Planning the Future of the Stanford University Medical Center

Nearly fifty years ago a visionary group of University and School of Medicine leaders made the bold decision to relocate the medical school from San Francisco to the Stanford Campus. The realization of this plan, finalized on July 15, 1953, brought to life the dream of President Ray Lyman Wilbur, who had envisioned the power of the co-location of the medical and life sciences with the physical and social sciences of the university. Indeed, this vision was consistent with the recommendations of the 1910 Flexner Report, which noted that “a medical school should be an organic part of its parent university.” Further, when the medical school was officially moved in 1959, university and community leaders in the City of Palo Alto forged an agreement to establish Stanford Hospital and thus initiated a process that would transform the face of medicine, locally and globally, for decades to come. This partnership followed an association dating back to 1921, when the Peninsula Hospital became Palo Alto Hospital. Its new facilities had opened in 1930 in the buildings now known as the Hoover Pavilion. The design for the current medical center, which opened in 1959, began in September 1955 with architectural planning led by Edward Durell Stone. It initially consisted of three hospital, one clinic and four medical school buildings that still stand today – although they are now rapidly becoming obsolete as education, research or patient care facilities.

While the Stanford School of Medicine trained many outstanding clinicians and leaders during its 50-year stay in San Francisco (the Medical School was established in 1908 when Stanford assimilated the former Cooper Medical School into the University), its profile and national reputation quickly changed when the School was constructed on its current footprint in 1959. The contiguity of the medical school to its major affiliated hospital and to the university created partnerships that would promote elegant science and the foundations of what we now refer to as translational medicine (i.e., bringing discovery from the laboratory to the bedside).
The Historical Context

Under the leadership of Dr. Robert Alway, who served as Dean of the School of Medicine from 1957-1964 (succeeding Dr. Windsor Cutting) a number of major recruitments were made in association with the school’s relocation. These were aimed at divesting the concept that the School had become too inbred during its San Francisco tenure. Among these were Dr. Norman Kretchmer from Cornell to lead Pediatrics, Arthur Kornberg (and his entire department) from Washington University to found the Department of Biochemistry, Joshua Lederberg from the University of Wisconsin to found the Department of Genetics, Robert Chase from Yale to lead Surgery and David Hamburg from NIH to lead Psychiatry. These new recruitments were joined by two leaders from San Francisco: Avrum Goldstein to lead Pharmacology and Henry Kaplan to lead Diagnostic and Therapeutic Radiology – along with a young and rising star named Dr. Norm Shumway.

The Past Predicts the Future

In tandem with the move of the School and the opening of new facilities, a new curriculum for medical education was designed. Called the Five Year Plan, it followed principles that are remarkably similar to those of the New Curriculum we inaugurated in 2003. Based on a history recorded by the late long-time Stanford faculty member, Dr. John L. Wilson, the guiding principles for the Five Year Plan included:

- Stress upon principles rather than upon detailed mastery of subjects.

- A conjoint course in the basic sciences designed to overcome the splintering of biology into separate "subjects" which deal independently with structure, function and chemical processes.

- All laboratory exercises in biochemistry, physiology, microbiology, pharmacology and portions of pathology and anatomy will be combined into a single laboratory course to be conducted cooperatively by the six pre-clinical departments.

- The basic science course will be conducted in multi-discipline unit laboratories, each serving sixteen students as a "home laboratory" for a full year. These small laboratories are designed to foster a close relationship between students and the faculty members conducting the course.

- From the outset of their medical course, students will be guided toward increasingly greater degrees of independence in planning, executing, observing and interpreting experiments, in preparation for application of the skills and attitudes thus acquired to the advanced pre-clinical work which later will parallel related clinical experiences. The spread of the basic sciences throughout the medical program will permit an earlier introduction of clinical subjects. Here too, changes have been made to provide more unity in the curriculum.
With the recruitment of outstanding new leaders, new facilities and a new curriculum, the School was literally catapulted into national prominence. In looking back on the momentous changes that occurred a half century ago we are humbled by how many of our current “bold” efforts are really attempts to recapture some of Stanford’s past.

**Current Forces Change Past Expectations**

At the same time it is also interesting to note how time has forced changes in the original policies adopted for full-time faculty in 1959 – which included the following principles.

