

focus

Zamore among new HHMI investigators

Phillip D. Zamore, PhD, the *Gretchen Stone Cook Chair in Biomedical Sciences* and professor of biochemistry & molecular pharmacology, has been named a Howard Hughes Medical Institute (HHMI) investigator, one of the most prestigious and sought-after scientific awards in the world. He is among 56 new Hughes investigators named by the HHMI.

"I'm ecstatic about this," exclaimed Zamore, who described feeling suddenly free to pursue ideas that previously felt too risky. "My lab and I can pursue ideas that interest us even if they might not meet our NIH criteria. For example, we recently came upon a very weird phenotype in a particular fly cross," he said, explaining a defect in the phenotype that affects the development of the left or right wing, but not both. "I've never seen asymmetry like this, and with the HHMI backing, now we can run with it to see where it leads."

Dr. Zamore is an international leader in the science of RNA interference (RNAi), a mechanism that cells use to protect their DNA from a variety of parasitic agents that want to exploit them. His experiments have shed light on how RNAi works at the

molecular level, specifically identifying that it was the *small* double-stranded RNA, the result of an enzymatic chopper called *dicer*, that precisely guided the silencing reaction of the process.

A member of the UMMS community since 1999, Zamore was named a 2000 Pew Scholar in Biomedical Sciences and, in 2002, appointed to the grant recipients under the W. M. Keck Foundation's Distinguished Young Scholars in Medical Research Program. Earlier this year, he was named among the top 25 authors of high-impact papers in molecular biology and genetics.

Zamore joins fellow UMMS Hughes investigators Roger J. Davis, PhD, the *H. Arthur Smith Chair in Cancer Research* and professor of molecular medicine; Michael R. Green, MD, PhD, the *Lambi and Sarah*

Adams Chair in Genetic Research and professor of molecular medicine; Craig C. Mello, PhD, the *Blais University Chair in Molecular Medicine* and professor of molecular medicine; and Melissa J. Moore, PhD, professor of biochemistry & molecular pharmacology. Their laboratories are funded by HHMI while they retain their faculty appointments at the Medical School and pursue their research.

Zamore was among more than 1,000 scientists nationwide who applied for the 2008 appointments; recipients were chosen in part for their innovative thinking and ability to extend their research beyond the conventional boundaries of science. In describing the 56 newly named Hughes investigators, Thomas R. Cech, PhD, president of HHMI, said, "They are poised to advance scientific knowledge dramatically in the coming years, and we are committed to providing them with the freedom and flexibility to do so." ■



Phillip Zamore, PhD

Ockene's passion for service recognized with Erskine Award

Judith K. Ockene, PhD, the *Barbara Helen Smith Chair in Preventive and Behavioral Medicine*, professor of medicine and founder and chief of the Division of Preventive and Behavioral Medicine, was presented the 2008 Katherine F. Erskine Award for Medicine and Science by the Young Women's Christian Association (YWCA) of Central Massachusetts. Named in honor of Worcester native Katherine F. Erskine, who advocated for women for more than 80 years, the award recognizes Dr. Ockene's numerous contributions to the community, especially on behalf of women and girls.

Her career-long focus on improving women's health and success and advancement opportunities has benefited women in the Worcester community and beyond, from initiating programs to help low-income pregnant women quit smoking to serving as a principal investigator for the landmark national Women's Health

Initiative. In addition to her multiple academic and research leadership roles at UMMS, Ockene's extensive extramural activities include membership on the board of the YWCA's Daybreak Resources for women and children who are victims of domestic violence.

"Community engagement is one of the



Judith Ockene, PhD, MEd

most important ways to fulfill my personal mission and the mission of the Medical School and UMass Memorial Medical Center to advance the health and well-being of the public," said Ockene. "Turning outward to the community is required if we are to create real and lasting change." ■

Mello elected to Academy of Arts & Sciences

Craig C. Mello, PhD, Howard Hughes Medical Institute Investigator and the *Blais University Chair in Molecular Medicine*, was elected to membership in the American Academy of Arts & Sciences, which includes some 200 Nobel laureates, more than 60 Pulitzer Prize winners and national and worldwide leaders drawn from the sciences, the arts and humanities, business, public affairs and the nonprofit sector. The new class of 190 Fellows and 22 Foreign Honorary Members will be inducted into the Academy on October 11 at the Academy's headquarters in Cambridge.

