Proposed testosterone tests for Olympic athletes challenged by Stanford bioethicist and colleagues

By Tracie White

Proposed Olympic policies for testing the testosterone levels of select female athletes could discriminate against women who may not meet traditional notions of femininity and distort the scientific evidence on the relationship between testosterone, sex and athletic performance, says a School of Medicine bioethicist and her colleagues.

They also warn that the proposed policies would not only be unfair, but also could lead to female athletes being coerced into unnecessary and potentially harmful medical treatment in order to continue competing. The critique was published online June 13 in The American Journal of Bioethics. The testing policies, adopted a year ago by the International Association of Athletics Federations and now under consideration by the International Olympic Committee, call for using testosterone levels to decide whether an athlete is "feminine" enough to compete as a woman. The problem, the authors explain, is that there is insufficient evidence to set a benchmark for normal testosterone levels in elite female athletes, let alone persuasive research showing that testosterone levels are a good predictor of athletic performance.

"What makes sex testing so complicated is that there is no one marker in the body we can use to say, 'This is a man,' or, 'This is a woman,'" said first author of the paper Katrina Karkazi, PhD, a medical anthropologist and senior research scholar at the Stanford University Medical School.

Geneva Kelemen, a Stanford University bioethicist, also expressed concern about the proposed policies, saying they could be "unfair" and undermine ethical responsibility.

A team led by investigators at the School of Medicine has found that the most common genetic risk factor for Alzheimer’s disease disrupts brain function in healthy older men, but has little impact on women.

By Bruce Goldman

Women harboring the gene variant, known to be a potent risk factor for Alzheimer’s disease, show brain changes characteristic of the neurodegenerative disorder that can be observed before any outward symptoms manifest.

Both men and women who inherit two copies (one from each parent) of this gene variant, known as ApoE4, are at extremely high risk for Alzheimer’s. But the double-barreled ApoE4 combination is uncommon, affecting only about 2 percent of the population, whereas about 15 percent of people carry a single copy of this version of the gene.

The researchers demonstrated for the first time the existence of a gender distinction among outwardly healthy older people who carry the...
‘Good’ stress prompts hormones to bolster immune system

By Tracie White

Genetics play a significant role in determining which patients will suffer the most from the disturbing side effects of opiates, commonly prescribed painkillers for surgery and other kinds of pain, according to a new School of Medicine study, which pinpoints nausea, slowed breathing and potential for addiction as inheritable traits.

“Of the most hated side effects of these opiates, nausea, is strongly inherited,” said Martin Angst, MD, professor of anesthesia and one of two principal investigators for the study, which was published June 20 in *Anesthesiology*. Genetics also play a likely role in determining which patients will suffer from itchiness and sensation associated with the use of these powerful medications, which include morphine, meperidine and fentanyl.

“The study is a significant step forward in efforts to understand the basis of individual variability in response to opioids and to eventually personalize opioid treatment plans for patients,” said Angst. “Our findings strongly encourage the use of down-stream molecular genetic identifiers to identify patients who are more likely or less likely to benefit from these drugs — to help make decisions on how aggressively you want to be treated, how carefully you monitor patients and whether patients are suitable candidates for prolonged treatment.”

Treatment with opiates, also known as narcotics, is tricky because of this variability in drug response. Certain patients may require 10 times the amount of these painkillers to get the same level of pain relief as others. In fact, in some patients the occurrence of side effects can be debilitating to some, while nonexistent for others. Similarly, some patients can take medications for months with little addiction potential, while others are at risk within weeks.

Millions of U.S. patients are prescribed opiates for pain each year. A better understanding of the potential risk of side effects motivated the researchers to explore individual variation in pairs of identical and fraternal twins. The study was prompted by past genetic studies in animals that have shown a strong genetic component in the response to opiates. “We rely heavily on narcotics as the cornerstone medication for the relief of pain,” said Angst. “Yet we don’t know the answers to fundamental questions, such as why some people like narcotics more than others — drug liking and liking could be key in determining addiction potential.”

