The Nobel Prize in Physiology or Medicine 2006
Co-Recipient Craig C. Mello, PhD
University of Massachusetts Medical School
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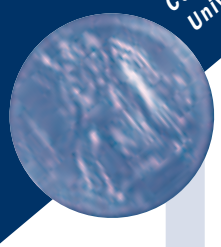

News of the University of Massachusetts Medical School

FOCUS

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MLK Day speaker urges renewed commitment to diversity

Introducing keynote speaker William E. Kirwan, PhD, at the 19th Annual Tribute to the Reverend Martin Luther King, Jr., Associate Vice Chancellor for Diversity and Equal Opportunity Marian V. Wilson, PhD, said, "We invite someone who, in the spirit of Dr. King, will inspire, motivate and encourage us in what we do every day." Dr. Kirwan did just that, making a compelling case for the essential role of higher education in advancing diversity throughout our society with an impassioned and energizing speech.

Chancellor of the University System of Maryland (USM), Kirwan has championed diversity initiatives throughout his career as a scholar, faculty member and university president. In 2004, he received the National Innovators Award from Minority Access, Inc., a national educational organization that builds public and private sector partnerships for minority group advancement.

Emphasizing Dr. King's pragmatism as well as his inspiring vision, Kirwan cited three reasons to support diversity: 1) to uphold the values of justice and fairness; 2) to promote what he called "enlightened self interest" for an America that will need an educated, skilled workforce of all races; and 3) to enhance the quality of education. Expressing disappointment that higher education, which was at the cutting edge of promoting diversity in the years immediately following King's death, has become complacent in recent years, Kirwan asked, "If diversity improves the quality of education, how can we not pursue it aggressively?"

While concerned about the decline of affirmative action programs, especially since last year's Supreme Court split on challenges to race-based elements of undergraduate and graduate admissions at the University of Michigan, he cited alternatives exemplified by successful initiatives at his own institution, such as a scholarship program for minority applicants. Proud that USM ranks first in the nation among public flagship universities for its percentage of minority undergraduates, Kirwan stated emphatically, "Diversity must be part and parcel of how everything is done throughout a school." ■

William Kirwan, PhD, keynote speaker at the 19th Annual Tribute to the Reverend Martin Luther King, Jr., with Chancellor and Dean Aaron Lazare and Associate Vice Chancellor for Diversity and Equal Opportunity Marian Wilson, PhD

> **"Diversity must be part and parcel** of how everything is done throughout a school."
>
> William E. Kirwan, PhD

Researcher shares in Gates Foundation research funds

In July, the Bill and Melinda Gates Foundation awarded more than $287 million to accelerate research efforts toward a vaccine to prevent HIV, establishing 16 consortia of scientists and institutions worldwide whose work in the field has resulted in promising preliminary vaccine candidates or whose labs will provide standardized immune analyses.

Called the Collaboration for AIDS Vaccine Discovery (CAVD), the group of scientists met recently in Seattle, where they gained insight into the projects being funded and the Gates Foundation's five-year goal. Among them was Shan Lu, MD, PhD, professor of medicine and biochemistry & molecular pharmacology, and a pioneer in the use of DNA-based vaccine technology. Dr. Lu will work with his collaborator Susan B. Zolla-Pazner, PhD, a professor of pathology at New York University, who, along with Lu and others, was awarded a three-year, $8.4 million grant by the foundation.

Lu, a physician-scientist whose work has focused on novel vaccine development including HIV and flu vaccines, will employ his DNA-based vaccine technology in testing Dr. Zolla-Pazner's concept of an HIV envelope protein as the key target to generate broadly cross-reactive antibodies.

Describing the approach as like that of a relay team, Lu said the NYU lab will first propose a vaccine candidate that will in turn be analyzed by structural biologists in another group. "I will take the candidate vaccines and test them by DNA immunization, which is much faster and more reliable than the traditional immunization approaches," said Lu. Finally, the immune sera will be sent to another group to be analyzed for their ability to block HIV infection.

