Expert discusses bioethical issues in human research

By Katie Neith

Research with human subjects has always faced ethical challenges. And according to Frederick Grinnell, professor of cell biology at the Graduate School of Biomedical Sciences, University of Texas Southwestern Medical School, the increasing popularity of genetic medicine has revealed a whole new set of ethical questions pertaining to human participants.

“There are a lot of things that are dysfunctional—in my view—about human research. It becomes even more dysfunctional because of genetics,” said Grinnell, speaking at a Dean’s Translational Medicine Seminar held by the Keck School of Medicine on Nov. 16.

In his work in bioethics, Grinnell engages in cross-disciplinary work at the boundary between science and philosophy with the goal to inform public policy and advance science education and public understanding of science. In 1998 he founded UT Southwestern’s Ethics in Science and Medicine Program. In 2004 he organized the North Texas bioethics network.

He has published two books: The Scientific Attitude, now in its second edition, and Everyday Practice of Science: Where Intuition and Passion Meet Objectivity and Logic, published in 2009. This second book was selected as one of six finalists in the 2010 Royal Society Prize competition for best popular book about science.

His presentation, “New Challenges to Human Research Protections in Post-Genomic Medicine,” posed evolving questions about the definitions of disease, patient and cure in terms of genetic medicine. For example, the definition of disease has broadened from a change in physiology to a prediction of something that may happen to someone. The “patient” in a genetic research study may include family data that could be applicable to a range of people, and a “cure” could consist of replacing a gene that might be defective in the future.

By changing the meaning of disease, patient and cure, genetic medicine creates a whole new set of problems for human research protections,” said Grinnell. “You have to deal with a situation where intervention may cause dramatic effects and it’s very hard to predict the outcome.”

He advocated for increased public participation in decision making about research and a shift in the burdens of proof, meaning that researchers need to take responsibility for any harm caused by their research.

“We need to reevaluate our general philosophical approach in light of genetic medicine and think about some new options,” Grinnell concluded.
Nine USC scholars named to new CTSI training programs

By Katie Neidle

Aiming to train a new generation of translational researchers, the Los Angeles Ba- sin Clinical and Translational Science Institute (CTSI) has named its first nine scholars in its new pre- and postdoctoral training programs. Based at the Keck School of Medicine of USC, the CTSI received a $56.8 million grant from the National Institutes of Health last summer to accelerate the pace at which research discoveries are translated into clinical practice.

The CTSI’s Center for Education, Training and Career Development (CETCD) has presented predoctoral TL1 and postdoctoral KL2 translational research training awards to young investigators highly motivated in acquiring the scientific competencies necessary to perform clinical and translational research in diverse populations with a multi-disciplinary, team-based approach. “The training programs of the CTSI have created new opportunities for faculty and students at USC and our CTSI partner institutions to learn how to carry out translational research,” said Jonathan Samet, Flora L. Thornton Chair of the Department of Preventive Medicine at the Keck School and director of the CETCD. “The first group of trainees are terrific and come from across the university and Children’s Hospital Los Angeles.”

For predoctoral students, TL1 Research Training Awards support two years of mentored career development. The program provides multidisciplinary, team-based clinical and translational research education for students to acquire the scientific competencies necessary to perform clinical and translational research, including research in health problems of diverse populations. Students will have dual mentorship from their doctoral advisor and a translational research mentor. Awardees include Keck School students Tanya Alderete, a student in the Ph.D. program in Systems Biology and Disease; Jamaica Rettburg, Ph.D. student in Neuroscience; and Melissa Warden, Ph.D. student in Preventive Medicine/Molecular Epidemiology. Ian Holloway, a Ph.D. student in the School of Social Work, also received a TL1 award.

KL2 Mentored Research Career Development Awards have been given to individuals who are in the early stages of their academic career. The three-year KL2 Program supports the mentored research career development for individuals with health professional or research doctoral degrees who are seeking advanced training in clinical and translational research.

