Edward M. Stricker—a renowned neuroscience scholar and educator who currently serves as Distinguished University Professor of Neuroscience in the University of Pittsburgh Department of Neuroscience and who, throughout his career at the University, has been known for his commitment to instilling in students his appreciation of and enthusiasm for the development of the life of the mind—has been named dean of Pitt’s University Honors College (UHC). His appointment is effective July 1, 2011.

“It would be very difficult to find many other faculty members, here or in other universities, who have built a broadly-based research achievement that equals the record built by Ed Stricker,” said University of Pittsburgh Chancellor Mark A. Nordenberg. “In addition to his outstanding accomplishments in research, he was the founding chair of our Department of Neuroscience and has played a key role not only in building that department but in nurturing cooperative efforts in that important field across our campus and with colleagues at Carnegie Mellon University. Even more important, in terms of his appointment as Dean of our Honors College, is his career-long commitment to teaching and mentoring, which is evidenced by his receipt of the highest teaching honors awarded by our University.”

Nordenberg said Stricker has agreed to serve as dean of the Honors College and have great confidence that his scholarly leadership, dedication to undergraduate students, and commitment to excellence will serve us well in his new role,” said Patricia E. Biese, Pitt provost and senior vice chancellor. “He personifies our institutional belief in the value of the highest quality education and the importance of imparting a lifelong interest in learning and research to our students. I very much look forward to working with Dr. Stricker and believe that under his leadership the University Honors College, which already is recognized as one of the finest honors colleges in the country, will continue to foster and inspire excellence.”

Stricker’s Pitt career began in 1971 as an associate professor in psychology and biological sciences; he was promoted to full professor in 1976 as he was named University Professor of Neuroscience in 1986. That special faculty rank recognizes eminence in several fields of study, transcending accomplishments in a single discipline. Prior to joining the Pitt faculty, Stricker served as a faculty member at McMaster University. He also has been a visiting professor of psychiatry at both Johns Hopkins and Columbia Universities.

Stricker earned BS and MS degrees in chemistry from the University of Chicago and a PhD in psychology from Yale University. He also held postdoctoral fellowships at the University of Colorado and the University of Pennsylvania.

Over the past 25 years, Stricker has been instrumental in the development of the University’s nationally recognized neuroscience program. Having served as director of the Behavioral Neurosciences Program from 1983 to 1986, he led efforts to establish a Department of Neuroscience in the School of Arts and Sciences, serving as the founding chair of that department for 16 years, from 1986 to 2002. He also served as founding director of the Center for Neuroscience and Schizophrenia (now the Conti Center for Neuroscience and Schizophrenia Disorders) and, from 1996 to 2002, as codirector of the University’s Center for Neuroscience.

In addition, Stricker has provided leadership to the University more broadly, serving on chancellor’s and provost’s advisory committees and as chair of search committees for the senior vice chancellor for health sciences (1992-93) and the dean of the School of Arts and Sciences (1993-96). Stricker is internationally recognized as a leading expert in homeostatic systems, especially the control of fluid ingestion and the kidneys, and their integration by the brain. For 41 years, he maintained an active research laboratory continuously funded through grants from the National Institute of Mental Health (NIMH) [including 37 years of continuous funding for research on the homeostatic origins of motivation], the National Science Foundation, the National Institute of Neurological Disorders and Stroke, and Canada’s National Research Council. He also has received both the prestigious NIMH Research Scientist Award and the NIMH MERIT Award, a symbol of scientific achievement in the research community. His publications include nearly 300 research articles, reviews, and book chapters.

Throughout his career, Stricker has demonstrated a deep commitment to and appreciation for education—particularly undergraduate education—including a belief in the unique benefits that can result from the involvement of undergraduates in research. Inside and outside the classroom, he has challenged students to aspire to excellence and has provided the encouragement and tools necessary for achieving those aspirations. Recognizing the importance of engaging students early in their careers, he has taught introductory neuroscience each academic year since 1971, along with advanced undergraduate and graduate courses.

