2012: What Comes Next

Even before joining the Stanford community on April 2, 2001, I was mindful of the reality that the future success of an academic medical center like Stanford could be dramatically altered by a varying constellation of internal and external forces and events. I knew that some of these were controllable, while others were less amenable to modulation or alteration. This reality was all too evident in the consequences of the merger and de-merger with UCSF that antedated my arrival and was reflected in the outlines of my strategic thinking at the time, which I shared in my first Dean’s Newsletter. It also helped define the foundations of our Strategic Plan, “Translating Discoveries,” which was first formulated during our first Strategic Planning Leadership Retreat on February 8-10, 2002 and which has been continuously refined over the now nearly past 11 years. It has also helped define many of the initiatives we have undertaken during this time.

Throughout this time I have tried to keep in mind that whatever changes we made should have a view and purpose toward shaping the future and that, ideally, they should stand the test of time. Of course universities – and perhaps especially academic medical centers – must be prepared to change and adapt, but it is important that those changes stay true to fundamental underlying principles and that the directional compass optimize continued success over time. Institutions like Stanford become great because of the quality, depth and excellence of the human capital that resides in our students, faculty and staff. And while the independent pursuits of uniquely talented individuals create unforeseen opportunities, it is also vital to create alignments and interactions around shared goals and objectives so that, over time, the whole constantly grows to become greater than the sum of its parts. In many ways, “what come next” is ideally informed by what currently exists and whether it is matched to immediate and future challenges and opportunities. Change is always important to bring vibrancy and renewal to organizations (and individuals), but it is also best framed in the context of the history and fundamental values that have defined an institution. Of course these can be changed – but such fundamental change should be done with deliberation and not inadvertently or reactively.

In my initial encounters with Stanford Medicine in 2000, when I was asked to consider becoming dean, the uniqueness of this institution was immediately apparent. In many ways, appreciation of that uniqueness has grown with each passing day and year since it adds to our great strengths as well as not insignificant challenges. For example, it is common wisdom that compared to peer institutions we are among the smallest – in the number of faculty in our ranks, the number of students and trainees we educate and train, and the size and scope of our clinical programs and related resources. “Small” is not a
term that many individuals would apply to Stanford – largely because the magnitude of our impact is often so great. But “being small” is very much part of the Stanford culture, not only at the School of Medicine, but also at all of the seven schools that comprise our University.

Equally if not even more important at Stanford is a culture that values innovation, discovery, research, entrepreneurship and exploring the intersections and boundaries of interdisciplinary and transdisciplinary research and education. Indeed, becoming increasingly integrated into the university – with interactive educational and research programs with colleagues in engineering, arts and humanities, environmental and social and physical sciences, as well as business, law and education – makes Stanford Medicine stand out from virtually every other academic medical center. More often, medical schools and teaching hospitals are physically separated from each other and nearly always remote from their parent universities. That is not the case at Stanford, where physical proximity and interaction afford easily accessible opportunities for collaboration and the sharing of ideas and programs. While much of this is fostered by the “Brownian movement” that occurs when students, postdocs, faculty and staff “run into” each other, it has also been facilitated by the interdisciplinary programs that have evolved over the past decade across the university to forge new opportunities for interaction. Some of these emerged through the University’s Stanford Challenge campaign, while others were created and developed through our strategic plan.

**Interdisciplinary Education and Research**

Among the most notable university-wide interdisciplinary initiatives over the past decade have been Bio-X (http://biox.stanford.edu/index.html), the joint School of Medicine and School of Engineering Department of Bioengineering (http://bioengineering.stanford.edu/), the Initiative on Human Health (http://giving.stanford.edu/get/layout/tsc/HumanHealth), the Woods Institute for the Environment (http://woods.stanford.edu/), and the Freeman-Spogli Institute for International Affairs (http://fsi.stanford.edu/). Each has created new bridges between schools and people. These efforts build on the unique partnerships forged by faculty and students and add to numerous other examples of joint and shared programs for research and education.

