

# Dean's Newsletter

## December 17, 2007

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### **Happy Holidays**

It is always startling to consider that another year is about to end and a new one set to begin – with new opportunities and challenges, and more beginnings and endings. The milestones that take place in any single year are notable both personally and as a school of medicine. For example, during 2007 our medical and graduate students took further steps toward the completion of their MD and/or PhD degrees, our residents moved closer to board certification, clinical fellows advanced toward subspecialty training, our postdoctoral fellows refined and furthered their research efforts and career development, and our faculty and staff progressed through the hills and valleys of academic and clinical life and the life of our institution. Our medical school made major advances in supporting education and in making groundbreaking research discoveries and advances in patient care. And through all this, our personal lives evolved while the world around us continued to change – sometimes positively, but all too frequently with even greater challenges. As members of the Stanford community we endeavor to address important challenges –furthering our understanding of life and disease, improving health, educating leaders, addressing global and environmental issues and seeking justice and peace.

At this time of year our thoughts often turn inward as well as outward as we ponder the mysteries of the world we inhabit – our homes, families, friends and communities. I hope the upcoming Winter Break offers you some time for rest, reflection and renewal, and time for solitude as well as with loved ones. I hope it also offers an opportunity to reflect on the accomplishments of 2007 but even more importantly on the opportunities that lie ahead in 2008 and beyond. I wish you and your families the best for the holidays and for the year ahead.

## **A Memorial Tribute for Professor Arthur Kornberg will be Held on January 25<sup>th</sup>**

As most of you know, Professor Arthur Kornberg, world- renowned biochemist and long time Stanford faculty member, died on October 26, 2007. A public Memorial Tribute to commemorate his extraordinary life and contributions to science and medicine at Stanford and beyond will be held on Friday, January 25, 2008 at 3 pm in the Dinkelspiel Auditorium (471 Lagunita Drive – near White Plaza). It will be followed by a reception at the Faculty Club (439 Lagunita Drive). All are welcome to attend.

## **Expressions of Support and Concerns from Students and Alumni**

During the past week, I have been copied on a number of emails and comments from alumni and current students regarding their concern about a member of the teaching staff in relation to a new program called Educators 4 CARE. I am respectful of the deeply felt expressions of concern from each of our current and past students and colleagues with regard to Dr. Wolfe, and I appreciate the enthusiasm being expressed for further enhancing our clinical education. I have read and considered all the messages from alumni and students, and I attended and participated in a meeting led by concerned students on Friday, December 14<sup>th</sup> in the Dean's Courtyard.

While I appreciate the perspective and reactions of a number of students and alumni, I am also aware that the basis for some decisions (such as those involving the employment-related circumstances of individuals) cannot be discussed publicly and thus can leave uncertainty, confusion and distrust in their wake. That said, I would hope that those expressing their concerns would recognize that I and others in the leadership of the Medical School and University hear their messages and respect their right to express their thoughts and concerns. At the same time I would remind our colleagues that disagreements should be communicated in a professional and respectful manner and should avoid negative personal assertions or allegations that may, in fact, be misplaced or simply erroneous. Although it would not be appropriate to say more about Dr. Wolfe's particular situation, what I can tell you is that the University has decided to reactivate an independent dispute resolution process previously agreed to and utilized with him.

I would also hope that our community is mindful of the fact that the leadership of the School of Medicine and I have made medical education among our very highest priorities. Indeed, I hope it is more than evident that we have worked diligently to support and develop programs to improve our students' personal and professional lives, while easing the financial burdens that medical education can entail. Further, the faculty, senior education deans and Office of Educational Programs and Services staff have worked very hard to enhance the quality of our education programs across the basic and clinical sciences as well as to develop and generate the funding for the resources and facilities that are, and will be, available for them and future generations. By every measure -- including outside reviews by our National Advisory Council and the Liaison Committee on Medical Education -- medical education at Stanford is highly regarded, and the resources and services that have been put into place to support students are viewed as extraordinary and even nonpareil. It is also important to underscore that effective and

successful medical and postgraduate education depends on the broad and deeply shared commitment of faculty and students – an effort which transcends any one of us or any point in time.