Stricker also was the founding codirector, in 1992, of the NIMH-funded Undergraduate Research Fellowship Program, which facilitates undergraduate engagement with faculty research and was one key to strengthening a culture of commitment to excellence in undergraduate education within the neuroscience community. In recognition of the impact he has had on undergraduate education at Pitt, Stricker has received both the Chancellor’s Distinguished Teaching Award, recognizing distinguished teaching university-wide, and the Bellet Teaching Excellence Award, which honors teaching excellence in the School of Arts and Sciences. He also was honored for distinguished teaching while serving as a faculty member at McMaster University in his earlier career.

A member of the editorial board for Plenum Press’ Behavioral Neurobiology series since 1990, Stricker also has been on the editorial boards of Appetite and the American Journal of Physiology and was consulting editor for the Journal of Comparative and Physiological Psychology. From 1999 to 2002, he was president-elect, president, and past president of the Association of Neuroscience Departments and Programs.

Stricker’s professional society memberships include the International Congress on the Physiology of Food and Fluid Ingestion, serving as president from 1987 to 1994; Sigma XI; the Society for Neuroscience, the Society for the Study of Investigative Behavior; and The American Physiological Society.

Stricker succeeds G. Alec Stewart, UHC’s dean since its inception, who passed away in April 2010. Pitt provost of economics Steven Husted has been acting as the college’s interim dean since May 2010.

By Patricia Lomando White

Eight Teaching Proposals Receive Funding From Provost’s ACIE

The University of Pittsburgh Office of the Provost’s Advisory Council on Instructional Excellence (ACIE) has selected eight teaching proposals to fund under the 2011 Innovation in Education Awards Program.

The awards, begun in 2000 by then-Pitt Provost and Senior Vice Chancellor James V. Maher, encourage instructional innovation and teaching excellence. The ACIE seeks to identify teaching methods that show promise for introducing innovative, creative approaches to teaching that can be adapted to other courses and programs. Vice Provost for Faculty Affairs Andrew Blair, who chairs the advisory council, observed, “The council continues to be thrilled with the quality of submissions, especially those recommended for approval this year by Provost Patricia Biese. The council has now given the 32nd round of this competition.”

Winners of the 2011 awards and summaries of their proposal follow.

Neil Benedict, assistant professor in the Department of Pharmacy and Therapeutics in Pitt’s School of Pharmacy and critical care pharmacist for the University of Pittsburgh Medical Center, for a project titled “Innovative Instructional Approach to Foster Self-Directed Learning.”

This project will help the School of Pharmacy’s students learn methods to ensure that students are successfully engaging in self-directed learning. While faculty already are being trained in methods that emphasize self-directed learning principles, the actual process of such learning can be observed and its principles assumed, rather than enforced. The project will test a new instructional method that is based on the creation of two “virtual patients” cases as well as social learning in the classroom. The effectiveness of the concept will be measured by comparing test scores of a control group of students who do not assess the virtual cases and a group that does.

Sangyoon Cho, professor in the Department of Computer Science in Pitt’s School of Arts and Sciences, for a project titled “Cracking the Code of Self-Directed Learning.”

Cho’s project seeks to expose Pitt’s undergraduate students to the fundamentals of the latest personal supercomputing technologies. True supercomputers have massive computing powers and can quickly perform complex simulations and calculations. It is both accurate and cheap, but however expensive, and access to them is limited. Cho will establish a computer lab within Pitt’s computer science department that will provide, without a new investment in hardware, basic personal supercomputing capabilities for each student. Their addition to the lab—and curriculum—will benefit not only computer science students, but also other Pitt students interested in gaining supercomputing experience inexpensively on personal computers they
A Century of Change

By Robert Hill

(This is the introduction to the commemorative program for the “Athletics at Pitt: The Forefront of a Century of Change.”)

From left, event cochair David Garnett (A&S ’71), a Pitt football player from 1968 to ’70; CNN news anchor Fredrica Whitfield; Pitt Chancellor Mark Nordenberg; NBC sportscaster and event emcee Bob Costas; Brian Suther (A&S ’71), event cochair; Pitt trustee Herbert P. Douglas Jr. (EDUC ’48, ’50), a bronze medalist in the long jump at the 1948 Olympics and one of the first three African Americans to play football for Pitt, in 1945; and Steve Pederson, Pitt athletics director.

