

Pathways

SPRING 2006

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

Fisher Named Distinguished Alumnus

Jack C. Fisher, MD '62, surgeon and historian, has been named the recipient of a Distinguished Alumnus Award



Fisher

by the University at Buffalo Alumni Association. He was presented the award at the Alumni Association's annual awards dinner and reception held on

April 28 at the Adam's Mark Hotel in Buffalo.

Fisher has performed surgery on children living in underdeveloped parts of the world to relieve suffering from cleft lip and other debilitating deformities

Fisher is emeritus professor of surgery at the University of California at San Diego. Throughout his career, he has authored or coauthored over 200 papers that have enhanced the study and practice of surgical methods.

In 2001, he published a book, *Stolen Glory: The McKinley Assassination*, in which he chronicled the 1901 shooting of the president at the Pan-American Exposition in Buffalo.

Fisher has performed surgery on children living in

underdeveloped parts of the world to relieve suffering from cleft lip and other debilitating deformities, and is a past recipient of UC San Diego's Humanitarian Award for "activity related to improving health of people anywhere in the world."

He has served as a UB alumni ambassador in San Diego and has devoted a great deal of time and resources to the university. He has also been a member of the School of Medicine and Biomedical Sciences' Dean's Advisory Council for more than a decade.

—BARBARA BYERS

Medical Officers Appointed at Suburban

Millard Fillmore Suburban Hospital has appointed Matthew D. Antalek, DO, chief medical officer, and George M. Narby, MD, associate chief medical officer.

Antalek, an assistant clinical professor of medicine, Division of Infectious Diseases, in the UB School of Medicine and Biomedical Sciences, is a

former director of medicine at Suburban. He received his bachelor of science degree in general biology from SUNY Albany and his doctor of osteopathy degree from New York College of Osteopathic Medicine. He completed an infectious diseases fellowship at UB and currently has an infectious disease private practice.

Narby, a clinical instructor in the University at Buffalo

School of Medicine and Biomedical Sciences, is a house physician at Millard Fillmore Suburban Hospital and also has a private practice in internal medicine.

Narby received his bachelor of science degree in biology and his medical degree from Georgetown University.

—BARBARA BROWNING



Antalek



Narby

Archives Acquire Noles' Papers

The University at Buffalo Library Archives has acquired the papers of Eva M. Noles, RN, already a historic figure in 1939 when she became the first black nurse to be trained in Buffalo.

Noles went on to become a distinguished educator, a nationally recognized figure in health care, a promoter of civil rights and education for minority women and the founder of the New York State Nurse Week.



Noles

Noles serves on the New York State Board of Nursing and the board of the New York State Nurses Association (District One). She also has been an active member of the American Nurses Association (ANA) and many of its national committees.

She served on the board of

A former director of nursing at Roswell Park Cancer Institute,

trustees of the Buffalo General Hospital, chaired the governing board of the hospital's Community Mental Health Center, and was a longtime member of the board of directors of the Greater Buffalo Chapter of the American Red Cross.

The Medical Personnel Pool, with which she worked for years, established a biennial scholarship in Eva Noles' name, which is presented by the New York State Nurses Association to an outstanding senior minority nursing

student in Western New York. Noles graduated from the Edward J. Meyer Memorial Hospital School of Nursing in 1940. She received a bachelor's degree in nursing and master's degree in education from UB.

She is the author of *Black History: A Different Approach—A Compilation*; *Buffalo's Blacks: Talking Proud*; and *Six Decades of Nursing at Roswell Park, 1914–1974*.

—PATRICIA DONOVAN **BP**

White House Conference on Aging

Carl Granger, MD, attends as delegate-at-large

IN DECEMBER 2005, Carl Granger, MD, professor and chair emeritus of the Department of Physical Medicine and Rehabilitation in the School of Medicine and Biomedical Sciences, attended the White House Conference on Aging as a delegate-at-large.

White House Conferences on Aging take place every 10 years and are designed to develop recommendations for additional research and action in the field of aging. Delegates who attend vote on resolutions and help to develop strategies to be presented to the president and Congress to help guide national aging policies for the next decade and beyond.

The 2005 conference took place in Washington, DC, December 4–11 and was attended by 1,200 delegates. The event was notable in that it occurred as the first wave of the baby-boom generation prepares for retirement.

At-large-delegates represent national aging and other allied organizations, baby boomers, academic institutions, business and industry, disability, nonprofit and veterans' organizations and others with a stake in aging in America.

Granger, an internationally recognized authority in the field of rehabilitation medicine, was one of four delegates from Western New York. The other delegates were Angie Blackley (Orleans County), Kim Toot (Allegany County), and Pat Wojcik (Cheektowaga).

