Relieving Pain in America

Late last fall the Institute of Medicine (IOM) of the National Academy of Sciences asked me to chair a committee to review the public health implications of pain in America. This project was mandated by the passage of the Affordable Care Act in March 2010, which stipulated that the IOM deliver a report on pain in America to the Congress and the National Institutes of Health by June 2011. Having witnessed the impact of pain on patients I have cared for over the years – especially as a pediatric oncologist – and having watched the impact of chronic pain on friends and family members, the extraordinary effects of pain on individuals, families and communities was abundantly clear to me. But as our committee learned during six meetings from the end of November 2010 through late April 2011, the magnitude and human and economic toll of pain in America is far greater than any of us imagined.

Studies or committees commissioned by the IOM are expected to respond in an objective data-driven manner to a specific set of questions or issues. It is this impartiality and integrity that makes IOM reports so respected and valued. Often IOM reports take 1-2 years to complete but our committee was charged to carry out its work on a remarkably accelerated timeline – given the magnitude and dimensions of the challenge. We were specifically asked to address five major issues: the public health dimensions and implications of pain in America; the demographic profile of who is impacted by pain and at what cost; the impediments to the effective treatment and prevention of pain; the current and future tools and techniques used to treat pain today, and the opportunities to create new knowledge or approaches to pain management through sponsored research and public-private partnerships in the future.

The 19-member committee that I chaired, along with Dr. Noreen Clark, Myron E. Wegman Distinguished University Professor and Director of the Center for Managing Chronic Illness, University of Michigan as co-chair, included a broad array of experts from medicine (including complementary medicine), surgery, dentistry, nursing, psychology, law, ethics, religion, journalism, and palliative care. We were fortunate to have on the Committee Dr. Sean Mackey, Associate Professor, Department of Anesthesia
and Chief of the Division of Pain Management at Stanford. The Committee heard testimony from professional organizations and societies, academia, the NIH and FDA, the VA and the Department of Defense, as well as patients and advocacy organizations. More than 2000 public comments were received from patients and professionals about their personal and related experience with pain. The Committee held sessions in three cities and worked extensively between and after meetings to construct the report that was delivered to Congress and the NIH on June 28th and to the public on June 29th.

The personal face of pain was always a centerpiece of the Committees’ deliberations. That said, the dimensions of the magnitude of chronic pain in America is captured by two statistics: first that more than 116 million Americans suffer from chronic pain and second, that the economic pain in America is between $560-635 billion dollars per year (twice what is spent on cardiovascular disorders or cancer). This averages more than $2000 per American – which is an underestimate since these numbers do not include children, members of the military, incarcerated individuals or those in chronic care facilities.

The report is entitled “Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research” and is now available online at http://www.iom.edu/Reports/2011/Relieving-Pain-in-America-A-Blueprint-for-Transforming-Prevention-Care-Education-Research.aspx and will be available in hardcopy in late fall. The blueprint includes 16 major recommendations and contains a timeline for their implementation. The Committee’s work was guided by a number of underlying and overarching principles, including:

### Guiding Principles Constructed by the Committee

- Effective pain management is a **moral imperative**, a professional responsibility and the duty of people in the healing professions.
- Chronic pain has a distinct pathology, causing changes throughout the nervous system that often worsen over time. It has significant psychological and cognitive correlates and can constitute a serious, separate disease entity. This means that **chronic pain can be a disease itself**.
- Pain results from a combination of biological, psychological and social factors and often **requires comprehensive approaches to prevention and management**.
- Given chronic pain’s diverse effects, **interdisciplinary assessment and treatment** may produce the best results for people with the most severe and persistent pain problems.
- Chronic pain has such severe impacts on all aspects of the lives of its sufferers that every effort should be made to **achieve both primary and secondary prevention** of the transition from the acute to the chronic state through early intervention.
While there is much more to be learned about pain and its treatment, **even existing knowledge is not always used effectively**, and thus substantial numbers of people suffer unnecessarily.

The Committee recognizes the serious problem of diversion and abuse of opioid drugs, as well as questions about their usefulness long-term, but believes that **when opioids are used as prescribed and appropriately monitored, they can be safe and effective**, especially for acute, post-operative, and procedural pain, as well as for patients near the end of life who desire more pain relief.

