

Dean's Newsletter

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Table of Contents

- Healthcare Reform, Wellness and Society
- Appointment of Dr. Sherril Green as Chair of Comparative Medicine
- The Emergence and Evolution of Academic Medical Centers: Old and New Lessons
- Update on the Stanford Cancer Center
- Reducing Risk to Research Samples
- Continued Progress in Reducing Trips
- Upcoming Event
- Awards and Honors
- Appointments and Promotions

Healthcare Reform, Wellness and Society

A potential silver lining to the ongoing economic meltdown affecting our local and global community is the prospect for serious healthcare reform in the United States. We remain the only developed country without a defined and equitable healthcare system despite the fact that we spend twice as much on medical care than any other developed nation – and with no clear metric(s) of success. I have highlighted this problem in previous issues of the Dean's Newsletter and won't recount all the issues here. But I do want to add another issue that should factor into the debate: individual choice and societal benefit(s).

The dipole of individual versus society is relevant when personal choice incurs community costs and risks. These dynamics are also impacted by the plethora of factors influencing the healthcare debate: the broad medical industrial complex, which includes the insurance and pharmaceutical industries; the interests of hospitals, physicians and other health care providers; the views of employers and unions; the perspective of local, state and federal governments (including elected officials and, of course, lobbyists); and the attitudes, views and support of individuals. Part of our heritage – and culture – is the expectation for personal choice. However, sometimes those choices conflict with what is best for both the individual and society – and often they incur real costs.

A well-described personal versus societal choice is tobacco use. Even though the consequences of smoking are well known – for the individual and society – we have not, as a nation, held the individual culpable for poor personal health choices. More recently, healthcare wellness programs have offered benefits to individuals who do not smoke. In fact, some organizations (including at least one healthcare provider) have decided not to employ individuals who choose to use tobacco. But medical treatment is not denied – nor is the cost for care differentially shared for those who develop smoking related illnesses. But to what degree should personal choice be taken into account when serious and

potentially preventable disease can be avoided? Without question this is a “slippery slope” issue that raises a number of questions and conundrums for the individual and society.

This debate is the topic of the current issue of *Stanford Medicine* (see: <http://stanmed.stanford.edu/2009spring/article1.html>) – wherein the factors influencing the personal versus societal decisions regarding immunization are presented and discussed. I think the debate needs to be taken a step further. There is no question that the vaccines discovered and introduced during the second half of the 20th century and beginning of the 21st century have transformed global health. The elimination of smallpox and the near eradication of polio, along with numerous other childhood diseases, have been stunning. As just one example, I well remember caring for a child with *Haemophilus influenzae* type B meningitis on my first day as an intern at the Children’s Hospital, Boston and watching the devastating neurological consequences unfold in this 8 month-old infant. Importantly, at that very same time a group of investigators were working at that very institution to develop a vaccine against this serious childhood illness. Ultimately their pioneering work led to the HiB vaccine. I also well remember happily noting, when I returned two decades later, that H. flu meningitis had been essentially eliminated at this same hospital because of the effectiveness of the HiB vaccine. That also has been the story with numerous other viral and bacterial infections– thanks to effective immunization(s).

While these research accomplishments and their impact on society are cause for celebration, it is a sad testament that recent years have witnessed an increasing number of parents opting out of immunizing their children. The factors behind this are described in a series of articles and interviews in *Stanford Medicine* (see: <http://stanmed.stanford.edu/2009spring/article1.html>). Left unresolved is the question of how we determine and adjudicate the responsibility of individuals – whether parents, physicians or scientists – and society, when personal choices impact individuals and also have consequences for communities. Of course, no one of us would deny care to a child who develops a serious disease that might have been prevented by a vaccine when the choice was made by a parent or healthcare provider not to immunize him or her. But how should we react to a serious infection in a child that might have been prevented – or to a community that becomes subject to the outbreak of an infection that could have been avoided by immunization? The choice by an individual parent or care-provider not to immunize a child has broader health consequences. Sadly, this is becoming a matter of significance across the US as well as the world. Health care choice has been viewed as a right– but when does personal choice conflict with the health of children and communities? Such conflicts are not new, but they are occurring on a broader scale and with higher risks for individuals and societies.

