News about UB's School of Medicine and Biomedical Sciences and its Alumni, Faculty, Students and Staff

Pathways

Summer 2006

Peer Elected President of State Medical Society


Peer

Richard M. Peer, MD, associate clinical professor of surgery at UB, has been elected president of the Medical Society of the State of New York (MSSNY). In this role he will oversee all of the organization's public health and legislative activities and will serve on the American Medical Association's (AMA) Council on Long Range Planning and Development.

He was a founder and the first president of the Western New York Physicians Executive Group and the president of the Buffalo Academy of Medicine, the Buffalo Surgical Society, the Erie County Medical Society and the Western New York Vascular Society.

Peer, who is a board-certified general and vascular surgeon, graduated cum laude from Canisius College, after which he earned his medical degree with Distinction in Research from the University of Rochester School of Medicine and Dentistry. He completed both his internship and residency at the University of Rochester's Strong Memorial Hospital, where he was chief resident. From 1991–1995 he served as chief of the Division of Vascular Surgery at Buffalo General Hospital, where he remains an associate surgeon.

He also is in private practice with the Buffalo Medical Group and is the medical director of two health-care facilities and a consultant for Roswell Park Cancer Institute.

Peer has worked actively on behalf of organized medicine. He was a founder and the first president of the Western New York Physicians Executive Group and the president of the Buffalo Academy of Medicine, the Buffalo Surgical Society, the Erie County Medical Society and the Western New York Vascular Society. He has represented New York as a delegate to the AMA and been appointed to several policy-making committees.

Peer's community involvement includes being a founding member of the Kaleida Health Foundation Board and volunteering for the Family Respite Campaign Cabinet for People, Inc.

—S.A. Unger

Lema to Serve as President of Anesthesiology Society

Mark Lema, MD, PhD '78, professor and chair of anesthesiology at UB and Roswell Park Cancer Institute, will begin serving a one-year term as president of the American Society of Anesthesiologists (ASA) in October 2006.

Lema is the past editor of the New York State Society of Anesthesiologists' publication, *Sphere,* and is currently editor of the American Society of Anesthesiologists' *ASA Newsletter*. He is past general chair of the Postgraduate Assembly for the New York State Society of Anesthesiologists and has served on the New York State Public Health Council's Subcommittee on Pain Management Practice and the Health Commissioner's Preoperative Protocol Panel.


Lema

Lema has been a member of the American Medical Association's National Palliative Care Faculty and has served on the National Comprehensive Cancer Network (NCCN) Pain Panel, the American Pain Society's Clinical Practice Panel, and the NYS Partnership to Improve End-of-Life Care task force. Currently, he serves on the NCCN End-of-Life panel.

He received his medical degree from the State University of New York, Health Sciences Center at Brooklyn (Downstate) and completed residency training at Brigham and Women's Hospital/Harvard Medical School in Boston, Massachusetts. In addition, he holds a PhD in Physiology.

—S. A Unger

Freudenheim Named Chair

Jo L. Freudenheim, PhD, has been named chair of the Department of Social and Preventive Medicine in the School of Public Health and Health Professions at UB following a national search.


Freudenheim

Freudenheim joined the department as an assistant professor after serving as a postdoctoral fellow in cancer epidemiology at UB from 1987–88. She was named a professor in 1998 and has served as interim department chair since 2003. As chair she will concentrate on expanding the department's research program, hiring new faculty and developing the epidemiology teaching program.

Her research focuses on the epidemiology of nutrition and cancer; in particular, the relationship between diet and breast cancer.

She holds concurrent appointments as professor in Roswell Park Cancer Institute's Department of Cancer Pathology and Prevention and as research scientist with the UB site of the National Center for Geographic Information and Analysis.

She also has appointments at UB's Research Institute on Addictions and in the UB Department of Exercise and Nutrition Sciences.

Freudenheim currently is principal investigator on a $2.39 million grant from the National Cancer Institute to investigate methylation and oxidation in breast-cancer epidemiology. She also is the principal investigator on a project examining the mechanism underlying the observed association of alcohol consumption with breast-cancer risk. The project is part of a larger study based in the Breast Cancer Center of Excellence at Georgetown University.