The effectiveness of pain treatments depends greatly on the **strength of the clinician-patient relationship**; pain treatment is never about the clinician’s intervention alone, but about the clinician and patient (and family) working together.

Many features of pain lend themselves to **public health approaches** – a concern about the large number of people affected, disparities in occurrence and treatment, and the goal of prevention as noted above. Public health education can help counter the myths, misunderstandings, stereotypes, and stigma that hinder better care.

Among the recommendations the Committee indicated should be completed before the end of 2012 are:

1. **The Secretary of the Department of Health and Human Services should develop a comprehensive, population health-level strategy for pain prevention, treatment, management, education, reimbursement, and research that includes specific goals, actions, time frames and resources.** This strategy should:
   - Describe how efforts across government agencies, including public-private partnerships, can be established, coordinated, and integrated to encourage population-focused research, education, communication and communitywide approaches that can help reduce pain and its consequences and remediate disparities in the experience of pain among subgroups of Americans.
   - Include an agenda for developing physiological, clinical, behavioral, psychological, outcomes, and health services research and appropriate links across these domains.
   - Improve pain assessment and management programs within the service delivery and financing programs of the federal government.
   - Proceed in cooperation with the Interagency Pain Research Coordinating Committee and the National Institutes of Health’s Pain Consortium and reach out to private –sector participants as appropriate.
   - Involve federal agencies and departments (National Institutes of Health, Centers for Disease Control and Prevention, Food and Drug Administration, Centers for Medicare and Medicaid Services, Agency for Healthcare Research and Quality, Health Resources and Services Administration, Indian Health Service, Department of Defense, and Department of Veterans Affairs); private sector entities (pain advocacy
and awareness organizations; health professions associations; health care providers; health professions educators; private insurers; and accreditation, certification, and examination organizations); and relevant state-level entities.

- Include ongoing efforts to enhance public awareness about the nature of chronic pain and the role of self-care in its management.

The development of this strategy should be completed by the end of 2012.

2. *Develop strategies for reducing barriers to pain care*. The population-level strategy referred to in #1 above, should include identifying and developing comprehensive approaches to overcoming existing barriers to pain care, especially for populations that are disproportionately affected by and undertreated for pain. Strategies also should focus on ways to improve pain care for these groups.

3. *Support collaboration between pain specialists and primary care clinicians, including referral to pain centers when appropriate*. Pain specialty professional organizations and primary care professional organizations should work together to support the collaboration of pain specialists with primary care practitioners and teams when primary care providers have exhausted their expertise and the patient’s pain persists.

4. *Designate a lead institute at the National Institutes of Health responsible for moving pain research forward and increase the support and scope of the Pain Consortium*. At the same time, NIH should increase financial resources and staffing support for and broaden the scope of the Pain Consortium and engage higher-level staff from the institutes and centers in the consortium’s efforts. The Pain Consortium should exert more proactive leadership in effecting the necessary transformation in how pain research is conducted and funded.

The Committee recommended that the four recommendations noted above be completed by the end of 2012, and the other twelve recommendations be implemented by the end of 2015. I certainly recognize that listing them as I have above takes them out of context and may does not make their rationale clear or even compelling. However, as is noted in the report, the findings and recommendations revolve around a single conclusion: *Pain affects the lives of more than a hundred million Americans, making its control of enormous value to individuals and society. To reduce the impact of pain and the resultant suffering will require a transformation in how pain is perceived and judged both by people with pain and by the health care providers who help care for them. The overarching goal of this transformation should be gaining a better understanding of pain of all types and improving efforts to prevent, assess and treat pain.*

Each day we are called on to address many different issues or problems. At one level, committing time to a Committee like this certainly takes time that could have been used for other purposes. Hopefully the impact of the Committee’s findings and
recommendations will be meaningful and make these efforts justifiable. That still remains a hope to be fulfilled.

**Sharing A Perspective on Graduate Education**

In the May 8th issue of the Dean’s Newsletter I commented on “The Emerging Debate About Graduate Education” and referenced the series of articles in the April 21st issue of *Nature* that raised questions about the numbers of PhDs being educated in the US and worldwide. I also mentioned that the NIH was launching a Biomedical Workforce (BWF) Taskforce that would be chaired by Dr. Shirley Tilghman, President of Princeton University and a highly distinguished scientist who had also raised the question of whether the US was educating too many PhDs for too few jobs. When I wrote that brief commentary I didn’t know that the NIH BWF Task Force would ask me to attend their first meeting and speak from the perspective of research-intensive medical school. Because the work of the Task Force is closed I was only able to be present for the portion related to my presentation. Since the outcome of this task force will almost certainly have an impact and since the issues regarding graduate education are of broad interest, it seems prudent to share some of the comments I provided to NIH.