We seem poised to renew a commitment to healthcare reform, and an important aspect of the dialogue is a focus on wellness and disease prevention. This discussion will need to include a recommitment to using the fruits of the science that has led to a plethora of viral and bacterial immunizations that prevent serious disease. But that will pit personal choice against societal as well as personal health. Once again the editorial board

of *Stanford Medicine* and our Office of Communications and Public Affairs have done a terrific job of bringing the issues surrounding immunization to our attention – and hopefully to that of the greater community concerned about the health of individuals and society.

Appointment of Dr. Sherril Green as Chair of Comparative Medicine

I am very pleased to announce the appointment of Dr. Sherril Green as the next chair of the Department of Comparative Medicine. Dr. Green, who is currently Professor of Comparative Medicine, will succeed Dr. Linda Cork on September 1, 2009. Dr. Green holds a DVM from LSU and a PhD (neurobiology) from UC-Davis and has been a distinguished member of the department since 1995. I look forward to working with her and her colleagues to advance the scientific and educational agendas of the Department and provide outstanding veterinary care and services at Stanford.

I also want to thank Dr. Cork for her exemplary service as chair of Comparative Medicine since May 1994. Dr. Cork is a distinguished neuroscientist who has played a crucial role in shaping the department of Comparative Medicine, recruiting and supporting outstanding clinical and research faculty and assuring that Stanford met, with excellence, the ever increasing number of regulatory requirements and guidelines for research veterinary services. We are indebted to Dr. Cork for her longstanding leadership and advocacy for our faculty and for comparative medicine and appreciate her continued service through the end of August.

The Emergence and Evolution of Academic Medical Centers: Old and New Lessons

Next year, 2010, will be the 100th anniversary of the Flexner Report. This report, published by Abraham Flexner as the “Carnegie Foundation Bulletin Number Four,” was instrumental in shaping medical education and the formation and evolution of academic medical centers during the 20th century. Many of the characteristics of what we know in this country as academic medical centers can be traced, at least to some degree, to the Flexner Report. That said, while it is well recognized that there is considerable variance in the organization, governance, function and effectiveness of the nearly 130 academic health centers in the US, it is less appreciated that these confederations of medical schools together with other professional schools (e.g., dental, nursing, public health, pharmacy) and teaching hospitals and clinics are relatively distinct to the US.

Overall, academic medical centers comprise less than 5% of our nation’s hospital systems. They are composed of what will soon be 130 schools of medicine (and related professional schools) and approximately 600 teaching hospitals, approximately a third of which have major affiliation and alignment to these professional schools. Their importance comes from the fact that they provide medical care and services for nearly 20% of the most complex patients in the nation, carrying out procedures and interventions that are not available (or done as well) in community hospital settings. Most importantly, they serve as the wellspring of discovery and innovation, and they educate

and train the physicians and health care professionals for the future. Many also provide a “safety net” for individuals who would otherwise lack access to medical care. Thus they have become an important component of the fabric of American medicine, and they bring value to our communities and excellence in health care education and innovation to our nation.

In recent years countries in Europe and Asia have been assessing whether to reorganize their own medical education, research and patient care activities into coordinated and integrated entities analogous to our academic health centers. As they do so, they uncover and highlight a number of the challenges and tensions that we have almost come to be taken for granted. Importantly, they also have an opportunity to learn what has worked or not worked in the US and, where possible, to do things differently.