Freudenheim received her undergraduate degree from the University of Michigan and completed master's degrees

Canty Heads Cardiovascular Medicine Division

JOHN M. CANTY, JR, MD '79, Albert and Elizabeth Rekate Professor of Medicine, has been named chief of the Division of Cardiovascular Medicine in the Department of Medicine. The former Cardiology Division has been renamed to recognize the breadth of cardiovascular disorders, as well as the rapidly emerging diagnostic, interventional and preventive approaches implemented in contemporary cardiovascular care. Jeffery Schwartz, MD, who led the Division of Cardiology since 1992, retired last year. Canty also will assume the position of vice chair for research for the Department of Medicine, which is chaired by Alan Saltzman, MD.

Canty heads the university's Center for Research in Cardiovascular Medicine. The center conducts translational research in patients with coronary artery disease as well as in animal models of chronic ischemic heart disease. It is doing pioneering work investigating the mechanisms involved in sudden cardiac death, a condition caused by a catastrophic disruption in heart rhythm resulting in ventricular fibrillation. Other areas of investigational strength include the development of gene transfer and adult stem cell therapy treatments for ischemic heart disease and the implementation of high-throughput molecular biological approaches to identify mechanisms of acquired cardiovascular disease. The center's development was spearheaded by a 2003 grant from the John R. Oishei Foundation that has led to a current funding level of more than $13 million, of which the majority comes from the National Institutes of Health. The Cardiovascular Center is also one of the major areas of translational research emphasis in the Center for Excellence in Bioinformatics and Life Sciences.

In his new capacity, Canty will oversee the teaching, research and clinical programs of the Division of Cardiovascular Medicine. The initial goals will be to expand the faculty and continue to build upon its recognition as a national leader in bench-to-bedside translational cardiovascular research. As part of this, the university has developed plans to develop UB as a center for cardiac molecular imaging. Canty will also head efforts to integrate the university cardiology sections at the Department of Veterans Affairs Medical Center, the Erie County Medical Center and the Kaleida Health System. Plans to create a new ambulatory UB Heart and Vascular Center as a part of the UBMD initiatives are under way, with the long-term goal of establishing UB as a local leader in cardiovascular medical care. BP

—Lois Baker

in nutritional sciences and preventive medicine at the University of Wisconsin, where she earned a doctorate in nutritional sciences in 1986.

She is an author or co-author on more than 150 publications in refereed journals and is a member of several professional organizations. She has received numerous honors and awards, including the 2005 SUNY Chancellor's Award for Excellence in Research and Scholarship.

—Lois Baker

Szyperski Shares NMR Prize

Thomas Szyperski, PhD, professor of chemistry, biochemistry and structural biology, is a corecipient of one of the most prestigious prizes awarded in the field of nuclear magnetic resonance (NMR) spectroscopy, the Günther Laukien Prize.

The prize was awarded April 24, 2006, at the 47th Experimental Nuclear Magnetic Resonance Conference in Pacific Grove, California.

The Laukien Prize was established in 1999 in memory of Günther Laukien, a co-founder of Bruker BioSpin, a leading supplier of NMR spectrometers. It carries a monetary award of $15,000 funded by Bruker BioSpin and is intended "to recognize cutting-edge experimental NMR research with a high probability of enabling beneficial new applications."


Szyperski

This year, the award will be shared equally between Szyperski; Rafael Bruschweiler, professor of chemistry and biochemistry at Florida State University, and the team of Eriks Kupce, principal scientist at Varian Ltd., and Ray Freeman of Cambridge University, England.

Szyperski is being recognized for his seminal contributions to the design of rapid acquisition techniques of multi-dimensional NMR spectra.

A team of UB structural genomics scientists led by him received international attention in 2003 when they published a new method of using NMR (called GFT-NMR), a much faster, more precise and far-less-expensive method of obtaining nuclear magnetic resonance data to map a protein's atomic structure (featured in the autumn 2005 issue of *Buffalo Physician*).

