Single Largest Problem	Single Largest Opportunity	Comments
Maintaining fund levels for current and prospective students in time of flat NIH funding. Development of a program of study that is competitive for training grant support given a relatively small faculty & competition with other grad programs at Brown & elsewhere	To play upon the strength of our faculty in a diverse array of critical technologies in pharmacology, physiology, and drug-delivery. We also have a strength in protein structural biology strong overall diversity among our faculty including gender and race	
Inadequate fund to expand and perhaps to sustain the current strength of graduate programs	To seek graduate students who are self-supporting or international students supported by respective governments or institutions	
Curriculum for small (4 students/yr) program. Dependant on other depts. For many core courses & for students to achieve critical mass in our courses	Naturally positioned to take advantage of interest in translational research. Our labs & courses should be increasing interest to in other programs	1. systems pharm only; separate of pharm course 2. 4- 6 hrs of sys pharm
In spite of our apparent success with the training of graduate students as a small graduate department we face some problems that are unique to such schools. In the pase couple of years low stipends have made it more difficult to attract highly qualified graduate students. Our administration has told us that we must raise our stipends to NIH levels but have not offered monetary support. At the risk of causing fewer graduate student interactions and research activity, we have been told that stipend positions must be cut to obtain that goal.	Our graduate education is based on the philosophy that even though our faculty has diverse interests, we foster communication and collaboration between our laboratories and encourage our graduate students to do likewise. We have an intergrative program where our laboratories combine research on organ systems with respect to how drugs act on receptors and how, at the molecular level, cells communicate signals from receptors to elicit an organ systems pharmacology we offer an NIH funded short course in intergrative and organ systems pharmacology during the summer for graduate students as well as psot doctoral fellows, industrial scientists, and academic faculty.	1. Instead, they take Pharmacology course in Pharmacology school
We have two issuses. One is funding in face of new lack of commitment. Second is running in parallel w/ an umbrella program. Students may choose more specialized programs under the umbrella like cancerbio, neuro bio or molecular bio	PharmacogemmicsDrug Discovery	1.For supported by training grant: NIHT32, individual doundations es AHA PHARMA DOD2. For Subsequent yrs rank:Aprox. 1/2 for each. Includes individual student foundation grants3.Students Drug M & P: but students get this in required receptors course and med pharm and grad tox4. our dept. runs and requires Pathophysiology course before students take med pharm
Size and Quality of the applicant pool	leverage our excellence in training to attract more and better students	
Not being able to attract too many qualified students nationwide. Local isgood. Also, the applicant pool quality pool is not up to national standards (not yet good enough for an NIH Training Grant).	We are builiding an "integrative pharmacology" program which should be a good strength.	1. Participate in am umbrella amissions program as of this coming year. 2. *Lots refers to students who will take physiology with Interdiscipline students under name: SYSTEMS BIOL. (umbrella)
Recruiting high-quality students		Traing Grant Support: newly funded training grant, none currently supported, grant begins this month. 4 will be supported

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Recruiting top notch graduate students of any race, age, or gender.	We have very good facilities and equipment available to students and a great Faculty to student ratio. Many new research buildings, one in particular for basic research and animal quarters which will make our school more attractive.	* Some 1. Mostly departmental based
1. Finances/ 1st & 2nd yr students2. Faculty participations in areas other than taking a student a) teaching, committee work, etc.	Provide unique didatic training--animal physiology-analytical methods	Trainging grant support: from other training grants if faculty are participantsMedical School Pharmacology: Tried 1 yr a disasterGraduate Student Pharm: systemic pharmacologyDrug M& P : Ours has 3-2 credit courses Pk 2 credit; PD 2 credits; 2 credits - drug designPhysiology: one course in umbrella program has a physiology slant
Recruitment of quality graduate students.	Combined Ph.D/MBA Program	
1. Applicant pool 2. Financial Support	Great mix of cell/molecular and integrative biology.	Drug M & P: Only lectures on these topics
Maintaining a large, well-qualified applicant pool	?	Physiology course, incorporated into Pharm Course
Recruiting students and findign funds to support them through the first two years.	New, improved website	Core Curriculum beginning in 2006
Need for more positives (?) and for faculty	Masters program-	1. Program is within a Department 2. Students take a formal Graduate Student Pharmacology course in addition to Medical School Pharamacology
Recruting outstanding students. Defining a core curriculim for students with diverse interests and backgrounds	Medical Relevance	
Med school changing it's curriculum to intergrate organ	Revamp our entire grad program curriculum	
Funding Support Resources	Re-emergence for appreciation of Pharmacology in Academia and industry Pharmacogenomics Interdisciplinary Interactions in training and research	Supported by training grants: 7 pre-docs & 3 post-docs 8 New Incoming 2005 Not medical but Pharmacy School
Attracting top students and out-of-state applicants		
Attracting good domestic students so that we can apply for an NIH traininggrant.	A move to the Texas Medical Center and closer interactions with institutions there, e.g. potential for participation in more training grants;greater opportunity for our students to in labs at other institutions.	*Department (but, 2 programs in Dept.)