"Many issues and potential solutions were discussed during the conference," says Granger. "However, the most salient remarks were made by David M. Walker, comptroller general of the Government Accounting Office (GAO). His principle messages should serve as a 'wake-up call.'"

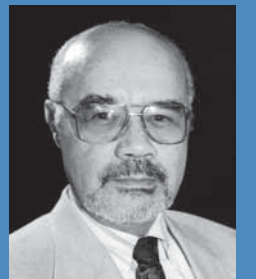
Walker began his presentation by stating that the 'status quo' is not an option. He said, "We

face large and growing structural deficits largely due to known demographic trends and rising health-care costs. The GAO's simulations show that balancing the budget in 2040 could require actions as large as cutting total federal spending by 60 percent or raising taxes to 2.5 times today's level."

He emphasized that "the sooner we get started, the better," and cautioned that "our demographic changes will serve to make reform more difficult over time."

For a complete text of Walker's talk, visit the 2005 White House Conference on Aging's web site at www.whcoa.gov/press/speakers/speakers.asp. **BP**

—S.A. UNGER



Granger



Pharmacy School, Pfizer Create Strategic Alliance

By
MARY
COCHRANE

Fostering education and research

On February 9, the UB School of Pharmacy and Pharmaceutical Sciences announced a strategic alliance with Pfizer, Inc., that will provide up to \$7.5 million to develop at UB a Center of Excellence in Pharmacokinetics and Pharmacodynamics and to support training and research in pharmacokinetics and pharmacodynamics.

Pfizer will provide the School of Pharmacy and Pharmaceutical Sciences with \$1.5 million per year for three years, with possible renewal for an additional two years. The funding will be used to hire new faculty members, increase doctoral student enrollment, expand the school's postdoctoral fellowship program and support performance of cutting-edge research in pharmacokinetics, the study of how drugs are distributed and eliminated by

the body, and pharmacodynamics, which examines the nature of physiological responses to drugs. "Forging this strategic partnership with Pfizer represents a unique and timely opportunity for UB to further our research and training in the fields of pharmacokinetics and pharmacodynamics," said UB President John B. Simpson, at the time the alliance was announced.

"We're deeply grateful for Pfizer's support, both for its recognition of the significance and scope of UB's leadership in the pharmaceutical sciences, and for its commitment to working in partnership with our university to train the scientists whose research and discoveries will expand the boundaries of these fields.

Wayne K. Anderson, PhD, dean of the UB School of Pharmacy and Pharmaceutical Sciences, said, "Pfizer's choice of the university as its partner in this initiative underscores the company's belief in the pharmaceutical sciences at UB and in

the university as a top-tier research institution.

"UB's strong partnership with Pfizer is built on the success of many pharmaceutical science graduates within their organization," Anderson said. "We are one of the nation's top pharmacy schools, and Pfizer considered the quality of science that we produce to be a driving factor in creating this strategic alliance. This partnership will enable us to play an even larger role as a leading source of research and training in pharmaceutical sciences."

Anderson added that "designation as a center of excellence not only will confirm the school's recognized premier status in pharmacokinetics and pharmacodynamics, but will also add international attention to its extensive training and research programs in critical areas of assessing and developing safe and effective drugs.

He credited the efforts of William J. Jusko, PhD, professor and chair of the school's Department of Pharmaceutical Sciences, and Lisa J. Benincosa, PhD '93, executive director of clinical pharma-

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colony at Pfizer, for envisioning and organizing the new center and the alliance.

Jusko, a pioneer in the fields of pharmacokinetics and pharmacodynamics who is editor-in-chief of the *Journal of Pharmacokinetics and Pharmacodynamics*, said the alliance will allow the Department of Pharmaceutical Sciences and the pharmacy school to continue producing top-notch graduates who are actively recruited by industry and academia. UB has more than 50 alumni who have risen to key positions at Pfizer, ranging from research division leaders to vice president.

"We're considered a relatively small department and the new alliance will allow us to expand in numbers of faculty members and trainees," Jusko explained. "Pfizer's magnanimous gesture will increase our numbers of graduates, in addition to promoting the need for more training in the critical fields of pharmacokinetics and pharmacodynamics." **BP**

In Memoriam

Dennis Higgins, PhD

Professor of pharmacology and toxicology



Dennis M. Higgins, PhD, professor of pharmacology and toxicology in the School of Medicine and Biomedical Sciences, died on January 6, 2006. He was 58.

"Dennis was a model faculty member who performed with excellence in research, teaching and service," says Ronald P. Rubin, PhD, professor and chair of the Department of Pharmacology and Toxicology. "He particularly enjoyed his one-on-one interactions with the many graduate students he mentored. Their devotion to him endured long after their departure from his laboratory. Dennis possessed a keen mind and a gentle sense of humor, which

made him a perfect mentor of young minds."

