology for Life Science Teachers & Students—Monday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E)

*APS Physiology for Life Science Teachers Workshop—Monday, 1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

APS Physiology Understanding Week Poster Session—Sunday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

APS Porter Physiology Development Committee Meeting—Saturday, 1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Publications Committee Banquet—Sunday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A/B)

APS- Red Blood Cell Mechanisms of Tissue Blood Flow Control—Coffee Break—Sunday, 8:00 AM
(San Diego Convention Center, Room 26)

APS Refresher Course on Endocrinology—Saturday, 8:00 AM
(San Diego Convention Center, Room 24)

APS Renal Section Banquet and Business Meeting—Monday, 7:00 PM
(Hotel Solamar, Solstice Ballroom 435 6th Avenue at J Street, San Diego, CA 92101)

*APS Renal Section Posters and Professors—Sunday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Renal Section Steering Committee Meeting—Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Miramar)

APS Respiration Section Awards Presentation and Banquet—Monday, 6:30 PM
(Holiday Inn on the Bay, 1355 N. Harbor Drive, San Diego, CA 92101)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—ALPHABETICAL

*APS Respiration Section Program Committee Meeting—Tuesday, 11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

APS Respiration Section Steering Committee Meeting—Sunday, 2:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Respiration Section Trainee Highlights Breakfast—Sunday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)

APS Science Policy Committee—Sunday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

APS Section Advisory Committee Meeting—Friday, 3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Senior Physiologists Committee Meeting—Monday, 11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Newport Beach)

APS Senior Physiologists Lounge—Sunday—Tuesday, 9:00 AM
(San Diego Convention Center, Room 28C)

APS Teaching of Physiology Section Business Meeting—Monday, 5:45 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

APS Teaching of Physiology Section Dinner—Monday, 7:00 PM
(La Fiesta Mexican Cuisine & Lounge, 628 5th Avenue, San Diego, CA 92101)

APS Teaching of Physiology Section Roundtable Box Luncheon—Sunday, 11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

APS Teaching Section Steering Committee Meeting—Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Malibu)

APS Trainee Symposium: E-Media Tools for the Professional Scientist—Wednesday, 10:30 AM
(San Diego Convention Center, Room 25C)

APS Undergraduate Orientation Session—Saturday, 3:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

APS Undergraduate Poster Session and David Bruce Awards Reception—Sunday, 3:30 PM
(San Diego Convention Center, Sails Pavilion)

APS WEH Section Trainee Award Finalists Session and Data Diuresis—Saturday, 3:15 PM
(San Diego Convention Center, Room 25A)

*APS Women in Physiology Committee Meeting—Tuesday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Catalina)

ASBMB 1st Annual Poetry Contest Reading—Monday, 7:00 PM
(San Diego Convention Center, Ballroom 6 Lobby)

ASBMB 16th Annual Undergraduate Student Research Poster Competition—Saturday, 1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

*ASBMB AMGDB Chairs Meeting—Monday, 12:30 PM
(San Diego Convention Center, Room 11A)

*ASBMB Breakfast with Award Scientists—Monday, 7:00 AM
(San Diego Convention Center, Room 13)

*ASBMB Breakfast with Award Scientists—Sunday, 7:00 AM
(San Diego Convention Center, Room 11A)

ASBMB Business Meeting—Sunday, 6:15 PM
(San Diego Convention Center, Room 11A)

*ASBMB Council Executive Committee Meeting—Thursday, 5:00 PM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

*ASBMB Council Meeting—Friday, 9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*ASBMB Council Reception and Working Dinner—Thursday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

ASBMB Effectively Communicating Your Science, Public Policy Session—Monday, 12:30 PM
(San Diego Convention Center, Room 6B)

*ASBMB Finance Committee Meeting—Thursday, 8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

ASBMB Fostering Partnerships between Colleges, Universities and K-12 Schools Workshop—Saturday, 9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
*ASBMB Graduate/Postdoctoral Travel Award Keynote Lecture—Friday, 5:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 4)

*ASBMB Graduate/Postdoctoral Travel Award Poster Session and Reception—Friday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

*ASBMB JBC AE’s Reception and Working Dinner—Friday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*ASBMB Journal of Biological Chemistry Editorial Board Luncheon—Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon G)

