The Stanford Challenge

On Tuesday, October 10th, following six years of planning, President John Hennessy and the University Trustees officially launched the Stanford Challenge. In his communication, “Seeking Solutions, Educating Leaders,” President Hennessy observes, “Today the scale and complexity of the challenges around the world are unprecedented. Globalization means that the problems of different societies are increasingly shared, whether the issue is the environment, human health, or a threat to peace and security... At the same time as we face these formidable problems, new discoveries and inventions are providing us with incredible opportunities for progress. As creators of knowledge and as educators who will produce the next generation of leaders, universities can play a critical role in helping our global community address these issues. Stanford in particular has the opportunity to be at the forefront in this search for knowledge and solutions, as well as in the education of leaders who are equipped for the challenges ahead. This is our mission.”

While most universities take on capital campaigns with inward looking goals, Stanford is taking the bolder view of asking what it can do to address some of the world’s greatest problems and challenges. The Stanford Challenge is committed to seeking solutions to challenges in human health, energy and the environment, and important international issues. In doing so, faculty and students from all disciplines of the University will look for new alignments and opportunities to work interactively and collaboratively in novel and compelling ways – and to truly make a difference for the 21st century.

In tandem with the broader University’s planning efforts, the School of Medicine’s Strategic Plan, Translating Discoveries, has been similarly outwardly focused. We seek solutions to large and complex challenges to human health through the university-wide interdisciplinary initiatives of our Stanford Institutes of Translational Medicine and through the education of future leaders. Our New Stanford Curriculum for medical students and our focus on the training and development of physician-scientists and scholars throughout their training aim to provide the knowledge, skills and
commitment to the leadership in the biosciences that will be needed if we are to solve these challenges.

The launch of the Stanford Challenge followed the remarkable week in which two Stanford faculty, Professors Andy Fire and Roger Kornberg, were awarded Nobel Prizes in Medicine and Chemistry respectively (see http://mednews.stanford.edu/kornberg/place.html). Without question, seeking solutions requires a firm foundation in fundamental discovery and innovation – an area in which Stanford faculty truly excel (see http://deansnewsletter.stanford.edu/). But to actually advance discoveries to serve the public good, a commitment to fostering broad interactions and then translating innovations and discoveries to our communities locally and globally must be actively pursued. Some of these issues were discussed in a roundtable discussion entitled Anxious Times. Seeing Beyond a World of Perpetual Threats held on Saturday, October 14th and which included a number of national leaders including Dr. Lucy Shapiro, the Virginia and DK Ludwig Professor and Director of the Beckman Center (to see the roundtable go to: http://news-service.stanford.edu/news/2006/october18/roundnew-101806.html).

As part of the launch of the Stanford Challenge events were held not only at Stanford, but also in Los Angeles and New York City, to inform alumni and friends about the new goals and objectives of Stanford for the 21st century. I had the opportunity to speak at the New York event, which was held in the newly renovated Morgan Library on Tuesday evening, October 17th. In my presentation I pointed out how our current interdisciplinary efforts are in many ways built on the long history of collaboration and interaction among faculty at Stanford. For example, the development of the Cyberknife, which is now widely used to selectively treat cancer, is the result of collaboration between faculty in neurosurgery and computer science and is a derivative of the pioneering collaborations of nearly half a century ago that led faculty in medicine and physics to pioneer the linear accelerator. In fact, the elegant work of Professor Roger Kornberg directly benefited from similar interactions between the School of Medicine and the Stanford Synchrotron Radiation Laboratory. There are many examples of such interdisciplinary collaborations and interactions – and they all point to how Stanford utilizes skills from different disciplines to find novel solutions.

In addition to challenges in human health, Stanford faculty are seeking solutions to important environmental problems. Among these, finding and providing clean water has tremendous importance. Recently, Stanford faculty from disciplines including infectious diseases, genetics, and optics have developed a detection system to determine whether water is clean or contaminated based on molecular signal changes in living bacteria. Such novel technologies can have worldwide impact. Another approach for seeking solutions is demonstrated by the Summer Fellows Program, which brings leaders from countries like Iraq, Afghanistan, China, and Russia together at Stanford for a three-week program. While here they engage in interaction and discussion about political, economic and social change with faculty leaders from across university – including business, education, political science, law, sociology.
While many universities are now touting a commitment to interdisciplinary research and education, for many it will be only rhetoric. However, Stanford has all the ingredients to be a true leader and pioneer because of its outstanding faculty and students and also because of the physical connectedness of the University’s seven schools. This proximity is truly an essential component and a great advantage. It also likely explains the long history of Stanford’s cross-school collaborations, which have occurred over decades. Coupled with the vision and support of the University leadership we clearly have the essential ingredients to be a true leader.