Founded in 1780 by John Adams, James Bowdoin, John Hancock and other scholar-patriots, the Academy has elected as members the best minds and influential leaders, among them George

Washington, Benjamin Franklin, Ralph Waldo Emerson and Albert Einstein.

Mello was recognized by the Academy for his role in the co-discovery of RNA interference, which offers astounding

potential for understanding and manipulating the cellular basis of human disease, and is now the state-of-the-art method by which scientists can "knock down" the expression of specific genes to determine the biological functions of those genes. RNAi, a normal process of genetic regulation that takes place during development, opens a new window on developmental gene regulation and has the potential to launch a new class of therapeutics. ■

Get in Focus

Have a story idea, a faculty, student or staff achievement, or a campus-wide event for the calendar? Send it to the *Focus* editor at focus@umassmed.edu



The Knee Society honors UMMS research team

In recognizing research that will improve surgical techniques, The Knee Society has presented the Chitranjan Ranawat Award to David C. Ayers, MD, the *Arthur M. Pappas, MD, Chair in Orthopedics* and professor and chair of orthopedics & physical rehabilitation; Patricia Franklin, MD, MBA, MPH, the *Joy McCann Professor for Women in Medicine* and associate professor of orthopedics & physical rehabilitation and family medicine & community health; and Wenjun Li, PhD, research assistant professor of medicine, for their study related to physical function outcomes after total knee replacement (TKR).

“Our research has already changed the way patients are being treated at the UMass Memorial Arthritis and Joint Replacement Center.”

David Ayers, MD



Patricia Franklin, MD, MBA, MPH; David Ayers, MD (pictured above) and Wenjun Li, PhD, were recognized by the Knee Society for their study related to physical function outcomes after total knee replacement.

The Chitranjan Ranawat Award, which is named for the world-renowned orthopedic surgeon and pioneer in the field of total joint replacement, recognizes researchers whose work advances professional knowledge and improves the treatment of knee disorders. The UMMS team received the award for its paper, “Functional Outcomes after Total Knee Replacement Varies with Patient Attributes.”

Multiple studies have found that

TKR effectively relieves outstanding pain in 98 percent of patients. However, after studying a national TKR database of 16,000 patients, Drs. Ayers, Franklin and Li discovered that improvement in patient activity and physical function varied widely. Following the operation, two-thirds of TKR patients had better than average improvement in physical function, while one-third of patients experienced below expected improvement. In their study, Ayers and Franklin

identified distinct patient characteristics, such as gender, age, body mass index, emotional health, knee diagnosis and quadriceps strength that contribute to the physical function outcomes of TKR patients.

“Our research has already changed the way patients are being treated at the UMass Memorial Arthritis and Joint Replacement Center and in specialized Joint Replacement Centers throughout the United States,” said Ayers. “Prior to TKR surgery, we are now able to identify patients who may experience lower functional outcome, and we provide the necessary support, counseling and physical ther-

apy that they need before and after surgery to ensure high levels of physical function.”

The National Institute of Arthritis and Musculoskeletal and Skin Diseases recently awarded a \$1.7 million grant to Franklin, based on her and Ayers’ research. With the grant, Franklin and Ayers, and their colleagues in preventive and behavioral medicine, Li and Milagros C. Rosal, PhD, associate professor of medicine, will develop programs to improve TKR functional outcomes in the subset of patients identified by this research, who are at risk for less functional improvement. ■

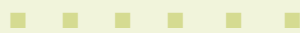
achievements

■ **Rebecca Bell**, SOM '08 and **Sangita Stearns Pillai** (formerly Sundaramurthy), SOM '08, were among eight fourth-year medical students in Massachusetts named 2008 Massachusetts Medical Society Scholars at the Medical Society’s Annual Meeting. Each of the recipients will receive a \$10,000 scholarship. The awards are presented annually to students who demonstrate excellent academic performance, community involvement and financial need.

■ GSBS student **Charisa Cottonham** received a \$500 Student Scholarship Award from the Student Achievement Scholarship Award Committee of Massachusetts Women in Public Higher Education.