*ASBMB Journal of Biological Chemistry Editorial Board Meeting—Saturday, 1:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D/E)

*ASBMB Journal of Biological Chemistry Editorial Board Orientation—Saturday, 8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D/E)

ASBMB Lipid Droplets: Basic Working Principles Workshop—Monday, 12:30 PM
(San Diego Convention Center, Room 11A)

*ASBMB Lipid Research Division Steering and Advocacy Committee Meeting—Sunday, 12:30 PM
(San Diego Convention Center, Room 13)

ASBMB Opening Lecture: Herbert Tabor/Journal of Biological Chemistry Lectureship—Saturday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 4-6)

ASBMB Opening Reception, immediately following Herbert Tabor/JBC Lectureship
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 1-3)

*ASBMB Professional Development Program for Graduate Students and Postdoctoral Trainees—Saturday, 9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 4)

*ASBMB Publications Committee Meeting—Sunday, 9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

ASBMB Speed Dating, Finding Your Perfect Career “Match” (A Workshop for Undergraduates)—Saturday, 4:45 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)

ASBMB Teaching Session with Stuart Kornfeld—Sunday, 1:30 PM
(San Diego Convention Center; Room 6B)

ASBMB Thematic Fermentation Hour—Monday, 6:00 PM
(San Diego Convention Center; West Mezzanine Terrace)

*ASBMB Undergraduate Affiliate Network Committee Meeting—Sunday, 1:30 PM
(San Diego Marriott Marquis & Marina Hotel, Leucadia)

*ASBMB Welcome Reception, hosted by the Minority Affairs Committee—Sunday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon D)

ASBMB Women Scientists’ Panel and Networking Reception—Tuesday, 6:00 PM
(San Diego Convention Center, Room 11A)

*ASBMB Work-Life Balance and Time Management: A Professional Development Workshop for Students, Postdocs and Junior Faculty—Tuesday, 12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB Workshop on LIPID MAPS Lipidomics Tools—Sunday, 12:30 PM
(San Diego Convention Center, Room 11A)

ASBMB, Powering Up!—Saturday, 11:30 AM
(San Diego Marriott Marquis & Marina Hotel - Chicago/Atlanta)

ASIP 12th Annual Career Development Program and Lunch: Fundamental Basics for Success: How to Write Award-Winning Grants—Sunday, 11:45 AM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

*ASIP American Journal of Pathology Editorial Board Dinner—Saturday, 6:15 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

*ASIP APC at ASIP—Monday, 12:45 PM
(San Diego Convention Center, Room 33B)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Special Functions—ALPHABETICAL

*ASIP Associate Editors Meeting—Sunday, 8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

ASIP Awards Presentation & Business Meeting—Monday, 5:00 PM
(San Diego Convention Center, Room 16A)

ASIP Awards Reception—Monday, 6:00 PM
(San Diego Convention Center, Mezzanine Foyer)

ASIP Breast Cancer Scientific Interest Group Networking Session—Saturday, 11:45 AM
(San Diego Convention Center, Room 1B)

ASIP Career Development Workshop and Breakfast: Getting Your Dream Job: Preparing Your CV and Managing Your Interview—Sunday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Club Hepatomania—Sunday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)

*ASIP Committee for Career Development, Women & Minorities Meeting—Friday, 4:30 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Cotran Early Career Investigator Award Lecture: Molecular Engines that Build and Break Epithelial Barriers—Monday, 8:30 AM
(San Diego Convention Center, Room 16A)

*ASIP Council Meeting—Thursday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Der Schadenklub - Cell Injury Scientific Interest Group Networking Reception—Sunday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon E)

*ASIP Education Committee Meeting—Friday, 3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Endothelial and Epithelial Contributions to Homeostasis and the Inflammatory Response Special Interest Group Reception—Tuesday, 5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Excellence in Science Award Lecture: Mechanisms of TDP-43 Mediated Neurodegeneration in ALS and FTLD—Saturday, 3:30 PM
(San Diego Convention Center, Room 15B)

ASIP Graduate Education in Pathology Workshop—Saturday, 11:30 AM
(San Diego Marriott Marquis & Marina Hotel, Cardiff)