While the focus of the BWF Task Force is on PhD education I provided some background on our MD program as well, especially since a number of our students pursue joint degree programs. In doing so I described the multiple career pathways open to medical students, especially the opportunities to develop additional knowledge, skills and degrees in business, law, education as well as science and engineering.

Our PhD programs are also unique among medical schools in a number of important ways. First we have as many PhD students as we do medical students and view our graduate students community as equally valued and essential to our mission as our MD students. We have both department-specific PhD programs as well as interdepartmental PhD degree programs (e.g., cancer biology, immunology, neuroscience, stem cell biology & regenerative medicine). We also benefit from a shared bioscience admission process that includes related programs in the Schools of Medicine, Humanities and Sciences and Engineering and that permits mobility of students across programs. While there are not similar joint degree programs for PhD students, one unique program is the Masters of Medicine Program that was initiated by Dr. Ben Barres, Professor and Chair of Neurobiology in 2006 (see: [http://msm.stanford.edu/](http://msm.stanford.edu/)).

One of the important issues in graduate education (in either bioscience or medicine) is the length and duration of training – especially if the average of 5.5 years for PhD education is coupled with 3-5 additional years of Postdoctoral Training. Accordingly it is important to review PhD education in association with postdoctoral training – as we have done in our planning groups and our 2010 Think Tanks on “Beginning to Think About Graduate Education” and “Thinking About Postdoctoral Fellows and Scholars”. This was very much featured in our discussion at this past January’s Strategic Planning Leadership Retreat.
Acknowledging that a goal of graduate education at medical schools like Stanford is to educate and train future leaders and academicians, we also need to think more broadly about the career paths students pursue – and for a variety of reasons. Just over half of our PhD graduates enter academia. And the numbers of jobs available in academia are limited. Those who choose other paths should not be considered as doing so because they couldn’t make it academia. As we heard during our think tanks and retreat, many students discover during their time in graduate school that their career interests are elsewhere – in business, industry, teaching among others. All too often such students feel they must hide her/his career ambitions least they lose the respect – and support – of the PhD mentor or committee. This is an issue that requires honest reflection and discussion. It is widely agreed that PhD education is a great model by which to learn to think independently and critically, generally through the design and completion of experiments and their analysis and communication. These are skills that are transferable to many different career paths – not simply academia.

Unlike the diversity of programs and pathways we have constructed for medical students at Stanford, there is not the same level of flexible learning or dual degrees for PhD students. There are certainly lots of reasons for this but this is something that requires consideration and likely revision. An effort to revisit the curriculum for PhD bioscience students at Stanford is in the offing and hopefully will shed light on this issue.

This leads to one of the important questions that the NIH BWF Task Force is considering – are we training too many PhD students? My response to the committee was that it would be unwise to restrict the number of students being educated in PhD programs today, and that it would be very damaging to reduce the number of training grants supported by the NIH. More specifically, I underscored that restricting the number of students would negatively impact the pipeline and also the outcomes. As Dr. Dan Herschlag, Professor or Biochemistry, recently analogized, as a nation we need to keep the funnel wide at the outset of the education pathway, since it is unclear which students will ultimately emerge as the successful candidates for major academic careers. He further compared this to a baseball analogy – that often begins with college leagues (or sandlots) and that for those destined for careers in professional baseball, selects some for the minor leagues and, ultimately a select few for the majors. That seems like a reasonable analogy with one important exception. As educators we need to think more critically about those PhD students who don’t want to join the “minors league” or those who don’t make it from the minors to the majors. The default option shouldn’t be career failure – it needs to be career alternatives. This will require us to broaden the education opportunities and experiences for PhD students, the questions being when and how to do this. But these are valid and important questions that we need to focus on more clearly.