## **Ending the Year Strong**

A number of external and internal forces currently shape the financial wellbeing and underpinnings of academic medical centers, including Stanford. While all of the 125 medical schools and academic medical centers in the United States share common missions and sources of support, the balance among them is quite different and thus the overall state of health of each medical school and medical center must be described individually. When doing so, it is important to recognize that a medical school/medical center is comprised of a number of individual components – basic and clinical departments, centers and institutes, faculty, students and staff – each with different financial profiles and resources. That said, the strength of an academic medical center resides in how well it is able to balance and integrate its missions and the resources used to support them. While it is expected that different components of a medical school – just like every other social network – will have different resources they can call on, how well one group is able to support another will translate into future sustenance and success.

Medical schools have several sources of financial support: sponsored grants and contracts, clinical income, support from endowment and reserves and gifts. Looking at these separately for Stanford School of Medicine, the following can be stated:

- I have commented frequently on the serious challenge facing the nation's biomedical research enterprise due to the flat and now declining NIH budget, which has had a significant impact on faculty at Stanford and across the nation. While our total sponsored research expenditures increased slightly in FY2007 (from \$266 million in FY06 to \$277 million in FY07), we are well aware that this could be the result of one or more large grants. We are well aware that our faculty are having to work harder to secure grants and also to support graduate students. Further, the indirect cost recover in FY07 is flat essentially compared to FY06 (at \$106 million).
- Clinical income has increased during the past year, reflecting increased performance by faculty as well as the recruitment of new clinical faculty. Further impacting these results is the positive impact of the new "funds flow" model, which is now in its second year. In the aggregate, clinical income for the departments and school increased from \$270.7 million in FY06 to \$300.3 million in FY07, resulting in a positive aggregate balance of \$46.1 million. Only one department had a clinical deficit, and it is expected that this will resolve in future years. Of interest, we still differ from virtually every other medical school in that our research income exceeds clinical income.
- We are fortunate at Stanford to have considerable endowment funds and reserve balances, which play critical roles in programmatic and capital funding. Even

though many of these funds are restricted by use or by their local oversight (department, institute, center or school funds), in the aggregate they are important – especially in a time when external funding is constrained. As of August 31, 2007 the market value of the School of Medicine endowment was \$2.269 billion. It has risen commensurate with the Stanford endowment over the years as part of the “merged pool” that is overseen by the Stanford Management Company. While we do not have the figures for 2007, in FY06 the School of Medicine endowment was second only to Harvard Medical School in its size. That said, as I have noted in previous communications, endowments are highly restricted to specific purposes – and a nearly a third of that which is allocated to the Dean’s Office is for education.

- In addition to endowment resources, the School also holds expendable fund balances or reserves, which fall into restricted and unrestricted components. These funds also increased from \$419.1 million in FY06 to \$458.1 million in FY07. Of these \$334.0 million reside in departmental accounts, \$25.5 in Institutes and the remaining \$113.2 million in central school accounts. Of note, within departments holding expendable reserves, faculty or divisions hold the majority of these. Moreover, a handful of departments hold the vast bulk of these dollars, where they are important for academic development. While it is not true today, it would be ideal if each department held sufficient reserves for emergency management and academic development.
- Patents and Royalties can also be a source of income for academic medical centers, although such revenues are unpredictable and not sustainable over time. That said, there are notable exceptions that have impacted medical centers like Stanford – including the Cohen-Boyer and Herzenberg patents.
- The final source of revenue is gifts from individual or foundations. I have reported in prior Newsletters that the School had an outstanding year in medical development. We have been fortunate to receive some significant gifts for buildings and facilities as well as for program development, including endowment. This is the result of efforts by many of our faculty as well as the Office of Medical Development. This is clearly an area for continued focus and effort – and one on which I spend a considerable amount of my own time.

