Dean's Newsletter
October 10, 2011

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Welcome to the 2011 Incoming Class of Stanford Biosciences Graduate Students

On Friday evening, September 30th, the Second Annual White Lab Coat Ceremony was held in Berg Hall of the Li Ka Shing Center for Learning and Knowledge (LKSC). This event is sponsored and coordinated by Stanford University Medical Center Alumni Association, and the goal is to promote a spirit of community and connectivity with our incoming PhD and Masters students. Stanford Medical School is unique in having nearly equal numbers of MD and PhD students (with lots of dual degree students), which is something worth celebrating in its own right. We are also fortunate in having outstanding PhD students who play an incredibly important role in contributing to the rich and creative scientific environment that defines Stanford. And while "traditions" do not have deep roots in the Stanford culture, it is great to have the White Lab Coat Ceremony for PhD students joining the Stethoscope Ceremony for MD students as a welcoming tradition in the School of Medicine.

I want to thank Dr. Jessica Linderman, who received her PhD in Immunology in 2010, for her thoughtful comments and recommendations to the incoming students, which were based on her experience as a recent graduate student and leader. Equally I want to thank Jessica for reminding students to wear bike helmets "to protect their most important asset and investment." That message is important and much appreciated.

The 108 incoming bioscience PhD students and 34 new Masters students began official orientation and classes on September 26th with an orientation panel, graduate student poster session and welcome dinner on the Alumni Green in front of the LKSC. Of course, "bonding and community building" began days earlier with a backpacking and hiking trip in Henry Coe State Park. These events were made possible through the hard work and dedication of Louis Fernandes, President of the Stanford Biosciences Student Association (SBSA). Sarah Carden served as this year's orientation chair, and Jillian Lund, Gandhy Pierre-Louis, Lauren Smith, and Gloria Yiu participated in the orientation panel. Sharon Briggs and Justin Smith served as coordinators of the

hiking trip. Our special thanks go to each of these student leaders as well as to the many student volunteers who made the orientation and camping trip so successful.

The 2011 incoming class of bioscience students is diverse and has exceptional academic credentials. They were selected from a pool of 1598 applicants submitting a total of 3731 applications (applicants can apply separately to one or more departments or programs). Women comprise 45% of the class, and 16.4% of the incoming PhD students are underrepresented minorities. Reflecting our global community, 13% of the students were born outside the US in twelve different countries. Those born in the US come from 29 different states. Our students come from 63 different undergraduate schools, with four or more coming from each of the following: Arizona State University, Harvard University, Princeton University, Stanford, University of California, Berkeley, University of California, San Diego, University of Pennsylvania, and Washington University. Of note, 18 of these students already have advanced degrees: one MBA, one MFA, one Master of Engineering, 12 MS degrees, one MD, and two Doctors of Veterinary Medicine.

The home programs extend across three schools (Medicine, H&S and Engineering) and include departmental as well as interdisciplinary programs. The number of students in a program/department ranges from "large" in the case of Biology (with 23 students) to small (with three students each in Chemical & Systems Biology, Molecular and Cellular Physiology, and Structural Biology). The 34 Masters students joining us are matriculating in Bioengineering, Biomedical Informatics, Epidemiology, Genetic Counseling, and Health Services Research.

I also want to extend special appreciation to Dr. Dan Herschlag, Professor of Biochemistry and new Senior Associate Dean for Graduate Education and Postdoctoral Affairs. Dan stepped right in to be a master of ceremonies as well as a committed champion for graduate education. Also special thanks to Zera Murphy, Suzanne Bethard, and all of our wonderful staff who worked so hard to welcome our incoming graduate student class and prepare them for the journey they have now commenced.

More on the Career Paths for PhD Graduates

Over the past year we have had a think tank, follow-up discussions and a strategic planning retreat discussion about the future of graduate education in the biosciences, focusing specifically on the appropriate size of PhD programs and even more importantly, whether we are adequately preparing students for the broad array of careers they might pursue – in academia, industry, education and beyond. As we await the conclusions and recommendations of the current NIH Biomedical Workforce Taskforce, which we hope will agree that we are not educating too many PhD students in the biosciences, it is also worth noting a recent report from UCSF entitled *"Improving Graduate Education to Support a Branching Career Pipeline: Recommendations Based on a Survey of Doctoral Students in the Biomedical Sciences"* (see Fuhrmann, CN, Halme, DG, O'Sullivan, PS, and Lindstaedt, B in the on-line journal CBE-Life Science Education - http://www.lifescied.org/content/10/3/239.full). In their essay Fuhrmann et al

note prior data (albeit sparse) demonstrating that since 2001 less that 20% of PhDs in the biosciences have taken tenure-line academic positions – which may be declining on a national level – whereas 43% of graduates are employed in non-academic settings (23% in industry, 9% in government, 11% in other settings).