DNA-based vaccines are unique in that they employ snippets of DNA constructed in the lab that match genetic elements of a virus but cannot cause viral infection. After the DNA vaccine is administered, it begins to produce protective proteins inside the body, which the host recognizes as part of the virus and then initiates an immune response. The potential advantage of a DNA-based approach is that vaccines can be manufactured rapidly and in large quantities, while producing a good and long-lasting immune response.

Shan Lu, MD, PhD

With more than 40 million people infected worldwide—and with fewer than 1 in 5 able to access preventive health care—Lu finds promise in the trend of private foundations and philanthropists supplementing federal research dollars to combat the spread of HIV. "It's encouraging to see private citizens taking such an active role in global health concerns," he said, noting that the brainpower brought together by the CAVD represents international institutions that might not otherwise have an opportunity to collaborate. ■

News Makers online!

To learn what faculty experts are saying about the topics making today's local, state and national headlines, visit *www.umassmed.edu/pap/Newsmakers/*. When appropriate, the page will also list upcoming UMMS expert appearances in print, TV and radio venues.

Carruthers receives ADA Innovation Award

Dean of the Graduate School of Biomedical Sciences and Professor of Biochemistry & Molecular Pharmacology Anthony Carruthers, PhD, has been awarded a Gail Patrick Innovation Award from the American Diabetes Association (ADA) Research Foundation. The prestigious $100,000 grant, one of only two awarded this year, honors the memory of the late Gail Patrick, a former motion picture actress and producer and the first national chairman of the American Diabetes Association Board of Directors.

Dr. Carruthers and graduate students David Blodgett (seated) and Trista Robichaud. With Carruthers' guidance, Blodgett and Robichaud will work on a number of projects supported by the Patrick Award.

Dr. Carruthers studies glucose transport across membranes by specific proteins known as glucose transporters (GLUTs). With the support of the Patrick Award, Carruthers will continue to explore a troubling problem related to the inhibition of GLUT4—a particular class of insulin-regulated glucose transporter found in fat and muscle—as a side effect of HIV protease inhibitor therapy. Although of great benefit to AIDS patients, HIV protease inhibitors have also been shown to lead to the development of insulin resistance and type 2 diabetes. Prior research has revealed that protease inhibitor therapies that block the replication of HIV also inhibit the activity of GLUT4, severely reducing insulin-dependent cellular uptake of glucose. Carruthers is seeking to understand why the current class of HIV protease inhibitors blocks GLUT4 by identifying how and where they bind to the proteins. Ultimately, he hopes that such findings will allow researchers to isolate the binding area to develop inhibitors that continue to prevent HIV replication while allowing GLUT4 to function normally.

> **"This award is very affirming,** in that it demonstrates that basic research can be applied to current clinical issues in medicine.
>
> Anthony Carruthers, PhD

"You cannot make progress in clinical research without the pursuit of purely basic research. The two are truly linked," said Carruthers. "This award is very affirming, in that it demonstrates that basic research can be applied to current clinical issues in medicine. I am so grateful for this tremendous support that will allow me to continue these important studies." ■

Access to health care is not enough

Study shows that racial disparities exist even among insured

Improvements in screening and treatment have led to declines in overall colorectal cancer mortality rates, but studies continue to demonstrate that there are significant racial differences in terms of survival. While health insurance has long been thought to be a significant factor in these disparities, in a new study, UMMS Assistant Professor of Family Medicine & Community Health Chyke A. Doubeni, MD, MPH, and colleagues, found that African Americans with health insurance still face worse outcomes from colorectal cancer than patients from other racial or ethnic backgrounds.

> **"If we want to eliminate** disparities we need to target efforts to those groups whose needs are not being addressed."
>
> Chyke Doubeni, MD, MPH

Chyke Doubeni, MD, MPH, and colleagues discovered that equal access to health insurance does not eliminate health care disparities.