For that development, he was named one of *Scientific American's* Top 50 contributors to science and technology in 2003.

Last summer, Szyperski and his team published a paper on how they used the method to determine the structures of eight proteins in just 10 to20 days per protein, a process that typically takes an average of six to 12 months to solve a single protein using conventional NMR methods. The patented method was able to solve membrane proteins, considered by some to be the "holy grail" of structural genomics and highly prized in rational drug design.

Now the method has been widely adopted throughout the genomics community as one of the best ways to use NMR for protein-structure determination.

Szyperski, a UB faculty member since 1998, is director of the university's high-field NMR facility and an adjunct senior researcher at the Hauptman-Woodward Medical Research Institute. He also is a recipient of the American Chemical Society's Buck-Whitney Medal.

—Ellen Goldbaum

Herbert Hauptman Receives the Isaac Asimov Award

Herbert A. Hauptman, PhD, Nobel Laureate and president of the Hauptman-Woodward Medical Research Institute, is the 2006 recipient of the American Humanist Association's (AHA) Isaac Asimov Science Award.

According to the AHA, the award "recognizes a person or team of researchers whose scientific work has contributed significantly to the advancement of humanist values. It also is to recognize those scientists and advocates of science who have increased the public awareness, understanding and appreciation of science and the scientific approach."


Hauptman

In response to receipt of the award, Hauptman, who also is professor of structural biology at UB, stated: "The spectacular advances of science and technology in the 20th century and the current trends hold enormous promise for good and an equally great threat to our very survival. The promise is that the fruits of science will be used for the benefit of mankind, leading to never-ending improvement in the quality of life for everyone; the threat is that the fruits of science will be used for destructive purposes, leading to consequences ranging from devastating pollution of the environment to the destruction of human life by nuclear holocaust. Thus it is more important than ever that the public be aware of current scientific progress and assume the responsibility of ensuring that this progress be used for the benefit of mankind, not its destruction. The scientist can do no less."

Hauptman joined the staff of the Hauptman-Woodward Medical Research Institute in 1970 (then known as the Medical Foundation of Buffalo). In 1985 he was awarded the Nobel Prize in Chemistry for development of a formula known as "direct methods." By utilizing the direct methods technique, the structure of thousands of molecules have been solved, which in turn has led to the design of many new drugs.

—Tara Ellis

Henderson Honored for Outstanding Hearing Research

Donald Henderson, PhD, professor in the Department of Communicative Disorders and Sciences, College of Arts and Sciences, and clinical professor of otolaryngology, received the 2006 Outstanding Hearing Conservation Award from the National Hearing Conservation Association at the association's annual conference in Tampa, Florida.


Henderson

A leading scientist at UB's Center for Hearing and Deafness, Henderson has been at the forefront of international research to determine the biological mechanisms through which toxins and noise exposure kill hair cells, the organs in the inner ear responsible for transmitting sound to the brain's hearing center.

This work has led to two patents for new drugs to prevent or reverse the loss.

Henderson's research group was the first to show that noise exposure increases the level of oxygen free radicals in the cochlea, which destroy hair many SLE patients," explains Shucard.

David Shucard, PhD, professor of neurology, is the coprincipal investigator on the project. Robert Zivadinov, MD, PhD, and Ralph Benedict, PhD, from the UB Department of Neurology, and Julian Ambrose, MD, from the UB Department of Medicine, both in the UB School of Medicine and Biomedical Sciences, along with James Donnelly, PhD, from the Department of Counseling, School and Educational Psychology, UB Graduate School of Education, are coinvestigators. BP

—Lois Baker

Cognitive Deficits in Lupus

NEUROSCIENTISTS in the Department of Neurology/Jacobs Neurological Institute at UB have received $1.2 million from the National Institute of Neurological Disorders and Stroke to study the cognitive deficits that are frequently observed in the working memory of people who have lupus. In particular, they will attempt to link these deficits to specific electrical activity and anatomical changes in the brain.