These observations comport with a report I commented on in the October 6, 2008 issue of the DNL where I noted *the interesting Science Focus article "And Then There Was One" that appeared in the September 19th issue of Science (see: http://www.sciencemag.org/cgi/content/full/321/5896/1622). This article reviewed the individual career pathways of the 30 students who entered the program in molecular biophysics and biochemistry (MB&B) at Yale in 1991. Of the 26 who completed their PhD, the startling conclusion is that only one is a tenured faculty member today, although one other graduate of the program is in a tenure track position, four are in academic research positions, and one each is in academic teaching or administrative positions. Of the 18 students who did not pursue or stay in academia, 11 are in bio-industry and four are in other career paths.*

Understandably, when such data are shared among faculty at the most research-intensive schools – which certainly include places like UCSF and Stanford – it is commonly assumed by faculty at such institutions that these data don't reflect "our reality." But perhaps, rather than attempting to assess the accuracy of that assumption, it is equally important to ask how many graduates pursue research careers whether in academia or other settings and how do choices and decisions change over the course of graduate school and beyond.

While longitudinal data would be more accurate, Fuhrmann provides cross-sectional data on 469 bioscience PhD students at UCSF who responded to a questionnaire about their career plans in 2008. This represented a 62.3% response rate of all the basic bioscience students at UCSF at that time. Based on this cross-sectional analysis, the authors reported that 81% of year 1 graduate students planned a career in research. This compares to 66.7% of graduate students in year 6 and higher – with the greatest transition taking place between years 2 to 3 in this cross-sectional survey. Whereas 41.7% of year 1 students indicated a plan to be a Principal Investigator at a research-intensive academic institution, this number fell to 25.6% in the year 6 or higher students who were surveyed. Interests in other career paths – including teaching and non-research careers – rose from year 1-6 and beyond. Obviously there are limitations in this type of survey, but they offer observations that are generally consistent with what our students have shared in various settings in recent years. While it is certainly possible that the data at Stanford could be different (and we need those data), chances are likely that similar – or, more importantly, longitudinal – surveys would yield similar observations among our own students. Given the funding challenges for the biosciences in the years ahead, it is reasonable to expect that these trends will continue or even become more significant.

The point of sharing these data with you is not to debate whether our students are more committed to academic careers than those at other institutions. Rather it is to continue refining our dialogue. We all need to be thoughtful and analytic about whether

we are providing a broad and sufficient education that matches students' goals – as they evolve over time. It is also important to move beyond the view that pursuing a non-academic research career is the failure mode. Quite to the contrary, it seems important to develop education programs that foster and enhance career opportunities – in the various diverse paths they take. Doing so could enrich our institutional competitiveness for the most talented bioscience graduate students in the future. While there is not an immediate solution or recommendation, these considerations will be part of the curriculum review that Dr. Tom Clandinin, Associate Professor of Neurobiology, and Dr. Dan Herschlag, Professor of Biochemistry and Senior Associate Dean for Graduate Education and Postdoctoral Affairs, are now pursuing. Updates of their progress will be a topic for discussion at the next Strategic Planning Leadership Retreat in January 2012. Hopefully this process will help frame how Stanford proceeds with graduate education in the biosciences for the years ahead.