Keck School recipients of the KL2 awards are Kimberly Aldinger, a postdoctoral fellow at the Zilkha Neurogenetic Institute (ZNI); Alex Balekian, assistant professor in the Department of Internal Medicine; William Mack, assistant professor of neurosurgery and Director of the Neurovascular Research Laboratory at ZNI; and Kathleen Page, assistant professor in the Department of Internal Medicine. Robert Brown, senior research fellow of neuro-oncology at Children’s Hospital Los Angeles, also received a KL2 award.

“Translational science is a relatively new discipline that emphasizes interdisciplinary research that progresses from discovery to application in human health,” said Thomas A. Buchanan, director of the CTSI and associate dean for clinical research at the Keck School of Medicine. “The CTSI training program is designed to develop professionals who are used to working in teams and who are focused on creating new approaches to diagnosis and treatment of human disease. We want to create the new leaders of this field—people who can and will live and breathe translational science.”

—Thomas A. Buchanan, director of the CTSI and associate dean for clinical research at the Keck School of Medicine

PULIAFITO: ‘Our job is to help [students] realize their dreams’

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CP: Clinical excellence directly links to academic excellence. Medical schools exist to create new knowledge and train physicians, but all within the context of patient care delivery. We’re going to have an outstanding medical school going forward because now we have our physicians, our hospitals, our researchers aligned in our goals.

Research has seen its own kind of explosion here with new programs and increased research funding. What is the significance of that to the Keck School?

CP: Right now we have about $275 million in sponsored research in the Keck School and its affiliates. At the medical school alone, our sponsored research funding has gone up by about 25 percent in the last three years, which puts us at a greater level than our peer institutions as reflected in the ranking of the medical school. In a single year, last year, we moved up five spots to position #34 in the U.S. News & World Report rankings.

Continuing on the topic of research, one of the Keck School’s newest programs is a collaboration with the USC Viterbi School of Engineering. How did that come about?

CP: Interdisciplinary research is a real hallmark of USC—it’s the hallmark of the Keck School of Medicine. We have a number of research collaborations between the Keck School and the Viterbi School, and we worked to enhance that by bringing together faculty with common interests for a series of retreats.

Our faculty agreed that building educational bridges across our two campuses and using students as intellectual vectors to promote collaboration would be very worthwhile. We are now in the planning stages for the first class of the medical education program—HTE@USC—which will co-educate a cohort of medical students and a cohort of Ph.D. students from the engineering school. We will train them in interdisciplinary laboratory work—a very exciting new initiative to promote health, technology and engineering.

One of your accomplishments has been the full eight-year accreditation of the medical school by the LCME. How was that achieved?

CP: The key to our success was to address concerns that the LCME had shared with us about things like the student health service, about the availability of psychological counseling, career counseling. Another very important element was the appointment of a new vice dean for medical education, Dr. Henri Ford. We had the help of the entire staff of Educational Affairs and the clinical and science leadership of the school; the collaboration was fantastic. In the end, we were able to reveal the Keck School as the marvelous medical education institution that it is, and we got an extraordinarily positive review from the LCME Accreditation Committee. It was the best review in this school’s history.

You've been known to host students in your office for lunch, and you have hosted them in your home. Why is that important to you?

CP: I think interacting with the students and the residents in training is a great privilege. Mentoring and interacting with our future researchers and future clinicians is really very exciting. We have extraordinarily talented medical students at USC. They come in with unabashed enthusiasm for medical care and the future of our medicine. Our job is to help them realize their dreams whatever they might be.

Looking ahead, you have been in charge about the need to create new facilities for our campus. What are the top priorities?

CP: We want to make the USC Health Sciences Campus a destination for three types of people—patients, students and researchers. And by destination, I mean that you will know you have arrived at a very special place when you come here. We need to create a special environment for amenities for our faculty and students. For our patients, it is important to me that they are arriving at a place where their needs are our highest priority. We need to build a new ambulatory care center that addresses the medicine of tomorrow. Our USC University Hospital is growing quite rapidly, and it’s likely that we’re going to need more operating rooms and more ICUs soon.

