

Dean's Newsletter

February 21, 2006

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Understanding Bias

I want to bring to your attention an important upcoming lecture by Dr. Jo Handelsman, Co-Director of the Women in Science and Engineering Leadership Institute and Howard Hughes Medical Institute Professor, Department of Plant Pathology, University of Wisconsin-Madison. Dr. Handelsman will speak on Thursday, February 23rd at 2 p.m. in Fairchild Auditorium on "Understanding our Biases and Assumptions: Male and Female." Dr. Handelsman and her colleagues have been clear spokespersons for career development and the impact of bias. I am particularly grateful to Dr. Suzanne Pfeffer, Professor and Chair of the Department of Biochemistry, for her leadership in inviting Dr. Handelsman to visit to Stanford so that she can share her observations with us.

As a prelude to her presentation, Dr. Handelsman writes, "We all like to think that we are objective scholars who judge people based entirely on their experience and achievements, but copious research shows that every one of us brings a lifetime of experience and cultural history that shapes the review process. The results from controlled studies in which people were asked to make judgments about

subjects demonstrate the potentially prejudicial nature of unconscious assumptions we make. Examples range from physical and social expectations or assumptions to those that have a clear connection to hiring and awarding fellowships and tenure."

In her lecture, Dr. Handelsman will summarize research on bias in academic contexts and present strategies for using an understanding of biases to correct them. This promises to be an extremely worthwhile event and I encourage everyone to attend. I am sorry that I will be out of the country at the time of her visit, but I will be most interested in what our community learns from attending this important presentation.

Improving Health

Among the three major Stanford University initiatives for the next decade is "improving health" – along with sustaining the environment and international affairs and issues. These are all part of Stanford's effort to use its extraordinary intellectual and creative resources to help improve the world condition – an important role for a university at a critical juncture in global history.

But how should we go about "improving health?" Along with Dr. Matt Scott, Professor of Developmental Biology and of Genetics and Program Director of BioX, I had the opportunity to offer some reflections on this issue to the University's Campaign Steering Committee on Monday February 13th.

There are a number of intertwining themes that work either in synchrony or in conflict concerning the health of our community, nation and world. As a small research intensive School of Medicine and Academic Medical Center we must be circumspect in how we address the currently polarized forces of continued advances in biomedical research, on one hand, and a defective and fragmented health care system in the USA, on the other, along with broad global challenges that could either enhance or seriously compromise the health of our nation or world.

Without question what Stanford does best is contributing to fundamental discovery and innovation. Accordingly, this must be the core of our efforts in "improving health." Over the past several years we have attempted to galvanize the School of Medicine's fundamental missions in education, research and patient care under the umbrella of "*Translating Discoveries*" (<http://medstrategicplan.stanford.edu>). Indeed, if *Translating Discoveries* serves as our overarching vehicle for improving health, it is important to reflect on its fundamental foundation and governing organization.

At Stanford, the foundation for *Translating Discoveries* is our continued commitment to fundamental basic science discovery and innovation. We have the unique advantage of carrying out this work with highly talented faculty, students and staff who work in an environment that fosters novel approaches to scientific discovery. Furthermore, Bio-X, the faculty-initiated initiative that creates innovative intersections among the physical, engineering, computational and life sciences has become a Stanford hallmark. The fact that these interdisciplinary interactions have arisen at Stanford relates

to our environment, in which all schools are in close proximity, and to our culture, which fosters interaction and a willingness to engage in non-traditional thinking. These fundamental underpinnings will assure that Stanford remains at the forefront of discovery – but they also mandate that we continue to support and foster these efforts. This is even more important at this juncture, when the funding for biomedical research is challenged.

Themes emerging from our basic and clinical departments related to important disease or discipline- based opportunities are built on the fundamental underpinning of faculty- driven basic science and Bio-X and must also be fostered. In order to further optimize our impact we are also building the interdisciplinary and interschool Stanford Institutes of Medicine in Stem Cell Biology and Regenerative Medicine; Cancer; Neuroscience; Cardiovascular; and Immunity, Transplantation, Infection. All of these draw faculty from throughout the University and are also connected to clinical centers at both Stanford Hospital & Clinics and the Lucile Packard Children’s Hospital. In these ways we are creating a bi-directional continuum that connects scientific discovery with improving health. It also links innovations throughout the university with opportunities for translation in the Medical Center and ultimately the nation and world.

In addition to improving health through research and its application to patient care, educating and training future leaders comprise an essential and defining aspect of our capacity to translate discovery and foster innovation. The various changes we have made – and continue to make – in our education and training programs also contribute to the disciplinary alignments and workforce supply that will be needed to assure the future success of Stanford and the biomedical research enterprise (the latter is all too challenged in many academic medical centers because of limited resources or a less focused mission).

In many ways our core mission of translating discoveries through education and research offers a paradigm for how we can most optimally expand our efforts both nationally and internationally. As mentioned in prior Newsletters, recently we have been thinking carefully about how the School of Medicine should relate to the University international initiatives being developed through the recently named Freeman Spogli Institute for International Studies (see: <http://fsi.stanford.edu/docs/about/>). While our thoughts are still formative, it would seem that developing teams and relationships, analogous to those so creatively delineated by Dr. Paul Yock, the Martha Meier Weiland Professor in the School of Medicine, Professor and Co-Chair of the Department of Bioengineering, and founder of the Stanford Biodesign Program (see <http://www.stanford.edu/group/biodesign/>), might provide a means to anchor our efforts. Indeed, creating teams that include participants from Stanford and other nations could well provide an important linkage between *Translating Discoveries* and *Improving Health*. And such efforts could further provide connections between Stanford, biotechnology and public agencies, including the NIH, along with other global partners.