Access to health care is often cited as the cause of racial disparities in cancer survival and data demonstrates that insured individuals are most likely to access preventive medicine, yet the specific impact health insurance and access have on colorectal cancer mortality by race has not been well studied. Led by Dr. Doubeni, researchers sought to understand the factors related to racial and ethnic differences in a population of insured persons with colorectal cancer. Their findings were surprising.

According to the study "Racial Differences in Tumor Stage and Survival for Colorectal Cancer in an Insured Population," published in the February issue of *Cancer*, differences in utilization of screening tests and surgical treatment contribute to poorer colorectal cancer survival rates in African Americans. The authors found that African Americans were more likely to have advanced disease and were at greatest risk of death compared to other races and ethnicities. In addition, African Americans were less likely to receive surgical treatment for their tumors compared to Caucasians. The authors suggest that earlier detection and surgery would improve outcomes for African Americans.

"These findings indicate that just having health insurance alone does not eliminate disparities," Doubeni said. "More specifically, if we want to eliminate disparities we need to target efforts to those groups whose needs are not being addressed." ■

achievements

■ **Jasen Gundersen**, MD, assistant professor of family medicine & community health, has been chosen to chair the Society of Hospital Medicine's (SHM) National Family Medicine Hospitalist Task Force. SHM advocates policies and positions regarding all aspects of hospital medicine.

■ **Jay S. Himmelstein**, MD, professor of family medicine & community health and medicine, and **Michael A. Tutty**, MHA, instructor in family medicine & community health, served as faculty advisors for medical students at this year's Massachusetts Health Policy Student Forum. This annual event is designed to give access to graduate students in public health, medicine, nursing and health policy to the workings of state government, as well as an opportunity to meet with senior legislative and state administrative officials to discuss health care reform.

■ **Alan D. Michelson**, MBBS, professor of pediatrics, medicine, pathology and surgery, testified before an FDA Advisory Council in December on "Late Stent Thrombosis After Drug-eluting Stents: Role of Platelet Function Testing."

■ **Rebecca Moles**, MD, assistant professor of pediatrics, was selected to chair the Massachusetts Chapter of the American Academy of Pediatrics (AAP) Committee on Child Abuse and Neglect. She will be advising the local AAP chapter on child abuse policy and activities.

All in the family

Attending the same university as one of your parents is not an unusual occurrence—alumni are some of the best recruiters an institution can ask for. But for Judith A. Stebulis, MD, assistant professor of medicine, and her son, Matthew Stebulis, SOM '10, there's an atypical twist: Matthew is finding that many of the professors who taught his mother during her medical education are teaching him as well.

That's because Dr. Stebulis, a physician in the Department of Rheumatology at UMass Memorial Medical Center, was a non-traditional medical student, enrolling at UMMS in 1994, the year her son entered ninth grade. After spending her day in classrooms, she would come home and study with her children. It was during these homework sessions at the kitchen table that Matthew developed a solid interest in science. "I remember some nights looking at Matt's biology homework and thinking, 'We're learning the same things,'" said Dr. Stebulis. "Science was our common bond, and it became a family interest."

As his mother was graduating from medical school in 1998, Matthew graduated from high school and was preparing to attend the University of Vermont. He majored in biology and microbiology and during the summer between his junior and senior years, he participated in the UMMS summer research program, working with Shan Lu, MD, PhD, professor of medicine and biochemistry & molecular pharmacology, researching HIV vaccine development. Upon earning his bachelor's degree in 2002, Matthew joined a biotech company, but soon felt drawn to seeing how lab discoveries affected the lives of patients. He decided he would follow his mother's path and enter medical school. "I wanted to see first-hand how the work in the lab was helping people," said Matthew.