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Action Potential: Probing the Brain Power of Pitt Neuroscience

By Michele D. Baum

Although it is a three-pound lightweight, the brain is the human body’s untested heavy hitter. Its 100 billion neurons control the seat of all knowledge, power the central nervous system, and erode the soul of our individuality. We have mapped its lobes, nerves, and blood vessels; we have labeled its cells, divided its activities into motor, cognitive, and sensory; and sorted its matters according to color—gray, white, and substantia nigra (Latin for black stuff).

Despite these achievements, there are significant gaps in our understanding. But day by day, University of Pittsburgh neuroscience faculty work to unlock the brain’s remaining secrets, attracting considerable research support to the University, primarily from the National Institutes of Health (NIH). Throughout the past two decades or more, Pitt has built itself into a leader in brain research, focusing on its strengths in basic and clinical science. A spirit of collaboration is engendered in this work through the Center for Neuroscience, a University-wide center encompassing neuroscience on campus. The center’s diverse and multidisciplinary nature is reflected by the more than 30 different academic departments and centers in which more than 100 faculty conduct neuroscience research. Doctoral and postdoctoral trainees also play a major role in the center’s research activities, as do students in the highly successful undergraduate neuroscience major in the School of Arts and Sciences’ Department of Neuroscience.

Neuroscience research at the University runs from conducting basic cellular science to developing medications to building prostheses to replace damaged limbs. It includes work done through the Department of Psychiatry in the School of Medicine (and its clinical affiliate, Western Psychiatric Institute and Clinic [WPIC] of UPMC), for decades a national leader among NIH-funded psychiatry departments, which received about $90 million in total research funding in 2010. It also includes work through the Center for the Neural Basis of Cognition (CNBC), a joint venture of the University of Pittsburgh and Carnegie Mellon University that leverages the strengths of each to support a coordinated research and education programs for a university neuroscience enterprise here at the University of Pittsburgh.

Mapping Molecular Messengers

Susan G. Amara, the Thomas Detre Professor and chair of neurobiology and president of the prestigious Society for Neuroscience, studies the transport proteins responsible for the reuptake of neurotransmitter molecules released during chemical neurotransmission in the central nervous system. One family of transporters clears glutamate, a major excitatory transmitter in the brain that limits the temporal and spatial range over which glutamate molecules can signal. Because excessive amounts of glutamate can trigger neuronal cell death, glutamate transporters also protect the brain from the toxic actions of glutamate.

Brain cell death lies at the root of many central nervous system disorders, including ischemia, or stroke; amyotrophic lateral sclerosis (Lou Gehrig’s disease); Parkinson’s disease; and Alzheimers disease. Understanding cell-death mechanisms could help researchers to identify new drug targets and interventions, says Amara, a member of the National Academy of Sciences and a former Howard Hughes Medical Institute investigator. “We know that extracellular levels of glutamate rise in ischemia,” she says. “If we could learn how to enhance glutamate removal, we might be able to protect the brain from stroke damage.”

The brain’s most common neurotransmitter, glutamate accounts for some 90 percent of brain activity and is known to be involved in cognitive functions, learning, and memory. Yet system imbalance can lead to surplus glutamate accumulation—also known as excitotoxicity—and cell death.

“Can we prevent the brain from having too much of a good thing?” asks Amara. “By understanding glutamate transporter structure and mechanisms, we hope to develop molecules that increase the rate of different steps in the transport cycle, reduce ambient glutamate and, thus, limit the damage from excitotoxicity.”

Among candidate molecules is a neuroprotective compound purified from the paralyzing venom of Parawixia bistriata, a social spider native to Brazil. The venom component selectively enhances glutamate transport, and Amara’s group is working with chemists to define the configuration of the active compound, given its potential as a basis for the development of new stroke drugs and treatments for other neurodegenerative disorders.