Rubin notes that Higgins' professional approach to all aspects of his responsibilities as a faculty member contributed enormously to the intellectual climate of the department and to the medical school.

"His seminal research on dendritic growth and differentiation will remain a key contribution to the field for a long time to come and has given our school recognition at both the national and international level," he says. "His constant striving to maintain high standards for himself and the school represented an example for all to follow. There is no doubt that Dennis Higgins will be missed in so many ways."

Higgins earned a bachelor's degree in psychology from Boston College and a doctorate in pharmacology from the University of Connecticut Health Center.

He joined the UB faculty as assistant professor in 1983 and was promoted to full professor in 1997.

Higgins' research interests focused on neurobiology, neurodegenerative disorders and signal transduction. His laboratory was working to identify the molecules that control dendritic growth in sympathetic autonomic neurons.

He was program director for developmental neuroscience for the National Science Foundation (NSF) and served as a member of the NSF's Science and Technology Center Review Panel and its Developmental Neuroscience Scientific Advisory Panel.

He also was an ad hoc member and a regular member of study sections for the National Institute of Neurological Disorders and Stroke.

Author or coauthor of numerous scholarly publications, Higgins was a member of the editorial board for *Biomedical Research*.

Survivors include his wife, Cheryl; sons Kerry (Jake) Cassel and Derek; grandson, Kayle; and sister, Maureen Gonsalves of Chicago.

Murray Stinson, PhD

Professor of microbiology and immunology



Murray W. Stinson, PhD, professor and associate chair of the Department of Microbiology and Immunology in the School of Medicine and Biomedical

Sciences, died January 11, 2006, at Roswell Park Cancer Institute after a brief illness. He was 62.

A native of Richmond/Gardiner, ME, Stinson received a bachelor's degree cum laude from Springfield College and master's and doctoral degrees in microbiology from Rutgers University.

In 1969, he joined the UB Department of Microbiology, and in 1987 was promoted to full professor. At that time, in recognition of his expertise in infections related to dental diseases, he was invited to join the faculty of the Department of Oral Biology in the School of Dental Medicine.

"If one were to single out a feature of Murray's personality that best characterized his

long and successful career, it would be his ability to stand back from an issue, pick out the essential features surrounding that issue, and then come to a definite conclusion about how to handle it," says John Hay, PhD, Professor and Grant T. Fisher Chair of the Department of Microbiology and Immunology.

"Murray's colleagues and students will miss his storehouse of knowledge, both scientific and social, his calm approach to life's bad patches, and his open office door. It is seldom that an individual commands universal respect and affection. Murray was one of these rare individuals."

Stinson's research, which focused on the causes of streptococcal infections, was continuously funded for 23 years through competitive grants awarded by the National Institutes of Health (NIH).

He served as departmental director of graduate studies and director of the undergraduate major's program in microbiology, where he routinely lectured to graduate, dental and medical students on microbial pathogenesis. In addition, he planned and executed the infectious diseases

and immunology portion of the medical school's new curriculum.

Stinson was a member of the Medical School Executive Committee, the Steering Committee of the Medical Scientist Training Program, the Health Sciences Divisional Committee of the Graduate School, Steering Committee of the Interdisciplinary Graduate Program in Biomedical Sciences, and the curriculum committees of the medical school and the School of Nursing. In addition, he was a member of the Periodontal Disease Research Center for 17 years.

He served as an editorial reviewer for numerous journals in his field, including the *Journal of Infectious Diseases* and *Infection & Immunity*, and was invited to participate as a grant reviewer for the National Institutes of Health and the National Institute of Dental Medicine, as well as for other agencies and institutions.

As a senior professor at UB, Stinson was a founding member of the professorial advisory group that counseled junior faculty in career development. **BP**

—SUE WUETCHER



Causes of Facial, Jaw Pain

UB receives \$3.3 Million to study TMJ risk factors

THE UB SCHOOL OF DENTAL MEDICINE has received \$3.3 million to participate in the first large-scale prospective clinical study of risk factors that contribute to the development of temporomandibular joint and muscle disorders (TMJMD).

The multicenter project, called Orofacial Pain: Prospective Evaluation and Risk Assessment (OPPERA), is funded by a \$19.1 million grant from the National Institute of Dental and Craniofacial Research (NIDCR).

Four institutions will participate in the seven-year study: UB, the University of Florida in Gainesville, the University of Maryland in Baltimore, and the University of North Carolina at Chapel Hill, which will serve as the lead institution. Battelle Inc. in Durham, NC, will be the data coordinating center.

Richard Ohrbach, DDS, PhD, associate professor in the Department of Oral Diagnostic Sciences, will head the UB study.

"The significance of this study is that it simultaneously addresses both the genotype and the phenotype of participants and how the interactions between these two unfold over time to influence the experience of pain," says Ohrbach. Genotype refers to an individual's inborn biological potential or destiny, while phenotype is the observable or measurable clinical and constitutional characteristics of the individual.