Thus, looking at our consolidated budget and results, the School (as a whole) increased its bottom line by \$32 million in FY07. While the departmental reserves rose, the central School accounts declined because of significant investments in space, technology, recruitments (particularly in basic science departments) and various programmatic initiatives. These are all good things, of course, and it is terrific that we have been able to accomplish them. And while we are in a strong financial position compared to many peer institutions, we do have a number of challenges. Among these is the fact that the majority of our funds are restricted for specific purposes or are fully committed. In addition, while we have reserves, they are unevenly distributed, which creates, almost by definition, a “have and have not” portfolio. Obviously this is an issue

deserving increased scrutiny. One way of addressing this is through transparency – which is why we shared the detailed financial data with the Executive Committee at its December 7<sup>th</sup> meeting, even though we acknowledged that it would raise questions and sensitivities. This commitment to transparency is also why I am sharing some of the data with you in this communication.

We must also be cognizant of the many challenges that stand before us. The need to support faculty through difficult times in research funding, to cover the increasing costs associated with graduate student education, to recruit and retain outstanding faculty, to renovate and build new facilities, and to develop exciting new programs are just some of the challenges we face. While we won't be able to accomplish everything we want, we can continue to make progress on supporting key investments, albeit in a prioritized manner. And while the years ahead will be challenging, we face them with the recognition that we are strong in the key components for success: we have outstanding faculty, students and staff, and we have a strong financial platform from which to build the future.

### **Update on the Department of Neurology**

At the Executive Committee meeting on Friday December 7<sup>th</sup>, Dr. Frank Longo, the George E and Lucy Becker Professor and Chair of the Department of Neurology, gave an update on the progress he and his colleagues have made in the past couple of years. His report follows – but I would quickly add how pleased and impressed I am by the efforts Dr. Longo is making on behalf of Neurology and the Neurological Sciences.

“The Department of Neurology and Neurological Sciences at Stanford is currently under a major development phase expanding its academic, clinical and teaching programs. The Department has a long history of training outstanding academic neurologists with some one dozen having served as department chairs of prominent programs across the country. With the continued growth of the Stanford campus, expansions of the Stanford and Packard Hospitals and the development of the Institutes of Medicine, the Department has an outstanding opportunity to further its development of high caliber programs. The key strategy in Department growth is the development of programs along a continuum from clinical to translational to basic science that integrate multiple disciplines across Stanford's Schools, Institutes and Departments. As part of this process, the Department has recruited ten new faculty members with a similar number of recruitments underway. Each faculty member and program is closely integrated with colleagues in other departments and schools.

- In *Stroke and Neurocritical Care*, new programs have filled out a continuum extending from the creation of new patient services, such as the TIA Clinic, to expanded research. Areas include designing the next generation of imaging modalities that will allow more effective targeting of stroke treatments, creating better ways to predict and monitor the effects of brain cooling therapy in the intensive care unit and the launch of

a new program developing stem cell and immune modulation approaches for stroke rehabilitation.

- In ***Epilepsy***, new basic science work has uncovered mechanisms underlying post-traumatic epilepsy, a major area of concern with troops returning from Iraq. Faculty are leading the nation's first two trials testing the ability of implanted devices to monitor electroencephalographic activity to predict an impending seizure and then deliver a targeted electrical pulse to prevent seizure onset. Research pioneering the linkage of advance imaging with electrophysiological monitoring will elucidate how seizures propagate in the brain. Expansion of epilepsy monitoring unit services will better accommodate patients needing advances therapies including neurosurgical approaches.
- The ***Neuromuscular Division*** has created a continuum of activity focused on motor neuron disease, that includes: patient care services for adults and children; the first implants of diaphragm pacers for ALS patients in the Western U.S.; a pioneering pharmacological approach in children with a genetic motor neuron disease to upregulate expression of a crucial gene and thereby slow neuronal degeneration; and finally, a preclinical trial in ALS mice of a novel small molecule targeted to a receptor regulating motor neuron survival.
- The Department's ***Alzheimer's and Dementia team*** has pioneered the development of "resting state" functional MRI that can detect brain network differences between early Alzheimer patients and age-matched controls, thus nearing the long-sought goal of devising a brain imaging approach that can detect Alzheimer's onset. Other team members just last month published in *Nature Medicine* the development of a blood proteomic test that forged novel levels of accuracy in predicting which patients with mild cognitive impairment would go on to develop Alzheimer's. Novel small molecule approaches are being developed with one demonstrating an ability to correct memory deficits in Alzheimer's mice.
- In ***Movement Disorders***, cutting edge biomedical engineering and electrophysiological strategies have led to advances in understanding how deep brain stimulation might be made even more effective for Parkinson's disease patients and how a "retraining" approach might improve motor function in children with dystonia.
- In ***Multiple Sclerosis***, recruitment of an additional MS neurologist will allow further integration with our exceptionally strong MS and Immunology translational research programs.