Amara also studies transporters for dopamine, norepinephrine, and serotonin—important neurotransmitters with key roles in regulating brain circuits involved in mood, reward, attention, and activity. Of particular interest are investigations into how certain drugs—including the psychoactive drugs of abuse amphetamines and cocaine, attention deficit hyperactivity disorder (ADHD), medications like Ritalin, antidepressants like Celexa and Prozac, and other major classes of therapeutic and illicit drugs—affect the brain.

“These drugs have many more actions than we previously thought,” explains Amara. “We have always assumed that psychostimulants such as amphetamine and methamphetamine potentiate the actions of neurotransmitters by blocking reuptake, but we never realized that they also have their own specific receptor targets within the cell.

Our new work shows that the drugs enter the cell cytoplasm to activate specific signaling pathways and alter the surface distribution of key regulatory molecules involved in neuronal communication. These observations change the way we think about how the brain is altered by repeated drug use and why amphetamines have such a profound and distinctive addictive potential.

Other University investigators parse the biochemistry of these cellular-level events for influences that reach beyond physiology to the heart of the human psyche.

Roots of Behavior

Daniel S. Shaw, professor and chair of psychology in the School of Arts and Sciences, has spent more than 20 years probing the foundations of antisocial behavior in children, looking for ways to successfully intervene before it’s too late. He leads longitudinal studies to follow children from
Daniel Shaw has spent more than 20 years probing the foundations of antisocial behavior in children, looking for ways to successfully intervene before it’s too late. “We have funding from the National Institute on Drug Abuse to look at the effects of genetics on brain function, the effects of environment, and the interactions between genetics and environment,” he says.

“Kids when got to age 10, 11, or 12, they were very tough to get out of that problem behavior, and they had burned their parents so many times,” he says. “At 10 and 12, you’re talking about kids starting to go underground and not just lie and steal, but hurt things. Some of our more precocious kids were using drugs and selling them.”

Rich collaborative opportunities have now added a facet of neuroscience to his behavioral research. “We have funding from the National Institute on Drug Abuse to look at the effects of genetics on brain function, the effects of environment, and the interactions between genetics and environment.”

Shaw says, gesturing so excitedly he practically vibrates with anticipation. “This is my first entry into neuroscience.” For the project, he is working with Erika Forbes, assistant professor of psychiatry in the Pitt School of Medicine, and Ahmad Hariri, former director of Pitt’s Developmental Imaging Genetics Program, who is currently a Duke University neuroscientist.

“We have over 100 brain scans so far—unusual for this literature—but we have an incredible cohort,” says Shaw. “We hope to have a break out paper when it’s all ready [in late 2011].”

Your Brain on Adolescence

For Beatriz (Bea) Luna, a professor of psychiatry in the School of Medicine, and of psychology in the School of Arts and Sciences, the question that matters most is: How do these changes modify brain function? Winner of a 2005 Presidential Early Career Award for Scientists and Engineers, Luna uses functional magnetic resonance and diffusion tensor neuroimaging technologies to study how brain mechanisms underlying cognitive skills develop during adolescence—a period often marked by a spontaneous combustion of risk-taking, misjudgments, crisis-level mood swings, and impulsivity.

“As a teenager, I remember thinking that something extremely special was going on and at the same time knowing it was temporary,” says Luna, who is also founding director of the Laboratory for Neurocognitive Development at WPC. “I looked at my parents, and I knew they didn’t think in the same way that I did.”

Connections between neurons—called synapses—multiply rapidly during the first two years of life, followed by a process to cull superfluous connections and strengthen those used most frequently. Scientists believe this process allows the brain to adapt to an individual’s particular environmental needs.

“As adolescence is not a disease,” she says with a smile. “It’s a necessary time of brain development, where young people should be encouraged to explore, gain experience and independence, and sculpt their future selves.”

Selected by the NIH to serve as a member of its Advisory Committee to the Director, Luna also has advised the U.S. Supreme Court on sentencing guidelines for adolescent offenders. “As we understand more and more about how the brain works,” she says, “we can try to understand breakdowns that may lead to conditions like ADHD, autism, and mental illnesses like depression and schizophrenia.”