But these efforts will not achieve their optimum impact in improving health if we do not also address the systems for health care access, quality, economics, public policy, public health and preventive medicine. This means, of course, that the initiatives

described above must be coupled with innovative research and discovery around these important social and societal factors impacting health nationally and globally. Much of the expertise in these areas resides in other academic units and collaborating centers throughout the University, but their linkage to improving health is as critical as bioscientific research discovery, innovation and translational medicine. The good news is that there are remarkably talented faculty and students working on these issues – although they are not necessarily aligned at this point under the overarching banner of the University initiative. Clearly these areas need to be another important facet of the initiative in improving health

In sum, the goal of improving health is multifaceted and – at least for Stanford – must emanate from our core missions in discovery and innovation. These must be cross-disciplinary and address the most important challenges in bioscience and ultimately in the translation of knowledge to improve human health. A focus on preventing disease is critical, as is addressing ways to improve the health care system in the USA. By aligning our School of Medicine initiatives to the important Stanford University international health initiatives we will have every reason to be confident that Stanford will an important leader and innovator in improving the health of our community, locally and globally, in the 21st century.

Interactions with Pharmaceutical and Other Industry Vendors – Towards an SUMC Policy

As you likely know, I have been concerned about the pervasive presence of the pharmaceutical industry in the medical profession for some time and have discussed it in the June 30th and July 25, 2005 Dean’s Newsletters. We have had an ongoing series of discussions and deliberations surrounding this, spawned in part by a presentation last summer at the Executive Committee by Dr. Gilbert Chu, Professor of Medicine and of Biochemistry, who laid out the issues clearly and unambiguously. During the fall, I asked Dr. Harry Greenberg, Senior Associate Dean for Research, to head up a working group to develop a policy for the entire Medical Center that would govern our interactions with the pharmaceutical industry. At the Executive Committee meeting on Friday, February 17th, Dr. Greenberg presented a progress report of the group’s work to date.

The working group has five policy elements under consideration. It is interesting to note that, during the course of the deliberations of the working group, the scope of the policy expanded beyond pharmaceutical companies to include device and research equipment companies. It is also notable that during this same time an article was published by Brennan, TA et al entitled “*Health Industry Colleagues That Create Conflicts of Interest. A Policy Proposal for Academic Medical Centers*” (**JAMA** 2006. 295: 429-433) that has generated considerable press coverage and discussion. In addition, the Yale University School of Medicine also posted policies that it is now putting into effect that bear significant similarity with those being contemplated at Stanford.

Over the next weeks we would like to define a Stanford policy that can be adopted by the entire Medical Center. In doing so, it is important to solicit as much input

and discussion as we can – since that at the end of the day our success in implanting a policy will depend on each member of our community. Accordingly, I want to share with you the draft formulations of the policy with the hope of getting comments and feedback from you. For simplicity sake it is divided into five sections:

I. Gifts

Under the policy, no tangible, personal gifts of any kind, no matter how small (e.g., including pens, food), and educational materials (including textbooks, pamphlets, and journal articles) would be accepted at any location in the Medical Center.

II. Access by Vendors

Under this policy, vendors providing tangible, personal gifts, food, entertainment, drug samples, or the like would have no access to the School of Medicine or hospitals. The policy would encompass vendors representing:

- Pharmaceutical companies (Note: requests for information re: new drugs in the formulary, including requests that pharma reps come to campus for a faculty-sponsored event, would be directed to hospital Pharmaceutical and Therapeutics Committees.)
- Medical device companies (Note: in-service training for devices already purchased or faculty-invited vendor visits for consideration of new purchases would be allowed.)
- Research equipment companies

III. Support of Stanford-sponsored Activities

- The sponsorship of Stanford activities by industry would be governed by policy provisions based on the Standards for Commercial Support recently promulgated by the Accreditation Council for Continuing Medical Education (ACCME). These standards specify, for instance, that funds received must be unrestricted with respect to content and speakers.
- Under the policy, funds could be received centrally or by departments or divisions, but this policy would be followed wherever the funds are received.

IV. Education

Under this policy, it would be required that new medical and graduate students, postdocs, fellows, residents and staff receive some education about conflicts of interest and the role of pharmaceutical gift giving on prescribing practices.

V. Other Faculty Activities

- Participation in non-CME pharma-sponsored activities that do not follow CME or CME-like guidelines would be strongly discouraged. Use of Stanford name (including the use of one's Stanford professorial title) in non-Stanford, non-CME events would be prohibited.
- Faculty would be prohibited from publishing articles under their own names that are ghostwritten by pharma industry employees.

Needless to say, these policy elements engendered lively and thoughtful discussion. Most chairs were in favor of a policy with provisions along the lines recommended by the working group. There was recognition that implementing such a policy will involve changing the culture of medicine, but there was agreement that such change is necessary.

The next steps will be to further refine these recommendations and prepare the final policy, which will be reviewed by both hospitals as well as the Executive Committee. *I welcome your comments and hope you will relay them to me.*

My thanks to the working group, which consists of: Harry Greenberg, Senior Associate Dean; Mildred Cho, Associate Professor of Pediatrics; Gilbert Chu, Professor of Medicine; Barbara Flynn, Manager, Conflict of Interest Review Program; Kathy Gillam, Senior Advisor to the Dean; Ann James, University Counsel; Shashank Joshi, Assistant Professor of Psychiatry and Behavioral Sciences; David Magnus, Associate Professor of Pediatrics; Daria Mochly-Rosen, Senior Associate Dean; Julie Parsonnet, Senior Associate Dean; Geoff Rubin, Professor of Radiology; Christy Sandborg, Professor of Pediatrics; Sheetal Shah, Director, Risk Management Controls and Education; Larry Shuer, Chief of Staff, SHC; Kelly Skeff, Professor of Medicine; Ian Tong, Chief Resident, Department of Medicine.

Architects Selected for Design of the LKC

In my January 9, 2006 Newsletter I delineated the facilities master planning we have been conducting, which lays out our 10-15 year plan for the School of Medicine. Among our highest priorities is the Learning and Knowledge Center (LKC), which will include a new 120,000 sq ft state-of-the-art building on the site of the Fairchild Auditorium in conjunction with renovations in the Lane and Always Buildings. It must be clear to all that since 1959, when the School first moved to the Stanford campus, the medical school facilities have grown up somewhat opportunistically, without clear attention to developing an integrated medical campus. Our long-term master facilities plan will seek to ameliorate this and will include, in addition to the LKC, four Stanford Institutes of Medicine (SIM) research buildings that will be constructed in the next 10-15 years. At this point, however, we will begin with the LKC and in the very near future, with SIM1, which will be housed on the parking lot just south of CCSR. We are currently proceeding with the design for the LKC with the hope that construction will commence in 2007.