Researchers recruited 121 twin pairs for the randomized, double-blinded and placebo-controlled study. Pain sensitivity and analogic response were measured by applying a heat probe and by immersing a hand in ice-cold water, both before and during an infusion of the opiate alfentanil, a short-acting painkiller.

The team also compared individual variances in the occurrence of sedation, dizziness, respiratory depression, nausea, itch, and drugliking/disliking — a surrogate measure of addiction potential — between identical and fraternal twins, non-identical twins and non-related subjects. This provided an estimate of the extent to which variation in these responses is inherited. For example, the finding that identical twins are more similar in their responses to opiates than non-identical twins suggested inheritance plays a significant role in the nocebo effect of opiates in relieving pain. “Since side effects are common among patients who use opioid medications, it will be beneficial to use such research to help at-risk patients avoid serious, life-threatening complications,” said David Clark, MD, PhD, professor of anesthesia and the other principal investigator for the study.

Heritability was found to account for 30 percent of the variability for respiratory depression, 59 percent of the variability for sedation, 36 percent and 36 percent for drug disliking. Additionally, up to 58 percent for itchiness, 32 percent for dizziness and 26 percent for nausea. This variability could be due to heritable factors. An earlier study published by the same researchers in the *March issue of Pains* reported that genetics accounted for 60 percent of the variability in the effectiveness of opiates in relieving pain. “Since side effects are common among patients who use opioid medications, it will be beneficial to use such research to help at-risk patients avoid serious, life-threatening complications,” said David Clark, MD, PhD, professor of anesthesia and the other principal investigator for the study.

Other co-authors included Martha Tinghe, RN, research nurse; Laura Lazzeroni, PhD, associate professor of psychiatry and behavioral sciences and a member of the Stanford School of Medicine; and Gary Swan, PhD, director of the Center for Anesthesiology.

The general pattern, Dhabhar said, was for 60 percent of patients to be affected and is primarily involved in mobilizing all major immune-cell types — monocytes, neutrophils and lymphocytes — into the blood. Epinephrine, also released early, mobilized monocytes and neutrophils into the blood, while norepinephrine mobilized lymphocytes out into “battlefield” destinations such as skin. And corticosterone, released somewhat later, causes various immune cells and the lymphocytes to head out of circulation to the “battlefields.”

The effect of these movements is to bolster immune readiness. This was established by Dhabhar and his colleagues in 2009 in the *Journal of Bone and Joint Surgery*. The general pattern, Dhabhar said, was for the pleural fluid, which is the space between the lungs, to be significantly higher in patients who were killed by cancer than in patients who were not.

In the new study, the investigators showed that the massive redistribution of immune cells throughout the body was orchestrated by three hormones released by the adrenal glands, in different amounts and at different times, in response to the stress-inducing event. These hormones are the brain’s call-to-arms to the rest of the body. “Mother Nature gave us the fight-or-flight stress response to help us, not kill us,” said Dhabhar, who has been conducting experiments for over a decade on the effects of the major stress hormones on the immune system. Last summer, Dhabhar received the International Society for Psychoneuroendocrinology’s Curt P. Richter Award for his work in this area.

The findings paint a clearer picture of exactly what the major stress hormones influence. “An impala’s immune system has no way of knowing that a lion is lurking in the grass and is about to pounce, but its brain does,” Dhabhar said. “In such situations, it benefits lion and impala alike when pathogen-fighting immune cells are in positions of readiness in such places as the skin and mucous membranes, which are at high risk for damage and consequent infection.”

So it makes perfect evolutionary sense that predator/prey activity and other situations in nature, such as dominance and sexual approaches, also activate stress hormones. “You don’t want to keep your immune system on high alert at all times,” Dhabhar said. “So nature shut down the brain, the organ most capable of detecting an approaching challenge, to signal that detection to the rest of the body by directing the release of stress hormones. Without them, a lion couldn’t kill, and an impala wouldn’t run.”