The researchers will take a multifaceted approach that never has been used to study this disease: magnetic resonance imaging (MRI) scans of the brain, neuropsychological tests and a process called event-related brain potentials, which measures processing speed and the efficiency of neurons.

The study will involve persons with lupus, referred to in medical circles as systemic lupus erythematosus, or SLE, who do not have overt central nervous system manifestations of the disease, such as stroke, seizure or psychosis. Researchers will compare this "non-CNS SLE" group with a healthy control group.

"Since the late 1980s, there has been considerable interest in the cognitive deficits associated with systemic lupus erythematosus," says Janet L. Shucard, PhD, UB assistant professor of neurology and lead researcher on the study.

"As many as 66 to 80 percent of all individuals with SLE have been reported to exhibit cognitive deficits. Recent studies suggest that the most frequently observed cognitive deficits are in the areas of attention, speed of information processing, learning (encoding) and working memory."

Working memory is a system for temporarily storing and managing the information required to carry out complex cognitive tasks such as learning, reasoning and comprehension.

"These impairments in working memory and processing speed, which are often subtle, can significantly disrupt an individual's ability to carry out activities of daily living," notes Shucard.

Lupus is an autoimmune disease that currently affects 1 out of 2,000 Americans, according to the National Institute of Allergy and Infectious Disease. It occurs much more frequently in women than men. Young African-American women are especially at risk, with an estimated prevalence of the disease in this group of 1 in 250.

The researchers will use MRI scans to determine brain-tissue injury and will employ event-related brain potentials to measure processing speed and the efficiency of neurons during working-memory tasks in lupus patients and controls. Neuropsychological tests will determine the pattern of cognitive deficits in persons with lupus.

"By studying a non-CNS SLE group and a healthy control group with these methods, we will be able to address theoretical questions pertaining to the neurobiological basis of deficits in attention and working memory that characterize

Louis A. and Ruth Siegel Awards for Excellence in Teaching

The Louis A. and Ruth Siegel Awards for Excellence in Teaching are the foremost means for recognizing extraordinary teachers in the School of Medicine and Biomedical Sciences.

A student award committee made up of representatives from each medical class reviews nominations provided by students and selects awardees in four categories. Considerations for this prestigious annual award include instructional skill, ability to stimulate thinking and develop understanding, demonstration of sensitivity toward the human condition, and serving as a role model for students.

The 2006 Siegel Award recipients are:

Full-Time Teaching in the Basic Sciences
Linda Pessar, MD, *professor of psychiatry*

Full-Time Teaching in the Clinical Sciences
Elie Akl, MD, *research assistant professor, Department of Medicine*

Resident Teaching
Arundathi Prasad, MD, *Department of Gynecology-Obstetrics*

Volunteer Physician
Chad Strittmatter, MD, *clinical instructor, Department of Gynecology-Obstetrics*

Louis A. Siegel received his medical degree from UB in 1923 and served as assistant professor of obstetrics-gynecology for 21 years. He was a dedicated clinical teacher who was able to inspire both medical students and house officers with enthusiasm and the spirit of inquiry.

cells. The research has shown further that this destruction can be slowed or prevented through two approaches: by conditioning the hair cells to withstand noise, and by using antioxidants to protect the hair cells from free radicals.

In conjunction with other colleagues at the center, Henderson has shown that a protein kinase inhibitor developed by David Hangauer, PhD, UB associate professor of chemistry, to treat cancer has significant promise to prevent noise-induced hearing loss by blocking hair cell death.

Another drug Henderson was instrumental in developing has proven effective in lessening hearing loss due to exposure to deafening battle noise in tests conducted by the U.S. military.

Henderson, along with Richard Salvi, PhD, professor of communicative disorders and sciences and director of the Center for Hearing and Deafness, was instrumental in arranging an international symposium held last October that focused on major developments in research, treatment and prevention of acquired hearing loss and tinnitus.

He was honored by UB in 2004 and 2005 for his work in drug development for hearing loss.