The National Science Foundation and the White House Promote Work-Family Balance

On September 26th, the White House and the National Science Foundation (NSF) announced a ten-year plan entitled the NSF Career-Life Balance Initiative to "provide greater work-related flexibility to women and men in research careers." The press release notes data that we have discussed previously – namely, that currently 41% of PhDs in science, technology, engineering and mathematics (STEM fields) are women but that women comprise only 28% of tenure track faculty in these fields. This has been a topic of major concern at many institutions, including Stanford, and it prompted the creation nearly seven years ago of the Office of Diversity and Leadership in the School of Medicine (see: http://med.stanford.edu/diversity/), which is led by Dr. Hannah Valantine, Senior Associate Dean and Professor of Medicine. Over the years Dr. Valantine and her colleagues have created a number of programs and opportunities to enhance career development and diversity, many of which are already addressing the important issues now being highlighted by the White House – NSF initiative. In that initiative, the NSF highlighted following issues:

"Allow postponement of grants for child birth/adoption – Grant recipients can defer their awards for up to one year to care for their newborn or newly adopted children.

Allow grant suspension for parental leave – Grant recipients who wish to suspend their grants to take parental leave can extend those grants by a comparable duration at no cost.

Provide supplements to cover research technicians – Principal investigators can apply for stipends to pay research technicians or equivalent staff to maintain labs while PIs are on family leave.

Publicize the availability of family-friendly opportunities – NSF will issue announcements and revise current program solicitations to expressly promote these opportunities to eligible awardees.

Promote family-friendliness for panel reviewers – STEM researchers who review the grant proposals of their peers will have greater opportunities to conduct virtual

reviews rather than travel to a central location, increasing flexibility and reducing dependent-care needs.

Support research and evaluation – NSF will continue to encourage the submission of proposals for research that would asses the effectiveness of policies aimed at keeping women in the STEM pipeline.

Leverage and expand partnerships -- NSF will leverage existing relationships with academic institutions to encourage the extension of the tenure clock and allow for dual hiring opportunities."

Hopefully other funding agencies, including the NIH, will adopt similar strategies and initiatives. These changes, if implemented, could have an important impact on the shared goals of improving faculty success, particularly for women in STEM fields. Complementing these initiatives with the programs now in place or being planned by Stanford's Office of Diversity and Leadership should help to improve career opportunities for women in science and medicine. This is one of our most important initiatives in the medical school, and the public-private partnerships that could be formed to facilitate it could be transformational. That would be wonderful for the future of enriching and enhancing diversity at Stanford.

Office Of Academic Affairs To Sponsor Faculty Workshops

One of the most important goals of the School of Medicine and of the Office of Academic Affairs (OAA) is to provide a supportive environment that enables faculty to succeed and flourish in their clinical, teaching and research activities. While this is important for all stages of career development and evolution, it is particularly true for assistant and associate professors facing the pivotal milestone of reappointment or promotion.

To optimize faculty career development, over the past two years the Office of Academic Affairs (OAA) has sponsored a series of workshops aimed at demystifying reappointment and promotion criteria, policies and processes. Over 200 faculty members have attended these sessions, which have covered topics ranging from preparation of the curriculum vitae and candidate's statement to the evaluation of clinical excellence to rank- and line-specific criteria for reappointment and promotion.

During the current academic year, OAA will sponsor eight workshops for faculty in the University Tenure, Medical Center and Clinician Educator Lines. The first session is designed for Clinical Assistant Professors and is entitled *"Preparing for the Promotion Review.*" It is scheduled for November 16 and will be led by Dr. Maurice Druzin and Dr. Nancy Morioka-Douglas, Chair and Vice Chair, respectively, of the Clinician Educator Appointments and Promotions Committee.

The second session is designed for assistant professors in the Medical Center Line, also on November 16, and will focus on *"Building a Regional Reputation: Preparing for Promotion to Associate Professor*." Leaders for this session will include Dr. Druzin, chair of the School's Assistant Professors Review Committee; Dr. Cheryl

Gore-Felton, Co-Chair of the Appointments and Promotions Committee in the Department of Psychiatry and Behavioral Sciences; and Dr. Deirdre Lyell, Associate Professor of Obstetrics and Gynecology. Subsequent workshops will be held from January through May.

We hope you will take this opportunity to visit the OAA website to register and/or learn more about the workshops being offered in the coming months.