- All University faculty members should be appointed on the same basis and should share the same privileges and responsibilities;
- The primary responsibility of a University faculty is teaching and research;
- Faculty salaries should be derived from University sources;
- Full-time members of a medical faculty should not engage in the practice of medicine for personal gain;
- The use of knowledge and skill as physicians for the benefit of humanity by rendering medical care is an obligation of any group as capable for such care as a medical faculty;
- The continued use of such knowledge and skill by clinical faculty members is essential to effective teaching;
- The patient care rendered by a medical faculty must be limited to the amount required for teaching and research;
- A direct relationship between any income from patient care and a faculty member's salary is incompatible with the maintenance of university status.

While it was hoped that increased endowment support would enable these policies to be adopted, it is clear that the many forces that have changed the face of medicine in the ensuing 50 years have also altered these expectations, particularly for our clinical faculty.

**A Legacy Building Its Future**

But it is clear that the past 50 years have also witnessed tremendous changes in Stanford Medicine itself. Despite the smaller size of our faculty compared to peer research intensive schools of medicine (approximately 40% the size of UCSF, less than a third of Johns Hopkins and over 10% of Harvard Medical School), our school and faculty have made major contributions to science and medicine so that, in my opinion, we are among the very top schools of medicine in the nation. For example, our faculty continues to command the highest amount of peer-reviewed NIH funding per principal investigator
of any peer school, and the awards and honors received by our faculty are exceptional in virtually every domain. Just this year they include two new Nobel Laureates (bringing the total to four), a winner of the Kyoto Prize, and three new NIH Pioneer Awards (and since this award was first given two years ago, seven of the 34 awarded across the entire nation have come to Stanford), among many others. The contributions of our faculty in basic research are the envy of virtually all of our peers. Our faculty have made remarkable contributions in major disciplines including cancer biology and treatment, stem cell biology and regenerative medicine, the neurosciences, cardiovascular medicine and surgery, immunology, transplantation and infectious diseases as well as genomics, imaging, informatics and virtually every field of medicine, surgery and science.

As a result of this extraordinary record of achievement, the Stanford University Medical Center has brought enormous credit and distinction to the University and our community. It has also transformed the health care of the citizens of Palo Alto and our neighboring communities by bringing them state of the art care as well as the latest innovations and discoveries in medicine and the biosciences. Stanford faculty have also played a major part in the economy and development of Palo Alto and our other neighboring communities by helping to launch the field of biotechnology, initially through discoveries in genetic engineering and since then through activities in the entire spectrum from basic discovery to the development of a wide range of medical devices.

Now, nearly 50 years following the move of the School to the Stanford campus, we face another array of remarkable opportunities and challenges. While the quality of our faculty and students is outstanding, a number of our medical school and hospital facilities will not meet our needs and missions – or the ability to serve our communities – in the next half century. Indeed for the past several years we have been deeply involved in developing a master plan for the medical school that is aligned with our major on-site affiliated hospitals (Stanford Hospital & Clinics and the Lucile Packard Children’s Hospital) as well as with the Palo Alto Veteran’s Medical Center. We have also been exploring the important question of how much of our future program can be developed on the current Stanford campus (which may include the proximate VA site) and how much will need to be housed at “off-site” locations.

Among the guiding principles for our deliberations has been the desire to do our best to house on campus as many of our research and education programs as possible so that they are in close contiguity to the university and our affiliated hospitals. Clearly this is essential if we are to continue to foster interdisciplinary education and research as well as the translation of knowledge from the laboratory to the patient. But we are challenged by limitations in the space available to grow on campus and by economic constraints in our goals of maintaining balance, functionality, sustainability and contiguity on campus. Thus, in developing our master facilities plan we have addressed space utilization and development not only on the medical center footprint but in the proximate areas (e.g., VA, Research Park) and at the evolving North Campus in Redwood City.

