New breed of primary care clinic helps patients tame chronic illness

By Ruthann Richter

When Shelly Reynolds has a medical problem, she walks 500 yards from her office to a Stanford clinic where doctors know her by her first name and encourage her to call them any time — day or night — if she has a major concern.

The experience is not only refreshing, she said, but she has learned techniques at the clinic to manage her asthma and her chronic back pain so that she does not feel the need to go to the emergency room anymore and is feeling much better overall.

“T hey hold me accountable for my own health, which is great. Physically and emotionally, I’m healthier than I was before,” said Reynolds, RN, who directs the catheterization-angiography laboratory at Stanford Hospital & Clinics.

Reynolds is a patient at Stanford Coordinated Care, a new breed of primary care clinic designed to be a national model for reducing health-care costs while improving people’s health and experience with health care.

The clinic, which soon will celebrate its two-year anniversary, recognizes that people with chronic illnesses, such as diabetes, arthritis or heart problems, account for 80 percent of health-care spending in the United States. When their conditions are poorly managed, these patients are likely to wind up in the emergency room or the hospital, often at great cost.

The clinic helps patients gain control over their health.

Oral anti-fungal drug also can treat skin cancer in patients, study shows

By Ranjini Raghunath

Decades of research and millions of dollars go into developing new cancer drugs from scratch. But what if the next cure is a pill that’s already tucked away in a bottle at the local pharmacy?

One such drug, a common anti-fungal treatment called itraconazole, may be useful in treating basal cell carcinoma — the most common form of skin cancer, according to a study that was published online Feb. 3 in the Journal of Clinical Oncology.

The study tested itraconazole’s effectiveness in treating patients with multiple basal cell carcinoma tumors. Researchers at the School of Medicine carried out a phase-2 clinical trial with 29 patients who had a total of 101 tumors. Within a month, the size and spread of tumors had decreased in most patients, they found.

Basal cell carcinoma affects nearly 3 million people in the United States every year. Triggered mainly by excess sun exposure, it is rarely fatal, but advanced-stage tumors can cause pain and skin disfigurement. Older adults with light skin are particularly at risk.

The study describes the first evidence of itraconazole’s usefulness in treating this type of skin cancer. It also demonstrates how an existing drug can be repurposed to treat cancer, said Jean Tang, MD, PhD, associate professor of dermatology and the

Pilot program offers genomic testing to certain patients

By Sara Wykes

A small group of patients at Stanford Hospital & Clinics and Lucile Packard Children’s Hospital Stanford now can have their DNA deciphered as part of a new pilot program.

The goal of the program, the Clinical Genomics Service, is to help doctors better diagnose and treat genetic conditions. In the pilot phase, genomic testing will be limited to patients with “mystery” diseases (typically children), patients with unexplained hereditary cancer risk, patients with inherited cardiovascular or neurological disease, and those with severe, unexplained drug reactions. Potential participants must be referred by a physician, and the clinical genomics team will then determine whether patient cases are suitable for sequencing.

“I am very excited to bring the pioneering work of Stanford genomic scientists directly to the bedside of our patients,” said Eluan Ashley, MCRP, DPhil, associate professor of medicine and of genetics and co-director of the new Clinical Genomics Service.

Scientists are using a modified toxic chemical, similar to that found in the skin of California newts, to help pinpoint nerves signaling pain.
**500th lung transplant is performed at Stanford Hospital**

**By Sara Wykes**

From the moment she took a breath in the Stanford Hospital & Clinics recovery room, 65-year-old Patsy Nix knew that her newly transplanted lungs were working. That first breath, she said, "was a miracle."

What she didn’t know was that her transplant was far more than a personal landmark. Hers was the 500th lung transplant at Stanford, where a team led by cardiac thoracic surgeon Bruce Reitz, MD, completed the world’s first successful heart-lung transplant in 1981.

Before Nix’s transplant, every breath was an effort, hampered by lungs stiffened and scarred by idiopathic pulmonary fibrosis. "It was like an elephant sitting on my chest," Nix said. Even with the aid of oxygen, the simple act of walking from one room to another was impossible. When her local doctors told her that a transplant was the only option left to her, she was shocked. "Transplants happen to other people. I always thought they would be able to give me a pill that would make me better," she said.