A Matter of Mental Health

Molecular neurotransmitter pathways also intrigue David A. Lewis, UPMC Professor of Translational Neuroscience and chair of psychiatry, who investigates pathways’ relevance to the devastation of mental illness.

“Brain circuitry abnormalities appear to underlie schizophrenia,” says Lewis, who is also director of Pitt’s National Institute of Mental Health-funded Conte Center for the Neuroscience of Mental Disorders. “These abnormalities change with development and may generate different symptoms, yet are interconnected.”

A complex disorder, schizophrenia frequently results in a lifelong struggle against severe cognitive and social challenges. Current medications primarily target delusions and hallucinations; there are few treatments available that help patients to manage disordered thinking, motivation, or memory. A troubling susceptibility among many with schizophrenia to fall prey to addictions—perhaps as a form of self-medication—also presents challenges.

Among Lewis’ recent publications are studies of the biochemical relationship between the neurotransmitter gamma-aminobutyric acid (GABA) and a key ingredient in marijuana that suggest a biological basis for population studies that connect marijuana use during adolescence with an increased risk of developing schizophrenia. In addition, the course of illness is worse for people with schizophrenia who use marijuana, he says.

Since GABA is known to be reduced in schizophrenia, these findings suggest possible new drug targets that could improve brain function in individuals with schizophrenia.

One of the most studied brain areas is the dorsolateral prefrontal cortex, which houses executive processes and working memory, says Lewis, defining working memory as the ability to remember information transiently and use it to guide behavior or thought.

“Now we are working to decipher the specific components—the molecules, cells, and synapses—and the larger circuits present in the dorsolateral prefrontal cortex that are behind this disturbance,” he adds.

Among these components, morphological evidence reveals that some neurons may even be smaller and have fewer dendritic protrusions called spines, which help to transmit electric signals to the neuron. Other neurons exhibit variations in gene product expression.

“There may not be a classic neuropathology of schizophrenia similar to the tangles and plaques characteristic of...
Alzheimer’s disease,” says Lewis. “But that doesn’t mean there aren’t changes in the brain that are, in fact, the basis of the illness.”

Neurotransmitters Gone Wild

Brain regions associated with schizophrenia include the hippocampus and prefrontal cortex. Drug use and environmental toxins are implicated in its development; there are also several candidate genes and possible roles for the neurotransmitters dopamine, glutamate, and serotonin. Rodent models of schizophrenia developed at Pitt point strongly to the hippocampus.

“The question is, ‘What’s wrong?’” says Anthony A. Grace, Distinguished Professor of Neuroscience in the School of Arts and Sciences, who helped to develop this study. Among his observations: There is hyperactivity in the hippocampus because of altered GABA transmission that ultimately results in dopamine system overdrive.

“Normal GABA activity is essential for proper cortical structure functioning,” Grace notes. GABA loss, in turn, disrupts other key brain cell communications involving stimulus recognition and higher cognitive function, he adds.

Grace believes similar neuron and GABA losses in the prefrontal cortex also contribute to cognitive deficits associated with schizophrenia. In addition, other characteristics are exhibited that are consistent with human schizophrenia patients, including amplified startle reflex, altered executive function, and hyperresponsive-ness to drugs of abuse like phencyclidine and amphetamine.

“We’re working with a chemist at the University of Wisconsin to design drugs specific to the alpha 5 GABA receptor in the hippocampus. These drugs are like Valium and other benzodiazepines in that they amplify GABA. These seem to reverse this physiological and behavioral response and could turn out to be a new anti-psychotic,” says Grace.

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Pittsburgh Compound B

Perhaps the most significant diagnostic advance in Alzheimer’s research today is Pittsburgh Compound B (PiB). Developed and tested by William E. Klunk, professor of psychiatry, and Chester A. Mathis, professor and director of Pitt’s PET Facility, PiB allows clinicians to see amyloid plaques in the living brain of individuals with Alzheimer’s and also in those who do not yet exhibit signs of the disease. This finding could lead to earlier diagnosis, illuminate disease progression, and uncover prevention strategies.