**Stanford Institutes of Medicine and Strategic Centers**

In tandem with these efforts the School of Medicine has evolved its strategic plan (see: http://medstrategicplan.stanford.edu/) to develop five interdisciplinary Stanford Institutes of Medicine along with three Strategic Centers to foster collaboration, interaction and innovation education, research and patient care. The Stanford Institutes of Medicine include the Stanford Cancer Institute (http://giving.stanford.edu/get/layout/tsc/HumanHealth), the Stanford Institute for Stem Cell Biology and Regenerative Medicine (http://stemcell.stanford.edu), the Stanford Cardiovascular Institute (http://cvi.stanford.edu), the Stanford Institute for Neuro-Innovation and Translational Neurosciences (http://neuroscience.stanford.edu), and the Stanford Institute for Immunity, Transplantation and Infection (http://iti.stanford.edu). Faculty in the Stanford Institutes of Medicine come from basic and clinical science
departments in the medical school as well as across the university and create new communities of faculty and trainees to promote innovation and discovery – as well as new models for education and training. The operating principles governing the Stanford Institutes of Medicine were codified in a “white paper” in December 2006 (http://med.stanford.edu/institutes/guidelines.pdf) that provides an important foundation for organization. Over the past two years the clinical cancer, cardiovascular and neuroscience programs have been integrated into the Institutes of Medicine as part of an integrated strategic planning effort between Stanford Hospital & Clinics and the School of Medicine.

In tandem with the Stanford Institutes of Medicine, several crosscutting “strategic” centers have been established to foster interaction among departments, institutes and others across the medical school and medical center. These include the Stanford Center for Clinical Informatics (https://clinicalinformatics.stanford.edu/) the Center for Biomedical Imaging (http://cbis.stanford.edu/) and the Center for Genomics and Personalized Medicine (http://stanfordhospital.org/newsEvents/newsReleases/2011/personalized-medicine.html). Importantly, the medical school and its departments host numerous other centers that foster, promote and support both broad and more defined missions and programs in research, education and patient care and that share in common the goal of enhancing our unique academic environment.

Clinical and Translational Research and Medicine

While excellence in basic science remains the foundation and a unique strength of Stanford Medicine, considerable effort and investment have been made in enhancing programs in clinical and translational science. Of note has been the success of the Stanford Center for Clinical and Translational Education and Research under the banner of Spectrum (http://spectrum.stanford.edu/). In addition to its broad range of programs to support and educate students and faculty in clinical research, Spectrum also helps align innovative programs like SPARK (http://sparkmed.stanford.edu/) and BioDesign (http://biodesign.stanford.edu/bdn/index.jsp). These programs are rapidly becoming models of excellence in clinical and translational innovation, discovery and development for new drugs, biologics and devices – and are extending Stanford’s collaboration locally and globally. A burgeoning program to foster innovation in global health is also rapidly evolving through the Center for Innovation in Global Health (http://globalhealth.stanford.edu/).

In addition, our focus on population health sciences – ranging from biostatistics and epidemiology to health policy and innovations in healthcare delivery – has been undergoing significant development and has been receiving increased discussion among faculty leaders. This initiative will be further discussed at the Annual Strategic Planning Leadership Retreat that will take place on January 20-21, 2012.

Education

The spirit of interdisciplinary interaction has been a tradition in education at Stanford and has been very much “center stage” in our strategic planning. Since the
major curriculum changes that were introduced in 2003, continued evolution has occurred. For example, medical students now have the ability to pursue joint degree programs in every school at Stanford. Training outstanding physicians and leaders who become excellent clinicians as well as physician scholars and physician scientists is becoming a strong tradition at Stanford Medicine. Research, including a “Scholarly Concentration,” is a centerpiece of our MD curriculum (http://med.stanford.edu/md/) and is coupled with other major innovations that are currently being developed. As we train leaders we are also mindful of educating medical students about excellence in clinical medicine and humanism, and we have recently introduced unique programs such as Educators For Care (http://med.stanford.edu/e4c/).