By September, Nix was so sick that Stanford moved her quickly to the top of the waiting list. In October, the phone call came. “It was hard knowing that some- one had to have passed away to give me the lungs,” Nix said. But even after the six-hour surgery, she could feel the difference. "I had never smelled air that clean.” Now back home in Lompoc, in Southern California, Nix is walking every day, rebuilding her physical strength.

Only a handful of the 80 lung transplant centers in the United States and Canada have performed as many lung transplants as Stanford, which has averaged about 50 annually, putting it in the top ten percent of centers by volume. Its team also performs more heart- lung transplants than any other center in the nation.

"A milestone like this gives you the chance to look back on the efforts that have gone on here for a long time," said David Weill, MD, medical director of Stan- ford’s lung and heart-lung transplant program since 2006. "I think about all the people we’ve helped and about the level of commitment shown by our team to get that done."

One of the innovations that Weill, professor of medicine, implemented after his arrival was creating the Center for Advanced Lung Disease, which specifically focuses on patients whose conditions are so serious that they can not be helped with medical interventions. "The approach is still unusual but is gradually being ad- opted at other transplant centers," Weill said. "Treating patients earlier can help avoid transplant; it can also mean more successful transplants.

Stanford researchers are involved in clinical trials to new ways to predict and avoid the most common and feared phenomenon, chronic rejection of the transplanted organ. As chair of the sci- entific council on pulmonary transplan- tation for the International Society for Heart & Lung Transplantation, Weill is working to create a standardized protocol for patient selection.

"I had never smelled air that clean."
Clinical trial shows ‘stress shield’ device reduces appearance of revised scars

By Christopher Vaughan

A small clinical trial of a device invented by researchers at the School of Medicine has shown that it can help reduce the size of existing scars when used after scar revision surgery. The same device was previously shown to minimize the appearance of new scars after surgery, but this is the first time it has been tested as part of a procedure for reducing old scars.

“This is exciting because there are a lot of scars out there and a lot of people are bothered by them,” said Michael Longaker, MD, MBA, the Deane P. and Louanne Mitchell Professor at the School of Medicine and a senior author of the study. Lead authors of the study were former postdoctoral scholar Kai Kohlhoff, PhD, and Karl Heinz Schwab, MD, PhD.

The device is called the scar-reduction device and is a thin polymer sheet that is worn over the scar after surgery. The sheet is permeable to air and water but not to skin cells, which are essential to regulating heat in our bodies, and many people feel their scars are unsightly. Extensive scarring can be much more than a cosmetic problem; scarring can make certain movements and activities difficult or painful.

Longaker and Gurtner’s device is what they call a ‘stress shield.’ As cuts and injuries heal, normal tension in the skin pulls the edges of the wound away from each other, which widens the scar as it forms. The device precisely pulls together the skin around the wound to reduce that tension at the injury site.

“Doctors try to take off these mechanical stresses using steri-strips or other bandaging, but most don’t do this with any degree of precision,” Gurtner said. “They either pull too much, which creates blistering in the skin, or don’t pull enough, and the scar then tends to grow during healing.”

The device, which is manufactured by the Menlo Park, Calif., company Neodyne Biosciences Inc., has been granted a breakthrough device designation by the U.S. Food and Drug Administration, according to Bill Beasley, Neodyne’s president. Longaker and Gurtner have a financial stake in the company, which has completed Phase I clinical trials, the first step of many in the clinical trial process, which was funded by Neodyne.

The surgical procedures were done by an independent surgical center in Paris, France.

Currently, scar revision surgery does not work very well. Scars are cut out, the edges of the incision are closed, and surgeons work to make the new scar less obvious than the old one. But the revision surgery using current methods typically doesn’t work very well, Longaker said. “Most of the time, after a year the patient feels that the scar is just as bad as it ever was,” he says.

In this clinical trial, surgeons cut out old scars on each of 10 patients and then placed the scar-reduction device over half of the incision; the other half they closed using traditional methods. After the study, patients were offered the chance to have the traditionally revised section of the scar scarred closed using either of the two methods so that the two sides matched.

Six months after surgery, photographs of the two halves of the scar were compared by four independent surgeons who did not know which sides of the scars had been treated with the device. Using a visual scoring system, the judges determined that the scar on the side treated with the scar-reduction device was significantly smaller. “It was pretty obvious,” Longaker said. “It was not even subtle.”

