Royal Treatment

Angus Thomson was recently elected to the Royal Society of Edinburgh, Scotland’s national academy of science and letters. The Scotsman is a professor of surgery, of immunology, and of molecular genetics and biochemistry at the University of Pittsburgh School of Medicine, as well as director of transplant immunology and associate director for basic research at the Pitt-UPMC Thomas E. Starzl Transplantation Institute.

Thomson is internationally known for his contributions to understanding the role dendritic cells play in transplantation tolerance and immunity. —Joe Miksch

PITT EXPECTS TO STAY STRONG WHILE RESEARCH DOLLARS IN U.S. STAGNATE

In his May State of the School address, Arthur S. Levine, senior vice chancellor for the health sciences and dean of the University of Pittsburgh School of Medicine, noted that National Institutes of Health dollars support 75 to 80 percent of the academic biomedical research in the United States.

Then he pointed out that while applications for NIH grants have doubled since 2003, the purchasing power of the $27 billion NIH budget has decreased 13 percent because budget allocations haven’t kept up with inflation. Levine and other medical school top administrators are pushing Congress to boost the NIH budget by 6.7 percent a year for three years. Making that happen, Levine said, will take some time, yet it is only enough to get back to 2003 funding levels. He also offered more immediate remedies, such as pursuing support from the state, as well as from industry and private foundations.

Levine says the school is well positioned to thrive in the face of limited funding. “By recruiting researchers who are likely to net NIH grants, by retaining senior faculty with longstanding NIH funding, and by investing in infrastructure and emerging areas of inquiry,” he says, “the School of Medicine should get its share of a limited pool of dollars.” —JM

FOOTNOTE

When David Hollander, creator of the CBS series The Guardian, was growing up in Pittsburgh, he followed the news about surgeon Thomas Starzl. To research Heartland, his new TNT television drama about a transplant team, he came home. Experts from the Thomas E. Starzl Transplantation Institute helped him plot the inner workings of the fictional Pittsburgh-based St. Jude Regional Transplant Center.
A&Q
On Their Honor

Before prospective students are admitted to the School of Medicine—at the interview, in fact—they each receive a copy of the Student Code of Professionalism. The 13-page honor code is written by Pitt medical students.

Students elect nine representatives (two from each class plus one MD/PhD student) to serve on an honor council to “effectively model and communicate” the code. The council serves as a resource for students trying to resolve issues and, in rare instances, participates in disciplinary procedures.

Pitt’s council was created in 1998, partly through the efforts of two inspired alumni of Pennsylvania’s Haverford College, where the honor code is a central part of undergraduate life. A current member of the honor council, Bryan Ward (Class of ’09 and shown above), is another Haverford graduate. Cynthia Lance-Jones (also shown above), a PhD associate professor of neurobiology, is one of three faculty members nominated by the students to serve on the honor council.

Why the code matters
WARD: The honor code, in spirit, is a manifestation of what life is going to be like as a physician—having everyone, in a way, looking out for each other. [Medicine] is very much a community, and there’s a cooperative feeling.

The role of the council
LANCE-JONES: The honor council is there to help solve problems before they become huge and to have the students learn to solve problems. The faculty’s role is to help them learn to confront their peers in a good, constructive, valuable way.

Most young people are not very comfortable confronting a peer to say, “That’s not good. You signed that chart without looking at it.” Or, “You signed into a class when you weren’t there the whole time.” As future doctors who will work in groups and must trust in professional behavior, they will have to do this before [a problem] gets really big.

The honor code’s evolution
WARD: After first year, I took a trip back to Haverford and scoured through the school library’s archives and found a book about the honor code’s history. One of the big steps forward in the history of Haverford’s honor code was creating a plenary, a forum where students could discuss the honor code and participate in its evolution by writing amendments, rewording clauses, etc. Having students participate was a way not only to generate visibility, but also to validate that it was something the community believed in. [The medical school’s first plenary was held in January 2006.]

Their question for us
How might students who are not on the honor council take greater ownership of the honor code?
—Interviews by Chuck Staresinic

Faculty Snapshots

A ngela Gronenborn, the UPMC Rosalind Franklin Professor and chair of the Department of Structural Biology at the University of Pittsburgh, has been elected to the National Academy of Sciences. Membership in the academy, founded in 1863, is one of the highest honors a scientist can receive. Gronenborn, a PhD, is a leader in nuclear magnetic resonance spectroscopy, a tool used to define the structure of proteins and other vital biomolecules. The discipline of structural biology has become a key part of the drug discovery process.

Jeanette South-Paul (MD ’79), reared in Philadelphia, saw crippling poverty firsthand as a child because her parents ran a rescue mission in the city. Today, as the Andrew W. Mathieson Professor and chair of Pitt’s Department of Family Medicine, she hasn’t strayed far from her caring roots.

South-Paul recently received the American Medical Association’s Pride in the Profession award in recognition of her altruistic approach to practicing medicine. In addition to her administrative role, South-Paul has sponsored a holistic wellness program at an underserved Pittsburgh high school and sees patients at the Matilda H. Theiss Health Center, a clinic that offers care to community members, including the indigent and uninsured.

“I like to focus on making a difference in the lives of people who have no voice,” she says. “My piece is to try to model community service and a commitment to caring in everyone we train.”

The American Society for Clinical Investigation has added Pitt’s Yuri Nikiforov to its rolls. The ASCI honors physician-scientists with significant, early-career achievement in scholarly biomedical research.

Nikiforov, an MD/PhD professor of pathology who directs both the Division of Molecular Anatomic Pathology and the Molecular Anatomic Pathology Lab in the School of Medicine, studies the mechanisms of radiation-induced carcinogenesis. He works to develop molecular tests to diagnose thyroid cancer.