In addition to housing a new conference facility, classrooms, the Knowledge Center (as a library of the future) as well as a Center for Immersive and Simulation Learning, the LKC will also serve as an anchor and new front door to the medical school. To accomplish this purpose a whole series of site preparation and infrastructure requirements (referred to by the rather unexciting name of “Connecting Elements”) will be carried out – and which will help pave the way to the integrated medical school and center campus that will unfold during the years ahead.

Because one of our goals is to draw the Medical School closer to the University, the LKC will have a southern opening (off Campus Drive), not far from Via Ortega – which will itself be transformed into a major walkway linking the School of Medicine to the Science and Engineering Quads. Accordingly, it is essential that the LKC have an attractive and welcoming appearance that signals its importance to the broader community. To help accomplish this objective, a competition was held to select the lead architect. In the late fall a short list of four architect firms were invited to submit proposals. We reviewed preliminary submissions in early December, and on January 24th each of the four firms made formal presentations to the University Land and Buildings Group and School of Medicine Facilities Group. Selecting officials included the President, an Ad Hoc Committee of University Trustees and myself.

Based on the technical and preliminary design proposals we decided to proceed with the NBBJ architect firm. Over the next year they will carry out the design for the LKC (including the new facility, renovations and connecting elements) and, as part of the process, will be gathering input from our broader community. I will naturally provide updates on their progress – along with coverage in the Stanford Report – during the months ahead. I view this is the next stage in the important transformation of Stanford Medicine for the 21st Century.

Forecasting our Financial Future

To fully realize our strategic plan “*Translating Discoveries*” and our other big dreams, we have major needs that will have to be fulfilled over the next decade and beyond. This requires significant investments in facilities and programs that will enhance every facet of the School of Medicine and our missions in education, research and patient care.

Our ten-year facilities plan includes new buildings (the LKC and SIM1), renovation and seismic improvements of the 1959 complex (i.e., the Gale, Alway, Lane and Edwards buildings), as well as off-site facilities (including the Arastradero building, which requires considerable renovation, as well as the lease of additional research space to support departmental and institute needs). The high cost of construction in the Bay Area (which has only been rising) along with additional costs required by the University and county, results in a rather staggering price tag of \$544M (not including the costs for SIM2 and beyond), based on December 2005 estimates. It is important to note that this is quite an organic process and that many of the assumptions and projections are subject to change and modification. Because of the magnitude of these financial needs, we have

done a comprehensive 10-year financial forecast that has been reviewed with the President, the Provost and the University Finance Group, as well as the Provost's Budget Committee and the School of Medicine's Executive Committee. In particular, I want to thank Ms. Marcia Cohen, Interim Senior Associate Dean for Finance and Administration, and her team for a very thoughtful and comprehensive analysis – which has continued to be adjusted as new data become available that affirm or modify our underlying assumptions.

The important bottom line is that we think our capital and related plans are achievable as long as we are also successful in the continued growth of our major revenue sources (particularly sponsored research, clinical revenues, patent/royalty income, endowment earnings and, of course, fundraising) and as long as we are judicious and flexible in our management. You can certainly appreciate that each of these elements are subject to some volatility – as evidenced most recently by the downturn in NIH funding, for example. We also want to assure that our capital needs do not adversely impact on program development (the institutional equivalent of becoming “house poor”).

Key components of our strategy for the capital projects noted above include the use of short and long-term debt financing, philanthropic support, school and departmental reserves and resources and contributions from the University. The projected fundraising goal for facilities (which constitute less than 20% of the overall School of Medicine fundraising campaign goal) is approximately \$171M. We view this as a “basement level,” and we will endeavor to raise additional funds from private sources – recognizing that aspects of these projects, especially the infrastructure and renovation needs, are likely to be much less desirable to donors than other gift opportunities. Accordingly, we will complement the funding targets with debt financing (currently projected at \$169.5M), while recognizing that this carries a significant increase in our debt service payments – the equivalent of home mortgage payments. Because we plan to have the Dean's Office – and not departmental funds - handle the debt service—we have carefully projected our ability to meet these additional costs over the next decade and beyond. In doing so, we need to meet stringent university guidelines to assure that we can afford the debt servicing with a margin of financial security. I am pleased that we have been able to meet those important benchmarks. I am also pleased that our basic and clinical science chairs and leaders have agreed to help support these efforts, especially for the LKC, through the voluntary contribution of limited department reserves, by an increase in the infrastructure tax and by a five-year reduction in operating budget allocations.

Obviously we are embarking on a set of major initiatives that will help further transform the School of Medicine during the years ahead. Because of the magnitude of what we are seeking to accomplish – and the very substantial costs that will be borne as a consequence – I think it is imperative that you fully understand the scope of the activities we will be taking on. In sharing this financial forecast with you, I am also looking to each of you – and members of the Medical School and University community – to help us achieve the goals that will, I hope and believe, benefit you as well as future generations of students and faculty.