This is the first demonstration of a new therapy that affects this very ubiquitous problem, and the beginning of a new class of therapy that works against fibrotic disease processes.”

Other Stanford authors of the study were adjunct clinical professor Erin Kaplan, MD, and postdoctoral scholar Michael Januzyk, MD.
Technique promises better detection of cancer during surgery

By Amy Adams

When surgeon George Poultsides, MD, removes a tumor in the stomach or intestines, he takes out what he thinks is the entire mass and sends it to the pathology lab for evaluation. Completely removing each and every cancer cell is the best hope those patients have for a full recovery.

As much as half an hour later, he finds out whether any cancerous cells remain at the edge of the tissue he removed. If yes, he takes out more tissue, sends it to pathology and waits for the answer.

Not only does this process keep the patient on the operating table longer, the information is wrong up to 50 percent of the time. Five days after the surgery, when a definitive test is complete, Poultsides, assistant professor of surgery, knows whether he got all of the cancerous cells or whether he might need to call the patient back for another surgery.

This is where things stood when he got an email from chemistry postdoctoral scholar Livia Eberlin, PhD. She and her adviser, chemistry professor Richard Zare, PhD, had an unusual idea for how chemical analysis could improve the odds of detecting cancer cells during surgery to prevent patients from needing to return. The results of that collaboration were published online Feb. 3 in the Proceedings of the National Academy of Sciences.

Learning new tricks

Eberlin chose to contact Poultsides from a website listing of cancer surgeons at Stanford Hospital & Clinics because he appeared young and had a publication unusually productive.

By Amy Adams

The California newts on the Stanford campus may be limited in physical range to the area around a small, now-dry lake, but their sphere of scientific influence extends much further. Work that started in these amphibians decades ago has now resulted in a tool that for the first time can highlight the location of pain generation with high accuracy.

The work began in the 1960s, when Stanford scientists discovered that the native news at Stanford had a chemical in their skin and eggs identical to the poison found in pufffish. (Outdoorsy students and their parents need not be afraid; the news are only toxic if eaten.)

The late Harry Mosher, PhD, a professor of chemistry who had spent much of his career analyzing and attempting to synthesize this toxin and related molecules, collectively called guanidinium toxins. They turned out to be an interesting group of molecules for chemists who like to develop new drugs, as well as for potential use as painkillers. More recently, the toxins have been used to develop better tools to find and treat cancer.

In addition to the grant from Stanford Hospital & Clinics, the study was funded by the Stanford Center for Molecular Analysis and Design, the National Science Foundation, the National Institutes of Health and the China Scholarship Council. The Department of Chemistry and Department of Pathology also supported the work.

Amal Adams is director of interdisciplinary life sciences communications at the university.

Early work with newt toxin paves way for research into locating pain

By Amy Adams

The California news on the Stanford campus may be limited in physical range to the area around a small, now-dry lake, but their sphere of scientific influence extends much further. Work that started in these amphibians decades ago has now resulted in a tool that for the first time can highlight the location of pain generation in a living animal.

In the 1960s, Stanford scientists discovered that a toxic chemical in the skin and eggs of California newts was identical to the toxin in pufffish. Now, scientists are using a modified version of a similar toxin to pinpoint the source of pain in laboratory rats.

The researchers say they want to test the new technique in a larger pool of stomach cancers to make sure it is as accurate as it seems. They also want to start working with other cancers in which it’s not always clear whether the surgeon got the entire tumor.

In addition, they say the peaks that distinguish between cancer and normal cells could help point scientists to better understand what goes wrong in cancerous cells.

Other Stanford co-authors of the study were Jiuling Zhang, a former visiting scholar; Teri Longacre, MD, professor of pathology; Gerald Berry, MD, professor of pathology; and David Bingham, MD, clinical assistant professor of pathology.

In addition to the grant from Stanford Hospital & Clinics, the study was supported by the National Institutes of Health and the China Scholarship Council. The Department of Chemistry and Department of Pathology also supported the work.
Clinic continued from page 1

in a number of ways, including a personalized approach by a team of caregivers who are available 24/7 and who give patients tools and support to deal effectively with their conditions at home.