One issue for which there is broad consensus is that the financial model underpinning graduate education needs radical change. The reliance on training grants and institutional support – and even the expectations set by the NIH – have significant and somewhat damaging implications. The solutions are not straightforward but the current pathway is not sustainable. While not a complete solution, one of our highest priorities for fundraising is to generate support for PhD education. Coupled with this is
the need to also address the important conundrum of the length of education and training – by critically reassessing what can be done to shorten the overall length of training and to make the process also more flexible, for reasons noted above. Another critically important issue is to continue to diversify our graduate student community – a goal that has been ongoing at Stanford for some years. Added to this is to think of graduate education more globally – both in where students come from (which is currently limited by NIH training grants) and where they will go to pursue their careers.

It will be interesting to see what comes of the NIH BMW Task Force. Perhaps more importantly will be what comes from our internal work groups and efforts at Stanford on graduate education and postdoctoral training – topics I will return to with updates on our progress in future issues of this Newsletter.

A Person of Courage and Integrity

I have long respected Dr. Eugene Carragee’s evidence-based approach to the management of back pain. Dr. Carragee is a Professor in the Department of Orthopedic Surgery and Chief of the Spinal Surgery Division. He is an experienced and thoughtful clinician and surgeon. In addition to being an outstanding faculty member at Stanford, Dr. Carragee also deserves respect for his personal courage as a military surgeon and command leader for the US Army, where he cared for refugees as well as individuals injured in battle in the Vietnam, Cambodia and Iraq. On his various tours of duty over more than two decades, he has also sustained serious personal injuries - but has always put others before himself. Now he is embroiled in another highly visible battle, which is driven by evidence, ethics and integrity. I won’t recount the current events in detail other than saying that he has raised questions about the validity of reports appearing in The Spine Journal, where he serves as the Editor-in-Chief. This story has dominated a number of news reports in recent weeks and is well covered in http://med.stanford.edu/ism/2011/june/carragee-profile-0628.html. But it is important to underscore his courage in this current debate. Driven by integrity – and ultimately respect for the safety of patients – he has been willing to take on a contentious issue knowing that it could entail both personal and professional harm. But Dr. Carragee’s decision to stand for the integrity of his discipline and the community he serves deserves our respect regardless of one’s stand on the issues. He is truly a person with courage – an attribute often lacking in our world today.

Women and Medicine

Dr. Karen Siebert concludes her Op-Ed article “Don’t Quit This Day Job” as follows: “If medical training were available in infinite supply, it wouldn’t matter how many doctors worked part time or quit, because there would always be new graduates to fill their spots. But medical schools can only afford to accept a fraction of the students who apply” (see: http://www.nytimes.com/2011/06/12/opinion/12sibert.html?pagewanted=1&_r=1&sq=karen%20siebert&st=cse&scp=1). This statement would be provocative enough if it applied broadly, but Dr. Siebert targets her remarks to women in medicine. She begins
her commentary with the disclaimer that she has always worked full-time and that she is also the mother of four children. However, she quickly notes, “increasing numbers of doctors – mostly women – decide to work part-time or leave the profession.” In her opinion piece she conveys her thoughts on part-time work by doctors as a problem for patients and for society. And while her arguments have some rationale, her focus on women in medicine is a disservice and misses many important points. The reactions to her article (mostly negative) are numerous and convey strong disagreement with her position and commentary (See: More on Women in Medicine (http://parenting.blogs.nytimes.com/2011/06/15/more-on-women-and-medicine/?scp=1&sq=women%20and%20medicine&st=cse)).

As dean of a medical school I certainly recognize the costs of medical education – to individuals, institutions and society. The shortage of physicians, especially in primary care, has been a topic of discussion particularly during the contentious debate about the future of health care in the US. Organizations like the Association of American Medical Colleges (AAMC) have advocated for increasing the size of medical school classes by 30% and on June 20th the AAMC reported that “In response to the increased need for physicians across the country, first-year enrollment in the nation’s medical schools continued to grow in 2010 despite more institutions citing economic concerns, according to the 2010 Medical School Enrollment Survey from the AAMC. The survey indicates that M.D. enrollment is projected to reach 21,041 by 2015, 27.6 percent above 2002 enrollment and just below the 30 percent increase called for by the AAMC in 2006 in response to the nation’s physician shortages. Between 2002 and 2010, 80 percent of accredited medical schools increased their enrollment by two or more positions.”