ASIP Highlights: Graduate Student Research in Pathology—Saturday, 1:30 PM
(San Diego Convention Center, Room 15B)

ASIP Lunch & Learn: Best Practices of Biobanking and Specimen Collection—Monday, 12:45 PM
(San Diego Convention Center, Room 14A)

*ASIP Meetings & Courses Task Force Meeting—Friday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

*ASIP Membership Committee Meeting—Friday, 1:30 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Neuropathology Scientifics Interest Group Lunch/Networking Session—Tuesday, 11:45 AM
(San Diego Convention Center, Room 33A)

ASIP Outstanding Investigator Award Lecture: Lost in Ubiquitination, Found by Mass Spectrometry: Identification of E3 Ligase Substrates Controlling Critical Cellular Events and Cancer—Saturday, 5:00 PM
(San Diego Convention Center, Room 16A)

ASIP Pathobiology for Basic Scientists: Cell Injury and Inflammation: New Riffs on a Classical Score—Saturday, 8:30 AM
(San Diego Convention Center, Room 16A)

*ASIP Program Committee Meeting—Friday, 9:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

*ASIP Public Affairs Working Group—Friday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

*ASIP Publications Committee Meeting—Friday, 10:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

ASIP Rous Whipple Award Lecture: The Many Roles of VEGF in the Adult—Sunday, 5:00 PM
(San Diego Convention Center, Room 16B)

ASIP Scientific Sleuthing of Human Disease for High School Teachers—Tuesday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Solana)

ASIP Trainee Welcome Reception—Saturday, 4:00 PM
(San Diego Convention Center, Room 15A)

ASIP Veterinary Pathology Scientific Interest Group/Networking Event—Monday, 12:45 PM
(San Diego Convention Center, Sails Pavilion)

*ASN Advances in Nutrition Editorial Board Meeting—Monday, 7:00 AM
(San Diego Hilton Bayfront Hotel, Room 500)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
*ASN Advances in Nutrition Editors’ Meeting—Sunday, 8:00 AM
(San Diego Hilton Bayfront Hotel, Room 312)

ASN Aging and Chronic Disease RIS Business Meeting—Sunday, 5:30 PM
(San Diego Convention Center, Room 33A)

ASN Annual Business Meeting—Monday, 5:30 PM
(San Diego Convention Center, Room 31)

ASN ARS W.O. Atwater Memorial Lecture Reception—Tuesday, 1:45 PM
(San Diego Convention Center, Ballroom 20B/C)

ASN Awards Ceremony—Sunday, 6:00 PM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom A/E)

ASN CARIG RIS Annual Symposium—Friday, 1:00 PM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom C)

ASN CARIG VARIG Social and Poster Competition—Friday, 6:30 PM
(San Diego Hilton Bayfront Hotel, Indigo Ballroom B)

ASN Community and Public Health Nutrition RIS Business Meeting—Saturday, 5:30 PM
(San Diego Convention Center, Room 33C)

ASN Department Heads Breakfast supported by Kellogg—Monday, 7:00 AM
San Diego Hilton Bayfront Hotel, Room 310)

ASN Diet and Cancer RIS Business Meeting, Poster Competition, and Reception—Sunday, 12:00 PM
(San Diego Convention Center, Room 33A)

ASN Dietary Bioactive Components RIS Business Meeting—Saturday, 7:00 PM
(San Diego Convention Center, Room 25A)

ASN Energy and Macronutrient Metabolism RIS “Hot Topics” Reception—Saturday, 6:30 PM
(San Diego Hilton Bayfront Hotel, Room 306B)

ASN Event for Young Professionals and Postdocs—Sunday, 7:30 PM
(San Diego Hilton Bayfront Hotel, Room 311)

ASN Energy and Macronutrient Metabolism RIS “Hot Topics” Seminar and Business Meeting—Saturday, 5:00 PM
(San Diego Hilton Bayfront Hotel, Room 304)

ASN Experimental Animal Nutrition RIS Poster Competition & Business Meeting—Saturday, 6:00 PM
(San Diego Convention Center, Room 24)

ASN Fellows, 50-Year Members, and Past Presidents Luncheon—Monday, 11:30 AM
(San Diego Hilton Bayfront Hotel, Room 304)