"Recent developments in genetics pertaining to polymorphisms (vari-

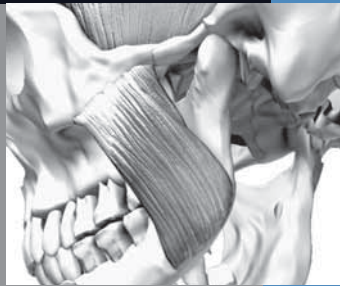
ants in gene expression) and in the ability to measure how much pain sensation is being transmitted to the brain's pain centers are the scientific bases underlying this next step in pain research," Ohrbach says.

TMJMD is an umbrella term for a group of conditions that affect the area in and around the two large ball-and-socket joints that connect the jaw to the skull on both sides of the head, the muscles involved in chewing, or both. Common symptoms include persistent pain in the jaw muscles, restricted jaw movement, jaw locking, and abnormal popping and clicking of the joint.

How many people have TMJMD is not known, but the NIDCR estimates that the main symptoms—pain and restricted jaw movement—occur in 5 to 15 percent of Americans. TJMD may be more common in women than men, and while some conditions can be linked to physical trauma, in most cases the cause is unknown.

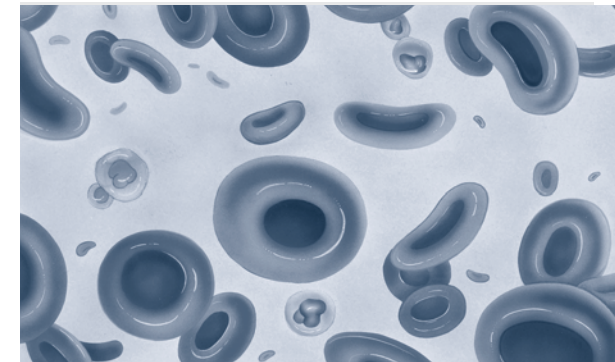
For more information on the UB study and its methodology, visit the UB News Services' web site at www.buffalo.edu/news and search "TMJMD." **BP**

—LOIS BAKER



Because patients with Type 1 diabetes can't produce their own insulin, human stem cell-based transplants that produce insulin would be a major breakthrough.

Current laboratory methods of culturing human stem cells result in very limited quantities, far short of the quantities necessary for therapeutic applications.



Divide and Conquer

Boosting stem cells to treat diabetes

BY ELLEN GOLDBAUM

For that reason, Emmanuel (Manolis) Tzanakakis, PhD, is striving to boost the numbers of stem cells produced in the laboratory, expanding the pool of cells that eventually can be differentiated into insulin-producing cells.

Tzanakakis, assistant professor in the Department of Chemical and Biological Engineering in the UB School of Engineering and Applied Sciences, has received a \$200,000 James D. Watson Investigator Grant award from the New York State Office of Science, Technology and Academic Research (NYSTAR) to support his studies.

His ultimate goal is to conduct research to develop methods that will allow sufficient quantities

of differentiated cells that secrete insulin to be produced from the stem cells. Such cells could be used for diabetes therapies, including transplantation into patients, freeing them from the lifelong necessity of daily insulin injections.

"One of the main obstacles to using stem cells as any kind of human treatment is that you need many more cells than now can be produced in laboratory systems," says Tzanakakis. "The key questions are, 'How do you generate large quantities of cells for patients?' and then 'How do you get them to differentiate to a specific cell type?'"

Working with adult and embryonic stem cells derived from both mice and humans, Tzanakakis and other groups use bioreactor systems, vessels containing growth media and stem cells, that have the potential to produce high densities of

His ultimate goal is to conduct research to develop methods that will allow sufficient quantities of differentiated cells that secrete insulin to be produced from the stem cells.

undifferentiated cells.

He notes that success will require enhanced understanding of the molecular mechanisms that regulate self-renewal, or regeneration, of stem cells.

"With sound engineering and the

application of biological principles, I believe we can achieve large-scale expansion of stem cell production," he says.

He also is exploring ways of inducing larger numbers of stem cells to differentiate into those that produce insulin, based on an understanding of how the pancreas develops in the embryo.

"Although we are a long way from generating cells identical to native beta cells, using stem cells, we are trying to coax stem cells into becoming insulin-producing cells," he says. "To achieve this, cells are treated with growth factors, which are important to the development of the embryonic pancreas effectively mimicking that developmental process, to some extent."

Before coming to UB in 2004, Tzanakakis held postdoctoral positions at the Diabetes Center in the Department of Medicine at the University of California, San Francisco, and

at the Stem Cell Institute in the Department of Medicine at the University of Minnesota.

He also has received funding for this research from the Juvenile Diabetes Research Foundation. **BP**



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