Getting the Facts On Animal Research

Over the years there have been numerous expressions by various groups about animal experimentation. As someone who spent his life doing research (that is, before a terminal but hopefully not apoptotic differentiation to becoming Dean), I have personally witnessed the ways in which appropriately conducted animal research can help shed light on important biological processes and ultimately result in tremendous advances in medical care – in my own case for serious childhood illnesses. While I respect the right of others to have different opinions about animal research, I am concerned when those feelings are expressed by threats, assaults or attacks – either verbally or on people or property. During the past several months several non-violent protests have been staged at the Medical School to express strong opinions about animal research at Stanford. Our Comparative Medicine Department and a number of our faculty have made important and meritorious efforts to provide information and address concerns that have been raised – and I thank them for their efforts. But some of the rhetoric surrounding these concerns is being expressed in more official communications – and not always with the greatest veracity. One recent exchange of this type included a commentary by Dr. Linda Cork, Professor and Chair of Comparative Medicine (published in the Feb 17th issue of the Stanford Daily). Because of its importance, I requested and received permission from Dr. Cork to print her commentary in the Dean's Newsletter as well, since I thought a wide audience of readers should see it. Dr. Cork writes as follows:

Matthew Liebman's opinion piece on animal research is misleading and distorts the facts. On Jan. 21, 2005, he and Claire Wagenseil spent more than two hours with me and the Attending Veterinarian for Stanford, toured Stanford's animal facility and learned in detail the way Stanford and its Animal Care and Use Committee and veterinarians work to protect animals in research, including rats, mice and birds. It now appears that Liebman's goal during the meeting and tour was to promote his own slant rather than present a fair and objective view of animal research at Stanford.

Contrary to Liebman's claims that regulations do not restrict actual experiments, the Animal Care and Use Committee of an institution reviews all uses of animals whether it is for teaching or research. This review occurs before animals can be purchased and is designed to insure animal welfare. Scientists who want to use research animals must describe in detail the purpose of the research, the value of the research, why animals must be used, and how the number of animals to be used was determined.

In addition, they must describe in detail all their procedures involving animals. If these procedures might cause the animals to experience more than momentary pain or distress, they are required to provide anesthetic or analgesic drugs to alleviate this pain or distress, or explain why these drugs or other treatments cannot be used to fully alleviate pain or distress. In case of the latter, the investigator will perform a literature search to document why pain and distress cannot be avoided.

More importantly, a scientist cannot simply claim "scientific necessity" to avoid the use of anesthetics or analgesics as Liebman claims, but this must be

proven to a skeptical group of scientists, veterinarians and nonscientists. The examples of "research" he gives are not credible.

Although the Animal Welfare Act excludes rats, mice and birds, the other federal agencies do not exclude these animals. Institutions which receive funds from federal agencies must file an Assurance with the federal government that they will abide by the Guide for the Care and Use of Animals and other federal regulations. The Guide has the force of law and spells out in detail the animal housing, sanitation, caging, veterinary care, etc. that laboratory animals must receive. Contrary to what Liebman says, the Guide includes all vertebrate species, including mice, rats, birds, frogs, etc.

The United States Department of Agriculture (USDA) is responsible for administering the regulations in the Animal Welfare Act and its revisions. USDA inspectors make unannounced inspections. During these visits, they review the animal care committee's work and visit all facilities where USDA-regulated species are held to actually see these animals and how they are being housed and treated. They will also conduct a detailed audit of records to insure that what the scientist tells the animal care committee will be done is actually taking place. USDA inspectors are thorough, and the USDA can fine institutions that fail to comply.

Unfortunately, the USDA has a limited number of categories for defining non-compliance, and these can be misleading - as was explained to Liebman during his visit. They also have no mechanisms for reporting or documenting the good work that is done to protect and insure the well-being of the animals. The USDA inspection reports and the records of the numbers of animals "used" at Stanford are available on the USDA web page. It is not a secret.

The Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC) is a voluntary organization that uses the Guide as its yardstick for evaluating the processes an institution uses to ensure quality laboratory animal care. Stanford University is proud to have been AAALAC-accredited since 1988. AAALAC's site visitors receive a description of the animal care program before they arrive; Stanford's AAALAC document is more than 200 pages in length. While at Stanford, site visitors, including experienced scientists and veterinarians, inspect how the animal care committee reviews animal protocols. They observe how facilities are maintained, visit all the animal facilities and check all records ranging from the way clinical cases are managed to whether the temperature at which cages are washed is appropriate. Although the AAALAC site visits are planned ahead of time, these visitors know how things are supposed to be managed and where to look for problems. Therefore, hiding problems would not be as easy as Liebman implies. Stanford University is proud to be AAALAC accredited, because it is considered the "Good Housekeeping Seal" of quality animal care.

Stanford has an excellent history of compliance. Federal animal welfare laws and regulations require an institution to self-report problems it discovers. Failure to "self-report" is a violation. Stanford complies by self-reporting issues that arise; it does not try to hide problems from regulatory agencies. Yet, Liebman points to Stanford's compliance with this reporting requirement as evidence that it

is noncompliant. On the contrary, it proves that Stanford takes its responsibility seriously and notifies federal officials promptly and investigates concerns about animal welfare.

Liebman opposes the use of animal in research - that is his privilege. But animal research enables millions of human beings to live healthier, more comfortable lives. Animal research led to treatments for diabetes, for vaccines for polio, measles, hepatitis, meningitis, pneumonia and other infectious diseases. At Stanford the late Dr. Norman Shumway used dogs to develop the techniques to transplant hearts and prevent immunologic rejection of transplanted organs. The list of accomplishments of animal research is extensive and has resulted in many Nobel prizes, both for understanding basic biologic processes and also for developing treatments for diseases.

Rejecting animal research means that we also reject learning how bodies function in health and disease, and it rejects developing treatments for AIDS, Alzheimer's disease, Parkinson's disease, SARS, influenza and a host of other yet-to-be discovered diseases. I don't believe that is what most human beings want for themselves or their families. Liebman knowingly misrepresents the animal care program at Stanford and nationally. Animal research at Stanford is carried out humanely with concern for the animals' welfare and for science of the highest quality.

Linda Cork, D.V.M., Ph.D., the Chair of the Department of Comparative Medicine and the Director of the Veterinary Service Center wrote this piece. She can be reached at lcork@stanford.edu.

Physician Workforce Needs

I last wrote about the Physician Workforce projections from the AAMC in the September 19, 2005 issue of the Dean's Newsletter. At the Administrative Board meeting of the AAMC (Association of American Medical Colleges) that I attended on February 15-16th, this important issue was revisited. The Task Force examining this important issue has evaluated the shortages of physicians being reported in an increasing number of states, including California, as well as the shortages in various specialties and subspecialties, including primary care physicians. Based on a number of important factors, including changing practice patterns and career choices (some influenced by gender and lifestyle), as well as the changing demography (including population growth, the aging population, age-related disease prevalence, shifts to ambulatory practice [now projected to increase by 24%], aging physician workforce, expanded activities by nurse practitioners, physician's assistants) significant increases in the physician workforce needs are projected beyond 2020 – perhaps beginning around 2016.

