

NEWS ABOUT UB'S SCHOOL OF MEDICINE AND BIOMEDICAL SCIENCES AND ITS ALUMNI, FACULTY, STUDENTS AND STAFF

Pathways

AUTUMN 2008

Dubocovich Named Chair of Pharmacology and Toxicology

An expert in molecular pharmacology and drug discovery

MARGARITA L. DUBOCOVICH, PHD, an internationally recognized expert in molecular pharmacology and drug discovery, has been named chair of the Department of Pharmacology and Toxicology in the School of Medicine and Biomedical Sciences.

Prior to coming to UB, Dubocovich served as professor of molecular pharmacology and biological chemistry, and psychiatry and behavioral science at Northwestern University's Feinberg School of Medicine in Chicago, Illinois.

In commenting on the appointment, Michael E. Cain, MD, dean of the UB School of Medicine and Biomedical Sciences, notes that Dubocovich quickly emerged as the top

candidate for the position after a comprehensive national search. "She possesses all of the administrative, scientific, leadership and visionary skills needed to move the department forward and to align it with UB 2020's strategic goals," he says.

Dubocovich specializes in the neurobiology of the hormone melatonin and its receptors and conducted pioneering research that led to the discovery of drugs to assess the functional role of MT1 and MT2 melatonin

receptors. She also specializes in the identification of ligands with potential for treating depression, seasonal affective disorders, sleep and circadian disorders, and cancer.

Currently she is principal investigator on active research grants totaling \$2.2 million in direct costs and on institutional educational grants totaling \$2.3 million in direct costs.

Dubocovich earned a doctoral degree in pharmacology from the School of Chemistry and Natural Sciences at Buenos Aires University in Argentina. She has published 110 original articles in peer-reviewed journals, authored 16 invited reviews and book chapters, contributed 36 chapters to scientific symposium proceedings and has lectured nationally and internationally.

She directs Northwestern's Collaborative Learning and Integrated Mentoring in the Bioscience Program (CLIMB), a program she will replicate in

BY
LOIS
BAKER

Buffalo. CLIMB aims to increase student diversity in biomedical and behavioral research by broadening opportunities to earn doctoral degrees and to increase the number of students from diverse backgrounds holding leadership positions in academic, research and administrative areas.

Dubocovich has participated in or led numerous national and international scientific workshops and congresses, peer-reviewed grant study sections, and professional societies; has been a scientific consultant to the pharmaceutical industry and is a member of the editorial board of the *Journal of Pineal Research*.

Dubocovich has received many national and international awards and was recognized recently for her outstanding scientific contributions by the Latino-American Congress of Pharmacology. **EP**



Dubocovich

Michael G. Caty, MD, Named to New Endowed Chair

John E. Fisher, MD, Chair in Pediatric Surgery

MICHAEL G. CATY, MD, professor of surgery and pediatrics in the School of Medicine and Biomedical Sciences, and surgeon-in-chief and director of pediatric surgical services at the Women and Children's Hospital of Buffalo, has been named to the newly endowed John E. Fisher, MD, Chair in Pediatric Surgery at the hospital.

BY
CHRIS
PIAZZA



The chair was established by the late John E. Fisher, MD, who was director of pathology for the Women and Children's Hospital from 1982 to 2007, and the Women and Children's Hospital of Buffalo Foundation. It further advances the hospital as the regional pediatric clinical and research center and a nationally recognized teaching hospital for the UB School of Medicine and Biomedical Sciences.

"Dr. Fisher often expressed his true love for the Women and Children's Hospital, as evidenced by his gift to help establish this Endowed Chair in Pediatric Surgery," says Cash Cunningham, chair of the board of directors for Women and Children's Hospital of Buffalo Founda-

tion. "The [foundation] is honored to establish this endowment in his memory in a way that will benefit future generations of children."

Caty is board certified in pediatric and general surgery. His clinical interests include neonatal surgery, thoracic surgery, intestinal motility disorders, pediatric renal transplantation, pediatric surgical oncology, pediatric laparoscopy and thoracoscopy. His research interests include pathophysiology of intestinal ischemia and reperfusion.