In this study Dhabhar subjected rats to mild stress by confining them (gently, and with full ventilation) in transparent Plexiglas enclosures to induce stress. He drew blood several times over a two-hour period and, for each time point, measured levels of three major hormones — norepinephrine, epinephrine and corticosterone (the rat analog of cortisol in humans) — as well as of several distinct immune-cell types in the blood. He found a pattern of carefully choreographed changes in blood levels of the three hormones along with the movement of many subtypes of immune cells from reservoirs such as the spleen and bone marrow into the blood and, finally, to various “front line” organs.

Researchers mimicked the pattern of stress-hormone release previously observed in humans by surgically removing the glands that regulate the three hormones in rats. This provided an estimate of the extent to which variation in the potential for addiction as heritable traits.

The study was supported by a grant from the National Institute on Drug Abuse, as well as by the Department of Anesthesiology.

By Bruce Goldman

A study spearheaded by a medical school scientist has tracked the trajectories of key immune cells in response to both short- and long-term stress and traced, in detail, how hormones triggered by such stress enhance immune readiness. The study, conducted in rats, adds weight to evidence that individual variability in response to drugs may be improved, rather than suppressed as many believe, by the so-called “fight-or-flight” response.

The findings offer, of course, being able to manipulate stress-hormone levels to improve recovery from surgery, wounds or response to vaccines.

“You’ve heard it a thousand times: Stress is bad for you. And it’s certainly true that chronic stress, lasting weeks and months, has deleterious effects includ-
MINIMALLY INVASIVE SURGERY

By Sarah C.P. Williams

The recent history of bariatric surgery is a story of increased safety and decreased hospital stay—resulting in fewer complications. A study by researchers at the center of medical knowledge has found that a significant weight-loss operation is safer and reduces hospital bills when done with minimally invasive laparoscopic techniques rather than open surgery, which can also help prevent the need for additional surgeries.

According to the Centers for Medicare and Medicaid Services, the cost of bariatric surgery has decreased significantly over the past decade. In 2017, the average cost of a bariatric surgery was $25,000—down from $40,000 in 2007. The Centers also noted that the procedure is less expensive than laparoscopic surgery, with a median cost of $20,000.

Researchers have identified several factors that contribute to these savings. One is the use of smaller incisions, which can reduce the risk of infection and other complications. Another is the use of adjustable gastric banding, which can be reversed if necessary. And the use of laparoscopy to repair hernias and other abdominal issues can also lower costs.

The study, published in the Journal of the American College of Surgeons, found that patients who underwent laparoscopic surgery had a shorter hospital stay and lower complication rates than those who underwent open surgery. The study compared 3,200 patients who underwent open surgery with 3,200 who underwent laparoscopic surgery. The results showed that patients who underwent laparoscopic surgery were twice as likely to be discharged within 3 days, with a median hospital stay of 2.5 days versus 5 days for those who underwent open surgery. The complications rate was also lower for laparoscopic surgery, with a rate of 0.9% compared to 3.4% for open surgery.

The researchers also found that laparoscopic surgery was associated with a lower rate of wound infection, pulmonary embolism, and other complications. The study concluded that laparoscopic surgery is a safe and effective alternative to open surgery for bariatric patients.
black-gowned students marched past several palm trees, entering the tent to applause and cheers from friends and family that were undiminished by the sweltering 91-degree heat. Soon each member of the class was called forward to receive a diploma, with the students receiving doctoral degrees going through the centuries-old academic custom of kneeling before their advisors and having a hood placed around their necks. (A video is sent out to faculty in advance to remind them of the proper way to perform the ritual.) Many students crossed the stage with baby in arms, or holding video is sent out to faculty in advance to remind them of the day — an MD — shortly after receiving his PhD in chemical and systems biology. (Top right) Dean Philip Pizzo and keynote speaker Margaret Hamburg, commissioner of the U.S. Food and drug Administration, share a laugh during the commencement ceremony, which was attended by about 1,500 people.