"It's easy to make a diagnosis of diabetes, but it can be completely different for the patient," said Lindsay. "If I couldn't walk across the street and go grocery shopping, I wouldn't know what it's like, so I am equal footing with the patient." Lindsay, MD, a professor of medicine at Stanford. "We help patients in developing a plan. We support it, and we empower them along the way."

Lindsay co-directs the clinic with her husband, Alan Glaseroff, MD, using an approach they tested successfully in Humboldt County.

Glaseroff said the clinic's emphasis is on the patient's goals — what is important to them. With time, the staff develops trusting relationships with patients and can help manage their own care, eat healthier foods, be more physically active, or learn to live with less pain and stress. He cites a 2007 study by UC-San Francisco's Steven Schroen, MD, chair of the National Commission on Physician Payment Reform, who noted in The New England Journal of Medicine that behavior is the single largest determinant of mortality, accounting for nearly 40 percent of all deaths in the United States. That was followed by genetics (30 percent), social circumstances (15 percent) inadequate health care (10 percent) and exposure to environmental factors (5 percent).

"We try to focus on the 40 percent," said Glaseroff, a professor of medicine and director of the Stanford Institute for Chemical Biology, which was formed specifically to play in solving biological problems. Du Bois said that molecular scientists can "trace the location of this modified toxin to create a modified version of guanidinoacetate "

(Continued from page 4)

"We see ourselves as an innovation clinic," Glaseroff said. "We're already spreading the model around the country."

Newt continued from page 4

continued from page 4

it, and the patient would still be in pain. "All this made me think that we needed to be able to image pain more accurately than we thought."

"It would be great if we could take a picture of something that is actively sending pain signals up to the brain," Bois said.

Bois and Du Bois met, realized their overlapping interests and obtained funding from the Bio-X program to work together. (Bio-X supports this kind of interdisciplinary collaboration.) Their initial goal was to modify guanidinium toxins to a nerve toxin to give off a signal visible outside the body. (They recently published the findings of this work in the Journal of the American Chemical Society.)

Du Bois worked with Frederick Chin, PhD, an assistant professor of radiology, to create a modified version of guanidinium toxins that contained a non-toxic molecular tag commonly used for imaging. They attached the molecular flag, scientists would be able to trace the location of this modified toxin in an animal. In this way, they could see if the toxin was located in the leg that had a nerve injury but not in the opposite, uninjured leg. The chemical had latched onto those nerves signaling pain. Du Bois said that although the results show potential for human applications, much needs to be done to translate work from rodents to humans. The group has formed a company to refine the compound so it binds even more specifically to neurons conducting pain and to ensure that it will be safe to test in people. The research group also hopes to create new assays that can help doctors locate the source of a patient's pain and also perhaps produce a new class of drug for treating pain.

In addition to being an example of what can happen when scientists from across campus work together, Du Bois and Bois say the research specifically shows the role molecular scientists can play in solving biological problems. Du Bois said the research is the latest example of scientists from the new Stanford Institute for Chemical Biology, which was formed specifically to encourage collaborations like this.

"The beauty of Stanford is that you can do projects like this," Du Bois said. "If I couldn't cross the street and engage with my friends like Sandip in real time, I am certain our program in pain research would have never taken off."

Successes in rats

The group tested the new compound in rats that had leg injuries. After injecting the compound into these animals, they could see it was located in the leg that had a nerve injury but not in the opposite, uninjured leg. The chemical had latched onto those nerves signaling pain. Du Bois said that although the results show potential for human applications, much needs to be done to translate work from rodents to humans. The group has formed a company to refine the compound so it binds even more specifically to neurons conducting pain and to ensure that it will be safe to test in people. The research group also hopes to create new assays that can help doctors locate the source of a patient's pain and also perhaps produce a new class of drug for treating pain.

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Give her a big hand

Lydia-Marie Joubert, PhD, an electron microscopist and senior scientist at Stanford's Center for Molecular and Genetic Medicine, won the People's Choice Award in the illustration category of the 2013 International Science and Engineering Visualization Challenge. Her illustration — a hand covered with Pseudomonas bacteria — is titled Human Hand Controlling Bacterial Biofilm. It began as a photograph, but the journal Science explains in its latest issue: "While attending a conference at Gregynog Hall in Wales, Joubert photographed a 1.5-meter-high human hand that reaches out of the soil in the hall's gardens, sculpted by British artist Frances Hewlett. Then she overlaid micrographs of cultured biofilm, which had been stained with molecular probes to indicate the health of the cells. Those colored green are resistant to antimicrobial treatment — only a rare few are red, indicating that they have been vanquished."