As I mentioned in the September 19th Newsletter, a major concern is that the pipeline of trainees in allopathic medicine has remained static while expansions in programs in osteopathic medicine are growing along with the “for-profit” off-shore medical schools, which are also significantly increasing in class size. Indeed, if the patterns are unchanged, the percentage of physicians in the USA who have been trained

at LCME approved medical schools could fall below the majority in the years ahead – with potential serious impacts on both the face and quality of medicine. Based on these and other concerns, the AAMC’s Workforce Recommendations, which are under active discussion, include the following:

1. Total enrollment in LCME-accredited medical schools should be increased by 30% from the 2002 level over the next decade. This expansion should be accomplished by increased enrollment in existing schools as well by creation of new medical schools.
2. The aggregate number of graduate medical education (GME) positions should be expanded to accommodate the additional graduates from accredited medical schools.
3. The AAMC should take a leadership role to assist medical schools in expanding reenrollment in a cost effective manner; assure appropriate medical education for traditional and non-traditional students; and increase the number and improve the preparedness of applicants.
4. The AAMC should continue to advocate for and promote efforts to increase enrollment and graduation of under-represented minorities from medical school; and promote the education and training of leaders in medical education and health care from under-represented minorities.
5. The AAMC should examine options for development of: (1) a formal voluntary process for assessing medical schools outside the US; and (2) a mechanism for overseeing the clinical training experiences in the US of medical students enrolled in international medical education programs.
6. AAMC should take a more active role in supporting and assisting associations of medical schools in other countries, especially in less developed parts of the world. AAMC should work with its members to expand collaboration between medical schools and teaching hospitals in the US with those in less developed parts of the world.
7. Non-US citizen graduates of foreign medical schools entering GME programs in the US should be required to obtain a J-1 Visa.
8. National Health Service Corps (NHSC) awards should be increased by at least 1500 per year to help meet the need for physicians caring for underserved populations and to help address rising medical student indebtedness.
9. Studies of the relationship between physician preparation (i.e., medical education and residency training) and the quality and outcomes of care should be conducted and supported by public and private funding.

10. Ongoing and stable funding should be provided to track the physician workforce, including monitoring the supply of, and the demand for, and the contributions made by IMGs (International Medical Graduates)
11. The Association believes that the nation is best served by allowing individual graduates to determine for themselves which are of medicine they wish to pursue.

When I first learned about some of these findings and projections last year I asked the Medical Education group at Stanford to consider what our response should be to expanding our class size – at that time by 10-15% (and not the 30% now being advocated). Because of our current education facilities, faculty-student ratio and potential impact on financial assistance, the recommendation was to not expand the class size at this time. That said, the availability in the next 3-4 years of new and expanded education facilities as well as modest increases in faculty size and increases in endowment support for financial assistance will allow us to revisit this important question. Of course it must be recognized that the focus of our education programs is increasingly directed at training leaders and physician scholars, but, since these are also in short supply, Stanford will be in a position to complement another facet of the physician workforce requirement.

I should also quickly add that while the AAMC's workforce projections appear to have some validity, there are concerns about the recommendations being made; this was actively discussed at the AAMC Board Meeting mentioned above, and I am greatly interested in getting your reactions as well. For instance, if there is a significant change in the "system" of health care in this nation (which seems inevitable at some point in the not too distant future), the projections of the need for physicians, as compared to other health professionals, could be modified. In addition, I am also personally concerned that simply increasing the pipeline of physicians will not necessarily address the projected health care needs unless there is more stringent regulation of GME programs and career choice. While it has been argued that the match between health care needs and training programs is best served by the market place, I would counter that this hasn't worked very well in the past as witnessed by the dramatic shifts in the perceived and actual needs for anesthesiologists, radiologists (among others) during the mid-1990's or the projections for primary care physicians. We have all witnessed the reactive nature of medical work force positions (e.g., the drive to cut specialists and increase primary care physicians in the early 1990's, which resulted in some serious shortfalls in the early part of the 21st Century). This underscores the importance of having a finer control over the size and scope of GME programs at the same time that medical school classes are being increased.

There are many other important issues that would need to be addressed concomitantly – including the rising indebtedness of medical education (which is a lesser, albeit still significant, problem at Stanford), the balance of allopathic physicians vs. other medical professionals, the length of medical training among others. Clearly this is a topic that requires additional reflection and debate – and, as mentioned earlier, I welcome your comments.

More on the Impact of the Federal Budget

In the January 23rd issue of the Dean's Newsletter I reviewed the unfortunate events impacting NIH funding. Since then the President has issued his 2007 Budget proposal which, except for defense and homeland security, carries reductions or zero percent levels (which are actually losses when inflation is factored in) for a number of extremely important programs. By now you are aware of the recommendations concerning the NIH, but it is also worth noting the impact on other health programs and entitlements. The following table displays the sobering news:

Program	FY 2005 Actual	FY 2006 Appropriation	FY05-06 Variance	FY 2007 President's Budget	FY 06-07 Variance
<i>NIH</i>	\$28.653 B	\$28.587 B	-0.2%	\$28.587 B	0%
<i>Title VII</i>	\$300 M	\$145 M	-52%	\$10 M	-93%
<i>Title VIII</i>	\$151 M	\$150 M	-0.7%	\$150 M	0%
<i>AHRQ</i>	\$319 M	\$319 M	0%	\$319 M	0%
<i>Pediatric GME</i>	\$301 M	\$297 M	-1.3%	\$99 M	-67%
<i>NHSC</i>	\$131 M	\$127 M	-3.5%	\$127 M	0%
<i>CDC</i>	\$6.210 B	\$6.176 B	-0.5%	\$5.809 B	-5.9%
<i>VA Medical Care</i>	\$27.699 B	\$29.498 B	6.5%	\$33.075	12.1%
<i>VA Research</i>	\$402.3 M	\$427 M	6.1%	\$414 M	-3.0%
<i>NSF Total</i>	\$5.473 B	\$5.581 B	2.0%	\$6.020 B	7.9%
<i>NSF Research</i>	\$4.221 B	\$4.332 B	2.6%	\$4.666 B	7.7%