PiB imaging can also be used to differentiate Alzheimer’s from other forms of dementia and to directly measure the effects of antiamyloid therapies currently in development. For their work, Klunk and Mathis have earned major honors, including the Ronald and Nancy Reagan Research Institute Award for outstanding contributions to research, care, and advocacy for Alzheimer’s disease, and the Potamkin Prize, often called the “Nobel Prize” for neurology.

Viral Vectors Blaze the Trail

Peter Strick, professor of neurobiology, uses rabies and herpes simplex viruses to “envision” neural pathways related to movement.

With the viruses revealing chains of synthetically connected neurons, Strick has uncovered new evidence that the brain’s basal ganglia and cerebellum are linked to form an integrated functional network. The findings provide a neural basis for a cerebellar contribution to some of the disabling symptoms of basal ganglia disorders like Parkinson’s and dystonia and could point to new treatment approaches, Strick and colleagues reported in the May 2010 Proceedings of the National Academy of Sciences.

“I’ve always been interested in the nature of volition,” says Strick, also codirector of the Center for the Neural Basis of Consciousness.
Cognition. “How is it that when I want to move my finger, it moves? What regions of the brain are involved in that?”

Strick investigates the essential connections between function and physiology, cognition and behavior. Using viral markers, Strick can work neuron to neuron, linking neurons like individual cars that together give purpose to a speeding train.

“We can work out the circuitry,” Strick says, listing potential investigations to further elucidate the connection between the basal ganglia and cerebellum. “There’s growing evidence, for example, of cerebellar involvement in addiction and fear response,” he continues, adding that knowing how such connections work could lead to new treatments not only for addictions, but also for post-traumatic stress disorder.

In previous work, Strick mapped a new area of the cerebral cortex that has evolved to enable humans and other higher primates to perform fine motor tasks. His findings show that the brain’s primary motor cortex has adjacent “old” and “new” regions. But unlike the older, less direct region more active in lower animals, this newer region directly controls spinal motor neurons to activate shoulder, elbow, and finger muscles, refining movements required for complex tasks like playing a musical instrument.

In recognition of his seminal findings in neural tracing studies, Strick was elected a Fellow of the American Academy of Arts and Sciences in 2004.

Translational Science and Stroke

“There are so many diseases where neurons die—degenerative diseases like Huntington’s, traumatic brain injury, stroke,” Robert M. Friedlander, professor and chair of neurological surgery, says with a sigh. “Causes may differ, but many of the pathways mediating cell suicide are shared. As we better understand these pathways, we can be better prepared to develop novel therapies for these often devastating and untreatable diseases.”

Friedlander’s lab works with models of stroke, spinal cord injury, Huntington’s disease, multiple sclerosis, and ALS, testing drug libraries for potential new uses. Experiments have shown that the antibiotic minocycline appears to delay disease progression, along with the hormone melatonin and the antiglaucoma drug methazolamide. Clinical trials with minocycline are now underway.

The third most common cause of death, stroke is the leading cause of disability in the United States. Triggered by blood-flow disruptions, a severe lack of oxygen catapults the immediately involved nerve cells into metabolic collapse and necrosis. Neurons further downstream suffer low-oxygen stress, activating an endogenous cell-death pathway and leading to cell self-destruction (apoptosis).

Considering the devastation caused each year by stroke—the American Heart Association estimates that someone suffers a stroke every 40 seconds, on average, and dies every four minutes—it is vital to seek more and better treatments.

“Often it is difficult to stand out in many areas, but at Pitt, neuroscience has enough breadth to truly excel,” Friedlander says.
Pay It Forward

Eight Teaching Proposals Receive Funding From Provost's Account

Continued from page 1

Lydia B. Daniels, lecturer and codirector in Undergraduate Programs for the Department of Biological Sciences in Pitt’s School of Arts and Letters, was awarded a project titled “Losing the Lecture: Student-Centered, Inquiry-Based Learning in an Upper-Level Course.”