We also have a long tradition of excellence in MD/PhD education through the Medical Science Training Program, which has recently been extremely favorably reviewed and which will help us further expand the number of MD/PhD students we will admit to Stanford (http://med.stanford.edu/combined_degree/). Although the PhD curriculum has not undergone major revision for some time, considerable work on a proposed new program for graduate education has been underway since our 2010 Think Tank on Thinking About Graduate Education and our 2011 Leadership Retreat and will be among the topics for discussion at the Annual Strategic Planning Leadership Retreat this year.

**Patient Care**

In addition to our missions in research and education, patient care has been the focus of considerable attention over the past many years and is clearly the beneficiary of our missions in education and research. Without doubt we have witnessed considerable uncertainty and concern in recent years about major changes likely to unfold through healthcare reform and specifically the Affordable Care Act (ACA) of 2010. I have written frequently about this topic in prior Newsletters. The debate about healthcare has been dominated by political agendas and often loses its focus and moral compass. And we are all witnessing the political – and soon the judicial – debates about the future of the ACA. There is no question that the current healthcare system is not financially sustainable or even really functional, and the need for change is essential and urgent. While many approach this issue with dread and even despair, I think we have the opportunity to emerge as national leaders by developing novel and innovative approaches to healthcare delivery with a heightened emphasis on sustaining the health and wellbeing of the communities we serve, regionally and beyond.

With that in mind we have been working diligently with our colleagues at Stanford Hospital & Clinics (SHC) and at the Lucile Packard Children’s Hospital (LPCH) to plan strategically for a future that envisions major changes in how and where clinical care is delivered. While the models for adult and pediatric care differ somewhat, both are grounded in the fundamental question of how we can transform Stanford University Medical Center to be the national model for leading edge innovation and coordinated complex care as well as outstanding primary and secondary care. We need to transform how, where and when care is delivered and how disease management can be complemented with disease prevention and health improvement.
Integrated planning involving the School of Medicine and SHC is actively underway to achieve these goals in cardiovascular health, cancer and neuroscience. Each of these is currently an area of strength, but the planning focus is on developing new models of innovation and clinical care delivery that can further differentiate SUMC as a true model of excellence. One advantage we have in our integrated clinical planning is the alignment between the faculty and the hospital resulting from the “Funds Flow Model” that was developed between the School of Medicine and SHC in 2005 and that has been complemented by a new Funds Flow Model between SoM and LPCH over the past year.

But simply providing excellent care is insufficient. Care must also be delivered with great patient satisfaction and be valued by consumers and payers, whether provided in in-patient or ambulatory settings. Major initiatives are underway at SHC and LPCH to improve the patient experience, enhance quality performance, increase efficiency and reduce expenses. Major investments continue to be made in information technology, and the electronic medical record (EMR) at SHC is among the most technologically comprehensive in the nation. Major investments are now being made for the construction of major new hospital facilities at both SHC and LPCH – indeed, this is the largest and most comprehensive facilities project in the history of the medical center, university and City of Palo Alto (http://stanfordhospital.org/rebuild/).

Major initiatives are also underway to develop a program in primary care through the Department of Medicine and a regional network of care through our faculty practice and the University Healthcare Alliance and the Packard Health Group. While primary care has not been a major area of focus in the past, that priority is now changed, with efforts underway to develop a significant program that will offer a range of clinical services both within the Medical Center and distributed regionally. New models of clinical care delivery for patients with chronic medical conditions are being developed – including the novel Ambulatory-ICU model that will become operational in the spring of 2012. Other novel initiatives in healthcare delivery are being developed through the newly established Clinical Excellence Research Center (http://med.stanford.edu/ism/2010/may/milstein.html).