Traditionally the Congress has nearly always modified the President's budget before it becomes finalized. That said, there is considerable concern that the limited amounts of discretionary dollars will make the budget process much more challenging in FY07 and in the immediate years ahead than in the past. Indeed, if enacted as proposed, this would be the fourth consecutive year that the NIH budget failed to keep pace with inflation, as measured by the Biomedical Research and Development Price Index (BRDPI). Based on this Index, the NIH will have lost 9.3% of its purchasing power between FY2003 and FY2007. When inflation adjusted, except for NIAID [National Institute of Allergy and Infectious Diseases] (largely because of support for bioterrorism and Avian flu) and the Office of the Director (both of which would increase) the constant dollars available to most institutes would be cut by 7.8% and 8.5% between FY2005 and FY2007. While it is hard to predict what this means for the numbers of competing research grants, it seems likely that the success rate for grants will decline from about 30% in FY 2003 to 19% in FY2007 – with all the attendant consequences. In my January 23rd Newsletter. I addressed some of the important advocacy issues that need to be addressed to help change or at least stabilize these disturbing trends.

The news is also potentially very serious for Title VII programs that support scholarships and support for disadvantaged students. Stanford has been successful in receiving such support for truly important programs that are now in serious jeopardy. This too is an area where major advocacy will be needed.

I also can't help highlighting the impact on GME support for children's hospitals that would take place under the Administration's budget proposal. This is an issue I worked on intensively when I was in Boston, and it is enormously distressing to see it become such a target, especially because of the potentially broader implications of a severe budget cut. Specifically, because independent children's hospitals (including LPCH) receive very little support from Medicare (with the exception of some payments for end stage renal disease), they traditionally received no support for GME – in contrast to adult teaching hospitals where both DME (Direct Medical Education) and IME (Indirect Medical Education) are contained within Medicare. Accordingly, during the mid to late 1990's children's hospitals across the country, along with the National Association for Children's Hospitals (NACH) carried out an effective campaign that by 2000 resulted in a special appropriation to provide GME support for children's hospitals. Like Boston and Massachusetts, the California contingent was active in the campaign, and our Congresswoman Anna Eshoo played an important role in the legislative process. While this has made a major difference for children's hospitals, the funding mechanism has remained in a separate bill (unlike embedding GME in Medicare) and is thus subject to the political process – as now being evidenced. Hopefully the Congress will see the wisdom of restoring this support to children's hospitals – but these events also demonstrate the vulnerability of GME writ large. Indeed, a few years ago there was a move to separate GME from Medicare, which could have similar consequences. That said, the challenges that are now being placed on Medicare almost certainly will rekindle the GME debate in the not to distant future.

Of course, the good news in the table above is the increased funding for NSF for physical and engineering sciences – which as I noted in previous Newsletters is most welcome and needed. But the lesson here should be to learn from the past rather than to repeat its errors. By under funding NSF over the years we have begun to lose our competitive edge in science and engineering. If we now under fund our prior investment in biomedical research, or support for programs that enhance the diversity of our workforce, or the ability to train future pediatric specialists (who are already in short supply), we will only weaken those investments in the immediate future. Clearly we need a more reasoned approach to our investments in biomedical research – something that will require our very concerted advocacy to help secure.

Stem Cell Research in California – What's Coming

It has been 15 months since the California Institute for Regenerative Medicine (CIRM) was founded, thanks to the vote of nearly 60% of Californians for Proposition 71. And while litigation has prevented CIRM from accessing any of the \$3B of bonds that are contained in Prop 71, there has been considerable progress in CIRM and at least strong hope for the future.

On Friday February 10th Stanford hosted the most recent meeting of the 29-member ICOC (Independent Citizen's Oversight Committee) to which I was appointed in early November 2004. At this recent ICOC meeting, Dr. Zach Hall, the President of CIRM, gave an update on what has transpired during the past year despite the many challenges that the ICOC and CIRM has faced. I would begin by stating that one of the accomplishments was finding and appointing Zach Hall to be the first President –he has done an outstanding job in my opinion. In turn he has appointed some very talented staff to support the CIRM, although this effort too has been limited by the financial constraints consequent to the ongoing litigation.

Among the additional positive accomplishments of the ICOC and CIRM have been the formation and appointment of members to the Working Groups for reviewing grants and developing standards. Indeed, outstanding individuals from across the country have been appointed to the grants review working group. In addition, policies for grants management have been developed along with policies for intellectual property, conflict of interest, and ethical standards for egg procurement. Furthermore, the ICOC carried out a statewide competition for housing the headquarters of the CIRM in San Francisco. In addition, last summer the CIRM and its Working Group reviewed applications for training grants, which were presented to the ICOC for approval. This was an impressive accomplishment, even though the grants remain unfunded at this time. Hopefully this will be addressed in the immediate future thanks to the Bond Advancement Notes (BAN) for which Mr. Bob Klein, Chair of the ICOC, is currently seeking private support.

The CIRM has been the center of international attention, and other nations are carefully observing its progress as well as its challenges. Indeed, as an exemplar of the standing of stem cell research in the USA it is notable that both the International Stem Cell Forum and a leadership group from the UK have asked California and CIRM to represent the USA in forging relationships to foster stem cell research.