What changed Hamburg’s direction was the AIDS epidemic. When she was in medical school, it was widely believed that infectious diseases were a scourge of the past. But as an intern in New York in the 1980s, she was taking care of many patients with this new and devastating disease. “We could offer neither a cure nor hope,” she said. “For a newly minted idealistic doctor like me, that was humbling.” But it also led her to see how changes in public policy could alter the course of AIDS. As the city’s top health official, she instituted a needle-exchange program, which helped to stem the spread of the disease. “The AIDS crisis propelled me into the world of public health and health policy,” she said, noting that it is a lesson to the graduates. “Be open to and enthusiastically seize new opportunities, wherever and however you find them.”

The class speaker for the PhD students, Moria Cairns Chambers, who did her doctoral studies in microbiology and immunology, also urged the graduates to shoulder new responsibilities — to be mentors. “As a Stanford alum, you have the ability to both inspire and support the future scientists of this world, and it is not enough to leave mentoring to others,” she said.

“In a world that demands levels of high efficiency and doesn’t guarantee job stability, it may seem like a lot to ask, but future generations will thank you for this commitment.”

Krishnan Subrahmanian was chosen to speak for the MD students, and he touched upon a trait of his classmates that particularly impressed him: compassion. “What makes my classmates truly incredible is not their accomplishments, it is their choice to care day after day,” he said, telling his classmates how much he respected their empathy. “You researched and knew everything about a disease for rounds but in moments and gestures no one will ever know about, you showed your patients that this disease was the least interesting thing about them. Your hands welcomed new life into the world and held on through last breaths.

“Today we celebrate your decision to confront suffering,” he added, “and we especially celebrate those people who have spent their lives showing us how to care.”

Subrahmanian’s serious message was packaged in a flurry of supposed woes that he and his fellow students shared after their time at Stanford. “I stand before you today,” he told the crowd, “with more debt than Greece.” And he complained that his finances were so beleaguered that he could not afford pants to wear beneath his graduation robe. After he finished, Pizzo returned to the podium and praised the speech, but asked Subrahmanian one favor.

“Can you just lift up your gown for a second?” Pizzo said, upon which Subrahmanian revealed to the crowd that he was fully clad. “I don’t want anyone in this room to think we would have a student leave here without their pants,” Pizzo said, to laughter from the crowd.

Following the ceremony, Sandoval stood with his wife, Norma, his three daughters and his son. He recalled how his childhood was spent doing migrant farm work, leaving him unable to finish a year of schooling because they moved so frequently. When he was picking tomatoes at age 16 in Iowa, he decided he wanted an education and left his parents for high school in his hometown, Donna, Texas, a small border city about 250 miles south of San Antonio. “My dream from childhood was to be a physician,” he said.

After graduating high school in 1969, he went to college and attended a summer program at Harvard for minority students. He began Stanford medical school in 1972 and finished in 1977. “My family wasn’t able to come to see me graduate,” he said. They were on their way from Donna to pick beets in Montana. That June, he met them in west Texas, so that he could have some time with them before he began a surgery internship in Indiana. When that was done, he returned to Donna, where he’s had a family practice ever since.

Only when Sandoval’s own children, now ranging in age between 26 and 32, began to graduate college did he say how much he missed participating in his medical school graduation. Last fall, his daughter Marissa secretly hatched the plan to see if he could walk with this year’s class. She called the dean’s office, and received an answer the same day: He was welcome back.

“It’s a very special day,” he said.
2012 awards to faculty, staff

Several faculty members and residents were recognized for their dedication and excellence to graduate and medical education, patient care and teaching with awards announced during the School of Medicine’s commencement ceremony on June 16.