ASN First-Time Attendee and New Member Orientation Organized by the Membership Committee—Saturday, 2:00 PM
(San Diego Convention Center, Room 33C)

*ASN Graduate and Professional Education Committee with Sub-Committees Business Meeting—Monday, 1:45 PM
(San Diego Convention Center, Room 33C)

ASN Graduate Student Breakfast Supported by National Dairy Council—Sunday, 6:45 AM
(San Diego Hilton Bayfront Hotel, Room 304)

ASN History of Nutrition Committee Meeting—Saturday, 5:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)

ASN Industry Forum—Friday, 5:30 PM
(San Diego Hilton Bayfront Hotel, Room 310)

ASN International Nutrition Council Business Meeting and Kellogg Prize in International Nutrition Research Lecture—Monday, 6:00 PM
(San Diego Hilton Bayfront Hotel, Room 306)

ASN International Nutrition Council Reception—Monday, 8:00 PM
(San Diego Hilton Bayfront Hotel, Room 308)

ASN Joint Reception and Poster Competition: Dietary Bioactive Components, Nutrient-Gene Interactions, and Vitamins & Minerals RIS—Saturday, 5:00 PM
(San Diego Convention Center, Ballroom 20B/C)

*ASN Journal Reception—Monday, 7:30 PM
(Roy’s Hawaiian Fusion, 333 West Harbor Drive)

ASN KNS Global Synergies for Food and Health: KNS and Foodopolis (Korean National Food Cluster)—Monday, 6:00 PM
(San Diego Hilton Bayfront Hotel, Room 520)

ASN KNS Korean Scientists Night Reception supported by FOODOPOLIS—Monday, 7:00 PM
(San Diego Hilton Bayfront Hotel, Room 500)

ASN KNS Korean Nutrition Scientists Meeting and Reception—Monday, 7:00 PM
(San Diego Hilton Bayfront Hotel, Room 500)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
**Special Functions—ALPHABETICAL**

ASN Lactation RIS/ISRHML Business Meeting & Luncheon—Tuesday, 12:00 PM  
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Medical Nutrition Council Business Meeting—Saturday, 1:30 PM  
(San Diego Hilton Bayfront Hotel, Room 313)

*ASN Meet the Editors—Sunday, 12:45 PM  
(San Diego Convention Center, Room 16B)

ASN Member and Attendee Lounge supported by Kraft Foods—Saturday—Tuesday, 7:30 AM  
(San Diego Convention Center, Room 30E)

ASN Membership Committee Meeting—Saturday, 3:00 PM  
(San Diego Convention Center, Room 33B)

ASN Minority Affairs Committee MARC Travel Awardees Poster Session and Networking Breakfast—Tuesday, 7:00 AM  
(San Diego Convention Center, Room 33A)

ASN Nutrition Education RIS Business Meeting—Monday, 5:00 PM  
(San Diego Convention Center, Room 33C)

*ASN Nutrition Education RIS Professional Development and Mentorship Luncheon—Sunday, 12:30 PM  
(San Diego Convention Center, Room 14A)

ASN Nutrient-Gene Interactions RIS Business Meeting—Saturday, 7:00 PM  
(San Diego Convention Center, Room 22)

ASN Nutrition Translation RIS Business Meeting and Networking Mixer—Monday, 12:30 PM  
(San Diego Convention Center, Room 33A)

ASN Nutritional Epidemiology RIS Business Meeting—Monday, 8:30 AM  
(San Diego Convention Center, Room 33A)

ASN Nutritional Immunology RIS Business Meeting—Saturday, 4:00 PM  
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Nutritional Sciences Council Business Meeting and Breakfast—Saturday, 7:00 AM  
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Obesity RIS Business Meeting & Student Research Poster Competition—Sunday, 12:00 PM  
(San Diego Convention Center, Room 33B)

ASN PhenHRIG 2012: The Human Microbiome and Bioactive Flavonoid—Saturday, 1:00 PM  
(San Diego Convention Center, Room 30A/B)

*ASN Public Information Committee Meeting—Monday, 10:00 AM  
(San Diego Hilton Bayfront Hotel, Room 312)

*ASN Publications Management Committee Meeting—Sunday, 2:00 PM  
(San Diego Hilton Bayfront Hotel, Room 504)

*ASN Publications Operations Committee Meeting—Saturday, 2:00 PM  
(San Diego Hilton Bayfront Hotel, Room 312)

ASN Reception for Membership and University Mixer—Saturday, 8:00 PM  
(San Diego Hilton Bayfront Hotel, Sapphire Ballroom DHLP)

*ASN Reception for Partners and Leaders—Friday, 7:00 PM  
(San Diego Wine & Culinary Event Center, address?)