Without question, the most important immediate issue facing the CIRM – and accordingly the immediate future of stem cell research in the USA – is the litigation that has challenged the constitutional authority of the State of California to issue the bonds that were voted for by a majority of Californians. Clearly this is a situation in which a minority of citizens is using the legal system to arrest the formation of CIRM. Currently, the trial for this litigation is set to begin on February 27th in Alameda. I, along with all of the ICOC members, have been deposed for this trial, and we are awaiting notice about whether we will also be called as witnesses. In part because of the national prominence of this trial, the show “*60 Minutes*” is scheduled to do a piece on stem cell research in California that will feature work done at Stanford, UCSF and UC-Irvine. It is currently scheduled to air on Sunday evening February 26th.

Stanford Dance Marathon for Pediatric AIDS

Despite the progress in preventing maternal fetal transmission of HIV in developed nations, the prevalence AIDS in children and adults in developing nations remains alarming. In fact in 2005 nearly 5 million individuals were newly infected with

HIV, with Sub-Saharan Africa continuing to bear the brunt of the infection. Programs to treat or prevent HIV infection in developing countries are being supported by the public and private sector. One organization that has played a long-standing role in this effort is the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), a non-profit organization with which I have been involved since it was first formed in 1988. I am very pleased therefore that Stanford students decided to donate the earnings from the 2006 Stanford Dance Marathon to the work of the EGPAF. The 24-hour Dance Marathon began on Saturday afternoon February 18th and ended on Sunday February 19th. I had the opportunity to speak to the participating students on Saturday and to thank them for the commitment and contributions. I am personally grateful that they did not ask me to participate as a dancer! Although I am still running in 2-3 marathons a year, the very thought of dancing for even an hour (much less 24) moves me to apoplexy.

I should also add that in the otherwise grim portrait of AIDS in developing nations, some encouraging positive results have been recently reported in **Science** by Gregson et al (2006;311: 664-666) demonstrating a decline in HIV prevalence in eastern Zimbabwe between 1998-2003 – especially in young adults – due largely to changes in risky behavior. This is certainly encouraging news, which we can only hope will be sustained and extended to other countries.

HHMI Supports the Masters in Medicine at Stanford

In the December 12, 2005 Dean's Newsletter I described the new Masters in Medicine Program that Dr. Ben Barres, Professor of Neurobiology and of Developmental Biology and of Neurology and Neurological Sciences, has put together. I am now happy to share with you the wonderful news that the Howard Hughes Medical Institute (HHMI) has selected Stanford as one of its awardees for programs that combine Medicine and Science. Because HHMI wants to shorten the time it takes to translate basic science discoveries into new medical treatments by challenging graduate schools to change the way students are trained, it has awarded \$10 million to fund 13 innovative graduate programs that will introduce Ph.D. students to the world of clinical medicine. Stanford is one of the programs selected – thanks largely to the efforts of Ben Barres.

In the announcement of the awardees, Dr. Tom Cech, President of HHMI, noted *“We, like many others, are concerned by how difficult it is becoming for scientists to harness the explosion of new biomedical research information and translate it into medical practice. At a time when science and medicine must work hand in hand to solve problems of human health and disease, we want to help change graduate education to increase the pool of scientists who are doing medically oriented research.”*

The goal of this new HHMI program is to produce researchers who have the knowledge and skills to address clinically important biological problems from the perspective of basic science. HHMI received applications from 82 institutions and a distinguished panel of graduate educators, biomedical researchers, and physician scientists helped in selecting the awardees. Graduate students will earn certificates or Master's degrees in molecular medicine, translational medicine, or medical science, in

addition to their Ph.D. The additional coursework and clinical mentoring will prepare them to understand the symptoms, treatments, and unmet needs of patients whose underlying disease mechanisms they may be studying.

Please join me in thanking Ben Barres.

Striking the Right Balance

Dr. Margaret (Minx) Fuller, Professor and Chair of Developmental Biology, shared some news with me that clearly seem to strike the right balance. At the next annual meeting of the American Society of Cell Biology, eleven of the 22 invited plenary speakers are women scientists – all highly regarded. In addition, of these 22 speakers, three are from Stanford –Lucy Shapiro, Minx Fuller and David Kingsley. The ASCB seems to be finding the right balance (of course including the numbers of Stanford speakers) – something that other societies should emulate!

Medical Student Authors

At last week's Winter Writers Forum, the Stanford community celebrated the publication of two books by Stanford medical students. Shannon Moffett's book, "The Three Pound Enigma: The Human Brain and the Quest to Unlock Its Mysteries," and Joshua Spanogle's medical thriller, Isolation Ward were featured at this meeting. Both students received Stanford Arts and Humanities Medical Scholars grants. Congratulations to both Shannon and Joshua for their respective accomplishments!

Medical Students Lead Initiative on Fertility Issues in Childhood Cancer Treatment

Their collaboration began in anatomy and led to a research project and presentation at Pediatric Grand Rounds on Friday February 17th. Second-year Stanford medical students Tess Goodwin and Elizabeth Oosterhuis began exploring the approach to fertility planning by pediatric oncologists – along with the perceptions of this issue by patients and families. In addition to presenting their interesting findings, they put together a valuable resource package entitled "Fertility Issues In Childhood Cancer Treatment". Tress and Liz have done a most impressive job. Congratulations!

A Message From Dr. Marilyn Winkleby, Faculty Director of the Community Partnership.

We are pleased to announce the official launch of the Office of Community Health (OCH) website at <http://och.stanford.edu>. The Office of Community Health (OCH) was created to institutionalize, expand, and sustain the School of Medicine's community partnerships, and to support student and faculty engagement in meeting the self-identified needs of underserved populations.

Since we began a few months ago, we have strengthened our partnerships with nine local community organizations and developed community health assessment and advocacy projects in which over 100 medical students and 20 undergraduate students are

engaged. Nearly all of these projects address health concerns in underserved and low-income populations. Each fall we host the Annual Fall Forum in Community Health and Public Service; last year 36 medical student and undergraduate projects in community and international health were showcased and the event was attended by approximately 200 students, faculty, and community members.

In the next several years, we expect the OCH to play an essential role in enhancing the culture of service and civic engagement at Stanford, and in meeting the School of Medicine's mission to promote "the humane and caring practice of medicine and a sense of obligation to improve the health of the public."