I have had the opportunity to share our Stanford experience and organizational model with leaders in the United Kingdom, Canada, South America and Asia. In fact, this past week I met with leaders from throughout Asia in a summit organized by the Association of Academic Health Centers (AAHC) (I serve on the Board of Directors of the AAHC, and I am Chair-Elect). This meeting, which was held in Singapore, brought together academic medical leaders from throughout Asia and Australia for a clear-minded dialogue on the experiences in developing academic health centers in these nations. One common and traditional challenge these nations face is that their medical schools and universities come under their “Ministry of Education” whereas the state, or the Ministry of Health, runs their teaching hospitals. Accordingly, integrating these medical schools and teaching hospitals into “academic medical centers” requires legislative and governmental changes as well as shifts in financial support and organization. Such changes in policy are not easy to achieve – although progress is being made in the UK, Singapore and parts of China.

It is also notable that most Asian and European medical schools educate practicing doctors. Those who seek to become a physician scientist require additional training and invariably pursue a PhD degree. However, working as a physician-scientist is a still nascent career and is confounded by the pushes and pulls between the forces of academic research and expectations for patient care. It was with that in mind that I was asked to deliver a plenary lecture entitled “*Protecting the Academic Mission in the Face of Increasing Clinical Demands.*” In comparing the factors that threaten the academic mission at Stanford – or other programs in the US – to those that exist in Asia, I observed common themes, even when the reason for the stressors are different.

The commonly articulated tension is the need and demand for the physicians who are employed by medical schools and universities to care for increasingly larger numbers of patients with little time or support for protecting or even providing time for academic development and enrichment. This is made worse when the hospitals and medical schools are loosely connected and especially when the hospitals and medical school/universities are separately governed. The situation is somewhat better when the hospitals and schools are more fully integrated, but even then, the same tensions around time, protection of the academic and teaching mission and clinical care demands are still expressed and deeply

felt. Moreover, there was general recognition that these tensions will likely worsen with the economic downturn and the increased financial pressures that will be placed on state and national governments and on the private and public sectors. Thus there was considerable interest in trying to learn from the US experience.

In honesty, however, the experiences of American academic medical centers reflect these same tensions and liabilities. Even when the medical school and its related hospitals are more closely integrated, the expectations of success from a hospital perspective are not often or always consonant with an academic role. And while the distinguishing features of teaching hospitals are the contributions of faculty physicians in discovery, innovation, education and training, providing time for these activities is invariably a challenge – and one that is getting worse. Clinical faculty who have responsibilities (and desires) to participate in all three of the core missions of patient care, teaching and research are essential to the future success of academic medicine – but this is the group most vulnerable to polarizing forces, expectations and demands. Seeing more patients, accruing the requisite RVUs, providing patient care with quality and patient-centricity and educating students, residents, fellows and colleagues are essential to the clinical mission and success of a teaching hospital. Carrying out these activities takes considerable time, and the pressures to provide them not infrequently take precedence over individual academic goals and expectations. A challenge arises when these same clinician-scholars are evaluated on their accomplishments in all three areas – patient care, teaching and research – at the time of appointment, reappointment and promotion.

It is not surprising that many of these faculty feel caught between two masters and very much squeezed in a vice of limited time and multiple responsibilities. Of note, these feelings were expressed by our colleagues throughout Asia, and they are certainly also experienced by faculty in academic centers through out the US. This tension was very much part of the theme and dialogue of the 2009 Leadership Retreat that I reported on in the February 17th issue of the Dean's Newsletter (http://deansnewsletter.stanford.edu/archive/02_17_09.html#1). Moreover, based on recent surveys and informal dialogues, it is an important element of faculty satisfaction – or dissatisfaction. And, as stated already, the stresses now being experienced are likely to become even worse as business and academia react to declining financial resources and, as a result, have less ability to provide support for faculty development *per se*.