This project aims to bring the process of guided discovery, where the large biology lecture classroom is more effectively developed by questioning and reasoning, to the next generation of scientists. Specifically, the project seeks to use the teaching of science from the passive-lecture model to a student-centered model focused on developing reasoning skills, an understanding of evidence, and a grasp on how the scientific process generates new knowledge via hypothesis testing. In an effort to develop students’ skills in applying knowledge to solve problems, class times will be devoted to interactive and collaborative activities.

Christinger Tomer, professor in the Library and Information Sciences Program of Pitt’s School of Information Sciences, for a project titled “Information Professionals and Student Information Literacy.”

This project will create a forum for students in Pitt’s Master of Library and Information Sciences (MLIS) program to interact with information professional alumni. The MLIS program has 200 students who are enrolled full- or part-time either on campus or online. This project will develop six video-recorded presentations that focus on specific topics and fields of practice within the MLIS curriculum. Alumni guest speakers will be followed by one week of student presenter online discussions. The interaction is intended to help students develop professional insights and skills beyond the traditional classroom experience.

Mary Lou Lebold, assistant professor and academic fieldwork educator in the Department of Occupational Therapy within Pitt’s School of Health and Rehabilitation Sciences (SHRS), and Nancy A. Baker, professor in SHRS’ occupational therapy department, for a project titled “Maximizing Clinician Readiness Through Classroom Learning.”

This project is about ensuring occupational therapy students are able to perform accurate and efficient upper-extremity assessments and that the students are “ready,” not just “classroom” ready, for the task. Such an assessment requires both high-level cognitive and practical skills. Lebold and Baker said they have identified a need to develop a stepped learning program. The new methods would include five components, each progressively more complex, including such steps as having students watch a professional presenter, online discussions. The interaction will continue collaboratively through a way opening for students who are enrolled in public performances of new works created by graduate composers enrolled in the course. According to Williams, the graduate composers are often eye-opening for students, as well as for audiences who take classes at Pitt rarely have the opportunity to create and perform together with artists outside the music department. The project is intended to help students develop common vocabularies for analyzing and assessing each other’s works—as well as to build bridges between the University and the wider artistic community in Pittsburgh. The course will ideally be offered every three years.

Eunice E. Yang, assistant professor in mechanical engineering technology at Pitt-Johnstown, for a project titled “Use of a Spiral Curriculum to Assess Learning in an Engineering Technology Measurements Course.”

This project will develop an integrated curriculum for the Engineering Measurements course at Pitt-Johnstown. Currently, the course teaches experimental design, data analysis, and some exercises in three weekly lectures, while students gain data acquisition experience using sensors to measure pressures throughout one weekly lab. The course will be taught using a more spiral approach instead of through lectures that progress sequentially through a breadth of topics. The new curriculum will require students to use prior knowledge of engineering fundamentals as they learn to solve problems during lab sessions. This method will require students to work as a team to design and perform experiments to address experimental objectives.

Memorial Service for Dr. Thomas Detre Set For June 5 in Heinz Memorial Chapel

A memorial service celebrating the life of Dr. Thomas Detre will be held at 1 p.m. Sunday, June 5, in Heinz Memorial Chapel. Dr. Detre was the academic leader whose ambition and determined efforts helped propel the University of Pittsburgh’s schools of the health sciences to international prominence and the architect behind the transformation of the University’s teaching hospitals into UPMC.

Dr. Detre was 86 years old when he passed away Oct. 9, 2010, following a long illness. Since 2004, he had held the titles of Emeritus Distinguished Senior Vice Chancellor for the University’s teaching hospitals and Emeritus Distinguished Service Professor of Psychiatry at the University of Pittsburgh.

During Dr. Detre’s tenure as the University of Pittsburgh’s senior vice chancellor for the health sciences, he established an innovative funding cycle of driving dollars from clinical practice into interdisciplinary research and then applying the results of those endeavors to clinical advances. This approach led to the growth of the University’s medical arm and the ultimate realization of what is now UPMC, and it positioned the University to become one of the nation’s top 10 recipients of research support from the National Institutes of Health (NIH), a status it has maintained since 1997.