Importantly half of the students currently enrolled in medical school are women – which is a major advance of decades ago when I began my own education and training. If one were to extend Dr. Siebert’s logic we would need to further increase the size of medical school classes to compensate for future loss of the physician workforce, or not admit women to medical school, or admit only those who signed a vow to work full-time. Clearly these are all ridiculous options and none address the issues, problems or solutions.

I have been part of the medical work force for decades. I doubt anyone would accuse me of working anything but full-time, but that also misses the point. Like many physicians in academic medicine I have worked “part-time” on many topics, including patient care. But that is not the primary issue either. The reality is that a life in medicine is a demanding one. It is also a privileged career path that can be deeply rewarding, valuable to society, and personally meaningful. For many physicians however, the constant demands of time and work-pressure result in “burning out,” not infrequently in mid-career, or becoming disenchanted, disillusioned, or even angry with the life of being a doctor. Some of these reactions impact the choice of medical career paths (primary care vs. specialty), the location of work (rural vs. urban), the size and scope of practice (group vs. solo or small) and much more. The demands of a career in medicine almost inevitably take a toll on personal life, marriage, partnerships, relationships and family. And the incidence of substance abuse and suicide is higher in physicians than in other careers.
While the causes of these life events are complicated, they are not solved or even ameliorated by having a “one-size-fits-all” expectation or making different career paths and choices less valued or meritorious. We need to think differently.

From my perspective we should celebrate rather than decry different career paths. We should also seek ways of sustaining a life in medicine over the career of a physician or academician in a manner that is flexible and that permits new directions and options to be pursued over time. The ease of doing this does depend on the complexity of the job and its requirements. For example, a part-time career or shared practice model can be quite successful in clinical medicine and lots of examples of this exist. I am personally aware of one since my own daughter is successfully blending a shared practice with family and personal balance. I believe her patients are well-served, as are her colleagues, family and her own career satisfaction. And this neither is unique nor is it gender specific. Such choices need to be individually derived – but surely should not be driven by expectations that one path (part-time) is inferior to another.

For some years I have been questioning how we can create more flexible career paths within academia, being cognizant of the pressures felt by junior faculty – and senior faculty – given the demands of job, family and more. A couple of years ago I asked Dr. Hannah Valantine, Senior Associate Dean for Diversity and Leadership, and Christy Sandborg, Chief of Staff at the Lucile Packard Children’s Hospital and Professor of Pediatrics, to take on this challenge. They and their colleagues presented some of their efforts at our Strategic Planning Leadership Retreat this past January in a panel discussion entitled “Flexibility in Faculty Careers – A Mandate for Cultural Change”. They have continued to work on this challenge and are developing a new model for faculty entitled “Academic Biomedical Career Customization” that recognizes the need for faculty to apportion different amounts of time and effort during different stages of life and career. For example, a faculty member might work less, or on different issues, during the time when children and family responsibilities are significant and more during other portions of their career. This program looks at a career having a trajectory of decades with changing personal and professional needs and demands over time. It gets away from the issue of part-time vs. full-time and seeks to individualize one’s career path. Obviously this too will require lots of customization – which is also to say, that it avoids the pitfall of “one-size-fits-all.” Whether we – and our institutions – can make such a program successful remains to be seen.

While it is important to raise issues and concerns as Dr. Siebert has done, it is important to be thoughtful so that we don’t arrive at simplistic conclusions. What may have worked for Dr. Siebert (or me for that matter) may not work for others. We certainly need to set expectations that meet the needs of patients, institutions and societies. But doing it only one way – or in pretending that one’s way is better than another’s way – has surely not made medicine a successful career for many physicians at this point in our history. So, thinking creatively and honestly about new ways of serving patients and the careers of those who deliver patient care seems timely and important. But is not a matter of part-time versus full-time but of thinking differently about careers in medicine – for women and men – that is needed. Obviously more will follow on this important issue.
Facilities Updates