We have also tried to anticipate the growth of medical school faculty over the next 15-20 years and to do our best to assure a balance in our future investments in basic
science and clinical science program development. As 2006 draws to a close we have approximately 785 full-time faculty in the School, and we are aware of the current faculty cap of 900 faculty. Accordingly, we have planned for several contingencies - how programs would develop if we were unable to exceed the cap, as well as how we would accommodate the increases in faculty size that might be necessary to meet our full programmatic requirements. In doing so, we want to assure that when our facilities plan is fully realized we will actually have space for our basic, clinician-scholar/investigator and clinician-educator faculty.

In considering the Medical School’s facilities plan it is also important to recognize that we located in two jurisdictions, each with different rules and guidelines impacting future growth and development. For example, the original 1959 E.D. Stone buildings (i.e., Grant, Alway, Lane and Edwards) are in the City of Palo Alto, along with the entirety of SHC and LPCH and our sites on Welch Road. The rest of the medical school campus (i.e., Clark Center, Fairchild Science and Auditorium, Beckman Center, CCSR, the RAF, Pediatric Surgery Laboratory, Redwood Building, MSOB, MLS, and Lucas Center) are in Santa Clara Valley and are governed by the General Use Permit (GUP) rules. In our 15-20 year master plan we intend to build, rebuild or renovate in all of these areas, as I will outline below. Based on this vision, we have been working with the University’s Office of Land and Buildings as well as with the leaders of Stanford Hospital & Clinics and the Lucile Packard Children’s Hospital to develop a well orchestrated and integrated facilities plan that complements and synergizes our discrete and mutual needs.

School of Medicine Master Facilities Plan 2006

Medical Center Area

Following is our most recent thinking regarding the School of Medicine Facilities Master Plan. As you may know, the School of Medicine falls under two jurisdictions: we are partially within the City of Palo Alto and partially within the County of Santa Clara. We are currently working on a number of components of the plan, and we are anticipating its full completion, which may take 15-20 years. This past week, the Hospital CEOs and I met with the Palo Alto City Council to introduce them to the Stanford University Medical Center Facilities Plan, which includes both hospitals and part of the School of Medicine. I am eager to share the full range of our planning with you. Thus, the description that follows here includes both the parts of the School that are under the jurisdiction of Santa Clara County and those that are within the City of Palo Alto.

Section of the Medical School under the Jurisdiction of Santa Clara County and the GUP:

1. We have received sufficient GUP space allocation (or the commitment thereof) to proceed with the planning of the following buildings at this time:
   a. The Learning and Knowledge Center #1 (LKCI), a 120,000 gasf (gross available square feet) facility on the site of the current Fairchild Auditorium. I detailed the current status of the LKC
planning in a recent Newsletter, and it is our hope to complete this project by 2009. We currently anticipate that architectural design will be completed by the end of this year and that ground breaking will occur in later 2007 or early 2008. A key factor of course is completing the fundraising goals for this important project – which we are actively working on.

b. *The Connectivity Elements Project*, while hardly the most visible part of our plans, is critical to the next phase of our medical school campus. These include loading docks and a series of underground transportation tunnels that will link current and future buildings and that will permit deliveries of supplies and so forth safely and more seamlessly – and below rather than above ground. Work on this project is now beginning.

c. *Stanford Institutes of Medicine #1 (SIM1)* will be a 200,000 gasf research building housed on the parking lot south of the CCSR. Architectural design for SIM1 will commence shortly. This building will be designed as either a two or three component building and is currently planned to house new or current faculty who are Members or Associate Members of the Stanford Institute for Stem Cell Biology and Regenerative Medicine, the Cancer Center/Institute and the Neuroscience Institute. We hope SIM1 will be ready for occupancy in 2009-2010.

d. *Learning and Knowledge Center #2 (LKC2)* will be a 85,000 gasf building on the site of the current Fairchild Science Building (see below) and will house the Library and Knowledge Center staff and student services, as outlined in the last Newsletter. In previous plans we had anticipated that these programs would be housed in renovated space in the Lane and Alway buildings but, as you will note below, we are currently hoping to rebuild the entire 1959 ED Stone Complex as our Foundations in Medicine and Science (FIMS) buildings.