"I am honored to be the recipient of this endowed chair. It is an extraordinary example of Dr. Fisher's devotion to the hospital," said Caty at the time the chair was announced. "This endowment

is also an important symbol of the commitment of the Women and Children's Hospital and Foundation to its physicians and mission to provide the very best care to the women and children of our region."

Caty is a member of the American College of Surgeons, American Pediatric Surgical Association, American Academy of Pediatrics, Shock Society and Association for Academic Surgery, among others. He joined the Women and Children's Hospital of Buffalo in 1993.

"Dr. Caty epitomizes the outstanding physician-scholar-educator-administrator that

the School of Medicine and Biomedical Sciences and our hospital partners need to lead and build outstanding academic clinical service lines that have as a common hallmark of improving the public health through excellence in patient care, innovative research that advances the field, and medical and community education," says Michael E. Cain, MD, dean of the School of Medicine and Biomedical Sciences.

"We are extremely proud of Dr. Caty's accomplishments. He is most deserving of this special recognition."

The Department of Pediatric Surgery at the Women and Children's Hospital of Buffalo was established in 1957, and specializes in general and thoracic surgery for the care of fetuses, infants, toddlers, children, adolescents and young adults. The training program in pediatric surgery is one of the original nine such programs in the United States. **EP**

PHOTO BY BRIAN SMISTEK

Editor's Note

IN THE SUMMER 2008 ISSUE OF *Buffalo Physician*, A LIST WAS PUBLISHED OF INDIVIDUALS WHO WERE INDUCTED INTO THE ALPHA OMEGA ALPHA HONOR MEDICAL SOCIETY THIS YEAR, AND WE INADVERTENTLY OMITTED THE FOLLOWING:

LISA A. STEKETEE-WEAVER,
Class of 2009

ALEXANDER C. BROWNIE, PHD, DSC,
SUNY Distinguished Teaching Professor
Emeritus, Department of Biochemistry

MICHAEL E DUFFEY, PHD,
professor of physiology and biophysics, and professor of medicine

2008 Faculty & Staff Awards

THE STOCKTON KIMBALL AWARD honors a faculty member whose academic accomplishments at UB have garnered him or her worldwide recognition as a researcher. Stockton Kimball, MD '29, was the dean of the UB School of Medicine from 1946 to 1958, and his contributions to the training of physicians in Buffalo spanned more than a quarter of a century.

THIS YEAR'S RECIPIENT of the award is **William E. Pelham Jr. PhD**, Distinguished Professor and professor of psychology, pediatrics and psychiatry, whose research focuses on treatment and control of attention-deficit/hyperactivity disorder (ADHD).

The award was announced by Suzanne Laychock, PhD, senior associate dean for research and biomedical education, at the annual faculty meeting on June 11, 2008.



William E. Pelham Jr.

Pelham published his first research study in 1976 and has authored a prodigious number of scholarly articles since that time. Recently, the *Journal of Clinical Psychology* rated him in the top 10 of 1,900 researchers for his outstanding publication record in peer-reviewed journals.

In addition, the media—both national and international—have routinely reported on Pelham's innovative behavior-modification and pharmacological approaches to treatment of ADHD.

"Bill's team approaches the problems of ADHD in broad strokes, dealing not only with the treatment paradigms but also with other issues affecting society, such as the economic impact of the health problem and the role of diet in behavior," said Laychock at the time the award was presented. "One of his important early studies, in 1985, dealt with the dose-related effects of methylphenidate on classroom academic and social behavior of children with ADHD. His seminal work explored the need to adjust doses of psychostimulants in ADHD children using standard and sustained-release forms of stimulants, and to understand the comparative effects of methylphenidate on girls and boys with ADHD."

"BILL'S TEAM APPROACHES THE PROBLEMS OF ADHD IN BROAD STROKES, DEALING NOT ONLY WITH THE TREATMENT PARADIGMS BUT ALSO WITH OTHER ISSUES AFFECTING SOCIETY, SUCH AS THE ECONOMIC IMPACT OF THE HEALTH PROBLEM AND THE ROLE OF DIET IN BEHAVIOR." —SUZANNE LAYCHOCK, PHD

In 1989, Pelham published his concept of behavior therapy, behavioral assessment and psychostimulant therapy as an interactive approach to management of the disorder. In 1992, he published an examination of the dosage effects of drug treatment and behavior therapy on classroom and social performance.