While these ingredients are essential it is also important to help foster innovation, discovery and collaboration. Here too Stanford has excelled. For example, Innovation Awards through Bio-X have helped stimulate novel interactions among faculty from different schools. The Translational Medicine Awards co-sponsored by the Dean’s Office and the Beckman Center have stimulated exciting new collaborations among basic and clinical faculty – both in the School of Medicine and with colleagues in other schools. Similarly the new Woods Institute for the Environment is providing seed funding for novel interdisciplinary collaborations such as the clean water project I mentioned earlier. The Freeman Spogli Institute for International Studies is also supporting novel collaborations to foster interdisciplinary and interschool research and education.

Support for graduate education is also essential to foster novel ways to seek solutions. An essential component of the Stanford Challenge will be graduate fellowships that will build on the current Stanford Graduate Fellows (SGF) program. This program will also be expanded beyond the physical and life sciences to include the humanities and social sciences. In addition joint faculty appointments among different schools will play a key role in enhancing interactions among faculty. The recent appointment of a faculty member jointly appointed in the Law School and in International Studies is one such example. Closer to home, the joint appointment of a new faculty member in Developmental Biology and Computer Sciences is yet another way of drawing schools and disciplines closer together. Of course this type of synergy is already epitomized by the interactions taking place among the highly diverse faculty in the Clark Center as well as the faculty who are participating in the Stanford Institutes of Translational Medicine. Each of these programs is devoted to facilitating and promoting interaction, collaboration, and fostering discovery and innovation that can help seek solutions to important global challenges.

Our efforts in interdisciplinary research and education are clearly building on the past as well as helping to create the future. The numbers of interdisciplinary interactions already in operation provides clear evidence that we are well on our way to making this vision a reality. The fact that investments in seeding novel interactions can have a tenfold yield in fostering new sponsored research grant applications is also extremely encouraging. What is also clear is that for Stanford this is not business as usual – these new ventures in seeking solutions to challenges in human health, sustaining the environment, and international issues are truly transformative and will define the Stanford of the 21st century.
In addition to these compelling challenges, Stanford is committed to reinventing graduate education, extending the renaissance in undergraduate education, and sustaining the foundations of excellence that make it such an exceptional university. Clearly exciting times – and challenges – lie ahead.

Health and the Environment

As an example of how the Stanford Challenge is fostering new opportunities and interactions, I had the opportunity on Friday, October 20th to attend a meeting of an Ad Hoc Committee chaired by Dr. Gary Schoolnik, Professor of Medicine and of Microbiology and Immunology and Senior Fellow at the Woods Institute for the Environment. This meeting brought together over 30 faculty and senior leaders from throughout the University, including Woods Institute Co-Directors Jeff Koseff and Buzz Thompson (see also http://environment.stanford.edu/). It was clear that there was a commitment to seek new alignments and solutions by crosscutting collaborations. While the areas for interaction will certainly evolve over time, several exciting themes were discussed, including studies of the interactions between genes, the environment and disease; the important challenge of emerging infections – which is certainly influenced by factors like climate change, population migration, and agriculture, among others; the challenge of clean water and health; and the transformative changes in human behavior that are needed to make progress. In addition to these and other areas of research collaboration, important opportunities in undergraduate and graduate education were also presented. Together, these ideas provide evidence of how new and novel interactions will emerge when faculty from throughout the University engage in the Stanford Challenge of Seeking Solutions and Educating Leaders.

Seeking Balance

Like many of you, I have long been concerned about how we can achieve the dual goals of sustaining excellence and fostering an environment that respects work/family balance. To this regard, at the Executive Committee meeting on Friday, October 20th, Senior Associate Deans Hannah Valantine and David Stevenson led a discussion about flexible work arrangements for faculty. While the focus was on the particular arrangements that are currently available at Stanford, it was clear from our discussion – and from our personal reflections - that this topic is much broader than these specifics.