Paul Mohabir, MD, clinical associate professor of pulmonary and critical care medicine, was honored with the Henry J. Kaiser Award for Excellence in Patient Care, which recognizes a member of the medical faculty for compassion in working with patients and their families, excellence in medical education, and effectiveness and pleasantness in interactions with patient-care staff. The annual award was established in 1985 to honor the late Rambar, MD, a Chicago pediatrics long associated with the medical school and was renamed in 1997 to include Mark, MD, a Stanford thoracic surgeon and professor emeritus who was Rambar’s son-in-law.

The Franklin G. Ebaugh Jr. Award for Advising Medical Students was given to Erik Schilling, MD, clinical associate professor of medicine, in recognition of her dedication to medical students and full-time faculty members. The award honors the late Ebaugh, MD, chair associate dean for veterans affairs and chief of staff at the VA hospital.

The school’s Award for Outstanding Service to Graduate Students went to Madelyn Kahana, MD, clinical associate professor of medicine; and Jay Jernick, MD, chair of the Department of Anesthesiology.

The Arthur L. Bloomfield Award for Excellence in the Teaching of Clinical Medicine commemorates the late Bloomfield, MD, chair of the Department of Medicine from 1926 to 1954. Students in clinical training chose the recipients of these awards. This year’s winners are Maha Mahadevan, MD, clinical associate professor of medicine; Keith Posley, MD, MS, clinical assistant professor of medicine; and Roland Torres, MD, clinical associate professor of neurology.

Three long-awarded times created by the Henry J. Kaiser Family Foundation are given each year for excellence in medical education and in clinical and preclinical teaching. This year’s Kaiser Family Foundation Award for Outstanding and Innovative Contributions to Medical Education was given to Madelyn Kahana, MD, professor of pediatrics and of anesthesiology. The Kaiser Award for Excellence in Clinical Teaching was given to three faculty members — Jay Jernick, MD, clinical associate professor of medicine; Kevin Keet, MD, an associate professor of medicine; and Gordon Lee, MD, assistant professor of surgery. The Mark Krasnow Dean’s Distinguished Professorship Award in Preclinical Teaching was chosen by students in preclinical medical education. The recipients are Vivek Bhalla, MD, assistant professor of pediatrics; and Mark Krasnow, MD, PhD, professor of biology.

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The following paragraphs summarize the 2012 awards.

Alzheimer’s continued from page 1

Apoe4 variant. In this group, women but not men exhibit two telltale characteristic that have been linked to Alzheimer’s disease: a signature change in their brain activity, and elevated levels of a protein called tau in their cerebrospinal fluid.

One implication of the study, which was published June 13 in the Journal of Neuroscience, is that a genetic test could be used to carry a single copy of Apoe4 shouldn’t be assumed to be at elevated risk for Alzheimer’s, a syndrome affecting 5 million adults in the United States and nearly 30 million worldwide. The new findings also may help explain why women, who are more often affected by the disease, said Michael Greicius, MD, assistant professor of neurology and neurosurgery sciences and director of the Stanford Center for Memory Disorders. Most critically, identifying the prominent interaction between Apoe4 and gender opens a host of new experimental avenues that will allow Greicius’ team and the field generally to better understand how Apoe4 increases risk for Alzheimer’s disease.

For every three women with Alzheimer’s disease, only two have the menopause-dependent factor, said Greicius, the study’s senior author. (The first author is Jessica Damoiseaux, PhD.) The protein is transported into the brain, where the scientists analyzed changes in brain activity and CSF composition when we separated women for a small group of 20 different brain networks,

Michael Greicius

The Hillblom Foundation, the John D. and Catherine T. MacArthur Foundation, the JNA Foundation and the National Institutes of Health funded the research. Greene and his collaborators at UCSF and UCLA co-authored the study.