—Lois Baker

Bhangoo Honored by India's President

At the 50th Annual Conference of the International College of Surgeons held in New Delhi, India, Kulwant S. Bhangoo, MD, chief of plastic surgery at Mercy Hospital and clinical assistant professor of plastic surgery at UB, was honored by the president of India, the Honorable A. P. J. Kalam. Bhangoo was recognized for his contributions toward the development of cosmetic surgery in India and for training Indian plastic surgeons in the subspecialty of aesthetic surgery.

Health Care 50 Honorees

Congratulations to the following faculty, staff, alumni and friends of the School of Medicine and Biomedical Sciences who were named by *Buffalo Business First* to its "Health Care 50" list for 2006, recognizing their role as "health-care community leaders."

Allen Barnett, PhD '65, CEO, Kinex Pharmaceuticals

Gregg Broffman, MD '76, medical director, Western New York Lifetime Health Medical Group.

William Duax, PhD, Distinguished Scientist at Hauptman-Woodward Medical Research Institute, and UB professor of structural biology.

Vijay Kumar, PhD '73, president and CEO of Immco Diagnostics, Inc.

Leon Lewis, MD '65, founding partner, Eye Care and Vision Associates, LLP

Martin E. Mutka, director of the Library Consortium of Health Institutions in Buffalo, UB Health Sciences Library.

Janet Sung, MD, president of Windsong Radiology Group.

Maurizio Trevisan, MD, professor and dean of the UB School of Public Health and Health Professions.

Niescierenko Receives AMA Leadership Award

Michelle Niescierenko, MD '06, has been named a recipient of the American Medical Association Foundation's 2006 Leadership Award.

The award, which is presented in association with the Pfizer Medical Humanities Initiative, provides medical students, residents/fellows, young physicians and international medical graduate physicians from the around the country special training to develop their skills as future leaders in organized medicine.

The AMA Foundation honored 55 individuals with the award at its annual Excellence in Medicine Awards ceremony on March 12 in Washington DC. Recipients demonstrate outstanding non-clinical leadership skills in advocacy, community service and/or education.

Niescierenko is the founder and director of the Lighthouse Insurance Initiative, which strives to improve access to health care and insurance enrollment. She has served as New York State Lobby Day coordinator and is an active member of the AMA. In addition to participating in the Leadership Award training, Niescierenko attended the AMA's National Advocacy Conference, also held in March.

Pictured, **LEFT TO RIGHT,** are Linda B. Ford, MD, president, AMA Foundation; Michelle Lynn Niescierenko, MD '06; J. Edward Hill, MD, president, AMA Board of Trustees; and Mike Magee, MD, director, Pfizer Medical Humanities Initiative.

"Through their committed efforts in advancing health care in their communities, these men and women have shown tremendous potential for being part of the next generation of medical leaders," said Linda B. Ford, MD, president of the AMA Foundation. "Whether the issues are political or social, I am confident that these talented people will provide solid leadership in the interest of improving health-care delivery in our country." BP

—S. A. Unger

Pediatric Urology Study

NIH funds $2.5 million vesico-ureteral-reflux trial

VESICO-URETERAL REFLUX, in which urine flows from the bladder back up the ureter to the kidneys, is diagnosed in 50,000 children annually in the U.S. Not only does the reversed urine flow cause recurrent urinary-tract infections that can lead to kidney damage, but in some cases the damage can result in hypertension and renal failure, either in childhood or later in adult life.

Optimum treatment for vesico-ureteral reflux (VUR) is the focus of a clinical trial that will begin this fall by UB pediatric urologists with the support of a five-year, $2.5 million grant from the National Institutes of Health.

Saul Greenfield, MD, clinical professor of urology and director of the Division of Pediatric Urology at Women and Children's Hospital of Buffalo, is principal investigator.

Treatment options for VUR include surgery, long-term antibiotic prophylaxis or observation. Greenfield says there are no well-established guidelines for all children with this condition and that many controversies remain.