Open Access to Medical Literature

Over the past decade there has been a transformation in how we access and use information – and changes in the digital library in science and medicine are among the most notable. The traditional medical library has been transformed, and the LaneConnex and Lane Library stand at the forefront of this technology and service (see: http://lane.stanford.edu/index.html). Stanford faculty, students and staff throughout the medical center (and in other ways around the world) can access the scientific and medical literature from anywhere at any time. Equally important are the exceptional services and innovations that Lane Library now provides. Of course these innovations come with a cost. Sadly and of great concern, the costs for subscriptions to journals has been increasing each year at levels far higher than inflation and other bioscience costs. These increases threaten our ability to sustain services unless the publishers of electronic journals become more reasonable in their charges.

This is also one of the reasons why public access is so important and why the seminal work of the ***Public Library of Science (PLoS)*** (see: http://www.plos.org/about/) – an effort led by Dr. Pat Brown, Professor of Biochemistry and Member of the Howard Hughes Medical Institute at Stanford – is so significant. Because of such efforts, open access journals are growing in respect, breadth, prominence, accessibility and relevance. Indeed, since 2000, the number of published Open Access articles has grown by an average rate of 30% per year. Currently there are over 14,000 Stanford-authored Open Access articles that are indexed in ***PubMed***. Traditional subscription publishers are also launching Open Access journals as part of their portfolio.

While these important trends are rapidly unfolding, many questions about Open Access still abound. With that in mind, and in honor of national medical libraries month and open access week, Lane Medical Library & Knowledge Management Center is hosting a panel discussion on Open Access on *Tuesday, October 25th*, in Li Ka Shing Center for Learning & Knowledge, LK120. This should be an important discussion and if you are interested you can register for it at: http://lane.stanford.edu/help/openaccess/panel.html.

Stanford Trauma Bike Safety Summit

On November 9th the Stanford Trauma Service, the Stanford University Medical Center and the Silicon Valley Bicycle Coalition will host an important event on bike safety. It will take place in the Li Ka Shing Center for Learning and Knowledge from

6:30 – 8pm. Given the many issues surrounding bicycle safety on the Stanford campus and more generally, this summit is timely and important. It will bring together leaders in policy and planning, law enforcement, healthcare and the cycling community to address biking accidents and potential solutions to their prevention. I commend the Stanford Trauma service and its partners and collaborators for this initiative and look forward to reporting results to you later in the year.

Upcoming Event:

Breast Cancer Research Foundation Reception Honoring Dr. Michael Clarke
Thursday, October 20th
10:30 AM
Bloomingdale's, Stanford Shopping Center

As part of a nationwide campaign, the Bloomingdale's at Stanford Shopping Center will partner with The Breast Cancer Research Foundation to honor breast cancer research grant recipients from Stanford Women's Cancer Center. Bloomingdale's will host a reception at 10:30 a.m., Thursday, October 20th, for Dr. Michael F. Clarke, MD, Professor of Medical Oncology and Associate Director of the Stanford Institute for Stem Cell and Regenerative Medicine at Stanford. Join us at 10:30am to meet Dr. Clarke, as well as members of the Stanford Health Library, who provide wonderful information to our community.

Awards and Honors

- ***Dr. Ralph Greco***, Johnson & Johnson Distinguished Professor, Department of Surgery, will the recipient of the ACGME (Accreditation Committee on Graduate Medical Education) 2012 John C. Gienapp Award. This prestigious award honors individuals who have dedicated themselves to graduate medical education (GME) and who have made outstanding contributions to the enhancement of residency education and the ACGME accreditation activities. Dr. Greco will formally receive this award at a ceremony in March 2012. Please join me in congratulating Dr. Greco.

- ***Aimee Grace and Kristen Collins***, Residents in the Department of Pediatrics, have been awarded the American Academy of Pediatrics Anne E. Dyson Child Advocacy Award for their project, done in partnership with the San Jose Police Department, called "The Project to End Human Trafficking." This award "celebrates the outstanding efforts of pediatricians-in-training as they work in their communities to improve the health of children" and is one of the highest national awards for pediatric advocacy.

- ***Members of the Robert A. Chase Hand Center and Department of Orthopaedics*** have won the Emanuel B. Kaplan Award for the presentation/poster at the 2011 American Society for Surgery of the Hand's annual meeting judged to represent

"anatomical excellence in surgery of the hand." The team represents the breadth of the Stanford medicine experience: a hand fellow, an international scholar, a medical student, and junior and senior faculty members. Congratulations to team members: Dr. Andrew Zhang, Dr. Elisabet Hagart, Dr. Jeffrey Yao, Dr. Amy Ladd and Sara Van Nortwick, BA.