2. For the following projects we have either an expectation of GUP allocation or an understanding that it will be available when the project is ready for initiation.

a. *Stanford Institutes of Medicine #2 (SIM2)* will be a 150,000 gasf research building on the site of the lawn and trailers near the MSOB and Lucas Center. SIM2 will house the Cardiovascular Institute and, potentially, the Institute for Immunity, Transplantation and Infection. While we do not have full GUP allocation for SIM2 we do have a green light to proceed as soon as we have completed fundraising for SIM1. The availability of funding could impact the timeline (and potentially make
completion earlier) but at present we have SIM2 slated for completion in 2016.

b. **Stanford Institutes of Medicine #3 (SIM3)** will be a 220,000 gasf research building on the current site of the MSOB, west of SIM1. The programming for SIM3 is incomplete, but it is envisioned to permit redistribution of Members and Associate Members of Institutes from SIM1 and SIM 2 so that each building will accommodate 1-2 of the five Stanford Institute of Medicine (whose faculty will be Institute Members or Associate Members. Currently we project completion of SIM3 in 2019-2020.

**Science and Engineering Quad 2 (SEQ2)**

1. Work is currently underway on the SEQ2, which will be a new quad housing four buildings just south of the medical school footprint with a new pedestrian access along Via Ortega. The Energy and Environment Building, the first building in this quad, is currently under construction. The new **Bioengineering Building**, which will also be in this quad, will house faculty from our Department of Bioengineering, which is joint between the School of Engineering and the School of Medicine. Currently Bioengineering faculty are largely in the Clark Center, but this space is now fully occupied. When the Bioengineering Building is completed, in approximately 2011-2012, it will accommodate new recruits or some of the Bioengineering faculty currently housed in the Clark Center.

**Section of the Medical School under the Jurisdiction of the City of Palo Alto**

Approximately six months ago a request came from the Office of Land & Buildings to reconsider the wisdom of renovating the 1959 ED Stone Complex. In response, an alternative model was developed that we have now worked on from the perspectives of space utilization, programming, and economics. Based on current estimates, the cost to rebuild the ED Stone Complex is not significantly different from the cost to renovate it. However, these buildings are in the City of Palo Alto and, thus, our plans require approval from the City Council.

At our November 20th meeting with the Palo Alto City Council, while the focus of this meeting was appropriately on the renewal and expansion of SHC and LPCH, our proposal to rebuild the Grant, Alway, Lane and Edwards Buildings was also discussed. We anticipate that the decision regarding these buildings will be considered as part of the City’s evaluation of the entire Stanford University Medical Center Master Plan and that, accordingly, it is likely that it will be 2-3 years before we have a clearance to proceed. But we will certainly have a good idea of the receptivity to this proposal along the way, and we will be conducting our building planning during this time. Based on this we currently envision the following project developments:
a. **Foundations in Medicine and Science (FIMS).** This will be new laboratory research building designed to replace the 1959 ED Stone buildings and provide more modern research facilities to support both basic and clinical departments. While this project will be square foot neutral compared to the current footprint, it will provide research facilities that will be suitable for 21st century biomedical research. The FIMS will include:

i. **Foundation in Medicine and Science #1 (FIMS1)** which will be a 160,000 gasf building on the lawn just north of CCSR. Because this site is unencumbered it will be the first of the FIMS to be constructed, and it will permit serial decanting such that the 1959 ED Stone Complex can be serially demolished and rebuilt. We are currently planning on FIMS1 being ready for occupancy in 2012. Once it is completed and SIM1 is constructed, it will be possible to empty and demolish the Fairchild Science Building and the Edwards Building and also begin the LKC2 project noted above.

ii. **Foundations in Medicine and Science #2 (FIMS2)** is currently estimated to be a 110,000 gasf building. Once completed it would permit the demolition of the Lane and Alway Buildings. At this time we anticipate that FIMS2 will be completed in 2014-2015.

iii. **Foundations in Medicine and Science #3 (FIMS3)** is planned as a 145,000 gasf building that would complete the replacement of the 1959 ED Stone Complex facilities and would result in the demolition of the Grant Building. Currently we are planning for FIMS3 to be completed in 2016-2017.

iv. **800 Welch Road** is the former site of the Blood Bank (before its relocation to 3373 Hillview Avenue along with the SHC/LPCH clinical labs). Our plan is to ultimately reconstruct this building to house the **Jill and John Freidenrich Center for Translational Research.**

When the entirety of the medical center plan for the School of Medicine is completed we will have constructed approximately 1,222,000 gasf of new facilities on the medical school campus but also will have demolished 644,993 gasf of existing buildings. The total new net square footage for the School on the Medical Center campus will be 557,007 gasf. While this may seem small in comparison to the enormity of the project, we will nonetheless possess facilities for education and research that will be state-of-the-art for decades to come. When
coupled with the hospital renewal projects (see below) Stanford Medicine will be well poised to face the 21st century with facilities that are commensurate with the excellence of its faculty, students and staff.