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Genomics Service. "Because of the foresight and support of our leadership, we have a remarkable opportunity to bring world-leading Stanford science to Stanford hospitals at last and first.

The service will use an integrated approach that includes professional genetic counseling, the most advanced genetic testing technology available, and expert interpretation by molecular genetic pathologists and other physicians with expertise in this emerging and complex field. It will be closely integrated with a broad range of other diagnostic testing now being offered by pathology services and by the adult and children's hospitals.

Stanford has a special wealth of information and analyses that could be brought to bear to improve care. Drs. Michael Snyder, MD, PhD, assistant professor of pathology, and the service's other creators, "We involved physicians, other health-care providers, bioinformatics, bioethicists, and other researchers, inviting everyone to voice their thoughts for the broadest, deepest discussions possible on how to apply these new methods and knowledge to clinical care.

Michael Snyder, PhD, director of the Stanford Center for Genomics and Personalized Medicine and Stanford Institutes' senior fellow as well as other members of the center, have played a pivotal role in the design and implementation of the service. Also included in those discussions were immunologist Pauline Greenberg, PhD, a prominent geneticist who was named a 2010 MacArthur Fellow for his work in genetic sequencing, and Michael Chapman, genetic counselor and a national leader in the field of genetic counseling. The group has identified 200 geneticists and is planning to interview several hundred more in the new service.

"This new service can represent the best definition of personalized medicine," said Professor Daniel Kim, MD, PhD, director of the Center for Genomics and Personalized Medicine. "It will bring greater value, in the most responsible way, to what we offer our patients. Our goal is to use this new service for the benefit of knowledge by diagnosing and treating patients now — and to learn and share that knowledge with medicine's future leaders.

"We are starting the process by using a drug that's already been around for 25 years." 

"The next step is to test iraconazole in more patients for a longer time to really measure its anti-tumor effect relative to other treatments," Tang said. Side effects of iraconazole (under the brand name Sporanox) are generally mild and include nausea, fatigue and dizziness. In rare cases, it can cause liver dysfunction. Patients with congestive heart failure or a history of heart disease are not advised to take iraconazole.

Tang’s previous work focused on clinical trials of vismodegib, the first FDA-approved basal cell carcinoma drug tailored to shut down the Hedgehog pathway. Vismodegib is relatively potent and is currently considered the first line of treatment for advanced basal cell carcinoma tumors. But the drug took years to discover and develop, and a yearlong prescription costs nearly $90,000 — or roughly $250 a day.

Although iraconazole does not appear as effective as vismodegib on advanced tumors, it may potentially treat smaller tumors and is much less expensive, costing about $25 a year.

"An interesting feature of iraconazole is that it can inhibit cancer cells that have developed resistance to vismodegib or other cancer drugs that block the Hedgehog pathway," Beachy said. "It may work better as an alternative treatment or in combination with other treatment options.

Tang is now working on clinical trials of iraconazole in combination of vismodegib and arsenic trioxide in patients resistant to vismodegib treatment.

The other Stanford co-authors of the study are former medical student Karina Spauhntum, MD, dermatology resident Teresa Fu, MD, and former dermatology residents Ria Khodoshi, MD, PhD, and Kalyani Chandra, MD.

The study was supported by the SPARK program at Stanford, Spectrum, which administers Stanford's Clinical and Translational Science Award (UL1-TR000093), and the Damon Runyon Clinical Investigator Award.

The Department of Dermatology also supported the research.

Ranjini Raghunath is an intern at the Office of Communication & Public Affairs.

Final round of meetings on lab safety culture scheduled for this month

The Task Force for Advancing the Culture of Laboratory Safety at Stanford University has scheduled two final town halls to bring closure to the work of the task force, which was established by the president of the Stanford community on the current state of the safety culture in research labs and how it can be further improved.

The final town hall meetings for laboratory researchers will be held from noon to 1:30 p.m. Feb. 11 in Turing Auditorium in the Paul G. Allen Center for Integrated Systems, and from noon to 1:30 p.m. Feb. 21 in CIS-X Auditorium in the Paul G. Allen Center for Integrated Systems.