- The *Neuro-oncology group* has made considerable advances in elucidating stem cell mechanisms in brain tumors and how these might be harnessed for more effective tumor detection and treatment. Our Pediatric Brain Tumor team has developed one of the country's leading tumor treatment and assessment research programs.

The Neuroscience Development Team has played an essential role in enabling the Department to expand its programs. The donation of the Coyote Foundation Stroke Chair and many other recent gifts will continue to make possible pioneering academic and clinical programs.

## More Stem Cell Awards

At its December 12<sup>th</sup> meeting, the Independent Citizens Oversight Committee (ICOC) of the California Institute for Regenerative Medicine (CIRM) announced the results of the recent competition for CIRM "New Faculty Awards." Each institution was able to submit four applications for this award. Of course, as a member of the ICOC, I recused myself from any review or discussion of the Stanford applicants. But we all share in the wonderful news that all four Stanford faculty were selected for New Faculty Awards. In the aggregate this means an additional \$10.7 million to Stanford, with individual Awards, which are multiyear grants, ranging from \$2.3 to \$3 million each. The successful junior faculty include:

- **Anne Brunet, PhD**, Assistant Professor of Genetics was awarded \$2.3 million for work aimed at understanding what factors help maintain adult stem cells in the brain as an organism ages. Knowing what naturally keeps those stem cells healthy could lead to ways of preventing age-dependent decline in brain function and enable these cells to be used for therapeutic purposes in neurological or neurodegenerative diseases such as Alzheimer's and Parkinson's.
- **Howard Chang, MD, PhD**, Assistant Professor of Dermatology, received \$3 million to investigate the DNA changes that allow adult stem cells to remember what tissues they belong in. Finding these changes, which tell a cell that it belongs in the liver or brain, for example, could help scientists identify when embryonic stem cells have matured into adult cells.
- **Karl Deisseroth, MD, PhD**, Assistant Professor of Bioengineering and of Psychiatry and Behavioral Sciences, received \$3 million to develop rapid, inexpensive technologies for directing embryonic stem cells down a path to become cell types that can be used to treat diseases of the central nervous system, including stroke, Alzheimer's and Parkinson's.
- **Joanna Wysocka, PhD**, Assistant Professor of Chemical and Systems Biology and of Developmental Biology, received \$2.4 million to study changes to the proteins associated with DNA as embryonic stem cells mature into adult cells.

This research will aid in future work in directing the stem cells down different developmental pathways.

This is wonderful news for each of these faculty members and for Stanford. I want to thank the faculty advisors and internal selection committee for their work as well. With these additional awards, Stanford has now received \$41,388,988 from the CIRM. The second highest funded institution by CIRM is UCSF at \$29,666,776 although they and three other institutions were unable to receive the New Faculty Awards because of an institutional conflict of interest – that will be hopefully resolved in the very near future.

Again, congratulations to Drs. Brunet, Chang, Deisseorth and Wysocka – well done!