**Palo Alto VA and Research Park Area**

We are currently holding a number of leases in the Stanford Research Park and ideally would like to consolidate or eliminate some of these in the years ahead. At the same time we are excited about the prospect of forging future research alignments with the Palo Alto VA Medical Center. Also, after 2017 it would be prudent to assess the land sites that become available on the current Roche property, which is south of the VA on Foothill Expressway and which may offer the opportunity to develop an additional research corridor the borders the VA and University campuses.

1. **Potential Palo Alto VA/Stanford Research Facility**: We are currently exploring a possible joint laboratory research facility on the VA campus. There are many advantages to this and while this is preliminary, we hope that we find a successful way to bring this to fruition. If so, our timeline for completion of this project (potentially a 250,000 gasf building) is 2013-2014.

2. **1050 Arastradero** is currently the site for interim location of the Institute for Stem Cell Biology, Cancer and Regenerative Medicine and the Neuroscience Institute. We have a 15-year (renewable) lease on this facility and have invested considerable funds in renovating it as a wet-lab research facility. We anticipate that we will continue to use this facility for program development once its current and immediate occupants move to SIM1, once it is completed.

3. **855 and 975 California Avenue** are currently sites for Genome sequencing cores and related activities. These are important facilities, and we are exploring whether they will continue to be housed on this site or in other facilities under development.

4. **3155 Porter Avenue** is also a site on which the School has leased space for animal care – now in support of investigators at Arastradero but potentially to develop other core services as well. We will also explore housing other programs at this site depending on space availability.

**North Campus and Other Community Sites**

We are currently working with both SHC and the University regarding a site in Redwood City now referred to as the North Campus. These plans will unfold over the next 2-5 years.
1. **SHC/School of Medicine North Campus Facility**: SHC has purchased four buildings previously owned by the company Excite @ Home and is currently renovating three of them for clinical programs being developed in conjunction with the School of Medicine. The planned opening of this facility is early 2008. It will house Centers for Orthopedics, Spine Care, Dermatology, Pain Management and Sleep Medicine. Imaging and ambulatory surgery will be available at the North Campus, and it is designed to provide state of the art ambulatory care in an attractive and patient friendly environment.

2. **University/School of Medicine North Campus Facility**: The University has purchased approximately 30 acres of land proximate to the SHC site and is currently exploring the development of the Stanford North Campus, which will house a variety of administrative and, potentially, research and education programs. We are currently collaborating with the University about joint programs. As I discussed in the November 6th Newsletter we are currently exploring relocation of a number of School administrative functions offsite in anticipation of the development of the North Campus. The off-site alternatives being developed are exciting and will provide very special opportunities for our staff and faculty.

### Hospital Planning

Over the past several years both Stanford Hospital & Clinics (SHC) and the Lucile Packard Children’s Hospital (LPCH) have been deeply involved in future facilities planning based on, among other factors, seismic issues, serious capacity constraints, severe limitations in the number of single occupancy rooms, and an emergency department that is too small and lacks the privacy to provide care to the community. Because the hospitals are both in the City of Palo Alto, renewal or expansion of these important facilities needs approval from the City Council. This process was initiated at the November 20th meeting with the City Council mentioned above. This meeting launched an evaluation and negotiation process that will unfold over the next couple of years. Some of the key issues presented to the City Council are as follows:

### Stanford Hospital & Clinics Master Facilities Plan 2006

Since 1959, SHC has been providing state-of-the-art healthcare for Palo Alto and the surrounding communities. Originally constructed as a joint teaching hospital and City of Palo Alto community hospital, SHC is currently licensed by the state of California to operate 613 beds, but is currently operating at about a 460-bed level. Its projected need, in order to viably meet current and future demand, requires an increase of 140 beds, for a total of 600 beds. In order to meet this bed count and provide for the other issues identified above, SHC proposes the following:

**New construction:**
- 1,100,000 gross square feet to house the replacement of 456 beds, new surgical operating suites, new diagnostic and treatment suites (MRI, CT, etc.), and associated nursing and support space
• 329,000 gross square feet to house clinics, medical offices, and administrative offices
• Parking for 695 cars
• Parking Structure for 700 existing cars to replace existing Parking Structure #3 (700 cars)

**Reuse of existing facilities:**
• Renovation of D, E, & F nursing units, which currently house 243 hospital beds, to house about 144 SHC hospital beds and support space
• Reuse of the remaining 1989 HMP building to house diagnostic and treatment space and other supporting functions such as materials management, clinical laboratory, and physician and administrative offices

**Demolition of existing facilities:**
• Demolition of 441,900 sf of existing 1959 hospital facilities (East Building, West Building, Core Building, and Boswell Clinics Building) after construction of a new clinical building
• Demolition of 216,400 sf of the existing 1973 building after construction of a new clinical building
• Demolition of existing 700-car Parking Structure #3
• Demolition of existing 1101 Welch Road structures totaling 41,100 square feet.

**Summary of square feet (not including parking):**
Based on the current data, approximately 1,429,000 square feet of new construction would take place along with approximately 699,400 square feet of demolitions, for a total net addition of 729,600 square feet.

**Lucile Packard Children’s Hospital Master Facilities Plan 2006**

Occupied in 1991, the existing LPCH facility requires expansion to serve additional children and families and to accommodate contemporary healthcare standards. LPCH is currently licensed for 257 beds on its campus and plans to increase its license by 104 beds to 361. The proposed addition will allow conversion of existing beds from semi-private to private rooms in the existing facility and reuse of space for other diagnostic and clinical purposes. LPCH will continue to occupy two floors in the F Pod nursing unit for its Obstetrics program and will also convert rooms in both F Pod and other vacated space to create private patient rooms. LPCH will also continue to share services with SHC for emergency department services and materials management.

**New construction:**
• 375,000 gross square feet of new addition to house 104 new beds, new surgical operating suites, new diagnostic and treatment suites (MRI, CT, etc.) and associated nursing and support space
• 50,000 gross square feet of new clinics space and supporting services

**Reuse of existing facilities:**
• Reuse of two floors in F Pod to continue to house the Obstetrics program
• Reuse of main facility to continue to house patient bed, diagnostic and treatment, clinical and support services

_Demolition of existing facilities:_
• Demolition of existing 703 Welch Road structure of 23,500 square feet. See separate discussion regarding relocation of non-Stanford medical offices.

_Summary of square feet (not including parking):_  
As currently planned there will be approximately 425,000 square feet of new construction along with approximately 23,500 square feet of demolition for a total net addition of 401,500 square feet for the LPCH plan.

_The Planning Process and Timelines_
This plan represents a bold and ambitious vision for the Medical School and Medical Center that will unfold over the next 15-20 years (or more). I am fully cognizant that we face a number of challenges in bringing this plan to fruition on the timescale we hope will transpire. In addition to the important processes that will unfold in relation to the projects in the City of Palo Alto, we will also need to grapple with limitations in GUP allocation for the remaining projects and, perhaps most importantly, the economic resources to carry them out. Accordingly we have developed a carefully calibrated funding plan. However, it must be recognized that bringing each of its elements together will require precision, careful calibration, appropriate accommodations, dedication and commitment – and of course, a considerable amount of luck or “good fortune.” That said, we are at a critical juncture, and if Stanford is to remain a leading institution for the 21st century, it is imperative that we accomplish these important goals and objectives. As I concluded my comments to the Palo City Council on November 20th, I reminded them that 50 years from now, leaders from the university, medical center and community would look back on what we did to assure that Stanford would remain a world leader in academic medicine. We can do no less than think boldly and thoughtfully and shape the future for the benefit of our community – locally and globally.