For our students, we want to create a premier educational destination. There is a new emphasis on small group learning, high levels of inter-action, and clinical simulation, and we need to build a new medical education facility that addresses this changing world and permits us to increase our class size, which we need to do in light of the coming shortage of physicians in this country. We can mobilize the clinical resources to train more than 200 doctors a year here, but to do that, we really do need a better core educational facility.

Finally, we want to make this a destination for research.

We have a strong need for space for developing a new imaging program, and for programs in genome medicine and preventive medicine. We have some outstanding laboratory space in three of our buildings—Zilkha, the new Broad stem cell building, and the Harlyne Norris Research Tower—but we need additional standard dry lab space near wet lab facilities.

Through the campus master planning process, we plan to create an environment where there are amenities for our students, our staff members and patients and visitors. I’m optimistic that we’re going to be able to build a hotel on Alcazar in the years ahead and also build improved student housing.

Funding will play a key role in creating new facilities and in creating new scholarships for medical students. What are your plans for raising those funds?

CP: President Nikias has outlined a very impressive plan for a very significant fundraising effort for USC, and the medical enterprise will play a major role in that. The goals of this campaign would include increasing the endowment of our medical school. It is important to differentiate between top medical schools and other medical schools by the size of their endowment. We need to build our endowment aggressively—endowed professorships, endowed research pools and endowments for student scholarships in perpetuity. We need to raise money for the buildings that we’ve discussed and for the hospitals’ construction and modernization.

How are the leaders on this campus working together to plan for the future?

CP: When I arrived here, we had no hospital management team of our own because we didn’t own any hospitals. I was instrumental in recruiting Mitch Cremeen as CEO of USC University Hospital and USC Norris Cancer Hospital. Mitch used to work with me in Boston, and so I think we’ve developed a very collaborative management structure between the hospital and our physicians and our researchers. That is a real accomplishment.

What else is on your mind as you look ahead to the new year?

CP: We’re going to be recruiting more clinical leaders, which is a very important effort. We have searches underway for the next director of the USC Norris Comprehensive Cancer Center and for chairs of two clinical departments—Radiation Oncology and Emergency Medicine. I look forward to bringing new talent and enthusiasm to the outstanding faculty we already have in place.

Puliafito’s Keck School Deanship by the Numbers

• 35 new faculty leaders
• Eight-year accreditation by LCME
• Research funding up 25 percent
• Moved up five spots in US News rankings
Edward Newton to step down as Department of Emergency Medicine chair

After seven years leading the oldest and one of the largest academic departments in emergency medicine in the United States, Edward Newton has announced his intention to step down from his position as chair. Newton will retain the post until a new chair is identified, at which time he will rejoin his department as an active member of the emergency medicine team.

Philip Lumb, chair of the Department of Anesthesiology, will serve as Search Committee Chair.

A Canadian by birth, Newton completed his undergraduate degrees at Loyola College in Montreal in history, and at the University of British Columbia in microbiology. He attended medical school at McGill University and performed his initial internship at the Jewish General Hospital in Montreal. His association with LAC+USC began when he served both his residency in emergency medicine and his fellowship in emergency medicine and toxicology at the LAC+USC Medical Center.

He began as an assistant professor of clinical emergency medicine in 1988 and has been at USC ever since. He is board certified by the Royal College of Physicians and Surgeons (Canada) Emergency Medicine and is a diplomate of the American Board of Emergency Medicine.

Newton’s contributions to medical education and to his field have been widely recognized by his peers. He lectures to medical students and residents and has been the Advanced Cardiac Life Support Course Director. He was voted Clinical Teacher of the Year in 1989-90 and 1990-91.

He was also LAC+USC Emergency Medicine Alumnus of the Year in 1999 and recipient of the Passionate Performer Award LAC + USC Medical Center for JCAHO in 2008.