1. Recruiting an adequate number of highly qualified U.S. students. 2. to remain competative with other programs in the Chicago area, we have been forced to increase student stipends plus pay a tuition remission, making grad students almost as expensive as post-docs. This is discouraging some faculty members from training grad students.	1. UIC has recently started an integrated program in the Life Sciences (GEMS) which involves several Departments within The Medical School. This allows incoming students from other departments the option of taking Pharm. electives, rotating in Pharm labs and ultimately selecting a lab in our Depatment for their thesis research. 2. Taking an active approach in making ties with Biotech and Pharm companies to increase both student and faculty interactions.	*The Med School Pharm. provides about 10 hours on this topic.

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funding for graduate students- decreased $ for support (from the institution, college, NIH, etc.) and increased costs (signifcant increase in tuition, stipends, etc.) and the increasing transfer of support costs from departmental/institutional $ to individual NIH grant $.		*7 are on individual fellowships
Trang grant renewal Recruitment	Cirriculum reform	*unless post-comp ** !
Changing nature of students entering department through umbrella program; 1. We have less control over curriculum; 2. Students come to department through selection of specific mentor and research projects, their research interests are very specific, with less broad interest in pharmacology. Pharmacology courses/training is often seen as tangent to their labwork.	Incorporation of new topics(e.g. pharmacogenomics) of fresh interest and of obvious interest to new students.	1. Students can be Direct Admitted to the program, but it rarely happens- most likely transfers. 2. Some students choose to leave the program with a M.S.
The single largest problem is-- surprise! Finding resources to support graduate eduacation. Finding sufficient resources and maintaining an appropriate balance among institutional, mentor and training grant sources.	Pharmacology is well positioned as a translational basic biomedical science and is well placed on "the road map." We need not change to follow "flavor of the month" technologies. The largest opportunity is to continue to provide training in Pharmacology to the next generation.	
Recruiting good students (may be due in part to lack of familiarity with Pharmacology as a discipline)	Diversity in research training available	Program is officially a program but heavily departmentally based.
Individual funding to support graduate students.	Access to new technologies brought to the department by our new faculty appointed in the Department of Pharmacology and Life Sciences Institute as well as access to state-of-the-art equipment now available in several recently established core facilties (Chemical Genomics, Biomedical Mass Spectrometry, Confocal Microscopy, as well as the Center for Intergrative Genomics).	1. There are 42 PhD students including 7 first year PIBS students Fa 05. 2. The 6% includes one student who entered PhD but left with a Masters degree. 3. Not all 280 hours are didactic.
Dwindling pool of qualified, motivated domestic students. Hard to separateout the dramatically escalating cost of graduate education and how this has got faculty looking very carefully at prospective grad students and how "expensive" they are.	Pharmacology is becoming increasingly popular with undergraduates. In my view this is a consequence of direct to consumer advertising and the growth of biotecs.	1. Students take a formal Graduate Student Pharmacology in addition to Medical School Pharmacology. 2. Drug Metabolism and Pharmacokinetics courses are part of the 45 hours of Medical School Pharmacology.
Recruiting qualified students- especially domestic students	New faculty expertise which will expand our research program and national recognition- Expanding research will focus on natural products pharmacology.	1. Students take Pharmacy School instead of Medical School Pharmacology 2. Students take a formal Graduate Student Pharmacology in addition to Medical School Pharmacology.
Fierce competition for recruitment from molecular Biology and Genetics programs and high profile larger schools.	To learn about other cirriculae and how to specifc topics are taught.	Importance of Institutional Support was ranked for first year only, not the complete first two years of training.