Participants will receive lunch vouchers for Bette's Cafe, Treissder Union or Nexus Cafe. These are the final opportunities for di-

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Who said that having brains in middle school isn’t cool?

By Amy Adams

On Feb. 3, Stanford neuroscience students Ivan Millan and Sammy Katta got to the lab early. They grabbed some brains — both human and animal — and set out for East Palo Alto. It was Brain Day. They had work to do.

Milan and Katta are among a group of graduate students who take brains to local middle school classrooms throughout Palo Alto and East Palo Alto as part of a program started by neurobiology professor William Newsome, PhD, more than two decades ago, when his own kids were in middle school. The program began as a single day at one school but has since grown to a month-long series of classroom visits at 10 local schools.

“It’s still called Brain Day, and the goal remains the same: to get kids excited about science. And brains. “These middle school students will be tomorrow’s scientists who might answer the questions our institute has set out to study,” said Newsome, director of the Stanford Neurosciences Institute.

Veronica Woodard, who teaches biology to middle and high school students at East Palo Alto Phoenix Academy, gave an energetic welcome to Katta and Milan. “It’s my favorite day of the year,” Woodard said. “Students get to see what we’ve been talking about in class. This solidifies the content I’ve been teaching. It should be noted that Brain Day wouldn’t be possible without people who donate their organs for research. At the start of class, Milan asked the students to be respectful of those who donated the brains they would be holding.


The human brains were all of those things. In fact, before being preserved, the brains are even lighter and softer. And as for the wrinkles, they are part of what sets humans apart from other animals.

“Those wrinkles give more surface area for your brain to work.”

“Those wrinkles give more surface area for your brain to work.”

Katta said she likes volunteering for Brain Day because it helps get kids excited about science. “There are a lot of issues around us that involve science,” she said. “I think this motivates kids to continue learning about science, and the skills they learn in thinking about the world around them are important regardless of what they do.”

Woodard said the anticipation of seeing brains helps pique student interest in her lectures on the subject. “When I tell kids there’s an opportunity for us to have brains in the classroom, the interest goes way up,” she said. And for some students, that interest really takes hold.

Jordan Middle School teacher Terry Noeth received a letter from a former student heading to college to study physiology and neuroscience. The student wrote, “After adjusting to the awful smell of the brain slices, all I could think was: Wow. This strip of tissue used to be someone. This piece of brain used to think and love. I was so fascinated that I knew that when I grew up, I wanted to do something, anything, that related to the brain and how it makes us who we are.”

Amy Adams is director of interdisciplinary life sciences communications at Stanford.

...and the National Center for Advancing Translational Science.

FUTURE studies are needed to determine whether the genetic change to FOXP3 is passed on to the children of people who have completed oral immunotherapy. Other Stanford co-authors of the paper were research assistants Alena Syed, Marco Garcia, Robert Bucayu and Arumina Kobli; laboratory manager Shu-Chen Lyu; Satoru Ishida, PhD, a visiting scholar; Mindy Tsai, DMSc, a senior resident scientist in pathology; Holden Maecker, PhD, associate professor of microbiology and immunology; Gerri O’Riordan, RN, chief operating officer and senior director of regulatory compliance for the Stanford Alliance for Food Allergy Research; and Stephen Galli, MD, professor of microbiology and immunology.

The research was funded by Food Allergy Research and Education, the Fund for Food Allergy Research at Stanford, the National Institute of Allergy and Infectious Diseases and the Children’s Health Research Institute/Lucile Packard Foundation for Children’s Health. The research also was supported by the National Center for Research Resources and the National Center for Advancing Translational Science.

The Department of Pediatrics also supported the research.

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Brain death is the complete and permanent loss of all of the major integrative functions of the brain, including the cerebral cortex and the brainstem. With the development of mechanical ventilation, the brain, including the cerebral cortex and the brainstem, remains connected to machines that keep other vital organs functioning — over the years, “but in the end, the call to this particular public service was one I simply could not reject.”

The opportunity to lead diversity efforts at a national level allows me to apply all I have learned in the past 28 years toward making real and lasting changes nationally,” she added, that she plans to “carry the Stanford flag” in her new position.