_Call for Proposals for the Wallace H. Coulter Translational Partners Grant Program at Stanford University_
I have received the following announcement from Dr. Paul Yock, The Martha Meier Weiland Professor in the School of Medicine and Professor of Bioengineering and Co-Chair of the Department of Bioengineering. This is a wonderful opportunity for faculty in clinical departments to collaborate with a member of the Department of Bioengineering. I encourage interested faculty to follow up with Dr. Yock or with Dr. Scott Delp, Chair of the Department. Please note that the deadline for submission is January 8, 2007.

_The Wallace H. Coulter Translational Partners Grant Program at Stanford University_
CALL FOR PROPOSALS

Deadline: January 8, 2007

Program: Grants of up to $100,000 (direct costs) from the Wallace H. Coulter Foundation will support collaborative translational research projects that involve co-investigators from the Department of Bioengineering and a clinical department in the School of Medicine. The goal of this program is to facilitate collaborative research that addresses unmet clinical needs and leads to improvements in health care and to commercial products. Examples of desirable outcomes include inventions, patents, improved diagnosis and treatment of disease, commercial products, licenses, commercial partnerships and start-up companies.

Criteria: Each proposal must have co-investigators, at least one whose primary salaried appointment (50% or greater) is in the Department of Bioengineering at Stanford University and at least one clinical investigator from a clinical department in the School of Medicine. The Bioengineering faculty member must be full-time, tenure track at the Assistant, Associate or Professor rank. The research must relate directly to applications in health care, and the objectives of the project should include an outcome that will benefit patients. Evaluation of each proposal will be on the basis of scientific merit, potential health care impact and significance, experience of the investigators, and the potential for commercialization and for successfully obtaining further support.

Submission: It is suggested that applicants discuss their proposal with Paul Yock (yock@stanford.edu) or Scott Delp (delp@stanford.edu) before submission. Proposals must be submitted by January 8, 2007 via e-mail to Sandy Miller, sandy.miller@stanford.edu. An Advisory Committee will review the proposals and select finalists for a brief presentation in late February. Applicants will be notified by early March 2007 for funding to begin April 1, 2007.

Duration: Grants will be for a one-year period, and may be submitted for renewal. Renewal applications must have a comparison of milestones achieved vs. those planned in the original submission. Renewal applications will be evaluated on a competitive basis with new applications.

A Job Well Done: Thanking and Honoring Dr. Julie Parsonnet

At the end of this year Dr. Julie Parsonnet, who has served with distinction as Senior Associate Dean for Medical Education for the past five years, will relinquish her decanal responsibilities and return to her important roles as an investigator and clinician. I want to thank Dr. Parsonnet for the extraordinary job she has done in significantly
enhancing medical education at Stanford. Thanks to her leadership and the very successful partnership she forged with her colleagues in the Dean’s Office, the Faculty Senate, and our students, the New Stanford Curriculum (see: http://med.stanford.edu/education/) was implemented in the Fall of 2003 – less than two years after it had been conceptualized. This was a remarkable achievement in its own right. But even more important is the substance of the New Curriculum - Stanford now has a medical curriculum that more closely aligns our students with the faculty and the mission and goals of our school of medicine. We are privileged to attract wonderful students to Stanford, and I am enormously pleased that we can offer them an opportunity to develop a broad and deep knowledge of the biosciences and their relationship to clinical medicine. Because of the New Curriculum’s innovative scholarly concentrations, which provide opportunities to develop deeper analytic knowledge through research, I am confident that Stanford graduates will be even better prepared to become the leaders and transformers of tomorrow.

Coupled with the important leadership role that Dr. Parsonnet played in designing the New Stanford Curriculum, she also helped develop the advising system and has been a champion for improving the lives and personal development of our students. Changes like these do not come easy to individuals or institutions. They require vision, commitment, dedication and true leadership. Dr. Parsonnet exemplifies these qualities, and I am most grateful and appreciative of her all that she has accomplished.

Please join me in thanking and honoring Dr. Julie Parsonnet.

Transitions in Medicine: Thanking Drs. Greenberg and Rizk and Welcoming Dr. Ralph Horwitz

On December 1st Dr. Ralph Horwitz officially began his role as our new Chair of the Department of Medicine. I provided a summary of Dr. Horwitz’s academic background in the August 21st Dean’s Newsletter. I am extremely pleased to welcome Dr. Horwitz to Stanford and look forward to working with him. Given his past experience as Chair of Medicine at Yale and, more recently as Dean of the Case Western Reserve School of Medicine, I have every confidence that Dr. Horwitz will be a wonderful and successful leader for many years to come.