Alzheimer’s disease in women: a potential mechanism for tau findings constitute another stroke. It was first observed to suggest these different findings in tau levels when we separated women for a small group of 20 different brain networks, generally are closely coordinated. Among the 20 networks, those of nerve cells. And nerve cells whose firing patterns are tightly synchronized, or in phase, are synchronized, or in phase. Greicius, Damoiseaux and their associates have previously shown that the unusual firing pattern of one network in particular, critical to memory function and known as the default mode network, is specifically targeted by Alzheimer’s and deteriorates as the disease progresses.

To independently confirm their imaging-based observations, the scientists assessed records from a large public database compiled from the Alzheimer’s Disease Neuroimaging Initiative, a multi-site study of healthy aging and Alzheimer’s disease. The Stanford study focused on the healthy 55- to 90-year-old volunteers who agreed to undergo a spinal tap and have their cerebrospinal fluid analyzed.

From this database the Greicius team extracted the records of 91 subjects, with an average age of 75, and divided them into four groups representing women with or without a copy of the E4 variant, men with or without a copy. For each group, they checked records concentrations of a protein named tau in these subjects’ cerebrospinal fluid. Elevated levels in cerebrospinal fluid are a key biomarker of Alzheimer’s disease. The researchers had reanalyzed the CSF of women, but not men, who carried at least one E4 allele was substantially enriched in tau — confirmed the brain-imaging findings.

The tau findings constitute another study of healthy aging and Alzheimer’s disease. It may someday be practical to make an appointment online.

To request an appointment, call 723-7831 or you can make an appointment online.

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Robert Glaser, MD, former dean of the School of Medicine and a national figure in health policy, died at his home in Palo Alto, surrounded by family. Glaser, whose health had declined in recent years, was 93.

After his tenure at Stanford, he helped promote medical education and scholarship nationally through his leadership in multiple organizations and major non-profit foundations. Robert Glaser Family Foundation, the Lucille P. Marky Charitable Trust, the Alpha Omega Alpha national medical honor society and the Stanford University School of Medicine’s medical student and medical alumni scholarships.

“Dr. Robert Glaser was an extraordinary figure in American medicine and at Stanford, where he led the School of Medicine as dean, the current dean of the medical school. “Dr. Glaser’s vision shaped Stanford Medical School as we know it today, and his contributions have had an indelible mark on individuals, institutions and communities near and far — locally, regionally and globally.”

Trained as an internist, Glaser was also known as a caring person, who never lost sight of his patients or the value of his medical skills. “He was always proud to be an internist and clinical researcher. He valued those old-fashioned skills of the physical exam and good clinical care,” said Saul Rosenberg, MD, the Maureen Lyes D’Ambrogio Professor of Medicine and the Robert Glaser Professor of Medicine. Even into his 90s, Glaser continued to attend medical grand rounds and teaching conferences at Stanford. “He never gave up his interest in being a physician and being an investigator,” Rosenberg said.

Glaser was born and reared in St. Louis, attending public schools there. He obtained his undergraduate degree from Harvard College in 1940 and his MD, magna cum laude, from Harvard Medical School in 1943. He returned to St. Louis and pursued his residency at Barnes Hospital, a teaching hospital of Washington University. Glaser’s passion for medical research and being an investigator, but those who knew him well were equally impressed by his personal qualities. He was a consummate gentleman and scholar,” said Roger Warnke, MD. Warnke was named the first Ronald D. Dorfman, MBCh, FRCPath, and fellow pathologist Richard Kempson, MD, who came to Stanford from Washington University in St. Louis in 1966. Together the two men co-founded and co-directed the surgical pathology laboratory at Stanford Hospital. Dorfman held this post for nearly 35 years until his retirement in 1993.

Dorfman was known both for his diagnostic skill and his scholarly contributions to the field of lymph node diseases. He also helped to develop the subcategory of hematopathology, a branch of pathology that deals with hematopoietic, or blood-forming, cells. He subsequently co-founded the Society for Hematopathology, which became the world’s second largest professional organization. In 1993, he was inducted into the United States and Canadian Academy of Pathology as a fellow in recognition of his work. Dorfman was appointed to the Maude Abbott lecture describing developments in the then-burgeoning field.