The fact that the NIH was specifically looking for someone with a track record of success in health care diversity, and the ability to forge strong and trusting relationships with the NIH institutes and centers, the grantee community and community stakeholders.

By Susan Ipaktchian

Hannah Valantine, MD, who has overseen the School of Medicine’s diversity efforts for the past eight years, will now be applying her expertise at the national level.

The National Institutes of Health announced Jan. 30 that Valantine will be the organization’s first chief officer for scientific workforce diversity. She will lead NIH efforts to diversify the biomedical research workforce by developing a comprehensive strategy to expand recruitment and retention, and promote inclusiveness and equity.

“Recruiting and retaining the brightest minds regardless of race, ethnicity, gender, disability and socioeconomic status is critically important not only to NIH, but to the entire U.S. scientific enterprise,” NIH director Dr. Francis Collins said in a news release announcing her appointment. “Hannah possesses the experience, dedication and tenacity needed to move NIH forward on this critically important issue.”

Valantine, who will begin her new role this spring, said it was difficult to leave Stanford after more than 28 years, “but in the end, the call to this particular public service was one I simply could not reject.”

“The line between life and death is legally, medically, ethically and morally important,” added Valantine, who co-wrote a perspective piece on the McMath case in the New England Journal of Medicine. “As a pediatrician, the thought of informing the parents of our patient that ‘death’ was back into the national conversation. In Texas, the brain-dead Marline Mufson was connected to machines that kept her vital organs functioning — over the objections of her family — in an attempt to ‘rescue’ her fetus. Mufson was 14 weeks pregnant when she suffered a pulmonary embolism in late November. Finally, there is a religious minority, particularly some orthodox Jews, who have actually decided on religious grounds that our understanding of death should consider the brain as simply dead (by neurological criteria) is probably clearer. It is important that the media understand that the McMath case is not an ‘end-of-life’ issue, similar to Schiavo or Cruzan or others, but arises?”

This is an open question as to what makes a person considered dead? Two recent cases have thrust the issue of “brain death” back into the national conversation. In Texas, the brain-dead Marline Mufson was connected to machines that kept her vital organs functioning — over the objections of her family — in an attempt to ‘rescue’ her fetus. Mufson was 14 weeks pregnant when she suffered a pulmonary embolism in late November.

When is a person considered dead? Two recent cases have thrust the issue of “brain death” back into the national conversation. In Texas, the brain-dead Marline Mufson was connected to machines that kept her vital organs functioning — over the objections of her family — in an attempt to ‘rescue’ her fetus. Mufson was 14 weeks pregnant when she suffered a pulmonary embolism in late November.

Second, we should be much more careful with our language. Using “support” implies — incorrectly — that the patient is alive. Even using the language of “brain death” makes it sound like the patient is not truly dead. Referring to the patient as simply dead (by neurological criteria) is probably clearer. It is important that the media understand that the McMath case is not an ‘end-of-life’ issue, similar to Schiavo or Cruzan or other cases around end of life. This was a controversy that did not arise during the dying process, but after its completion.

In fact, there is little agreement, particularly among some orthodox Jews, who have actually decided on religious grounds that our understanding of death should consider the brain as simply dead (by neurological criteria). Finally, it is important that the media understand that the McMath case is not an ‘end-of-life’ issue, similar to Schiavo or Cruzan or others, but arises?

5 QUESTIONS

1 What is “brain death,” and how did the concept arise?

MAGNUS: Brain death is the complete and permanent loss of all of the major integrative functions of the brain, including the cerebral cortex and the brainstem. With the development of mechanical ventilation, the brain, including the cerebral cortex and the brainstem, remains connected to machines that keep other vital organs functioning — over the years, “but in the end, the call to this particular public service was one I simply could not reject.”

“The line between life and death is legally, medically, ethically and morally important,” added Valantine, who co-wrote a perspective piece on the McMath case in the New England Journal of Medicine. “As a pediatrician, the thought of informing the parents of our patient that ‘death’ was back into the national conversation. In Texas, the brain-dead Marline Mufson was connected to machines that kept her vital organs functioning — over the objections of her family — in an attempt to ‘rescue’ her fetus. Mufson was 14 weeks pregnant when she suffered a pulmonary embolism in late November.

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