Faculty and Students

Without question the most important resource we have is the excellence of our faculty, students and staff. It is their uniqueness and creativity that makes Stanford the institution it is today and what it will be in the years and decades ahead. I noted above that compared to peers Stanford is small in numbers but outstanding in quality. In a number of important ways, limiting growth compels us to optimize quality and excellence in every decision we make – about students, faculty and staff. While we have a total of approximately 470 medical students (including those pursuing MD/PhD degrees) we have limited the size of each entering class to 86. A majority of medical students stay for five or more years in order to pursue research and scholarship and/or a joint degree. We also have the lowest amount of student indebtedness at graduation for MD students of any school in the country – an asset that helps students with their short
and long-term career planning. Our students all engage in some research activity and author more scientific or other publications per number of students than any school in the nation. We also have approximately 520 students pursuing PhD degrees, many in interdisciplinary programs, and a selected number in a unique Masters in Medicine Program (http:// msm.stanford.edu/).

In addition, we have approximately 800 residents and clinical fellows at SHC and LPCH (with affiliated programs at the Palo Alto VA, Santa Clara Valley Medical Center and Kaiser) and over 1100 postdoctoral fellows in our research programs. Increasingly we are exploring ways to align education across the continuum from undergraduate education through advanced fellowship training—such as through the recently launched Stanford Society of Physician Scholars (http://ssps.stanford.edu/).

Currently the faculty numbers at Stanford average less than half of those at peer schools but, once again, quality per faculty is outstanding. The aggregate numbers of faculty can be illusory. Presently there are about 870 full time faculty and just over 400 clinical educator faculty. Because our size is small, we understandably fall short on metrics based on aggregate numbers (such as total NIH funding). Looked at on a per faculty basis or as a percent of faculty, the picture looks quite different. For example, Stanford Medicine ranks #1 in the nation in the amount of NIH funding per faculty member. We have more winners of NIH Pioneer Awards (a reflection of innovation) than any other school. On a percentage basis, we have more faculty who are Members of the Howard Hughes Medical Institute and a higher percentage of our faculty who have been elected to the Institute of Medicine and the National Academy of Sciences than any other school. There is no question that the impact of our faculty well exceeds sheer numbers. And many of our faculty are reasonably new to the medical school: over the past 10-11 years we have recruited over 550 of the full-time faculty and a very high proportion of our clinician-educator faculty.

In addition to their success as scholars, clinicians and educators, many of our faculty have developed as leaders in science and medicine. This has been aided by the work of our Office of Diversity and Leadership (http://med.stanford.edu/diversity/), which has instituted a number of important development and training programs—some of which have been done in partnership with our teaching hospital colleagues and university partners. In addition to developing leaders, considerable effort and some success has been achieved in the diversity of faculty, one of our highest continuing priorities.

Financial Resources, Planning and Challenges

The financial underpinnings of academic medical centers are complicated since they rely on multiple sources: sponsored research, clinical income, endowment, gifts, royalties (and for public institutions, state or federal funds). Most academic medical centers are highly leveraged on clinical income that is transferred from teaching hospitals to subsidize missions in education and research, both of which require institutional support. Even for “research intensive” medical schools, clinical income usually exceeds all other sources. When looked at as a single entity, many medical schools have very narrow margins, and many run deficits that are offset from clinical income. This has been
the history of academic medicine for much of the second part of the 20th century through now – largely reflecting the clinical revenues and margins of most hospitals. But this is a pattern likely to change as clinical revenues become more limited and challenged and opportunities for cross-subsidization become more constrained. This is where size, balance and expectation become important – and where “right-sizing” is critical (this activity is currently being pursued by a number of peer institutions who have, in some ways, grown beyond their supply lines).