As department chair, Newton has led 45 full-time USC faculty, 60 voluntary part-time faculty, and 68 residents, and provided administrative direction to a wide range of Los Angeles County employees working in the Emergency Department at the LAC+USC Medical Center. His term as chair saw the integration of the emergency medicine private practice into the University of Southern California and the transition from the old county facility to the new state-of-the-art Level 1 trauma center.

Calendar of Events

This Calendar of events is also online at www.usc.edu/hscalendar for the Health Sciences Campus community

Tuesday, Dec. 7

1 p.m. ZNI Seminar. “Sculpting Glioblastoma: Understanding Pathways of Endocytosis and Exocytosis,” Harvey McMahon, Medical Research Council Laboratory of Molecular Biology, Cambridge, England. ZNI 112. Info: (323) 442-2144

Thursday, Dec. 9

Noon. 2nd Annual Taller II. “Pete” Reynolds Memorial Lecture. “Hepatic Venous Pressure Gradient and Risk Stratification in Cirrhosis,” Gualagule Garcia-Tiso, Yale. IIBR 100. Info: (323) 442-1283

Tuesday, Dec. 14

8 a.m. Pathology and Laboratory medicine Grand Rounds. “Infectious Pathology: Through Information: Fracton Section Management,” John Simard, Yale. IIBR 100. Info: (323) 442-1180

10:30 a.m. USC Hospital Guild Holiday Speaker Series. “Seeing Better,” Mark Humayun, USC DRI 3200. Speaker series is complimentary, optional lunch $30. Info: (323) 254-0600

Thursday, Dec. 16

Noon. USC Research Center for Liver Disease. “Population-based Discovery of Toxicogenomics Biomarkers for Hepatotoxicity,” Ivan Rusyn, Univ. of North Carolina. IIBR 100. Info: (323) 442-1180

Friday, Dec. 17

11:30 a.m. USC Physical Sciences in Oncology Center Seminar. “The MBEST, A Histone Methyl Transferase, Alters Chromatin Structure and Gene Expression in Multiple Myeloma.” Jonathan Lucht, Northwestern Univ. CB2 240. Info: (323) 442-2596

Notice: Deadline for calendar submission is 4 p.m. Monday to be considered for that week’s issue—although three weeks’ advance notice of events is recommended. Please note that timely submission does not guarantee an item will be printed. Send calendar items to The Weekly, KAM 400 or fax to (323) 442-2822, or e-mail to elbaus@usc.edu.

Holiday drive seeks professional clothing to aid job-seekers

USC Employee Recruitment Service and USC Civic and Community Relations join forces again with the Southeast L.A.-Crenshaw WorkSource Center to conduct a professional clothing drive to benefit community job seekers through Dec. 17.

Gently used office attire is needed: suits, suit jackets, blazers, shirts, blouses, belts, slacks, ties, shoes, purses, and other accessories that are appropriate to wear on the job. Bring donations to KAM 420 from 9 a.m.-4 p.m.

Last year’s professional clothing drive was a tremendous success due to the overwhelming generosity of USC staff, alumni, retirees, and students.

More than 100 community job seekers benefited last year from the clothing drive and were able to choose from a huge selection of donated business attire at the WorkSource Closet. Of the 100 job seekers, 50 found full-time employment.

The demand remains high for professional clothing, even as the economy starts to recover. The program supports local communities of the University Park and Health Sciences campuses. Donors will receive a receipt that can be used to document the donation that may be tax-deductible.

For additional more information contact Hector Ramos or Diana Seyb at (213) 740-7252 or e-mail hramos@caps.usc.edu, or dseyb@caps.usc.edu.

In case of an emergency...

Call the Emergency Information Phone: 213-740-9233 The emergency telephone system can handle 1,400 simultaneous calls. It also has a backup system on the East Coast.

Visit the USC Web: http://emergencyusc.edu This page will be activated in case of an emergency. Backup Web servers on the East Coast will function if the USC servers are incapacitated.