### **Promising Provisional News on Major Facilities Grants from CIRM**

On Friday December 14<sup>th</sup> Stanford received the news from the California Institute for Regenerative Medicine (CIRM) that it was one of 12 California institutions being recommended for the second round review for consideration for a “Major Facilities Grant.” As part of Proposition 71, CIRM has committed up to 10% of its resources for facilities construction and renovation. According to CIRM, the objectives of the major facilities grants are:

- To fund new facilities – and encourage investments by others in new facilities – that are free of federal funding so as to allow research and development of therapies based on human embryonic stem cell and other stem cell researchers to proceed in California.
- To develop centers that will expand research capacity and capabilities in California while bringing stem cell-related researchers together in a collaborative setting.
- Fund new facilities and improvements where research institutions have determined that existing facilities are inadequate to advance important stem cell research initiatives.

The review process put forth by CIRM involves two stages or rounds. The first (the one Stanford has successfully completed) involved a review by CIRM’s Scientific and Medical Research Funding Group, which is comprised of internationally recognized scientists outside of California along with patient advocates. At its January meeting, CIRM’s Independent Citizen’s Oversight Committee (ICOC) will recommend that the 12 successful round one applicants be approved to proceed to the round two review process. Because I am a member of the ICOC I will of course recuse myself from any decisions regarding Stanford.

Institutions were invited to apply for three types of stem cell facilities. Stanford applied for the highest-level designation, a so-called CIRM Institute, which could carry out research in three areas: basic and discovery stem cell science, preclinical (translational) research, and preclinical development and clinical research. Applicants

could also apply to be a CIRM Center of Excellence, wherein they would do research in two of these three areas, or a CIRM Special Program, in which they would focus on one area. Potential major grants funding opportunities are correlated with the type of facilities. That is, CIRM Institutes could apply for funding ranging from \$25-50 million, whereas a CIRM Center of Excellence project could be between \$10-25 million and a CIRM Special Program between \$5-10 million.

It is important to underscore that the notice we have received to date is provisional and is pending approval by the ICOC and, more importantly, that it does not convey actual funding. That will follow the second round review, which will evaluate the technical aspects of the applicants' building program, including "how the scientific program aligns with the CIRM's objectives, and why the program represents a good value for California taxpayers investment." The facility for stem cell research at Stanford will be housed in the Stanford Institute of Medicine #1 building, which has just completed program level planning and which will be the basis for Stanford's submission to the second round review. It is anticipated that these reviews will be completed in April 2008.

Clearly this is excellent news for Stanford – but it is only the first of two important hurdles. Many individuals from Stanford's Institute for Stem Cell Research and Regenerative Medicine worked diligently and collaboratively to prepare this submission, which was led by Mike Longaker and Irv Weissman. I know the University is grateful to them for their important efforts and contributions.

### **Immune Monitoring: Past, Present and Future**

On December 13-14<sup>th</sup> the Stanford Institute on Immunity-Transplantation-Infection (ITI) hosted a symposium addressing the advances in immune monitoring, both those that occurred in the past and those that are shaping the future. Beginning with the development of the FACS (fluorescent activated cell sorter), along with the studies of the innate and acquired immune system and advances in genomics and infectious disease, Stanford has played a pioneering role in the complex interplay between genetics, immunity, host defense and the wide-ranging complications that ensue in immune system regulation. The ITI has been formed to bring clinical and basic scientists together to help unravel how the immune system interacts with the host and its endogenous and exogenous microflora – and how this relates to diseases that are either congenital or acquired. One of the immediate products of the ITI has been the development of the Immune Monitoring Center, which is now open for collaborative research projects (see: [http://iti.stanford.edu/research/human\\_immune\\_monitoring.html](http://iti.stanford.edu/research/human_immune_monitoring.html)). Given Stanford's enormous strengths in immunology, transplantation, infectious diseases, genomics, imaging and related disciplines, advances in this important area of translational research seem imminent – and Stanford has every reason to play an important leadership role.

### **Moves to SMP Completed**

The relocation of the majority of School of Medicine administrative groups to Stanford Menlo Park (SMP) is now underway and will be completed this week. As you may recall from earlier newsletters, the driving force behind the decision to move these administrative groups is the need for academic programmatic space here at the Medical School. Because of General Use Permit and other restrictions we are virtually out of space for growth in our research and teaching programs.