He recalled his mother's experiences at UMMS and knew the institution would be right for him. "I knew I wanted to pursue a career in medicine, and I was familiar with UMMS and the high quality of education," he said. "The institution would provide everything I was looking for in a medical school, and it never hurts to have a good friend nearby."

Matthew and his mother often have lunch together and swap stories about their favorite professors. As her son takes on the same courses she did, Dr. Stebulis is close by to offer him a helping hand. "When times are stressful, she is always there to keep me focused," said Matthew. "She always reminds me that the professors are wonderful, and I have a lot to learn from them."

Matthew shares his mother's desire to have an impact on patients' lives, and like her, he wants to pursue a role as both a physician and researcher. Whether or not Matthew chooses a dual career, his mother knows he will succeed at UMMS. "Matt has always been very self-motivated and he knows from first-hand experience the time commitment that is needed, as well as the expectations," she said. "He'll do just fine." ■

Judith Stebulis, MD, assistant professor of medicine, and Matthew Stebulis, SOM '10

IS unveils new Web content manager

As part of its ongoing commitment to meeting the diverse technology needs of the UMMS community, the Department of Information Services (IS) has implemented a new Web Content Management System. "The new eCMS system is more user friendly than our previous one and provides a flexible but consistent framework for the Web site that helps individuals and departments improve communication while maintaining a distinct institutional look for the site's many pages," said UMMS Chief Information Officer Robert Peterson. IS staff have been working tirelessly to convert the Medical School Web site (*www.umassmed.edu*) and intranet (*inside.umassmed.edu*) to the new system as seamlessly as possible, and anticipate that the transition will be complete in early March.

Those responsible for individual UMMS Web pages will be able to employ many new tools that were not available in the previous system. These include membership management, which allows user groups to develop special content only they can access; forums for discussions and online communities; and other features including blogs, an HTML form builder, Web analytics, polls and surveys. ■

To learn more about the project status and interactive eCMS features go to *inside.umassmed.edu/IS/ACS/migration.aspx* or register for online or classroom training at *inside.umassmed.edu/IS/ACS/training*. Individual consultation is also available to assist in planning a new site or renovating a current one; contact *umwhelpdesk@umassmed.edu* to schedule an appointment.

Web Developer Leslie Cosgrove runs a training session for the new Web Content Management System. Training is also available online.

February *Employee of Distinction Award*

Vitals

Domenic Sanfilippo
Program Coordinator
Estate Recovery Unit, Center for Health Care Financing, Commonwealth Medicine
Year started: 1997
Hometown: Gloucester

Professionally Speaking

Throughout his ten years of service at UMass Medical School, Estate Recovery Unit (ERU) Program Coordinator Domenic Sanfilippo has assisted the Commonwealth in recovering Medicaid reimbursements. In recognition of his dedication to the institution as well as the state, Mr. Sanfilippo has been selected as the February Employee of Distinction.

"Domenic consistently demonstrates strong leadership skills and his unending devotion to his employees and job has provided inspiration to his co-workers and colleagues," said Benefit Coordination Unit Associate II Marianne Noonan, who nominated Sanfilippo.

Points of Pride

Sanfilippo began working by contract with Commonwealth Medicine in 1997 in the newly formed Medicaid Recovery Unit and accepted a full-time position with the ERU in 1999 when the operations of Commonwealth Medicine's Specialty Programs were relocated to Shrewsbury. Under his leadership, the ERU continues to surpass its goals in recovering Medicaid funds. Last fiscal year, the unit exceeded its goal of $40 million by 5 percent, and the unit is again ahead of schedule in achieving the 2007 fiscal year's goal of $42 million.

Other units within the Center for Health Care Financing have also benefited significantly from Sanfilippo's talents. His expertise in database development led him to create numerous databases that contribute to the success of Commonwealth Medicine's many projects, according to Ms. Noonan.