The financial picture at Stanford reflects the mission and character of our institution – and it is one that has changed quite dramatically over the past decade. Indeed, early in the decade, our teaching hospitals had negative financial margins, and the unrestricted resources in the medical school were limited in amount and sustainability. That picture has changed considerably for the better. In the aggregate, Stanford University Medical Center in 2011-2012 is quite healthy. Both teaching hospitals are profitable. And since 2003, the School of Medicine has had an average positive contribution to its consolidated budget of $29 million per year, with $49 million in FY11. This is based on an annual revenue base that has increased to nearly $1.4 billion. Unlike the situation at our peer institutions, sponsored research grants and contracts comprise our largest single source of revenue (38%), while clinical income is 32% (up from 31% in FY10). Importantly, research activity as well as clinical activity has continued to increase – despite the changes in federal funding for research and the pressures of healthcare expenditures. In fact total research expenditure activity increased by 13.8% (compared to 18.1% in FY10) and non-ARRA research expenditures increased by 9.7% in FY11 (compared to 7.7% in FY10). While there are a number of factors contributing to these exceptional increases (compared to most peers) the most important is the quality of grant submissions – which is a reflection of the talent, creativity and innovation of our faculty and their colleagues.

Equally important, our clinical programs have continued to grow and excel over the years – again reflecting the quality of faculty and trainees, many of whom have been recruited during the past decade. Our success also reflects our integration and alignment with SHC and LPCH, including, as noted above, the “funds flow” agreements with each teaching hospital. Based on these and other factors, including overall clinical productivity, our six year CAGR (compound annual growth rate) in net clinical operating surplus has increased by 16% from 2005 to 2011. Significantly, the clinical departments “clinical surpluses” increased from FY10 to FY11 by an average of 130%, and all of the departments had clinical surpluses.

Although endowment constituted only 8% of the medical schools consolidated revenues in FY11, it is important to note that as of August 31, 2011 the market value of the School of Medicine endowment was $2.156 billion. This is still slightly less than the $2.2 billion level in August 2008 prior to the financial meltdown, but it is evidence of significant recovery – which will exceed the projected date (2015-6) of recovery that we had forecast. This result reflects both excellent investment returns as well as significant addition to principle. While the level of endowment and the amount of expendable reserves ($572.8 million as of August 31, 2011) are notable, it is also important to
underscore that the vast majority – in some cases over 85% - of these funds are restricted to specific uses that cannot be changed by faculty, department chairs or the dean’s office. Nonetheless, the endowment plus reserves provides a cushion of security against uncertain times – especially when coupled with increased revenue from sponsored research and clinical income.

In the aggregate these financial data demonstrate considerable financial success for the School of Medicine – especially when compared to the situation a decade ago. But they need to be viewed in the context of what is coming next – specifically, a reduction in federal (and possibly state [aka CIRM, the California Institute for Regenerative Medicine]) support for research and the likely decreases in healthcare revenues as a consequence of reform and the ACA. While these changes reflect national agendas – and continued economic pressure – it is still uncertain how they will impact SUMC. Of course we must plan for negative impacts – but we must also plan for programs and initiatives that will foster future success.

**Physical Resources and Planning**

The past decade has seen major changes on our physical landscape and capital resources, and this coming decade will continue this trend. In the December 12, 2011 Newsletter I summarized the major facilities activities that will impact SUMC – both on and immediately off-campus. Among these, the size, scope and complexity of the hospital renewal projects at SHC, LPCH and the Hoover site are daunting by any measure and are already having an impact. The next 5 years will witness incredible construction accomplishments and challenges that will affect all of us. But by the end of this decade, SUMC will be truly transformed (even though further medical school construction projects will continue for at least another 10-15 years after that before the master plan is complete). While there is no question that our human capital is and will remain our most important asset, it is also clear that the facilities transformation will harmonize our physical and intellectual resources and provide opportunities that in some cases remains untold – but very exciting.