*ASN RIS Chairs Luncheon—Saturday, 12:00 PM  
(San Diego Hilton Bayfront Hotel, Room 310)

ASN Satellite Symposium - What Do We Really Know About Whole Foods Digestability and Energy Values?—Friday, 1:00 PM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom G/H)

ASN Satellite Symposium: The Global Nutrition Transition: The Role of Lipid Supplementation—Friday, 8:30 AM  
(San Diego Hilton Bayfront Hotel, Indigo Ballroom D)

ASN Satellite Session: Proteins as Beneficial Ingredients in Fortified Blended Foods. What Food Aid Studies are Needed?—6:30 AM  
(San Diego Convention Center, Room 30A/B)

ASN Speed Mentoring for Students (SIG/YPIG)—Monday, 7:30 PM  
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 1)

ASN Student Career Discussion—Tuesday, 5:30 PM  
(San Diego Hilton Bayfront Hotel, Room 206)

ASN Students Meet the Fellows—Monday, 10:30 AM  
(San Diego Hilton Bayfront Hotel, Room 310)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
*ASN The American Journal of Clinical Nutrition Editorial Board Meeting—Monday, 7:00 AM
(San Diego Hilton Bayfront Hotel, Room 313)
ASN Vitamins & Minerals RIS Business Meeting—Saturday, 7:00 PM
(San Diego Convention Center, Room 25B)
ASPET Adapting TBL Techniques to Teach Pharmacology to Graduate, Professional & Medical Students—Sunday, 3:00 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)
*ASPET All-Divisions Executive Officers’ Meeting—Sunday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Chicago/Atlanta)
ASPET- Association of Medical Schools Pharmacology Chairs Reception—Sunday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, New York)
ASPET Behavioral Pharmacology Division Business Meeting—Monday, 5:45 PM
(San Diego Convention Center, Room 2)
*ASPET Behavioral Pharmacology Executive Business Meeting—Monday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)
ASPET Behavioral Pharmacology Society Meeting—Friday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon A)
ASPET Behavioral Pharmacology Society Meeting—Saturday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Marina Ballroom - Salon F)
ASPET Best Abstract Competition—Sunday, 6:30 PM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salons 3-4)
*ASPET Board of Publications Trustees Joint Editorial Boards Dinner—Sunday, 7:30 PM
(San Diego Marriott Marquis & Marina Hotel, San Diego Ballroom - Salon C)
*ASPET Board of Publications Trustees Meeting—Tuesday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Building a Pharmacology Course from Scratch: Benefits & Pitfalls of a Cut and Paste Pharmacology Course—Sunday, 9:30 AM
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 5)
ASPET Business Meeting—Saturday, 6:00 PM
(San Diego Convention Center, Ballroom 20D)
ASPET Cardiovascular Pharmacology Division Business Meeting—Sunday, 5:45 PM
(San Diego Convention Center, Room 5B)
*ASPET Cardiovascular Pharmacology Division Executive Committee Meeting—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)
ASPET Cardiovascular Pharmacology Division Mixer—Tuesday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)
ASPET Closing Reception—Wednesday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, Poolside Terrace)
*ASPET Council Meeting—Friday, 8:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)
*ASPET Council of Division Chairs Meeting—Friday, 1:00 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 1)
ASPET Diversity Committee Meeting—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)
ASPET Diversity Committee Mentoring Breakfast—Sunday, 7:00 AM
(San Diego Marriott Marquis & Marina Hotel, Anaheim)
ASPET Drug Discovery, Drug Development & Regulatory Affairs Division Business Meeting—Monday, 12:15 PM
(San Diego Convention Center, Room 5B)
*ASPET Drug Discovery, Drug Development & Regulatory Affairs Division Executive Committee Meeting—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
*ASPET Drug Metabolism and Disposition Editorial Board Meeting—Tuesday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