As you likely know, the Palo Alto City Council voted unanimously on June 7th to approve the development agreement that gives a green light to Stanford Medical Center Renewal project (see: http://stanfordhospital.org/newsEvents/newsReleases/2011/city-council-approves-renewal.html). While one important issue regarding the Arboretum Day Care Center remains to be resolved (but seems likely to be so), it seems timely to apprise you of some of the changes that will be taking place over the next months to year(s) as these projects get underway. The (hopefully) final approval meeting will be held on July 11th. With that in mind, I asked Chris Shay, Facilities Planner, and Niraj Dangoria, Assistant Dean, Facilities Planning and Management, to give an update on these projects – which impact the hospitals and the portion of the medical school (specifically the original ED Stone buildings) that are within the City of Palo Alto. You can also visit the School of Medicine facilities website (see: http://medfacilities.stanford.edu/) which has lots of updates on ongoing and future projects. Here is the update from Chris and Niraj:

The renewal of our facilities will be a long-term project, with exceptional future benefits but with a number of inconveniences for our visitors, patients, faculty and staff along the way. Construction will commence this summer with the necessary infrastructure work being installed to support our new buildings. Once the infrastructure has been placed, the new LPCH Hospital, Stanford Adult Hospital, and the School of Medicine Foundations of Medicine 1 (FIM1) building can start construction. For full details on the facility renewal plan, please visit the newly opened project website at: http://www.stanfordpackard.org/. Information on the work starting now can be found at: http://www.stanfordpackard.org/preconstruction.

Needless to say, construction related inconveniences should be anticipated during the project. To be fully informed about what is going to take place it is worth spending a few minutes at the Renewal website (http://www.stanfordpackard.org/) to learn more about how construction related issues might impact your work. It is also worth being informed since is likely that we will be asked by patients, visitors, and other university faculty, staff and students for assistance in dealing with these changes. To support your own information and you ability to help inform others, the website contains a wealth of information on the new facilities and the benefits to our community. The Renewal team is working hard to ensure that inconveniences to the Medical Center are kept to a minimum, but if you have a concern please feel to reach out to them at: info@stanfordpackard.org.

We will provide updates along the way as these projects unfold in the months and years ahead.
Employee Survey—Action Plans

Now that we are almost halfway through the calendar year, Marcia Cohen, Senior Associate Dean for Finance and Administration, would like to take the opportunity to update you on the progress that has been made since the results of our employee survey was distributed to departments in October 2010. Department administrators have met with their staffs to create action plans to address issues that came to light as part of the survey. To date, 57 departments and units have submitted action plans to the Employee Survey team. In some cases, where a department is large, multiple action plans have been created.

The top five areas that appear in these action plans are: Feedback and Coaching (49 plans; 32 of which focus on performance appraisals); Communication (27 plans); Change Management (25 plans); Professional Development (22 plans); and Working Conditions (13 plans; examples of conditions to be addressed include equipment, wellness, pay, space, trash collection, cleanliness).

The action plans also include ideas such as: setting up a tracking plan to evaluate staff development progress for individuals; implementing Wow/Bravo cards to recognize staff performance success on the spot as it occurs; other recognition awards; creating a departmental Wiki with Resource list, contacts and “How to Do” FAQs; sponsoring an Administrative Retreat for staff; holding regular town hall meetings; and providing quarterly brown bags where administrative and research staff can share information about current departmental research. This is just a small sample of the many ideas that have come forward in the action plans developed as part of the survey.

Thank you to all of the School of Medicine staff who participated in the Stanford Staff Employee Survey last fall and to everyone who has assisted in developing action plans to address areas identified for improvement. The efforts taken as a result of the survey are truly impressive; we are extremely pleased with all the positive response. Your continued participation in implementing and evaluating the action plans will help us make the School of Medicine and Stanford an even better place to work.

Remembering Dr. Bruce Tune

We were informed this past week that Dr. Bruce Tune, Professor of Pediatrics, died at his home on June 25th of complications from Parkinson Disease. He was 71 and is survived by his wife Nancy Tune along with children, grandchildren and mother.

Dr. Tune founded the division of pediatric nephrology at Stanford and was instrumental in helping to launch the kidney transplant program at the Lucile Packard Children’s Hospital – now one of the most successful programs in the world. In addition to his academic and professional achievements, Dr. Tune will be remembered as an outstanding and compassionate physician and teacher. He will be missed by the Stanford community, and especially the children and families he cared for during his distinguished career.
Upcoming Event: Medicine 2.0 Summer Discount for Stanford Employees