Our new website will enable us to serve as a central source for information on Stanford's community health partnerships and linked academic programs, as well as student and faculty research and service activities in community health.

We will continue to refine and enhance the site in the coming months. All comments and suggestions are welcome!

Nominees Sought for Hewlett Award

The Albion Walter Hewlett Award was developed by the Department of Medicine as a recurring award to honor an extraordinary physician with ties to Stanford. Nominees are welcome from all departments and are not confined to the Department of Medicine. The award committee invites your nomination for a possible award presentation in 2006. Nominees should be from among those living who have made a substantial investment in Stanford (past or present students, house officers, fellows or faculty) and who have consistently, over decades, demonstrated the exemplary combination of a scientific approach to medicine and sensitivity to patients. They should be consummate physicians and role models for future academicians in medicine. Their work should be well known at least at Stanford and, optimally, nationally. Nominations are due by March 6, 2006. For more information please check out the website at <http://medicine.stanford.edu/hewlett/>

Awards and Honors

- ***Richard Chiu (SMS II)*** won the Klea D. Berakis Award for the top presentation at the Western Medical student Research Forum. Approximately 500 students presented! Richard's presentation was entitled "Polymethylmethacrylate Particles Inhibit Osteoblastic Differentiation of Bone Marrow Progenitor Cells in Vitro" His advisor is Dr. Stuart Goodman, Professor of Orthopedic Surgery. Congratulations to Richard.
- ***Dr. Gary Glover, Professor of Radiology and Director Radiological Sciences Laboratory***, is one of 76 scientists elected to the National Academy of Engineering on February 10th "For research and engineering in the development of computed tomography and magnetic resonance imaging". As noted in the Academy's press release, "election to the National Academy of Engineering is among the highest professional distinctions accorded to an engineer. Academy membership honors those who have made outstanding contributions to

"engineering research, practice, or education, including, where appropriate, significant contributions to the engineering literature," and to the "pioneering of new and developing fields of technology, making major advancements in traditional fields of engineering, or developing/implementing innovative approaches to engineering education." Congratulations to Dr. Glover!

Virginia Fowkes, FNP,MHS, Senior Research Scholar in the Center for Education in Family and Community Medicine received an award from the State of California's Healthcare Workforce Policy Commission, acknowledging her 30 years of service to primary care and the work of the Commission in California. Congratulations to Virginia.

In the last Newsletter we announced that two Stanford MD students - **Yashar Kalani** and **Dora Castaneda** -- have just been awarded Soros Fellowships. We are proud to announce that two additional Stanford MD students – **Achal Achrol** (born in Kaipur, India) and **Gabriel Brat** (born in Israel to Argentine parents) have been awarded Soros Fellowships. Congratulations to Achal and Gabriel!

Myriam Curet, Associate Professor of Surgery (General Surgery) at the Stanford University Medical Center, has been chosen as a recipient of this year's Association for Surgical Education's Outstanding Teacher Award. The award is presented annually by the Association for Surgical Education to recognize the dedication of surgical educators. It is meant to reward teaching excellence and to further emphasize teaching as an important area of academic expertise. She has been selected to receive this award because of her dedication to and excellence in surgical education. Congratulations, Myriam.

Out of 22 entries, *Stanford Medicine* has received the top award – the Award for Excellence – from the AAMC in the category, External Audience Periodicals. Congratulations to Paul Costello and his staff for an excellent publication!

An endowed professorship is one of the highest honors bestowed on a member of the faculty, and we would like to congratulate the following:

David N. Cornfield, M.D., has been appointed as the first holder of the Anne T. and Robert M. Bass Professorship in Pediatric Pulmonary Medicine in the School of Medicine.

Kenneth I. Weinberg, M.D. has been appointed as the first holder of the Anne T. and Robert M. Bass Professorship in Pediatric Cancer and Blood Diseases in the School of Medicine.

Norman W. Rizk, M.D., has been appointed as the Berthold and Bell N. Guggenheimer Professor in Medicine in the School of Medicine.

Beverly S. Mitchell, M.D., has been appointed as the George E. Becker Professor in Medicine in the School of Medicine.

Congratulations to all of you, and thank you for your contributions at Stanford.

Appointments and Promotions

- ***Amin M. Al-Ahmad*** has been appointed to Assistant Professor of Medicine (Cardiovascular Medicine), effective 2/01/06.
- ***Martin Angst*** has been promoted to Associate Professor of Anesthesia, effective 2/01/06.
- ***Ramsey Cheung*** has been reappointed to Associate Professor of Medicine (Gastroenterology & Hepatology) at the Veterans Affairs Palo Alto Health Care System, effective 12/01/06.
- ***Rajinder K. Chitkara*** has been reappointed to Associate Professor of Medicine (Pulmonary and Critical Care Medicine at the Veterans Affairs Palo Alto Health Care System, effective 3/01/06.
- ***Waldo Concepcion*** has been appointed to Associate Professor of Surgery, effective 2/01/06.
- ***Soheil Dadras*** has been appointed to Assistant Professor of Pathology and Dermatology, effective 2/01/06.
- ***Ricardo Dolmetsch*** has been reappointed to Assistant Professor of Neurobiology, effective 3/01/06.
- ***Lawrence V. Hoffman*** has been appointed to Associate Professor of Radiology, effective 2/01/06.
- ***Gloria M. Kardong*** has been promoted to Adjunct Clinical Associate Professor of Psychiatry and Behavioral Sciences, effective 2/01/06.
- ***David P. Lee*** has been reappointed to Assistant Professor of Medicine (Cardiovascular Medicine), effective 4/01/06.
- ***Meritt Maduke*** has been reappointed to Assistant Professor of Neurobiology, effective 9/31/06.
- ***Darius Moshfeghi*** has been reappointed to Assistant Professor of Ophthalmology, effective 8/01/06.

- ***Andrew Shelton*** has been reappointed to Assistant Professor of Surgery, effective 2/01/06.
- ***Mark A. Singleton*** has been promoted to Assistant Professor of Molecular and Cellular Physiology, effective 9/31/06.