ASPET Drug Metabolism Division & Toxicology Division Joint Mixer—Tuesday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Balboa)

ASPET Drug Metabolism Division Business Meeting—Monday, 5:45 PM
(San Diego Convention Center, Room 3)

*ASPET Drug Metabolism Division Executive Committee Meeting—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Chicago/Atlanta)

*ASPET Finance Committee Meeting—Thursday, 5:00 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

ASPET Graduate Recruitment & Education Committee Meeting—Tuesday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

ASPET Integrative Systems, Translational and Clinical Pharmacology Division Business Meeting—Monday, 5:45 PM
(San Diego Convention Center, Room 5A)

*ASPET Integrative Systems, Translational and Clinical Pharmacology Division Executive Committee Meeting—Sunday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 2)

ASPET JPET Associate Editors Breakfast Meeting—Sunday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 2)

*ASPET Mentoring: A Formula for Success—Monday, 8:00 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

ASPET Molecular Pharmacology Division Business Meeting and Mixer—Monday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

*ASPET Molecular Pharmacology Division Executive Committee Meeting—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

*ASPET Molecular Pharmacology Editorial Board Meeting—Monday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Neuropharmacology Division Business Meeting—Tuesday, 5:45 PM
(San Diego Convention Center, Room 3)

ASPET Neuropharmacology Division Mixer—Tuesday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Solana)

*ASPET Neuropharmacology Division Executive Committee Meeting—Sunday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2/3)

*ASPET Nominating Committee Meeting—Tuesday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

ASPET Opening Reception—Saturday, 7:30 PM
(San Diego Convention Center, Center Terrace)

*ASPET Pharmacological Reviews Editorial Board Meeting—Monday, 12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 3)

ASPET Pharmacology Education Division Business Meeting—Monday, 5:45 PM
(San Diego Convention Center, Room 5B)

*ASPET Pharmacology Education Division Executive Committee Meeting—Monday, 7:30 AM
(San Diego Marriott Marquis & Marina Hotel, Torrey Pines 2)

ASPET Pharmacology Education Division, Drug Discovery, Drug Development and Regulatory Affairs Division, and Integrative Systems, Translational, and Clinical Pharmacology Division Joint Mixer—Monday, 7:00 PM
(San Diego Marriott Marquis & Marina Hotel, Solana)

*ASPET Program Committee Meeting—Saturday, 12:00 PM
(San Diego Marriott Marquis & Marina Hotel, Rancho Santa Fe 1/2)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
ASPET Student/Postdoc Mixer—Tuesday, 9:00 PM  
(San Diego Marriott Marquis & Marina Hotel, Marriott Hall - Salon 2)

ASPET Toxicology Division Executive Committee and Business Meeting—Tuesday, 5:45 PM  
(San Diego Convention Center, Room 5A)

ASPET WiP Career Roundtable—Tuesday, 1:00 PM  
(San Diego Convention Center, Room 12)

ASPET WiP into Shape Networking Walk—Sunday, 7:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Concierge Desk)

Association of African Biomedical Scientists (AABS) Inc. Annual General and Scientific Meeting—Monday, 4:00 PM  
(San Diego Convention Center, Room 15B)

Calcutta University Alumni Dinner Meeting—Tuesday, 6:30 PM  
(Royal India, 329 Market Street, 619-269-9999)  
Contact: Dipak K. Banerjee, 787-758-2552, Ext. 1624

Christian Fellowship Meeting—Sunday, 7:00 PM  
(San Diego Hilton Bayfront Hotel, Room 501)

Cornell/Penn State Nutrition Mixer—Saturday, 5:00 PM  
(San Diego Hilton Bayfront Hotel, Room 500)

*Expert Working Group on Metabolomics in Epi studies to investigate Cancer Risk—Saturday, 11:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Point Loma)

*The Friedman School and Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University Alumni and Friends Cocktail Reception—Monday, 6:00 PM  
(San Diego Hilton Bayfront Hotel, Elevation Room)