"Bill has continued to stress the importance of predicting and individualizing responses to Ritalin by children and adolescents with ADHD," noted Laychock. "The examination of the advantages and disadvantages of drug versus behavioral therapy has characterized much of his career and is what has had an immense impact on the clinical approaches to treatment of the disorder."

In the mid-1990s, through his innovative summer treatment program, Pelham explored the need for intensive psychosocial treatment for ADHD and subsequently published a manual for others to emulate his approach. The summer research and treatment programs continue to the present day with support from the John R. Oishei Foundation. More recently, Pelham has championed the need for school-wide interventions in the public health approach to mental health.

Throughout his career, Pelham has received high levels of research-support funding. His lifetime grant funding totals \$49.9 million. Currently, he is principal investigator or coprincipal investigator on \$17.5 million in funding, much of which is from the National Institutes of Health (NIH).

In recognition of Pelham's outstanding work, he received the SUNY Research Foundation Chancellor's

Research Recognition Award in 2005. The organization Children and Adults with Attention Deficit/Hyperactivity Disorder (CHADD) recognized him with its Innovative Program of the Year Award for his summer treatment program, and he also received the organization's Hall of Fame Award.

Pelham has served on the CHADD Scientific Advisory Board, on several editorial boards, and for the grant review panels of the NIH, the National Science and Engineering Research Council of Canada, and the MacArthur Foundation. He was a presenter in a Congressional briefing on children's mental health, and is a Scientific Advisory Board Charter Member for the NYS Office of Mental Health, Division of Children and Families.

The community outreach programs that Pelham initiated have made an impact locally, nationally and internationally. He has presented more than 200 local in-service training workshops free of charge to educators, health and mental health professionals, and parents in New York State, as well as in other states. He has chaired numerous continuing education conferences and presented workshops at national and local venues aimed at educating clinicians and therapists in the best treatment strategies and practical management for ADHD.

"These types of outreach programs bring the translational medicine component of Bill's work to the health-care professionals, as well as directly to parents and children, in our community," said Laychock. "The quality of life for the children who suffer with ADHD and their families is improved by the knowledge that his seminal research findings have uncovered. Parents come from all over the country to enroll their children with ADHD in his summer camps and other treatment groups.

"Bill Pelham is an outstanding Stockton Kimball Awardee," concluded Laychock. "He is an extraordinary scholar and an excellent citizen—on the world, national and local stages. He elevates UB to a high level of respect in many scholarly circles." **BP**

THE ROBERT S. BERKSON, MD, AWARD IN THE ART OF MEDICINE recognizes excellent patient care and teaching provided by volunteer physicians specializing in internal medicine.

THE 2008 AWARD was presented to **Thomas Scanlon, MD '69**, and **Angelo Rizzo, DO**, both of whom are volunteer faculty in the Department of Medicine.

In 1990, Rizzo and Scanlon became teaching attendings in the Outpatient Department at Millard Fillmore Hospital, where they served as preceptors for residents. When the Millard Fillmore Medicine Residency Program was integrated into the central UB residency training program in the 1990s, both continued their precepting functions.

Rizzo and Scanlon were exemplary role models for the residents. They provided quality care to patients, demonstrated the highest level of professionalism and were excellent teachers who ensured that the residents were well prepared in all aspects of ambulatory care medicine. In large part due to their efforts, ambulatory care rotations at the Millard Fillmore Hospital site were much sought after by residents.

Their activity at the Millard Fillmore Hospital—and, most recently, at the Kaleida Health's Hertel-Elmwood Ambulatory Care site—continued until early in 2008, when the clinics were restructured.

The Department of Medicine is grateful for their 20-plus years of excellence in training internal medicine residents and students in ambulatory care. They have been the "unsung heroes" of ambulatory care training and this award is intended to recognize their service.

THE JOHN P. NAUGHTON AWARD, which recognizes a non-faculty individual who has made significant contributions to the School of Medicine and Biomedical Sciences, was established in 2000 by John Naughton, MD, dean of the school from 1976 to 1996. "Such an individual," the award states, "is one who, day in and day out, in his or her own quiet way, makes our school, with its affiliated teaching hospitals, a stronger, healthier and happier place for the rest of us to learn, work, conduct research, provide patient care and teach."