"I truly enjoy my work, and this is the best job in the world for me," said Sanfilippo. "I have the opportunity to meet and work with other groups within Commonwealth Medicine, and most importantly, I have the freedom to express ideas and take part in developing new projects that will benefit the state. I attribute the success of the ERU to the hard work of my co-workers and colleagues whom I respect and support."

Calendar

information infocus

Annual merit review process begins

UMass Medical School will be offering a merit increase program again this year to eligible non-exempt and exempt, non-union employees in recognition of their performance. The cornerstone of the merit program is the annual assessment of employee performance. Some managers have already begun this process, getting a jump start on the completion date of May 11, 2007. Employees who are awarded increases will receive notification via a Personalized Employee Statement prior to July 13.

To assist managers with the performance management process, Human Resources will be offering a newly designed series of "Leveraging Performance Workshops" beginning in February (see schedule in the "Calendar" section at right). Merit guidelines will be distributed to managers.

For more information regarding performance management, contact your department's HR Consultant or visit the HR Intranet site at *inside.umassmed.edu/hr.*

***Focus* on the Web**

In addition to online access to *Focus* via the Medical School's Intranet, the monthly newsletter is now widely available via the UMMS Internet Web site. For a PDF file of this monthly publication, visit *www.umassmed.edu/pap/pubs/focus/index.cfm.*

■ UMMS kicks off Black History Month with a lecture on Tuesday, Feb. 6. "From Bondage to Belonging: Local Physicians in the Antebellum Period, Their Black Patients and Worcester's African American Community," will be presented by Thomas L. Doughton, PhD, senior lecturer at the Center for Interdisciplinary & Special Studies at the College of the Holy Cross. Dr. Doughton lectures on African American, Native American and Latin American History and is the co-editor of *From Bondage to Belonging, the Worcester Slave Diaries*, a compilation of autobiographies of eight local residents who had been slaves, scheduled for publication by the University of Massachusetts Press. The lecture will be held in the Hiatt Auditorium (S1-608) from noon to 1 p.m. All are encouraged to attend.

■ Human Resources is sponsoring the newly designed *Leveraging Performance Workshops* to offer managers tools and specific techniques to prepare, write and deliver successful performance appraisals. The workshops will also prepare managers to deliver feedback and to create meaningful individual development plans with employees. Sessions offered are listed to the right.

■ The Step Ahead Program and the Lamar Soutter Library are sponsoring a showing of the award-winning documentary *Super Size Me* on Thursday, Feb. 15, from 5 to 7 p.m. in Amphitheatre I. Healthy refreshments will be served. All are welcome to attend.

Leveraging Performance Workshops

SHARE managers

- Tuesday, Feb. 6, 12:30 – 3:30 p.m.
  Arthur and Martha Pappas Amphitheatre (Room S2-102) at University Campus Worcester
- Wednesday, Feb. 14, 12:30 – 3:30 p.m.
  Arthur and Martha Pappas Amphitheatre (Room S2-102) at University Campus Worcester

Non-unit managers

- Wednesday, Feb. 7, 1 – 2 p.m.
  Schrafft Building, Charlestown
- Thursday, Feb. 8, 1 – 3 p.m.
  Worcester Room, Century Drive, Worcester
- Friday, Feb. 9, 10 a.m. – noon
  China Trade Building, Boston
- Monday, Feb. 12, 12:30 – 3:30 p.m.
  Arthur and Martha Pappas Amphitheatre (Room S2-102) at University Campus Worcester
- Wednesday, Feb. 21, 12:30 – 3:30 p.m.
  Arthur and Martha Pappas Amphitheatre (Room S2-102) at University Campus Worcester

grants infocus

☐ **Elliot J. Androphy**, MD, the Barbara and Nathan Greenberg Chair in Biomedical Research and professor of medicine and molecular genetics & microbiology: *Novel SMN Interacting Proteins—Novel Targets for Treatment of SMA*, Andrew's Buddies Corporation, one year, $50,000.