In the 1970s, Dorfman collaborated closely with Stanford physicians Saul Rosenberg, MD, and Henry Kaplan, MD, to develop a lymphoma classification system that would allow the research institute, in 1981 he became a founding member of the university’s board of trustees and continued as an emeritus trustee through 2008.

Robert Glaser was a founding member of the Institute of Medicine of the National Academy of Sciences and served on the boards of many organizations, including Washington University, the David and Lucile Packard Foundation, the Packard Humanities Institute, the Albert and Mary Lasker Foundation, the Kaiser Hospitals and Health Plan, Hewlett-Packard and Alza Corp. He received many awards and honors, including the Dean’s Medal from Stanford School of Medicine and the Harvard Medical Alumni Association’s Distinguished Service Award.

Glaser is survived by three children, Sally Glaser of Palo Alto, Joseph Glaser of New York City and Douglas Glaser of Berkeley, Ca.; five grandchildren; and friends in South Africa in 1963 for a new life in the United States. The move was made possible by Lauren Ackerman, a friend and supporter of the surgical pathologists, who offered Dorfman a position in his surgical pathology department at Barnes Hospital, which is where Dorfman began his career.

Dorfman was born in Johannesburg, South Africa, on March 14, 1923. He entered medical school at the University of the Witwatersrand, which was interrupted from 1944 to 1946 by his military service in a South African medical unit, serving with the Allied forces in Egypt and Italy. He received the South African equivalent of a U.S. medical degree, an MBCh, in 1946 and did his post-graduate training at Johannesburg General Hospital, the Medical School of the University of the Witwatersrand in Edin-
Stanford Hospital gets high marks for safety

Stanford Hospital & Clinics has earned an “A” for patient safety from the Leapfrog Group, a nonprofit organization that measures hospital performance nationwide and advocates for hospital transparency.

An “A” is the highest grade awarded by the Leapfrog Group Hospital Safety Grades program, which evaluates hospitals on their overall performance in keeping patients safe from errors, preventable harms and medical errors. Stanford was among only a handful of hospitals on the Peninsula and in the South Bay to receive such a grade.

“We’re really pleased with our grade,” said Kim Pandhi-Kiely, vice president for quality and effectiveness at Stanford Hospital. “Over the past five years, the hospital has been aggressive about focusing its efforts on patient safety and improving outcomes. This is a key component of our vision to heal humanity through science and compassion, one patient at a time.”

She added: “We feel transparent care and hospital transparency are absolutely critical in order for us to transform health care and demonstrate value for the care we deliver.”

The grades are based on an analysis of publicly available data using 26 evidence-based, national measures of hospital safety. The “safety measures” the Hospital Safety Score considers represent the very basic blocks of medical care, such as preventing infections, keeping patients safe from falls, managing prescribed medications and reducing hospital-acquired conditions. The score is not based on data from surveys, but rather on publicly available data from the Centers for Medicare and Medicaid Services, as well as other sources.

Stanford Hospital & Clinics has received top safety grades for the past 10 years. Stanford Hospital earned an “A” in each of the last four years, and was one of only nine hospitals in California to receive an “A” in the Leapfrog Group’s 2012 report. The hospital was also the only hospital in the Bay Area to earn an “A” in this year’s report.

“Stanford Hospital has been consistently recognized for its commitment to patient safety,” said Robert W. Lin, Stanford Hospital’s chief executive officer. “Our culture of continuous improvement, innovation and teamwork has contributed to this achievement.”

Dorfan

Washington University in St. Louis, School of Medicine, announced the appointment of Dorfman as a faculty member in the Department of Anesthesiology.

Dorfman is survived by his wife, Jenifer, and his parents, Jax and Kristi, and his big brother, 5-year-old Jacob.