Administrative groups moving include:

- [Office of Facilities Planning and Management](#)
- Office of Institutional Planning
- [SPCTRM](#)
- [Communication and Public Affairs](#)
- [Information Resources Technology](#) - IT Infrastructure Services Group (Networking, Data Center and Service Desk), IT Security and Privacy, Web and Systems Engineering, Finance and Administration. Not moving are the Office of the Senior Associate Dean for IRT, Lane Library, Educational Technology Services, The Center for Clinical Informatics, the Center for Immersive and Simulation-Based Learning (CISL) and SUMMIT.
- [Human Resources Group](#) (except for Employee Relations staff and the Director of Organizational Effectiveness. These individuals will remain in MSOB.)
- [Research Management Group](#)
- [Finance](#) (Controllers Group, Faculty Compensation Group, and Budget and Planning Group)

I would like to extend my thanks and admiration to the individuals moving to the new location. They have shown a pioneering spirit and a generous attitude towards the practical adjustments needed to effectively conduct their work from a remote site. In addition, they are trendsetters; the University administrative groups moving to Porter Drive this summer to make room for the new GSB campus will be facing similar challenges and will be able to build on our experiences. Finally, this move also serves as a laboratory for future relocations, including the eventual one to Redwood City slated for 2012.

I would also like to thank the Offsite Steering Committee, led by Julia Tussing in the Dean's Office and comprising directors and administrators from the groups moving (Cori Bossenberry, Todd Ferris, Linda Gibson, Connie Hartnett, Susan Hoerger, Dave O'Brien, Lora Pertle, Rebecca Trumbull, Carol Velazquez, and Sam Zelch) as well as representatives from academic departments (Martha Kessler and Brian David), with Frank Topper facilitating.

A number of initiatives to ensure that business continues efficiently have been implemented. Touchdown space in which SMP staff can work while on campus is being configured on the ground floor of the Alway building, and analogous space is being arranged at the Menlo Park campus for visitors from the School of Medicine site. In order to keep peak hour traffic down and allow easy access to campus, a shuttle service

provides fast transportation between SOM and Stanford Menlo Park; a bike fleet is also available, and we have preserved access to Commute Club membership.

Please do your best to be supportive of these groups during this transitional period, and to applaud their efforts in making this work well for everyone. Details about the move, transportation, and the location can be accessed on the [SMP website](#) .

## **Awards and Honors**

**Dr. Pak H Chan** was officially installed as the first **James R. Doty Professor in Neurosurgery and Neurosciences** on Monday evening, December 3<sup>rd</sup>. This new professorship resulted from a \$5.4 million gift that Dr. Doty, a former faculty member in Neurosurgery, made to the department – the largest single gift ever made to the Department of Neurosurgery. The gift is specifically dedicated to the support of basic science research, which makes Pak Chan an outstanding first incumbent holder of the James R. Doty Professorship. Dr. Chan, who joined Stanford in 1977, has made outstanding contributions to the understanding of neuronal injury and death that serve as critical underpinnings for helping to understand the damage caused by stroke and the prospects for treating or preventing CNS injury. Congratulations to Dr. Chan and thanks to Dr. Doty.

**Dr. Jonathan Berek**, Professor and Chair of the department of Obstetrics and Gynecology, is unlikely to see his picture on the cover of *Time* magazine. But he has the distinction of being nominated for the 2007 Time Person of the Year by actress Nicole Kidman. Among the other nominees are the Dalai Lama and Al Gore. Quite a notable crowd for our respected colleague!

**Dr. John Morton**, Associate Professor of Surgery has been named SAGES Young Investigator of the Year 2008. This prestigious award from the world's largest minimal access surgery society (Society of American Gastrointestinal and Endoscopic Surgeons) is for demonstrated excellence in endoscopic surgical research for a SAGES member who has completed training within the past five years.

## **Appointments and Promotions**

- **Christopher D. Gardner** has been promoted as Associate Professor (Research) of Medicine (Stanford Prevention Research Center), effective 12/01/2007.