THIS YEAR'S RECIPIENT of the Naughton Award is **George Anderson**, who served as staff associate to the chair of the Department of Internal Medicine from 1972 to 2008.

In this capacity, Anderson assisted the chair with all faculty and hospital-related administrative functions for the department. In addition to working to resolve resource and funding challenges—something at which he was particularly adept—Anderson also played a major role in coordinating research funding and grant applications and was instrumental in the establishment of the department's faculty practice plan.

Anderson, who retired in April 2008, was a respected and valued confidante to the chairs he served, and was highly regarded by faculty and staff for his competence, as well as for "always being a gentleman in his interpersonal interactions."

"The real credit for my administrative career," says Anderson, "should go to the four chairs of the Department of Internal Medicine who provided leadership and shaped the department over the course of my career—Dr. Evan Calkins (who hired me); Dr. James P. Nolan; Dr. Robert Klocke; and the current chair, Dr. Alan Saltzman—all of whom are still involved in the medical community in Western New York. They allowed me the opportunity to grow professionally so that my career was not just a position, but an ongoing 'educational experience.'"



Anderson



Leadership in Ophthalmic Research

Steven Fliesler, PhD, joins UB in new role

STEVEN FLIESLER, PhD, WHO JOINED THE DEPARTMENT OF OPHTHALMOLOGY THIS FALL, SAYS HIS CAREER IN OPHTHALMIC RESEARCH STEMS FROM TWO PASSIONS: A LOVE OF EXPLORING THE UNEXPLORED AND A DRIVE TO UNDERSTAND—AND HELP CURE—SERIOUS DISEASES OF THE EYE.

By
KEVIN
FRYLING



PHOTO BY DOUGLAS LEVENE

SO WHEN HE LEARNED about a strange relationship between a common human protein and age-related macular degeneration—the leading cause of blindness among adults age 50 and older in the United States—he just knew he had to dig deeper into the mystery.

What was so baffling were claims that a protein called apolipoprotein-E4 (ApoE4) acted as both a risk factor for Alzheimer's disease and a negative risk factor for age-related macular degeneration.

"That's what drew me into this," he says. "Biology is usually conserved—if you have a molecule that functions one way in one part of the body, then chances are it's going to have the same or similar function in some other part of the body." Since the brain and the retina are just different parts of the nervous system, Fliesler reasons that a molecule like ApoE4 should behave the same in both tissues.

In part due to Fliesler's work on the topic, researchers now are one step closer to unraveling the complex interaction of these risk factors. Using gene-altering techniques, he and his group found that mice producing apolipoprotein-E4, which differs from other forms of the protein by only two amino acids, exhibit stronger cone function, despite declining eyesight from other genetic and possibly environmental factors.

Also benefiting from Fliesler's research are individuals with Smith-Lemli-Opitz Syndrome, a rare genetic disorder that profoundly affects the nervous system, including eyesight. By creating the first successful animal model of this syndrome—using drug-induced methods rather than genetic modification—he says his team found that a high-cholesterol diet seems to slow the onset and severity of blindness in the animal model. "Cholesterol supplementation is the current therapy of choice in treating Smith-Lemli-Opitz Syndrome patients, but the treatment is not completely effective," he explains.

Additional studies in Fliesler's lab suggest that antioxidants plus cholesterol might provide a better therapeutic treatment for the disease than cholesterol alone.

Fliesler's work in these particular research areas has been supported since 2001 by more than \$2.5 million in grants, primarily from the National Institutes of Health. Also supporting his work are the March of Dimes and Research to Prevent Blindness, the latter a private foundation that raises funds to support eye research.

Fliesler earned his doctorate in biochemistry from Rice University, and prior to coming to UB, he served as a professor at Saint Louis University. He says he joined the UB faculty because he wanted to contribute to the fast-developing Department of Ophthal-

mology. In addition to his appointment as a professor, he is vice chair and director of research, both new positions in the department, and also holds the Meyer Richwun Endowed Chair in Ophthalmology. Concurrently, he is a part-time health systems specialist with the Buffalo VA Medical Center.