To RSVP, or for additional information, please contact Carol Holbay at 412-647-1784 or holbayc@upmc.edu.

Memorial donations may be made to the Katherine Detre Scholarship Fund in Pitt’s Graduate School of Public Health. For more information, contact Apryl Eshelman at 412-624-5639 or Eshelman@pitt.edu.

Dr. Thomas Detre

The department of Computer Science in the School of Arts and Sciences, for a project titled “Software as a Service for Mobile Computing.”

This project involves creating a new upper-level undergraduate course to teach students the knowledge of how to build effective mobile applications for mobile phones and portable Internet tablets. While students may have expertise in building effective desktop graphical user interfaces, those skills are no longer applicable to such mobile devices as the iPhone, Android, and iPad. The project also includes three other facets: identifying, creating, and maintaining a library of mobile interface design patterns; exploring the usage of a class-specific question-and-answer Web site for sharing knowledge and expertise, and creating a community of mobile developers at Pitt.

Amy Williams, assistant professor of composition/theory in the Department of Music in the School of Arts and Sciences, for a project titled “Collaboration in Music and Dance.”

Williams and members of Attack Theatre, a professional dance troupe, will design and teach a new graduate course in collaborations in music and dance. The class will culminate in two public performances of new works created by graduate composers enrolled in the course. According to Williams, the collaborative process is an artistically opening for students, as well as for audiences who work with artists outside the music department. The project is intended to help students develop common vocabularies for analyzing and assessing each other’s works—as well as to build bridges between the University and the wider artistic community in Pittsburgh. The course will ideally be offered every three years.

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Concerts

Izhak Perlman Performs and Conducts, featuring works by Bach, Tchaikovsky, and Mendelssohn, 7:30 p.m. May 25, Heinz Hall, 600 Penn Ave., Downtown, www.pgharts.org.


Ravel’s Great Waltz, with Itzhak Perlman, 8 p.m. June 3-4, Heinz Hall, 600 Penn Ave., Downtown, www.cmoa.org.

Lectures/Seminars/Readings

“Transplantation and Children: Outcomes and Opportunities for a Lifetime,” George V. Mazzejoges, Jamie Lee Curtis Elderside Chair in Transplantation Surgery, Pitt School of Medicine, 4:30 p.m. June 2, Scalin Hall Library Room 6, Provost’s Inaugural Lecture Series, www.pvou迀t.pitt.edu.

Miscellaneous

CourseWeb Level 2, workshop on application of Blackboard 9.1 Learning Management System’s Web-based instructional technologies to enhance student participation and encourage active learning, 9 a.m. May 25, 342 Alumni Hall, Pitt CIDDE, register online at www.cidde.pitt.edu.

Sarah Wheeler, School of Medicine’s Cellular and Molecular Pathology Graduate Program, 11 a.m. May 31, “EGFRvIII Expression and Signaling in HNSCC,” 1105 Scaife Conference Center.


Pitt PhD Dissertation Defenses

Yeonhee Kim, Graduate School of Public Health’s Department of Biostatistics, 1 p.m. May 26, “Statistical Methods for Discovering Biomarkers Subject to Detection Limit,” 308 Parran Hall.

Ellie M. Criscultri, School of Arts and Sciences’ Department of Biological Sciences, 2 p.m. May 26, “The Roles of the Saccharomyces Carrevisiae Paf1 Complex in Regulating Transcriptional Repression,” A219B Langley Hall.

PUBLICATION NOTICE: The next edition of Pitt Chronicle will be published June 6. Items for publication in the newspaper’s Happenings calendar (this page) should be received at least two weeks prior to the event date. Happenings items should include the following information: title of the event, name and title of speaker(s), date, time, location, sponsor(s), and a phone number and Web site for additional information. Items may be e-mailed to chron@pitt.edu, faxed to 412-624-4498, or sent by campus mail to 422 Craig Hall. For more information, call 412-624-1033 or e-mail robben@pitt.edu.