- ***Dr. Beverly Mitchell***, George E. Becker Professor in Medicine and Professor, by courtesy, of Chemical and Systems Biology, has been awarded the Albion Walter Hewlett Award. This award was developed by the Department of Medicine to honor an exceptional physician with ties to Stanford.

- ***Dr. Geoffrey C. Gurtner***, Professor of Surgery at the Stanford University Medical Center and, by courtesy, of Materials Science and Engineering, has been selected by the Plastic Surgery Foundation (PSF) to receive the 2011 PSF Outstanding Achievement in Basic and Translational Research Award at this year's ASPS/PSF Annual Meeting.

- ***Dr. Phil Lavori***, Professor (Biostatistics) in the Department of Health Research and Policy at Stanford University, is this year's recipient of the Harvard Award in Psychiatric Epidemiology and Biostatistics. The award recognizes Professor Lavori's lifelong career contributions that have significantly advanced the field of Psychiatric Biostatistics.

Appointments and Promotions

Fritz R. Bech has been reappointed to Assistant Professor of Surgery at the Veterans Affairs Palo Alto Health Care System, effective 10/1/2011.

Nikolas H. Blevins has been promoted to Professor of Otolaryngology – Head and Neck Surgery at the Stanford University Medical Center, effective 10/1/2011.

Burton Brent has been promoted to Adjunct Clinical Professor of Surgery, effective 9/1/2010.

William Brose has been promoted to Adjunct Clinical Professor of Anesthesia, effective 8/1/2011.

Jan Carette has been appointed to Assistant Professor of Microbiology and Immunology, effective 10/1/2011.

Lu Chen has been appointed to Associate Professor of Psychiatry and Behavioral Sciences effective 10/1/2011.

John Costouros has been appointed to Assistant Professor of Orthopaedic Surgery at the Stanford University Medical Center, effective 9/1/2011.

Stephen A. Felt has been reappointed to Assistant Professor of Comparative Medicine at the Stanford University Medical Center, effective 12/1/2011.

Sally Harris has been promoted to Adjunct Clinical Associate Professor of Pediatrics, effective 9/1/2011.

Tina Hernandez-Boussard has been appointed to Assistant Professor (Research) of Surgery, effective 10/1/2011.

Manjula Jeyapalan-Noone has been promoted to Adjunct Clinical Assistant Professor of Surgery, effective 9/1/2011.

Ernest Kaplan has been promoted to Adjunct Clinical Professor of Surgery, effective 9/1/2010.

Holden Maecker has been appointed to Associate Professor (Research) of Microbiology and Immunology, effective 10/1/2011.

Stephen B. Montgomery has been appointed to Assistant Professor of Pathology and of Genetics, effective 10/1/2011.

Kathryn P. Rodan has been promoted to Adjunct Clinical Associate Professor of Dermatology, effective 9/1/2011.

Sandhya Srinivas has been reappointed to Associate Professor of Medicine at the Stanford University Medical Center, effective 9/1/2011.

Juergen K. Willmann has been promoted to Associate Professor of Radiology , effective 10/1/2011.

Anton Wyss-Coray has been appointed to Professor of Neurology, effective 10/1/2011.

Yunzhi Peter Yang has been appointed to Associate Professor of Orthopaedic Surgery, effective 10/1/2011.

SAVE THE DATE

Wednesday, November 9, 2011

6:30-8:00 pm

Stanford University Medical Center, Li Ka Shing Center, 291 Campus Drive



Stanford Trauma
BIKE SAFETY SUMMIT

An average of 5 bicycle crash victims arrive in the Trauma Center at Stanford Hospital and Clinics every week – many with life threatening injuries, resulting in time off the bike and time off of work. In order to reduce these incidents, we need to collectively begin to understand how to make our roads as safe as possible for all users.

The Summit is a forum designed to bring together leaders in the cycling community, high-ranking city and county officials, law enforcement, transportation planners, and emergency response agencies for an important discussion, which will examine the causes of these preventable incidents and plan for solutions to reduce them.

This is a 'by invitation only' event.
A formal invitation will be sent to you soon.

STANFORD Trauma LPCH

STANFORD HOSPITAL & CLINICS
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