These issues make it imperative for leaders in Asia and elsewhere to critically assess their visions, goals and objectives. The mantra of the 20th century and until recently has been that growth, especially on the clinical side of the equation, is essential to secure financial success and provide depth and excellence across a wide array of services. But that comes with a price tag, not the least of which is the widening gulf between expectations, on one hand, and day-to-day demands on physicians and faculty on the other. We often acknowledge that being strong in research does not mean that we should not also be strong in patient care – and that we should value them as equally important and, of course, inextricably interrelated. But how big those respective missions and domains become and how one places pressure on the other to fulfill its mission will ultimately define the success of the overall enterprise.

At last year's Strategic Leadership Retreat we addressed the theme of quality and balance across our missions in education, research and patient care (http://deansnewsletter.stanford.edu/archive/02_11_08.html#b). Because of the limitations on faculty growth at Stanford, we are compelled to assess critically and carefully how we prioritize our activities. We can't be all things to all people. That said, it simply requires more people to provide in-depth and high-quality patient care than it does to conduct a specific research program, and so choices become necessary. And as we make those choices, we need to be attentive to institutional values and the very culture we seek to preserve and enhance. That may mean not growing in some areas and putting even greater emphasis on preserving our ability to discover and to innovate while, at the same time, being clear that we will provide outstanding patient care but perhaps on different scale that might have been forecast in prior times.

Obviously these are issues requiring frequent reexamination, especially at times when we are called upon to deploy more resources to support them, whether capital or programmatic. And of course we cannot do this in isolation, since many external forces and events are rapidly unfolding (from the consolidation of health care services in the Bay Area, to the changing financial landscape and the emerging prospects of significant health care reform). Hence, it becomes ever more important to shape our own destiny than to be reformulated by the expectations or demands of others who are likely to be less attentive to what Stanford Medicine should be in the years and decades ahead.

Not surprisingly, while the original purpose of my travel to Singapore was to share the experiences we have had in the evolution of academic medical centers in the US, I returned with more questions and thoughts about what we need to do to further define and reshape our own programs and institutions, including Stanford Medicine.

Update on the Stanford Cancer Center

On Friday, February 20th Dr. Bev Mitchell, Director of the Stanford Cancer Center and the George E. Becker Professor in the Department of Medicine gave an update on the progress in achieving NCI designation for our Cancer Center. A summary of her report follows:

“Since its designation by the National Cancer Institute in 2007, the Cancer Center has continued to expand its activities in the integration of basic science, clinical research, and population science with the objective of improving cancer prevention, early detection, and treatment. The membership has grown from 260 at the time of the core grant submission to 320 as we enter our next competitive submission in May 2009. Its objective is to build on the talents of these members to promote and foster collaborative research in the broad effort to reduce cancer mortality.

Stanford has long been regarded as having excellent basic science cancer research. What has not been as evident to those outside the institution is its

expertise in clinical and translational research and building in those areas, especially in the solid tumors, has been a major focus of cancer center activity. The untimely death of Steve Leibel in February 2008 left a large void in the clinical leadership. In January 2009, Brandy Sikic took up the mantle of Associate Director for Clinical Research. With his background in cancer clinical trials, laboratory-based research, and running the GCRC, Brandy brings broad expertise to this position. The position of Medical Director of the Clinical Cancer Center has not yet been filled. Over the past 21/2 years, Stanford as an institution has succeeded in recruiting a total of 46 individuals in 13 Departments with cancer-relevant clinical and research interests. Of these, 28 have interests in solid tumors and 9 have combined M.D./PhD. degrees. The Cancer Center partnered with Departments to assist in 18 of these recruitments and 5 individuals have been recruited as a direct result of cancer center/stem cell institute-initiated searches. This is a record that was only made possible by the concerted efforts of many Departments and, given the relatively small size of the institution, shows a genuine commitment to enhancing our cancer research efforts and the care of our cancer patients.