Among the issues that surfaced was the fact that the arrangements and programs that are already available at Stanford are not as widely known among faculty as they might be. Therefore, I include them below for your information. Individual faculty who are interested in learning more about flexible work arrangements should contact Vice Dean and Senior Associate Dean for Academic Affairs David Stevenson at david.stevenson@stanford.edu.

Flexible Work Arrangements Currently Available at Stanford: Options for Faculty

- **Part-time appointments**, often for a fixed period of time, with the approval
of the department chair and Vice Dean and Senior Associate Dean for Academic Affairs (individuals appointed at part-time accrue time toward the acquisition of tenure and toward sabbatical eligibility on a prorated basis);

- **Extension of time** in the assistant professor rank up to ten years, either on the basis of proration related to reduced FTE (temporarily or permanently) or leaves without salary permitted by existing policies;

- **A reduction in teaching and/or clinical duties** for one quarter for new birth or adoptive parents (this policy is not intended for parents whose newborn or newly adopted child is cared for more than half time by either a spouse/partner and/or a child-care provider);

- Within policy limits, a **one-year tenure/promotion clock delay** and corresponding appointment extension for faculty members who become a parent, by birth or adoption (faculty who request this extension are expected to have substantial and sustained childcare responsibilities);

- **Leaves without salary of up to one year**, at full or part-time, for any faculty member, male or female, who becomes a parent whether by birth or adoption, for the purpose of caring for the child;

- With the approval of the Provost, **appointment extensions** for extenuating circumstances, such as excessive, unanticipated clinical duties or other compromising exigencies.

- Over the course of the last few years, the University has focused attention on a variety of issues related to work-family policies and practices. The Provost’s Office has published an informational brochure entitled “**Family Matters @ Stanford – For Faculty,**” which highlights Stanford’s commitment to faculty with families, from child-care and child-support programs to part-time employment options. This brochure may be downloaded at [http://facultydevelopment.stanford.edu/facultydevelopment.html](http://facultydevelopment.stanford.edu/facultydevelopment.html).

More broadly, members of the Executive Committee discussed the reticence that faculty, particularly women, might feel in taking advantage of these arrangements. Among the causes posited for this hesitance was a concern that those evaluating their performance for reappointment or promotion might view anything other than full-time effort in a negative manner – perhaps as a sign of weakness or lack of commitment. The chairs noted that such concerns, whether or not they are valid, reflect the academic culture and, in particular, the “evaluation milieu” in which faculty work. And because experts at other institutions evaluate faculty, the milieu - and the culture - are national in their influence and importance. While I understand those observations and concerns, I also strongly believe that it is incumbent on us to change them – and to develop a more supportive culture that fosters different trajectories for career development.
While these issues are generic and affect all faculty, both men and women, they are particularly serious for clinical faculty, who work in an environment where the pressures to achieve in all three areas of endeavor – scholarship, teaching, and clinical care – are extremely high. This is further exacerbated by the policy that all assistant professors face an up-or-out decision. In addition, because of the exceedingly lengthy training periods in many medical specialties, for women faculty the promotion clock and the biological clock are frequently running simultaneously. The flexibility offered by some of the arrangements described above can be very helpful and should be viewed by all as available without stigma. I certainly view them as helpful tools for faculty to manage their careers and maintain work/life balance, and I encourage interested faculty to explore them as they fit their particular circumstances.

Moreover, it is becoming apparent that for young scientists and physician/scientists, both men and women, work/life balance is a significant, if not the most significant, factor in their considerations of career choices. We are already seeing a shift away from entrance into the surgical specialties in favor of such “life-style specialties” as dermatology, radiology, and emergency medicine for these reasons. Moreover, as the pressures mount to achieve success in all three academic missions, the demands of patient care generally trump pursuit of scholarship. As a result, individuals may leave academic medicine to go to private practice. In short, we risk losing a whole generation of bright physician-scientists because the combination of professional pressures in academic medicine and family responsibilities becomes untenable. We must make renewed efforts to address this.

Members of the Executive Committee also discussed the challenges faced by residents and clinical fellows and made several suggestions for flexibility that we will be following up on. As the pipeline for academic medical faculty, how this group experiences their fellowship years obviously has a significant impact on the composition of the faculty in the future.