German Science Breakfast—Monday, 8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

Iowa State University Reception—Monday, 7:00 PM  
(San Diego Hilton Bayfront Hotel, Room 504)

The Microcirculatory Society International Liaison Committee for Microcirculation Meeting—Sunday, 8:00 AM  
(San Diego Marriott Marquis & Marina Hotel, Coronado)

The Microcirculatory Society Awards Banquet—Saturday, 12:00 PM  
(San Diego Hilton Bayfront Hotel, Sapphire Ballroom D/H)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
Ancillary Functions

Association of African Biomedical Scientist (AABS) Inc.
Annual General and Scientific Meeting—Monday, 4:00 PM
(San Diego Convention Center, Room 15B)

Calcutta University Alumni Dinner Meeting—Tuesday,
6:30 PM
(Royal India, 329 Market Street, 619-269-999)
Contact: Dipak K. Banerjee, 787-758-2552, Ext. 1624

Christian Fellowship Meeting—Sunday, 7:00 PM
(San Diego Hilton Bayfront Hotel, Room 501)

Cornell/Penn State Nutrition Mixer—Saturday, 5:00 PM
(San Diego Hilton Bayfront Hotel, Room 500)

*Expert Working Group on Metabolomics in Epi studies to
investigate Cancer Risk—Saturday, 11:00 AM
(San Diego Marriott Marquis & Marina Hotel, Point Loma)

*The Friedman School and Jean Mayer USDA Human
Nutrition Research Center on Aging at Tufts University
Alumni and Friends Cocktail Reception—Monday, 6:00 PM
(San Diego Hilton Bayfront Hotel, Elevation Room)

German Science Breakfast—Monday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

Iowa State University Reception—Monday, 7:00 PM
(San Diego Hilton Bayfront Hotel, Room 504)

The Microcirculatory Society International Liaison
Committee for Microcirculation Meeting—Sunday, 8:00 AM
(San Diego Marriott Marquis & Marina Hotel, Coronado)

The Microcirculatory Society Awards Banquet—Saturday,
12:00 PM
(San Diego Hilton Bayfront Hotel, Sapphire Ballroom D/H)

The Microcirculatory Society Business Meeting—Sunday,
4:45 PM
(San Diego Convention Center, Room 23)

The Microcirculatory Society Executive Council Meeting—
Friday, 6:00 PM
(San Diego Marriott Marquis & Marina Hotel, La Costa)

*National SMART Team Reception—Saturday, 7:30 PM
(San Diego Convention Center, Room 6B)

PhenHRIG 2012: The Human Microbiome and Bioactive
Flavonoid—Saturday, 1:00 PM
(San Diego Convention Center, Room 30A/B)

*Satellite Session: Proteins as Beneficial Ingredients in
Fortified Blended Foods. What Food Aid Studies are
Needed?—Saturday, 6:30 AM
(San Diego Convention Center, Room 30A/B)

*SEBM Council / Members’ Business Meeting—Saturday,
12:30 PM
(San Diego Marriott Marquis & Marina Hotel, Del Mar)

*SEBM Editorial Board Meeting—Sunday, 11:00 AM
(San Diego Marriott Marquis & Marina Hotel, Santa Rosa)

*SEBM Socializer and Awards Presentation—Sunday,
5:30 PM
(San Diego Marriott Marquis & Marina Hotel, Presidio)

The University of Arizona Dept of Chemistry & Biochemistry
Reception for Alumni & Friends—Monday, 5:00 PM
(San Diego Convention Center, Room 12)

University of Illinois Nutrition Mixer—Monday,
7:00 PM
(San Diego Hilton Bayfront Hotel, Room 503)

University of Michigan Department of Pharmacology Social
Hour—Saturday, 9:00 PM
(San Diego Marriott Marquis & Marina Hotel, Laguna)

WEH Section Trainee Award Finalists Session and Data
Diuresis—Saturday, 3:15 PM
(San Diego Convention Center, Room 25A)

WVU-HSC Alumni Mixer for Biomedical Sciences—
Tuesday, 5:30 PM
(San Diego Convention Center, Room 12)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org
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American Society for Nutrition (ASN)

American Society for Pharmacology and Experimental Therapeutics (ASPET)