**What’s Happening Around Us**

As noted at the outset of this “essay,” external events can absolutely impact whatever plans we put in place – and we need to anticipate as many of them as we can. Some of these are known now but were unforeseen five years ago (by most people). The most important of these was the 2008 economic downturn that has affected the US, local regions (including California) and the global economy. While we are fortunate to have a strong financial portfolio today, we need to continue to plan conservatively and creatively to sustain and enhance the resources to support our students, faculty, programs and initiatives so we can continue to serve them and the patients who come to SUMC to manage health and disease. To that regard, it is appropriate to anticipate that funding for research from the NIH and other federal agencies will be flat (or reduced) for at least the next several years. While we have been successful in winning grants today, much can change if the NIH alters policies or procedures (such as capping the number of grants per investigator, the size of grants or total allocation to an investigator). The recent announcement that the NIH salary cap will be reduced to Executive Level II for all new
grants after December 24, 2011 will certainly have an impact on faculty. Changes that NIH could make on support for graduate students could also affect our programs.

Beyond federal support for research, we need to be cognizant that funding from the California Institute for Regenerative Medicine (CIRM) has had a major favorable impact on Stanford faculty (and facilities). Proposition 71, which launched CIRM, will expire in a few years, and if it is not renewed by the citizens of California, the state’s investment in stem cell research and regenerative medicine will be greatly diminished – as will research opportunities for our faculty in these and related fields.

We have been fortunate to benefit from patent royalty income, but one of the largest of those patents will end in 2016. And while Stanford faculty remain incredibly successful in generating new intellectual property, the reality is that most patents pay small amounts and it is unpredictable as to when a discovery or invention will have a major financial impact (most often these are platform technologies).

Also predictable is the almost certain downward revenues for patient care – to both hospitals and physicians. We all know that this is important for the health of our nation, since the current national expenditures on healthcare in the US are unsustainable for a system that is at its core misaligned and often dysfunctional. The Affordable Care Act (ACA) is the first federal legislation to address healthcare reform, but it is far from perfect and its very outcome is now subject to political forces and judicial reviews. This next year will determine whether challenges to the legality of certain elements of the ACA will be accepted or rejected by appeals to the US Supreme Court. And the results of the 2012 US Presidential elections, now underway, will have further positive or negative impact. No matter what, changes are necessary and revenues will almost certainly decline. An impact on Medicare (and to Graduate Medical Education support) seemed highly likely just a couple of months ago and will certainly be a major issue in the next year as the debate about sequestration and deficit reduction heat up again. The bottom line is that the current fee-for-service model of healthcare payments seems destined to change (which is a good thing), but what will replace it is still uncertain. Even programs that seemed likely in 2010-11 (such as “Accountable Care Organizations”) have had stormy courses to acceptance and will like morph into other forms for bundled payments.

While these are among the “known” forces that will affect us, we need to think about (and if possible anticipate) the “unknown” ones at this time – since it is evident that what seemed unlikely just years ago (the global economic financial crisis) can indeed happen – and immediately disrupt plans and resources that seemed evident or expected.

**What Comes Next**

A predictable change in 2013 will be my transition as dean. I fully expect leadership by a new dean that will bring Stanford Medicine to even greater success and heights. I won’t forecast the agenda for a future leader and governance but will posit that at least some issues are likely to continue to command attention, energy, creativity and leadership. Here are just a few:
• The need for continued vision and leadership to define, steward and oversee the success and integrity of the medical school and medical center. Foremost will be efforts to evolve plans to protect, secure – and enhance – the research mission of Stanford Medicine. Of course a significant part of this will depend on the creativity and success of faculty in achieving competitive grants, and finding ways to bolster their support with endowed faculty scholar awards and endowed professorships will continue to be important and even essential.

In the healthcare arena, regardless of the national debate, SUMC must evolve as a model of excellence. This will require continued and rigorous efforts to balance state-of-the art and innovative approaches with the care of patients with complex medical conditions. It also will require development of a broader delivery system along with novel approaches to healthcare delivery. Sustaining outstanding metrics in quality, safety and the patient experience in a cost-effective manner will be critical. Achieving these goals will require exceptional interaction with hospital leaders.