The Cancer Center has been supported by a relatively small NCI core grant of \$1 million per year, as well as the truly generous gift of John and Jill Freidenrich to support our translational research recruitments and efforts. Stanford Hospital and Clinics has helped to support our clinical trials infrastructures, as has Lucille Packard Children's Hospital. The Ludwig Center for Cancer Stem Cell Research under the leadership of Irv Weissman has enabled the Center to support seed grants and basic science core service infrastructure, while President John Hennessey's gift has enabled a large number of seed grants to be funded that have helped to promote collaboration. Last, but certainly not least, the School of Medicine's commitment has enabled the Cancer Center to become a reality in a remarkably short period of time. The Center is particularly proud of the increasing collaborations with the Northern California Cancer Center, an institution that offers the expertise of many excellent epidemiologists and a well-developed outreach program. NCCC also offers a wealth of data on cancer incidence, prevalence and outcomes in the Bay Area that can be mined by researchers at both institutions. Incorporating population-based studies into ongoing efforts in genomics, imaging, and other initiatives is one of the Center's major objectives and opportunities exist to use these data sources in the Comparative Effectiveness initiative that is part of the Administration's stimulus package.

Another very important function of the Center is to support shared resources that support cancer research through the NCI core grant. The Center will help to fund 11 of these facilities, including the immune monitoring core, an expanded genomics facility to include high throughput sequencing, and the high throughput bioscience center, during its next funding period. Questions about shared resources can be addressed on the cancer center website (<http://cancer.stanford.edu/>).

The contributions of cancer center members to advancing cancer research are numerous and of high impact. Of special note, are the unique and innovative imaging program under the leadership of Sam Gambhir and Chris Contag and the contributions of the Canary Foundation and the Department of Radiology to our efforts in the area of early detection of cancer. The potential for Stanford investigators and their collaborators to make a profound impact on the cancer field in the years ahead is extraordinarily high.”

Reducing Risk to Research Samples

On February 5th the School of Medicine joined the University in an exercise meant to test our emergency plans in the event of a major disaster—in this case, an earthquake measuring 6.7 on the Richter scale. It became clear during the exercise that because emergency power would need to be focused on sustaining research animals and other life-support needs, and supplies of diesel fuel to power our emergency generators would be diverted to more critical needs, such as hospitals, refrigeration for research samples stored in the School’s more than 600 freezers would be compromised within 24 to 36 hours-- a catastrophic loss for research.

With this in mind, we are continuing to pursue technologies and processes to limit research losses under disaster scenarios. We have already piloted dry storage technology; the Stanford Sustainability office recently purchased room temperature storage technology to allow several laboratories in the Medical School to test room temperature storage. The technology enables room temperature storage of biological samples including purified DNA, RNA, and plasmids housed in E.coli traditionally stored at -80, -20 and -4 degrees Celsius. In the pilot, twelve laboratories transferred over sixty thousand DNA or RNA samples out of the freezer to non-frozen storage technology, and fourteen additional labs provided sample collection data. The study found nearly a million candidate DNA and RNA samples for room temperature storage within the freezers of the 12 pilot labs. Initial estimates from the study project the collective savings for campus could be over 800 tons of CO₂, and nearly \$1.2 million in costs annually—while eliminating the risk to samples associated with loss of power. There will be more information forthcoming in a future newsletter.

Another avenue we are pursuing is a preferred vendor contract with an out-of-state freezer storage facility that can safely store valuable samples. We have a final proposal from a company in the Midwest, and will be sending information on how to use this service to the departments soon.

We will continue to update you on these efforts. It is critically important that all our researchers inventory the samples stored in their freezers and plan alternative storage media or sites to ensure preservation of the samples in the event of a lengthy power outage or earthquake. Many thanks to the people and departments who participated in the pilot and who have already taken steps to understand and mitigate risks to our research samples.

Continued Progress in Reducing Trips

Julia Tussing, Associate Dean for Educational Programs and Services, who leads the School's trip reduction effort, has let me know that the School of Medicine had excellent participation on the annual Parking & Transportation survey this past Fall (58%, up from 52% in Spring of 2007). We also continued to improve in self-reported trip reduction.