At the same time as I welcome Dr. Horwitz I hasten to add that he is inheriting a Department of Medicine that has been significantly improved during the past two years, thanks to the wonderful leadership that Drs. Harry Greenberg and Norm Rizk provided. When I appointed Drs. Rizk and Greenberg to serve as co-chairs, I recognized that their knowledge and skills were complementary, and I anticipated that they would work collaboratively and constructively to address the many challenges the department faced. To say that they exceeded every expectation is a major understatement. Harry and Norm fully committed their notable energies to addressing virtually every challenge or problem the department faced. They recruited key faculty, mentored and supported trainees and faculty, improved financial management and support and, perhaps most importantly, enhanced the morale and well being of all whom they served. In doing so they won the
respects of the Department of Medicine as well as the entire Medical School community. I am deeply grateful and indebted to Drs. Greenberg and Rizk for their thoughtful and caring leadership and support of the Department of Medicine.

**Interim Leadership for the Lane Library**

With the departure of Debra Ketchell, Heidi Heilemann has been appointed Acting Director of Lane Medical Library & Knowledge Management Center effective December 16, 2006. Heidi has been an essential member of the Lane staff since 1993 and is currently the Associate Director for Research & Instruction. Many of you already know Heidi from her work as a departmental liaison, instructor for SPCTRM, PRECEPT, and the Stanford Hospital Research Council programs. She is a key participant in strategic planning for the new Learning and Knowledge Center. Over the past two years, Heidi has led the Lane facilities update, reinvented document delivery, redesigned the physical and virtual service desk, and coordinated the 100th Anniversary Celebration. Professionally, she is a member of the Medical Library Association’s Academy of Health Information Professionals. Many thanks to Heidi for taking on this important role.

**Attention to Bicycle Safety**

I have communicated previously about the serious problem of bicycle safety on campus. Despite counseling, admonition and even police enforcement, too few students wear bike helmets or, even more worrisomely, have bike lights at night. My concerns about bike safety are even more heightened now that it gets dark earlier and the rainy season (with more slippery surfaces) will soon be upon us. I ask each of you who ride a bike on campus – or who know someone who does – to pay attention to a few important safety rules:

- Be sure that you have both a front light and a lighted rear reflector (and check your batteries for these lights on a regular basis).
- Wear a bicycle helmet whenever you are riding your bike.
- Approach traffic intersections slowly and carefully and defensively. While bikers believe they see oncoming traffic – and assume that car drivers see them – you should assume that you cannot be seen and that if you cross an intersection without warning, you can easily be struck by an oncoming vehicle.
- Be aware that leaves and other roadside debris (especially with all the construction currently underway on campus), especially when wet, results in serious slip hazards.

I hope you will be as cautious as possible – and encourage other cyclists to also be responsible riders. You can find helpful tips on bike safety at [http://facilities.stanford.edu/transportation/alt_transportation/BikingAtStanford.shtml](http://facilities.stanford.edu/transportation/alt_transportation/BikingAtStanford.shtml)

**Awards and Honors**
**Dr. Patrick Brown**, Professor of Biochemistry and Investigator for the Howard Hughes Medical Institute of Biochemistry, has been awarded the American Cancer Society’s Medal of Honor, the organization’s highest honor, for his contributions to cancer research. Specifically the award recognizes Brown’s development of low-cost, accessible automated micro arrays and his life-saving contributions to the field of functional genomics. Congratulations to Patrick.

**Appointments and Promotions**

*Karlene Cimprich* has been promoted to Associate Professor of Chemical and Systems Biology, effective 12/1/06.

*Ralph Horowitz* has been appointed to Professor of Medicine, effective 12/1/06.

*Maurice M. Ohayon* has been promoted to Professor (Research) of Psychiatry and Behavioral Sciences, effective 12/1/06.

*Greg Zaharchuk* has been appointed to Assistant Professor of Radiology, effective 12/1/06.