Medicine 2.0
September 16-18
Li Ka Shing Center for Learning and Knowledge

The Medicine 2.0 conference (http://stan.md/medicine20) is coming to Stanford on September 16-18. Medicine 2.0 is an international conference dedicated to the future of social media and technology's exciting, ever-evolving role in medicine. The conference will also host the first-ever Stanford Summit @ Medicine 2.0, a day of talks by inspirational leaders who will discuss these technologies and their role in the future of health, medicine, and biomedical research. Among the speakers are Jennifer Aaker, PhD, the General Atlantic Professor of Marketing at the Graduate School of Business; Charlie Cheever, co-founder of Quora; Susannah Fox, an associate director at the Pew Internet & American Life Project; Philip Pizzo, MD, the Carl and Elizabeth Naumann Dean of the School of Medicine; and Abraham Verghese, MD, professor of medicine and noted author.

So that as many Stanford faculty, students and staff can attend Medicine 2.0 as possible, the conference organizers are offering significant discounts on tickets now through August 1. Affiliates can register for the entire conference for only $799 (a 44% discount), the Stanford Summit for $199 (a 60% discount), or the research-focused days for $699 (a 30% discount). To register, visit the this Stanford registration page:
http://stan.md/med2regforsu

Appointments and Promotions

Tyler Aguinaldo has been reappointed to Clinical Assistant Professor (Affiliated) of Medicine, effective 3/1/2011.

Valerie Berry has been reappointed to Clinical Assistant Professor of Medicine, effective 7/1/2011.

Rajinder K. Chitkara has been appointed to Clinical Professor (Affiliated) of Medicine, effective 9/1/2011.

Ana M. Crawford has been promoted to Clinical Assistant Professor of Anesthesia, effective 6/1/2011.
Thao Duong has been reappointed to Clinical Associate Professor (Affiliated) of Orthopaedic Surgery, effective 6/1/2011.

Ram Duriseti has been promoted to Clinical Associate Professor of Surgery, effective 9/1/2011.

Stafford Grady has been appointed to Clinical Associate Professor of Pediatrics, effective 6/1/2011.

Steven Goodman has been appointed to Professor of Medicine, effective 7/01/2011.

Charles Hill has been reappointed to Clinical Assistant Professor of Anesthesia, effective 6/1/2011.

David I. Kaufman has been appointed to Clinical Associate Professor of Anesthesia, effective 6/1/2011.

Seung Kim has been promoted to Adjunct Clinical Associate Professor of Surgery, effective September 1, 2010.

Roger Klima has been reappointed to Clinical Assistant Professor (Affiliated) of Orthopaedic Surgery, effective 9/1/2009.

Joshua Korman has been promoted to Adjunct Clinical Associate Professor of Surgery, effective September 1, 2010.

Carol Lin has been appointed to Clinical Assistant Professor (Affiliated) of Obstetrics and Gynecology, effective 6/1/2011.

Alexander C. Liu has been reappointed to Clinical Assistant Professor (Affiliated) of Medicine, effective 2/1/2011.

Seema Nagpal has been appointed to Clinical Assistant Professor of Neurology and Neurological Sciences and of Neurosurgery, effective 8/1/2011.

Teimour Nasirov has been promoted to Clinical Assistant Professor of Cardiothoracic Surgery, effective 7/1/2011.

Cynthia Nguyen has been promoted to Adjunct Clinical Associate Professor of Psychiatry and Behavioral Sciences, effective April 1, 2011.

Maurice Ohayon has been reappointed to Professor (Research) of Psychiatry and Behavioral Sciences, effective 8/01/2011.

Zakia Rahman has been reappointed to Clinical Assistant Professor of Dermatology, effective 7/1/2011.
**Roy R. Sasaki** has been appointed to Clinical Assistant Professor (Affiliated) of Orthopaedic Surgery, effective 6/1/2011.

**Gabriel Schonwald** has been promoted to Adjunct Clinical Assistant Professor of Anesthesia, effective May 1, 2011.

**Theodore Scott** has been promoted to Clinical Assistant Professor (Affiliated) of Orthopaedic Surgery, effective 6/1/2011.

**Rajesh P. Shah** has been appointed to Clinical Assistant Professor of Radiology, effective 8/1/2011.

**Chitra Venkatasubramanian** has been reappointed to Clinical Assistant Professor of Neurology and Neurological Sciences, effective 7/1/2011.

**Craig Zone** has been reappointed to Clinical Assistant Professor (Affiliated) of Medicine, effective 7/16/2011.