• Continued focus on our unique mission in the education of medical and graduate students is essential to our core mission. A key challenge will be to successfully capture the incredible opportunities now emerging in technology and simulation to supplement and complement our teaching. Another will be to extend the educational continuum across the lifespan (from undergraduate to continuing education), with continued refinement on educating and training the future leaders and transformers of science and medicine even more effectively. This is equally important in graduate education, where creative planning for programs that prepare graduates for a range of career paths and opportunities is increasingly important.

• As noted abundantly above, finding new and better ways to support and enhance the career paths of faculty and students remains our most important investment. In tandem with this objective is continuing to diversify our community and create career paths that are more balanced, flexible, attractive and fulfilling than heretofore. Stanford Medicine should be the leader in such efforts and programs.

• The continued challenges for making our physical environment and facilities as outstanding as our “human capital” will continue to be a major opportunity over the next decade. There are many hurdles to be overcome in achieving our aims in these efforts, but if they have the outcome we hope and expect, they will further Stanford transformation beyond even our current imagination.

• To enable our dreams and visions to become reality, a major goal must be the realization of the campaign for SUMC that raises the resources to support our missions, people and facilities. Fundamental to success will be the crafting of big visions that shape the opportunities that will engage our community at Stanford – along with those who will help to support it.
I wish you all a Happy New Year – since without question this is what I hope does come next.

**Awards and Honors**

- *Dr. Nick Blevins* was appointed the inaugural chair holder of the Larry and Sharon Malcolmson Professorship at a lovely investiture event on Monday evening December 12th. Dr. Blevins’ family, along with colleagues and friends of the Malcolmsons and faculty and friends of the Department of Otolaryngology: Head & Neck Surgery joined together in a celebratory evening. The generosity of Larry and Sharon Malcolmson in establishing this new professorship is deeply appreciated.

- *Dr. Ken Cox* will be honored by the American Liver Foundation at a Salute to Excellence Awards Gala in San Francisco in March. The dinner and reception honors those who have made an outstanding contribution to biotechnology and medical innovation.

- *Dr. PJ Utz* is one of nine recipients to receive a 2011 Clinical Research Experiences for High School Students (CREHSS) grant from the Doris Duke Charitable Foundation for his Stanford Institute of Medical Research Program (SIMR).

Congratulations to all!

**Appointments and Promotions**

- **Ingrid Aalami** has been reappointed to Clinical Assistant Professor (Affiliated) of Obstetrics and Gynecology, effective 9/1/2011

- **Rodney Altman** has been reappointed to Clinical Assistant Professor of Surgery, effective 9/1/2011

- **Marion Buckwalter** has been reappointed to Assistant Professor of Neurology and Neurological Sciences and of Neurosurgery at the Stanford University Medical Center, effective 2/1/2012

- **Andrea Cervenka** has been reinstated and reappointed to Clinical Assistant Professor (Affiliated) of Medicine, effective 11/1/2010

- **Bertha Chen** has been promoted to Professor of Obstetrics and Gynecology and, by courtesy, of Urology, at the Stanford University Medical Center, effective 1/1/2012
Edison Chiu has been appointed to Clinical Assistant Professor (Affiliated) of Medicine, effective 9/1/2011

Diane E. Craig has been reappointed to Clinical Associate Professor (Affiliated) of Medicine, effective 9/1/2011

Jenny Chin-Lin Dai Biller has been promoted to Clinical Assistant Professor (Affiliated) of Obstetrics and Gynecology, effective 1/1/2012

Thomas M. Dailey has been reappointed to Clinical Associate Professor (Affiliated) of Medicine, effective 3/23/2011

Subashini Daniel has been promoted to Clinical Assistant Professor of Cardiothoracic Surgery, effective 1/1/2012

Jennifer Derenne has been appointed to Clinical Associate Professor of Psychiatry and Behavioral Sciences, effective 1/3/2012

Anthony Doufas has been reappointed to Associate Professor of Anesthesia at the Stanford University Medical Center, effective 12/1/2011