This is clearly a topic that deserves attention and focus. I am certainly interested in your thoughts about it as well. In any event, I will keep you apprised of our further discussions and actions in this area over the next months.

Ongoing Efforts to Reduce Trips

As you hopefully know by now, the School of Medicine has been very active in implementing both education and programs aimed at reducing peak-hour traffic. We have now completed Phase II our activities in this area. Ms. Julia Tussing, Managing Director for Finance and Administration, has prepared the following report on accomplishments to date:

The results indicate a tremendous effort on the part of managers and staff to reduce trips: if all staff are able to keep their commitments for trip reduction,
there will be a 30% decrease in peak-hour trips. This would be an extraordinary result, and although there is no way to verify exactly what the effect has been so far on the General Use Permit (GUP) survey of our trips to campus (since the counts cannot be done school by school), the results in terms of reduced traffic, positive impact on the environment—our “carbon footprint”—and healthier work and life balance for employees would be outstanding.

Based on results for 1750 staff, who in the Phase II process met with their supervisors to explore options and decide on new commute methods or work plans, approximately 65% initially drove alone to work. This number was reduced to 60% in Phase II, which means that 84 people have changed their primary means of transportation from driving alone to an alternative method: biking, public transportation, etc. As a whole, anticipated weekly trips were reduced from 5200 to 3650, or by 1550 trips. Much of this reduction was the result of changed schedules: about 10% of campus employees reported a change in their work schedule that reduced trips. Almost 100 people also now telecommute at least one day a week.

Departments that were doing an excellent job even before Phase II included Medicine’s Division of Nephrology (6 people created only 2 trips per week), Microbiology & Immunology (32 people created only 13% of their total possible trips), Biochemistry (29 people created 17% of total possible trips) and Anesthesia (48 people created 22% of total possible trips). Anesthesia also was near the top in trips reduced in Phase II at 54%, which is a stunning result given that they were also initially such good commuters! I am pleased to say that the Dean’s Suite staff reduced trips by 56%, and the Department of Medicine divisions of Oncology and Hematology, as well as the Office of Student Affairs, were close behind.

The efforts made by members of the School of Medicine and the rest of the campus community has made a noticeable difference in peak hour trip levels. If the trends observed in the spring traffic study continue, the campus will meet the goal of no net new peak hour trips. However, it is crucial that each of us continues to honor our Phase II commitment. If use of alternative transportation is not an option every day, try it at least once or twice a week. Every trip counts! P&TS continues to offer commute trip planning to assist commuters in identifying alternatives to driving. Everyone is encouraged to visit the P&TS website and use the Commute Cost and Carbon Emissions Calculator (http://transportation.stanford.edu/alt_transportation/calculator.shtml) to calculate the financial and environmental benefits of alternative transportation. And, while at the website, please consider the benefits that go along with being a member of the Commute Club.

The next planned phase of trip reduction will be the introduction of incentive plans for departments and individuals. Incentive possibilities are now being explored by a small task force made up of Julia Tussing (Finance &
Administration), Mary Bobel (Radiology), Jason Irwin (Otolaryngology), Norma Leavitt (Human Resources), Susie Mitchell (Microbiology and Immunology), Deirdre Rockefeller (Office of Student Affairs), Jane Rothstein (Health Improvement Program), and Phil Yamahiro (Dermatology and Ophthalmology).

I would also like to remind faculty and students that they can have a significant impact on trip reduction as well, while also benefiting the environment. I have been asked why faculty and students were not included in the Phase II program, and the answer is twofold: first, staff create by far the most trips, as they are both more numerous than faculty and students and often live farther away; and second, student and faculty hours may not be as flexible given class and clinical commitments. However, I would say to faculty and students that being aware of the issue and changing your habits to the extent possible will allow you to have an impact. The DFA of your department has information provided in the Phase II toolkit about alternative commute methods, and there are classes you can sign up for through the Health Improvement Program (Alternative Transportation for Health, Stepping Out) to help you start on a new program. We will be asking DFAs to keep faculty and students informed about these options.

Many thanks for all of your efforts in this undertaking!