Since the survey began the School has effected consistent reductions in our drive-alone ratios, and we are now doing better than the University average, with 32% and 28% rates for the morning and evening commutes, respectively. In the Spring of 2006, SOM had a "drive alone" ratio of 45% for the morning commute, much higher than the University average of 39%. We improved to 35% in the Spring of 2007 and 32% in the Fall of 2007, holding steady at 32% for this past Fall. Meanwhile, the University has also improved, but not at the same rate, and we are now at a point below the University average. The afternoon trips during the same time periods for the School have followed a similar curve, starting at 39% in the Spring 2006 and ending at 28% this past fall; for the evening commute, we are now two points lower than the University as a whole. Congratulations on doing your part to reduce pollution and traffic congestion and keep us in compliance with the county's General Use Permit!

Upcoming Event

Stanford Health Policy Forum: "AIDS: More Than a Virus"
Wednesday, March 11
11:00 am – 12:30 pm
Clark Center Auditorium

The second event in the inaugural year of the Stanford Health Policy Forum series will feature a conversation with Dr. Peter Piot, one of the world's leading AIDS policy experts, Dr. Piot, who recently completed 13 years directing all United Nations AIDS programs, will address the necessity of tackling the political and economic factors that contribute to the epidemic's continuing proliferation. In a candid discussion with Paul Costello, Director of Communications for the Stanford School of Medicine, Dr. Piot will address AIDS as "more than a virus" before dialoguing with the audience.

Space in the Clark Center Auditorium is limited, so if you are interested in attending, please RSVP online at <http://www.stanfordtickets.org/tickets/calendar/view.aspx?id=2443> or call the Stanford Ticket Office at 650-725-2787.

Awards and Honors

- *Dr. Steven Artandi*, Associate Professor of Medicine (Hematology) and *Dr. Howard Chang*, Associate Professor of Dermatology, have been elected 2009

Members of the American Society for Clinical Investigation (ASCI). Founded in 1908, the ASCI is an honor society that recognizes physician-scientists – including those involved in translating discoveries from the laboratory to the patient. Drs. Artandi and Chang will be officially inducted at the ASCI annual meeting in late April. Please join me in congratulating them for this significant recognition of their respective academic accomplishments.

- **Dr. Maxence Nachury**, Assistant Professor of Molecular and Cellular Physiology, is among 118 early-career scientists, mathematicians and economists selected for a Sloan Research Fellowship awarded by the Alfred P. Sloan Foundation. The Sloan Research Fellowships have been given out since 1955 and are designed to help promising scholars pursue their research interests. Contratulations, Dr. Nachury.
- **Dr. Marius Wernig**, Assistant Professor of Pathology, and his colleagues have received the Cozzarelli Prize from the Proceedings of the National Academy of Sciences (PNAS) Editorial Board. This award recognizes the most outstanding contributions in each of the scientific disciplines represented by the National Academy of Sciences. Congratulations, Dr. Wernig.
- **Dr. Marin Grainger-Monsen**, Director, Filmmaker-in-Residence in the Program in Bioethics and Film, along with Co-Producer Megan Mylan, won the 2009 Academy Award for Best Short Documentary for their film *Smile Pinki*, about a free cleft lip surgery program in India.

Appointments and Promotions

- **Gregory Botz** has been promoted to Adjunct Clinical Associate Professor of Anesthesia, effective 3/01/09.
- **Isabella Graef** has been reappointed to Assistant Professor of Pathology, effective 2/01/09.
- **Lynn Gretkowski** has been promoted to Adjunct Clinical Assistant Professor of Obstetrics and Gynecology effective 3/01/09.
- **Michael Henehan** has been promoted to Adjunct Clinical Professor of Medicine, Center for Education in Family and Community Medicine effective 11/01/08.
- **Scott D. Oesterling** has been promoted to Adjunct Clinical Associate Professor of Obstetrics and Gynecology effective 1/01/09.