Recruting Students that want to be Scientist rather than those who did not enter medical school.	Small school with access to good equipment	The Pharmacology & Physilogy courses are combines in a one semester 6 credit course

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Ensuring grad Students will receive funding throughout their training	Enhance training grant- supported funding for students	
Cutbacks in NIH funding. Finding well-funded lab homes for all our students. Keeping the students morale high - there is a future in science!	Tremendous opportunity for intergration of scientific concepts- bridging biochemistry, genetics, pharmacology, etc.	1. Physiology Intergrated into phco course
The single largest problem facing our program is the recruitment of high quality students, particularly Americans from beyond the eastern Midwest and mid-Atlantic states. Also, our students typically receive little formal training in physiology and pharmacokinetics. The Genuine career opportunities for our students in pharmacology remain largely undefined. Also, recruiting "real" pharmacologist as faculty members. All of our recruits in the past 5 years do not have degrees in Pharmacology.	We have the opportunity to expose students to state of the art molecular technology that can address important clinically relevant problems.	
Increasing the number of quality domestic applicants and mount a training grant in Pharmacology application. Other important concerns relate to curiculum issuses - what are key concepts that all Pharmacologist need to know, how can we teach material from faculty with limited expertise in certain critical areas.	N/A	First-year umbrella
The major problem that we are facing is how we can maintain two different types of course. The first type is for students that do not have basic pharmacology background and the second is for students with an undergraduate program (B.Sc.) in pharmacology.	Because of new research programs (Canada Foundations for Innovations, Canada Research Chairs), the department have recruit young progessors with an expertisein nuclear magnetic resonance, mass spectromertry, atomic force microscopy. This gives to our students the opportunity to learn about new technology use in proteomic.	CIHR (Canadian Institutes of Health Research, equivalent to the NIH)
The basic sciences' departments have been downsized the last few years and there is a distinct possibility of the collapse of depts and their programs. The decrease in the ability to NIH funding is another problem.	In the current enviroment, I can not perceive any opportunities.	
Recruitment of quality U.S. students.Integration into umbrella program.	Tapping talent pool in South Texas.Helping shape in inevitable umbrella program/curriculum.	
We need to reduce the time-to-degree for PhD students to be more in line with the University's ideal goal of 4 years.	We are in the midst of an expansion of our core faculty complement and this should be tied closely to student enrollment expansion in our program.	*and non-NIH funds to Pls -We require undergraduate Physiology as an admission requirement.
Lack of institutional support for stipends for 1st year students.	Increased diversity of training opportunities for our students. -Translational research -New Faculty -Interdisciplinary research	
Lack of presence in the 1st yr curriculum in an umbrella program	Umbrella program SHOULD give us a broader spectrum of applicants	PhD StudentsL current enrollment Training Grant: Pharm declared students on PSTG or other training grants Percent without degree: Since 98, 1/33 Grad. Student Pharm Course: 4 credits Physiology: 5 credits

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Recruitment of students knowledgable about what pharmacology really is and how it interacts with and extends other disciplines in a unique manner.	As a program-based graduate program composed of all the Basic Sciences, Pharmacology has the opportunity to become highly integrated with our other areas- furthering our opportunity to involve or engage Pharmacology in a wider area of research than was possible for us as a seperate department.	
NIH Budget cuts	Whole animal Organ/ Bases learning intergrated with molecular training	
1. Quality of students who apply to Ph D program 2. High Cost of stipends and tuition for Ph D Students 3. Maintain NIH training grant	1. Ability to exspand size of Ph. D program to former size of 50	
1. Recruiting top candidates 2. Creating a curriculum that meets the ever changing needs of our students	To redesign our curriculum away from a tradition Phys/Pharm departmental struce to one that better reflects the thematic nature of research going on within our department	Applicants can apply to 2 programs within medical schoolAnother 5% get terminal mastersOur students take 4 semesters of a combines physiology/pharmacology course that ncludes all of the above 4-6 hrs/wk
Declining institutional support for admission of new students (fewer slots)	alliance with translational/ industrial collaborators	
		Comprised of Pharm Dept. @ 2 institutions About one ever other year leave without degree
The faculty expertise in Pharmacology	Growth opprutunities from interdisciplinary research consistent with the NIH roadmap	Dept. after first yr.
Obtaining financial support from more students. This would include more tuition scholarships and stipends which we do not have funds for.	Expansion into resources available through our adjunct partners	* 7MS students + 8 admitted