"We have already shown in Buffalo that kidney disease and high blood pressure are reduced by early recognition and treatment of VUR," he says. "We hope to be able to learn more about how to handle reflux from this study. It might be possible to tailor treatment to children, so that not every child will need surgery or medication that has to be taken for many years.

"The Department of Pediatric Urology at Women and Children's Hospital of Buffalo has had a long-standing interest in this condition and has contributed substantially to the literature on this topic," Greenfield adds. "We have conducted basic and clinical research and we are a regional referral center for Western New York. We're hopeful that lessons learned from this study will result in continued improvements in care and keep us on the cutting edge,"

Children in the study will be assigned randomly to different treatment groups and followed for three years. Wayne R. Waz, MD '88, assistant professor of pediatrics and director of the Department of Pediatric Nephrology at Women and Children's Hospital of Buffalo, is co-investigator on the project. BP

—Lois Baker

In Memoriam

Roy Slaunwhite, PhD

(Wilson) Roy Slaunwhite, PhD, retired professor of biochemistry who was active in United University Professions (UUP), died February 8, 2006, in his home in Scottsdale, Arizona. He was 86.

A native of Waltham, Massachusetts, Slaunwhite earned degrees in biophysics and chemistry from the Massachusetts Institute of Technology. He helped design the radar system that ended the U-Boat threat in the Atlantic Ocean during World War II.

Slaunwhite moved to Buffalo in 1953 to work at Roswell Park Cancer Institute (RPCI). He was a principal cancer research scientist at RPCI in 1967 when he became research director of the Medical Foundation of Buffalo, now known as Hauptman-Woodward Medical Research Institute.

Slaunwhite joined the UB faculty in 1969 as professor of biochemistry and also served as director of the endocrine laboratories at what is now Women and Children's Hospital of Buffalo. He retired from the university in 1987.

A specialist in steroids, Slaunwhite authored more than 100 scholarly articles, contributed chapters in 15 books and wrote a textbook on biochemical endocrinology. One of his significant contributions was the delineation of the androgenic pathway to determine how male hormones are made. He also discovered how to separate and analyze urinary estrogens, a measurement useful to obstetricians in determining when immediate delivery is needed to avoid loss of pregnancy.

Slaunwhite served as president of UUP's Health Sciences Chapter from 1981–1986, and was an active member of the board from 1979–1997, when he moved from Buffalo to Arizona. His union leadership earned him the Regina Kociecki Award from the local chapter and the Nina Mitchell Award from statewide UUP.

—Sue Wuetcher

Steven H. Noyes, MD

Steven H. Noyes, MD, an attending physician in the Department of Medicine at Erie County Medical Center (ECMC), died on February 11, 2006, following a brief illness. He was 58.

An accomplished clinician–educator who taught both medical students and residents, Noyes served as the coordinator of the third- and fourth-year medicine clerkships at ECMC. He was recognized for his dedication to medical-student education in internal medicine and was the recipient of the Siegel Teaching Award in 1985 and 2002. His students have evaluated their sessions with him as "some of their best learning experiences."

Noyes earned a bachelor of arts degree in zoology at Syracuse University in 1969 and completed his medical school training at Upstate Medical Center in 1973. Three years later, he completed his residency in internal medicine and a medical oncology fellowship at the E. J. Meyer Memorial Hospital. He then joined the UB Department of Medicine at ECMC as a medical oncologist. At UB, he served on several university committees including the Admissions Committee, the Curriculum Committee, and the Faculty Council.

To family, friends, colleagues, and neighbors, Noyes was notoriously generous and remarkably kindhearted. He dedicated his life to helping people.

He is survived by his mother, Helen Phares Noyes, who is 91, and five siblings. BP

Correction

In the spring issue of Buffalo Physician, *an obituary of Dennis Higgins, PhD, professor of pharmacology and toxicology, incorrectly listed his survivors. Dr. Higgins is survived by his wife, Cheryl; his daughter, Kerry, and her husband, Jake; his son, Derek; his granddaughter, Kayle; and his sister, Maureen Gonsalves.*