The Association of American Physicians’ roster now includes Pitt’s Augustine Choi and Louis Falo. Choi, an MD professor of medicine and chief of the Division of Pulmonary, Allergy, and Critical Care Medicine, has shown that low doses of carbon monoxide, coupled with oxygen therapy, inhibit oxygen-induced damage to lung cells. Choi is in a small vanguard of scientists studying the beneficial roles of carbon monoxide in the body.

Falo, an MD/PhD, is a professor of dermatology and chairs the department. His work has implications for vaccines against HIV, melanoma, lymphoma, and diverse infectious diseases. —JM
It takes about $500,000 to mold an MD/PhD over the course of the University of Pittsburgh/Carnegie Mellon University Medical Scientist Training Program (MSTP). Of the 100 on this path to becoming a physician-scientist, nine slots are fully funded by the National Institutes of Health.

Make that 18. The NIH recently announced that its funding of the Pitt/CMU MSTP will double by 2009. From July 1, 2007, through June 31, 2010, the program will receive a total of about $3.7 million in NIH funding above the 2006 level.

“It's an impressive number,” says Clayton Wiley, associate dean for the MSTP and an MD/PhD professor of pathology. “It's difficult to get new slots because they are so very costly and very competitive.”

Wiley says that when the time came in June 2006 to apply for renewal of NIH funding, the MSTP chose to seek the increase. They were not optimistic. “To get a new position [another school] has to lose a position,” Wiley says, adding that the NIH funds a finite number of slots. “Someone had to lose, and given the current NIH funding environment [see “Pitt Expects to Stay Strong ...” on p. 3], there were questions as to whether that would happen.”

Wiley says he considers the funding hike a testament to the quality of the MSTP. He also sees it as a way to further increase the number and quality of applicants to the program, which trains biomedical researchers with an eye toward interdisciplinary investigation and creative collaboration. “It's nice to see the program getting recognized, and it's nice that we will be able to continue to bring high-quality individuals to Pittsburgh.” —JM

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Reading is Fundamental

The text is an excerpted transcript of a physician talking with a patient who suffers from back pain. But what's the subtext? Robin Maier asks her students to sort it out. Maier, an MD and volunteer clinical assistant professor of family medicine at the University of Pittsburgh, wants her students to apply the tools of Marxian, feminist, structuralist, or deconstructionist literary theory.

The mini-elective Medicine and Literature, Maier says, is intended to help students communicate more effectively with patients by encouraging them to think more precisely about the implications of the words they say and hear in the clinic.

Zachary Zator, a first-year med student, chooses the Marxian perspective. Maier asks him, “Well, where's the money here?”

“In the prescriptions they're talking about,” he responds.

“How about bed rest?” she asks. “Is that expensive?”

“No,” says the student.

“It can be if you have a job you can't afford to miss,” Maier points out.

The conversation extends into a discussion of Medicaid, welfare reform, and the relationship between money and medicine. All from a few lines in a transcribed doctor-patient interview. —JM
Name Dropping

The 2007 Senior Vice Chancellor’s Laureate Lecture Series at the University of Pittsburgh began in May with a visit from Peter Schultz, a PhD and Scripps Professor of Chemistry at the Scripps Research Institute in La Jolla, Calif. Schultz, a member of the National Academy of Sciences and the Institute of Medicine, has made vital contributions to understanding the interface of chemistry and biology. He discovered methods to generate catalytic antibodies and developed biosynthetic ways to insert unnatural amino acids into proteins. The latter feat may permit scientists to create a new generation of proteins that can work as novel catalysts and drugs.

Schultz has served on the faculty of the University of California, Berkeley, was a Howard Hughes Medical Institute Investigator, and is the director of the Genomics Institute of the Novartis Research Foundation.

As part of the Laureate series, Nobel Laureate Linda Buck will present, on September 27, the lecture, “Unraveling the Sense of Smell.” Her talk will dissect the underlying molecular mechanisms of the olfactory system, including the ability of the nose and its workings to detect and differentiate at least 10,000 distinct odors and translate them into what, in the brain, are perceived and recalled as specific smells.

Buck, a PhD, is also interested in exploring how smells affect reproductive physiology and behavior. She is a member and associate director of the basic sciences division at the Fred Hutchinson Cancer Research Center in Seattle.

During her visit, Buck will receive the 2007 Albert C. Muse Prize for Excellence in Otolaryngology from the Eye and Ear Institute and Eye and Ear Foundation.

Sherwin Nuland spent his medical career at Yale University, starting with med school. He eventually rose to the rank of clinical professor of surgery and fellow of that university’s Institution for Social and Policy Studies.

Nuland’s 1995 book, How We Die, was on the New York Times best-seller list for 34 weeks, won the National Book Award, and was a finalist for the 1995 Pulitzer Prize and the Book Critics Circle Award. He has nine other books to his credit.

The physician-author addressed the University of Pittsburgh School of Medicine Class of ’07 at its May commencement. He says the aim of his speech was to remind the newly minted physicians of the humanistic aspect of their careers.

“We must restore our pastoral role at the bedside and sustain the human spirit of all who come to us for healing,” he says. —JM

Sonic Flashlight

It’s kind of like those x-ray specs advertised in the back of old comic books, except this little device can actually see through flesh and has real medical uses.

The device, called the sonic flashlight, was invented by George Stetten, an MD/PhD associate professor of bioengineering at the University of Pittsburgh. The handheld ultrasound tool allows users to keep their attention on the patient, rather than on a separate ultrasound screen.

Doctors are experimenting with using the device to help them insert catheters into patients’ veins. Nikhil Amesur, an MD associate professor of radiology, is conducting the clinical trial. (To see how the optics work, check the image on the left.) —JM

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