Michael Edwards has been reappointed to Professor of Neurosurgery at the Stanford University Medical Center and, by courtesy, of Pediatrics, effective 12/1/2011

Barbara T. Egan has been appointed to Clinical Assistant Professor (Affiliated) of Medicine, effective 12/1/2011

Nancy Fischbein has been promoted to Professor of Radiology and, by courtesy, of Otolaryngology – Head and Neck Surgery, Neurology, and Neurosurgery, at the Stanford University Medical Center, effective 12/1/2011

Rosario Garcia has been promoted to Clinical Assistant Professor of Anesthesia, effective 1/1/2012

Louis P. Halamek has been promoted to Professor of Pediatrics at the Lucile Salter Packard Children’s Hospital and, by courtesy, of Obstetrics and Gynecology, effective 12/1/2011

Howard J. Harvin has been promoted to Clinical Assistant Professor of Radiology, effective 11/1/2011
Samina Iqbal has been promoted to Clinical Associate Professor (Affiliated) of Medicine, effective 1/1/2012

Ethan Jackson has been promoted to Clinical Associate Professor of Anesthesia, effective 2/1/2012

Safwan Jaradeh has been appointed to Professor of Neurology at the Stanford University Medical Center, effective 12/1/2011

Kiran Khush has been appointed to Assistant Professor of Medicine at the Stanford University Medical Center, effective 12/1/2011

Audrey Kuang has been reappointed to Clinical Assistant Professor (Affiliated) of Medicine, effective 12/1/2011

Craig Levin has been reappointed to Professor (Research) of Radiology, effective 1/1/2012

Glen Lutchman has been reappointed to Clinical Assistant Professor of Medicine, effective 9/1/2011

David M. Lyons has been promoted to Professor (Research) of Psychiatry and Behavioral Sciences, effective 1/1/2012

Daryl A. Oakes has been reappointed to Clinical Assistant Professor of Anesthesia, effective 11/1/2011

Cholawat Pacharinsak has been appointed to Assistant Professor of Comparative Medicine at the Stanford University Medical Center, effective 12/1/2011

Susan C. Price has been reappointed to Clinical Assistant Professor (Affiliated) of Medicine, effective 12/1/2011

Eugene Yousik Roh has been promoted to Clinical Assistant Professor of Orthopaedic Surgery, effective 1/1/2012

Alan Schroeder has been promoted to Clinical Assistant Professor (Affiliated) of Pediatrics, effective 1/1/2012

Robert Shafer has been promoted to Professor (Research) of Medicine, effective 1/1/2012
Shamita Shah has been reappointed to Clinical Assistant Professor of Medicine, effective 9/1/2011

Veronika Sharp has been promoted to Clinical Assistant Professor (Affiliated) of Medicine, effective 1/1/2012

Dongli Song has been appointed to Clinical Associate Professor (Affiliated) of Pediatrics, effective 12/1/2011

Barbara Sourkes has been promoted to Professor of Pediatrics at the Lucile Salter Packard Children’s Hospital and, by courtesy, of Psychiatry and Behavioral Sciences, effective 12/1/2011

Brent Tan has been reappointed to Clinical Assistant Professor of Pathology, effective 12/1/2011

Jennifer A. Tremmel has been appointed to Assistant Professor of Medicine at the Stanford University Medical Center, effective 12/1/2011

Jeffrey Tseng has been appointed to Clinical Assistant Professor (Affiliated) of Radiology, effective 10/1/2011

Lindsey G.C. Vokach-Brodsky has been reappointed to Clinical Associate Professor of Anesthesia, effective 10/16/2011

Jennifer W. Wagner has been promoted to Clinical Assistant Professor of Anesthesia, effective 1/1/2012

Derrick Wan has been appointed to Assistant Professor of Surgery at the Stanford University Medical Center, effective 12/1/2011

Michelle Young has been reappointed to Clinical Assistant Professor (Affiliated) of Obstetrics and Gynecology, effective 9/1/2011