The National Institutes of Health has awarded Stanford a $2.1 million grant to expand its PhD training program in the field of biostatistics for personalized medicine.

Jointly administered by the Department of Statistics and the medical school’s Department of Health Research and Policy, this program will address the growing shortage of biostatisticians, while at the same time harnessing the vast amounts of health data being generated by sequencers, microarrays and electronic medical records.

Funds for the training program will be awarded over five years, allowing the number of PhD candidates in the Statistics Department to grow from 12 to 16 students.

The promise of personalized medicine, where treatments are tailored to an individual’s unique genetic makeup and health history, can only be realized if we can put the best minds to work on these large and complex data analytic problems,” said Robert Tibshirani, PhD, professor of health research and policy and of statistics, who will lead the training program.

Tibshirani said the expanded PhD program will include interdisciplinary collaborations with faculty experts in genomics, bioinformatics, biostatistics, health research and policy. In addition, each of the PhD candidates will spend time working within a medical school laboratory as an applied biostatistician on a clinical research team.

Co-directors on the grant are Richard Olshen, PhD, and Chiara Sabatti, PhD, professor and associate professor, respectively, of health research and policy and of statistics.

Interested candidates should apply through the Department of Statistics by Jan. 3.

NIH awards $2.1M to train scholars on biostatistics of personalized medicine

The Stanford University Board of Trustees gave concept and site approval at its June 13-14 meeting for a new medical school clinical research building, which will house the Asian Liver Center on its ground floor. The 31,000-square-foot, three-story building, to be located at 780 Welch Road, will replace a smaller building on the site. The Asian Liver Center will occupy 6,000 square feet.

"There's a real opportunity here to create connection and synergy between this new facility and the Jill and John Freidenrich Center for Translational Research, which we broke ground on last summer," said Louise Home, chair of the board of trustees. The project, valued at $23.2 million, is expected to return to the board for design approval in October and to be completed by July 2014.

Among its other actions, the board gave construction approval for the Bioengineering/Chemical Engineering Building, the final building to be constructed in the Science and Engineering Quad. That building is also expected to be completed in 2014.
Olympic training improves resident performance

The U.S. Department of Health and Human Services’ Office of the Assistant Secretary for Preparedness and Response has awarded a grant of $19 million for an innovative program that aims to improve care and lower medical costs for 23,000 Californians with end-stage renal disease, with participating with multiple chronic conditions.

Announced on June 15, the grant goes to the Pacifying Health, a consortium of large, self-insured, private-sector employers to develop and implement a new program under the clinical directive of Alan Glaseroff, MD, clinical professor of medicine at Stanford. A previous program under the auspices of health-care providers, in addition to Stanford, are participating in the initiative.

The Intensive Outpatient Care Program will bring in specially trained care managers and place them in newly established Ambu-

latory Intensive Care Units, or AICUs, where they will build close relationships with the patients in medically complex conditions. By promoting more person-centered communication and care for these targeted populations, and its partners hope to prevent emergency room visits, reduce avoidable hospitalizations, and potentially eliminate complications of chronic illness.

The A-ICU approach was pioneered by Arnold Milstein, MD, professor of medicine and PBGH’s senior vice president for health-care innovation grants from the U.S. Department of Health and Human Services has awarded the largest of the 17 HHS grants awarded to California-based organizations. These are among the first “innovational awards” to be issued as a result of the new health-care reform law.

To launch the pilot, Glaseroff will work closely with the California Quality Collaborative, a network of health-care providers and medical group partners in Califor-
nia, including the Stanford Coordinating Care Clinic, which he leads. Glaseroff was the first California clinical leader to implement the A-ICU model when he had a private practice in Humboldt County. He moved last year to Stanford, where he is continuing to implement and to participate in the national program.

“This is really about taking some proven models from the private sector and using them to help improve the health of Medicare pa-
cients,” said David Lansky, CEO of the Pacific Business Group on Health. “This is one of a number of private-public sector partnerships.”

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