Special Thanks to the Berry Foundation
On October 19-20th the Directors of the Berry Foundation made their annual – and most welcome – visit to Stanford. Since 1990 the Berry Foundation has provided nearly $8M to support the training and research of fellows with a particular focus on child health. The Foundation is located in Colorado and is led by Walt Borneman, an attorney, outdoorsman, historian and author. Most importantly, Mr. Borneman and his colleagues have been amazingly committed to helping enhance and sustain excellent research and training at Stanford, and we are most appreciative of their support and confidence.

Thanking Denise O’Leary and Peter Bing
At the Stanford University Board of Trustees meeting on October 9-10th, two individuals, Ms. Denise O’Leary and Dr. Peter Bing, completed their terms and were honored by the Board and University for their leadership and service. I would like to add my personal thanks and appreciation to Denise and Pete – both of whom served on the Committee on the Medical Center, as well as the Boards of Directors for Stanford Hospital & Clinics and the Lucile Packard Children’s Hospital. Their long-standing commitment and dedication to the School, Medical Center and University has been wonderful and much appreciated – particularly from the dark days of the 1990’s to the more optimistic ones of the past several years. Volunteers to the University and hospitals spend incredible amounts of personal time and effort to help support our missions and Denise and Peter have been truly remarkable. Please join me in thanking them.

Awards and Honors
We are pleased to announce that the **Amgen Foundation** has officially welcomed Stanford University as a site for the Amgen Scholars Program. Stanford University is one of 10 institutions selected as program sites – among them UC Berkeley, MIT and Columbia University – to promote strong scientific research experiences that can be pivotal in the life of an undergraduate.

**Yakir Levin**, a graduate student, is the recipient of an ARCS (Achievement Rewards for College Scientists) Award. The ARCS Foundation provides scholarships to academically outstanding United States citizens studying to complete their degrees in science, medicine and engineering, thereby contributing to the worldwide advancement of science and technology. Congratulations, Yakir.

### Appointments and Promotions

**Annelise E. Barron** has been appointed to Associate Professor of Bioengineering, effective 12/1/06.

**Gill Bejerano** has been appointed to Assistant Professor of Developmental Biology and Computer Science, effective 1/1/2007.

**Christie Coleman** has been promoted to Adjunct Clinical Assistant Professor of Obstetrics and Gynecology effective 9/1/06.

**Heidi Feldman** has been appointed to Professor of Pediatrics (Neonatology) at the Lucile Salter Packard Children’s Hospital, effective 10/1/06.

**Henry Hsia** has been appointed to Associate Professor of Medicine (Cardiovascular Medicine), effective 10/1/06.

**James I. Huddleston** has been appointed to Assistant Professor of Orthopaedic Surgery, effective 10/1/06.

**Stefanie Jeffrey** has been reappointed to Associate Professor of Surgery (General Surgery), effective 4/1/2007.

**Todd Kaye** has been promoted to Adjunct Clinical Assistant Professor of Medicine effective 9/1/06.

**James Lock** has been promoted to Professor of Psychiatry and Behavioral Sciences at SUMC and the Lucile Salter Packard Children’s Hospital, effective 10/1/06.

**Peter H. Lorenz** has been promoted to Professor of Surgery, effective 10/1/06.

**David Lyons** has been reappointed to Associate Professor (Research) of Psychiatry and Behavioral Sciences, effective 10/1/06.
Phillip Ng has been promoted to Adjunct Clinical Assistant Professor of Medicine effective 9/1/06.

Anthony J. Ricci has been appointed to Associate Professor of Otolaryngology - Head & Neck Surgery and by courtesy, of Molecular and Cellular Physiology, effective 10/1/06.

Seung Kim has been promoted to Associate Professor of Developmental Biology and, by courtesy, of Medicine (Oncology), effective 10/1/06.

Iris Schrijver has been reappointed to Assistant Professor of Pathology and, by courtesy, of Pediatrics at the SUMC and at the Lucile Salter Packard Children’s Hospital, effective 9/1/2006.

Barbara Sommer has been promoted to Associate Professor of Psychiatry and Behavioral Sciences, effective 10/1/06.

William Talbot has been promoted to Professor of Developmental Biology I, effective 10/1/06.

Winona Tan has been promoted to Adjunct Clinical Assistant Professor of Obstetrics and Gynecology effective 9/1/06.

Jamie Zeitzer has been appointed to Assistant Professor of Psychiatry and Behavioral Sciences, effective 10/1/06.