☐ **Doreen B. Brettler**, MD, professor of medicine: *Prevention of the Complications of Bleeding Disorders*, Centers for Disease Control and Prevention, one year, $379,257; recommended for four more years, $1.52 million.

☐ **Timothy Fitzpatrick**, associate vice chancellor for master space planning: *Facilities Improvements for Nuclear Resonance Mass Spectrometer at University of Massachusetts Medical School*, U.S. Department of Energy, one year, $724,000.

☐ **Warren J. Ferguson**, MD, associate professor of family medicine & community health: *Speaking Together: National Language Services Network*, Robert Wood Johnson Foundation, 16 months, $59,992.

☐ **Elaine Gabovitch**, coordinator of the E.K. Shriver Center's Leadership Education in Neurodevelopmental and Related Disabilities Program: *A Study of Mother's Perceptions of Family-Centered Care for Children with Autism Spectrum Disorders*, Organization for Autism Research, one year, $1,000.

☐ **Dale L. Greiner**, PhD, professor of medicine: *Pilot Studies of Cultured Cord Blood Stem Cells and USSC in vivo*, ViaCell, Inc., one year, $7,490.

☐ **Jerry H. Gurwitz**, MD, the Dr. John Meyers Professor of Primary Care Medicine and professor of medicine and family medicine & community health: *Enhancing the Safety of Warfarin in the Nursing Home*, Department of Health and Human Services, Agency for Healthcare Research and Quality, one year, $299,997; recommended for two more years, $599,934.

☐ **Charlotte Harwood**, MD/PhD candidate in the lab of Arthur M. Mercurio, PhD, professor of cancer biology: *FLT-1 Function and Signaling in Breast Cancer*, USA Med Research ACQ Activity, one year, $32,400; recommended for two more years, $64,800.

☐ **Jean A. King**, PhD, associate professor of psychiatry, and **Joseph DiFranza**, MD, professor of family medicine & community health: *Effect of Nicotine and Varenicline on Brain Activity Using fMRI/BOLD*, Pfizer, Inc., one year, $150,000.

☐ **Aldo A. Rossini**, MD, the William and Doris Krupp Professor of Medicine and professor of medicine and molecular medicine: *Using Hematopoietic Stem Cells from Genetically Susceptible Patients to Recapitulate Autoimmune Diabetes*, American Diabetes Association, one year, $45,000; recommended for three more years, $135,000.

☐ **Gary S. Stein**, PhD, the Gerald L. Haidak, MD, and Zelda S. Haidak Professor of Cell Biology and professor and chair of cell biology; **Jane B. Lian**, PhD, professor of cell biology; and Zvi Bar-Shavit of Hebrew University in Jerusalem, Israel: *Runx Control of Osteoclasts*, United States-Israel Binational Science Foundation, one year, $48,000.

☐ **Janet L. Stein**, PhD, professor of cell biology: *Runx1 Binding Sites as Scaffolds That Mediate Chromosome Translocation*, Fogarty International Center, one year, $39,372; recommended for two more years, $78,744.

☐ **John L. Sullivan**, MD, professor of pediatrics, molecular medicine, molecular genetics & microbiology and pathology: *UMMS Clinical and Translational Science*, National Center for Research Resources, one year, $242,472.

☐ **Yong-Xu Wang**, PhD, assistant professor of molecular medicine: *Transcriptional Control of Hepatic Gluconeogenesis by Twist-1*, Richard and Susan Smith Family Foundation, one year, $100,000; recommended for one more year, $100,000.

focus

Editor: Ellie Castano
Editorial Staff: Andrea Badrigian, Kelly Bishop, Alison Duffy, Sandra Gray, Lanny Hilgar, Mark Shelton, Nicole Soucy
Photography: Tony Maciag and Luigi Piarulli, MTG

Office of Public Affairs and Publications
University of Massachusetts Medical School
55 Lake Avenue North, Worcester, MA 01655-0002
508-856-2000

Focus@umassmed.edu