May 1, 2009

Written testimony of The American Society for Pharmacology and Experimental Therapeutics to the Senate Appropriations Subcommittee on Labor, Health and Human Services, Education & Related Agencies Fiscal Year 2010 Appropriations for the National Institutes of Health

The American Society for Pharmacology and Experimental Therapeutics (ASPET) is pleased to submit written testimony in support of the National Institutes of Health FY 2010 budget. ASPET is a 4,500 member scientific society whose members conduct basic and clinical pharmacological research within the academic, industrial and government sectors. Our members discover and develop new medicines and therapeutic agents that fight existing and emerging diseases as well as increasing our knowledge regarding how therapeutics work in humans.

ASPET members recognize the trust and support that Congress displayed with the recent $10.4 billion provided to the NIH in the American Recovery and Reinvestment Act (ARRA). This was a visionary attempt by Congress to stimulate the economy by restoring their historic support of the NIH which has lagged over the last six years as appropriations have failed to adequately fund the NIH to meet scientific opportunities and challenges to our public health. Prior to ARRA funding, the NIH research portfolio could barely keep pace with the inflation rate and the country’s leadership in biomedical research was in danger. Since the completion of a bipartisan plan to double the NIH budget that ended in 2003 and prior to ARRA funding, the NIH budget had been going backwards.

For FY 2010, ASPET urges Congress to increase funding for the NIH by 7%. This would be the first step toward the President’s pledge to double funding for basic research over ten years and importantly, would help to maintain existing and future scientific infrastructure. Scientific discovery takes time and a 7% increase in FY 2010 and beyond will help NIH manage its research portfolio effectively without necessitating disruptions in continuity of existing grants to researchers throughout the country. Only through sustainable and predictable funding can NIH continue to fund the highest quality biomedical research to help improve the health of all Americans and continue to make significant economic impact in many communities across the country. Failing to capitalize upon the ARRA investments in FY 2010 and beyond will mean that NIH will have to dismantle newly built research capacity and terminate important research projects after the ARRA funds have been spent. This would have serious consequences for future scientific discovery. Scientific discovery takes time and is unpredictable. As recent experience has shown from the post-doubling experience, boom and bust cycles of rapid funding followed by significant periods of stagnation or retraction in the NIH budget diminish scientific process. If NIH cannot sustain its recent investments from the ARRA, a rapid diminishment of funding will further disrupt scientific careers among promising young and early career scientists who see little hope of promising and rewarding careers in biomedical research. It is critical to avoid a boom and bust cycle for NIH funding. Thus, appropriating NIH a 7% increase beginning in FY 2010 will help achieve the full promise of biomedical research.

NIH Improves Human Health and is an Economic Engine

A 7% increase in FY 2010 will help to reverse what ASPET feels is a wrong signal that has been sent to the best and brightest of our students who will not be able to or have chosen not to pursue a career in biomedical research. Failing to address the NIH
scientific and infrastructure needs post-ARRA in 2010 and beyond will mean a significant
reduction in research grants, jobs lost and the resulting phasing-out of research programs.
Additionally, there would be a loss of scientific opportunities to discover new therapeutic targets
to develop, and fewer discoveries that produce spin-off companies that employ individuals in
districts around the country. A 7% increase would provide the institutes with an opportunity to
fund more high quality and innovative research, and provide the resources and incentives that will
drive more young scientists to commit to careers supporting continuing improvements in public
health. This investment will also go directly into supporting jobs for US citizens and residents and
will continue to stimulate the economy.

Many important drugs have been developed as a direct result of the basic knowledge gained from
federally funded research, such as new therapies for breast cancer, the prevention of kidney
transplant rejection, improved treatments for glaucoma, new drugs for depression, and the
cholesterol lowering drugs known as statins that prevent 125,000 deaths from heart attack each
year. AIDS related deaths have fallen by 73% since 1995 and the five-year survival rate for
childhood cancers rose to almost 80% in 2000 from under 60% in the 1970s. NIH studies have
indicated that adopting intensive lifestyle changes delayed onset of type 2 diabetes by 58% and
that progesterone therapy can reduce premature births by 30% in women at risk.

Historically, our past investment in basic biological research has led to innovative medicines that
have virtually eliminated diphtheria, whooping cough, measles and polio in the U.S. Eight out of
ten children now survive leukemia. Death rates from heart disease and stroke have been
reduced by half in the past 30 years. Molecularly targeted drugs such as Gleevec™ to treat adult
leukemia do not harm normal tissue and dramatically improve survival rates. NIH research has
developed a class of drugs that slow the progression of symptoms of Alzheimer’s disease. The
robust past investment in the NIH has provided major gains in our knowledge of the human
genome, resulting in the promise of pharmacogenetics and a reduction in adverse drug reactions
that currently represent a major worldwide health concern.

But unless NIH can maintain an adequate funding stream scientific opportunities will be delayed,
lost, or forfeited to biomedical research opportunities in other countries and the human and
economic cost will continue to impact all of us.

Scientific inquiry leads to better medicine and there remain many challenges and opportunities
that need to be addressed. Two issues specific to ASPET highlight the need for appropriate NIH
funding levels.

- The need to increase support for training and research in integrative/whole organ
  science. This will help to develop skilled scientists trained to understand how drugs act in
  whole animals, including human beings. Support for training and research in integrative
  whole organ sciences has been affirmed in the FY 2002 U.S. Senate Labor/Health and
  Human Services & Related Agencies Appropriations Report (107-84). The Senate report
  supports ASPET recommendation that “Increased support for research and training in
  whole systems pharmacology, physiology, toxicology, and other integrative biological
  systems that help to define the effects of therapy on disease and the overall function of
  the human body.” These principles and recommendations are also affirmed in the
  FASEB Annual Consensus Conference Report on Federal Funding for Biomedical and
  Related Life Sciences Research for FY 2002

- The need to meet public health concerns over growing consumer use of botanical
  therapies and dietary supplements. These products have unsubstantiated scientific
efficacy and may adversely impact the treatment of chronic diseases, create dangerous interactions with prescription drugs, and may cause serious side effects including death among some users. Through the NIH, research into the safety and efficacy of botanical products can be conducted in a rigorous and high quality manner. Sound pharmacological studies will help determine the value of botanical preparations and the potential for their interactions with prescription drugs as well as chronic disease processes. This research will allow the FDA to review the available pharmacology and review valid evidence-based reviews to form a valid scientific foundation for regulating these products.

Conclusion

NIH and the biomedical research enterprise face a critical moment. For the first time in six years, NIH has the potential to meet many of the more promising scientific opportunities that currently challenge medicine. Reversing the trends of the last half decade is only part of the solution. In order to help sustain scientific progress it is critical that NIH receive 7% to continue the progress made under the ARRA. A 7% increase for the NIH in FY 2010 will permit the NIH to make greater strides to prevent, diagnose and treat disease, improving the health of our nation and restoring the NIH to its role as a national treasure that attracts and retains the best and brightest to biomedical research.

Sincerely,

Joe A. Beavo, Jr., Ph.D.
American Society for Pharmacology & Experimental Therapeutics