"These sorts of positions come up every now and again, but they're not very common," he says. "After I met the department chair [James Reynolds, MD '78] and faculty, I felt this would be a good place for me to continue my career."

FLIESLER NOTES that the UB Department of Ophthalmology, which last fall opened the Ira G. Ross Eye Institute near downtown Buffalo, plans to expand its nascent vision research group by hiring two to three additional faculty members over the next three to five years, complementing the existing five research-oriented faculty in the department.

Fliesler's recruitment was crucial to the formation of the new Vision Research Center at the Buffalo VA Medical Center and the research program at the Ross Eye Institute, according to Reynolds.

"We believe that our mission, our resources, and our research environment are second to none," he says. "Dr. Fliesler's recruitment is evidence that UB can attract the 'best and the brightest.'" **BP**

In Memoriam

BEVERLY PETTERSON BISHOP, PHD '57
Longtime professor of physiology



BEVERLY PETTERSON BISHOP, PHD '57, SUNY DISTINGUISHED TEACHING PROFESSOR OF PHYSIOLOGY AND BIOPHYSICS, DIED ON SEPTEMBER 20, 2008. SHE WAS 85 YEARS OLD.

Bishop, a devoted colleague, teacher and scientist, was on the faculty at UB for 50 years. She served as a graduate assistant in physiology in 1954–1955 and was named an instructor in 1958. In 1972, she was promoted to professor, and in 1992 was named SUNY Distinguished Teaching Professor. In 1975, she received a SUNY Chancellor's Award for Excellence in Teaching. At the time of her death, Bishop was teaching two courses in physiology, one of which was for students in the UB School of Dental Medicine.

In addition to teaching and mentoring thousands of students, Bishop was the author of more than 150 scholarly articles and the editor of four books. Her research interests included the identification and analysis of the ways the nervous system controls muscle activity in both humans and animals, and her experimental work focused on the neural regulation of the respiratory muscles. She also taught neurophysiology to physical therapy students for 40 years and produced monographs and book chapters that became seminal in that area.

Bishop kept in close contact with many of her students over the years both personally and professionally. She viewed them as individuals, first and foremost, and her extraordinary example continues to guide their professional lives.

Bishop was a member of the American Physiological Society (APS) and was an elected member of its governing council. She contributed her knowledge and expertise to the creation of the APS slide-tape program in neurophysiology and served the society as a leader of the central nervous system section and as a member of the APS Council. She also served as the chair of the Membership Advisory Committee and as a member of numerous other APS committees.

In addition, Bishop served on several National Institutes of Health's study sections, most recently serving for three years on the respiration and applied physiology section.

Born (Ruth) Beverly Petterson on October 19, 1922, in Corning, New York, Bishop earned a bachelor of science degree in mathematics from Syracuse University in 1944, a master of science degree in experimental psychology from the University of Rochester in 1946 and a doctorate in physiology from the UB in 1957.

She and her husband of 64 years, Charles W. Bishop, PhD, associate professor emeritus, UB Department of Medicine, traveled worldwide and piloted their Cessna 210 all over North and South America.

In addition to her husband, she is survived by her son, Geoffrey C. Bishop, and her grandson, Orin D.

Bishop, both of Calgary, Canada.

Donations can be made in her memory to support student participation at national neurophysiology meetings. Please make checks payable to the University at Buffalo Foundation and send to the Beverly P. Bishop Memorial Fund, University at Buffalo, 124 Sherman Hall, 3435 Main Street, Buffalo, New York, 14214. The funds will be used to continue her efforts to educate and energize a new generation of neuroscientists. **BP**

IN JUNE 2008, the American Physiological Society (APS) featured Beverly Bishop in a video produced as part of its "Living History of Physiology Project."

To view the video in which Bishop is interviewed by Martin Frank, PhD, APS executive director, and Susan Udin, PhD, professor of physiology and biophysics at UB, visit the APS website at www.the-aps.org/ and click on "View a Living History Video?"

In his introductory remarks, Frank states that Bishop "made significant contributions to our understanding of how the nervous system controls muscle activity in humans and animals, with an emphasis on the control of respiratory muscles."