■ The *Worcester Business Journal* recently honored its 2008 Health Care Heroes. Among them, **Jay Cyr**, MS, MBA, instructor in medicine; **Daniel Fisher**, MD, PhD, associate professor of medicine and cell biology; and **Peter Paige**, MD, assistant professor of emergency medicine, were recognized for their contributions to UMass Memorial Medical Center’s expedited treatment of “STEMI,” (or ST segment elevation myocardial infarction) made possible through coordinated communication and the use of technology. **David Keller**, MD, clinical associate professor of pediatrics and family medicine & community health, was recognized for his longtime advocacy, especially for mental health services for children, while **Jane Lochrie**, MD, clinical associate professor of medicine, was honored as a “doctor’s doctor” for her professionalism, mentoring and compassionate patient care.

■ **Chip McIntosh**, a student in the GSN PhD program, was awarded the Josef M. Koufman Foundation Nursing Award for Excellence, established to honor nurses with “prominent leadership potential, who also demonstrate humanism, excellence in patient care as well as professional communication.”



Following are faculty who have joined UMMS as professors or associate professors or who have been promoted to those positions, as documented by the Office of Faculty Affairs:

- **Mary Gilchrist**, PhD, appointed clinical professor of medicine
 - **Joanna Sawicka**, MD, appointed clinical associate professor of radiation oncology
 - **David Smelson**, PsyD, appointed professor of psychiatry
 - **Kenneth Ulin**, PhD, appointed clinical associate professor of radiation oncology
-
- **Steven R. Grossman**, PhD, MD, promoted to associate professor of cancer biology and medicine
 - **Abraham N. Morse**, MD, promoted to associate professor of obstetrics & gynecology

Two new degree programs advance UMMS mission

The Graduate School of Biomedical Science (GSBS) and the Graduate School of Nursing (GSN) will introduce new degree programs in the fall of 2008. The new programs will support two significant expansions of the UMass Medical School educational mission.

The GSN Doctor of Nursing Practice (DNP) program is designed to build upon the successful master of science in nursing degree already offered by the school. As with other recent GSN initiatives, the DNP was developed in part as a response to the nursing shortage. The doctoral program will prepare advanced practice nurses for leadership roles in clinical and academic settings through educational preparation in systems leadership, research translation and advanced clinical knowledge. The curriculum includes core and specialty courses, a residency practicum and a capstone project, as well as a focus on collaboration to improve the quality of care for patients in hospitals and community-based settings.

The GSBS Master of Science in Clinical Investigation (MSCI) degree supports UMass Medical School’s mission of accelerating translation of scientific discoveries to clinical treatments and is also intended to address growing national concerns over the shortage of trained clinical and translational researchers. The program will include a two-year master’s program, as well as a one-year certificate of advanced study in clinical investigation, both designed to prepare MDs, DNPs and PhDs to quickly transition to a career in clinical research. The master’s program includes two tracks: population-based clinical research and bench-to bedside translational research. ■

Students helping students

African Community Education program reaches out to refugee children

The first-year community clerkship was much more than an excellent educational experience for Olga Valdman, SOM '09—it was life changing. The experience helped Valdman to, in turn, change the lives of many others through African Community Education (ACE), a non-profit organization founded on behalf of the children of Worcester's growing African refugee community.

Valdman co-founded ACE with Catholic Charities refugee resettlement case worker Kaska Yawo, a Liberian immigrant who is now an American citizen. The organization provides educational enrichment to children who have lived through trauma and displacement in impoverished

and funding are needed to meet the demand.

ACE is a labor of love for Valdman, who came to Massachusetts from Russia at 15. "Being an immigrant myself, I am interested in transitions to a new country and culture," she said. While her initial clerkship objective



Olga Valdman with students Thomas Jackson, far left, and Clarence Zeh, right, and ACE volunteer Francis Jeppoe. With help from ACE, Jackson and Zeh will be graduating from high school next year.

"Education is integrally linked to health status," Valdman explained. "Being so behind in school is very discouraging to these kids. Without proper support some drop out."

and war-torn countries like Liberia, Sudan, Somalia and Burundi. Many of these children find themselves floundering academically once they arrive in Worcester because they are placed in grades according to their age, rather than their English-speaking abilities or previous schooling.

Run completely by volunteers from the African community and local colleges and universities, including UMMS, ACE is centered on a Saturday program offering math and English classes and homework help, as well as theater and dance classes. "The program has evolved from tutoring in single subjects to a comprehensive, integrated educational program," Valdman said. The Saturday program currently serves 60 children and has a long waiting list—more volunteers

was to assist one or two African families with their health needs, her focus soon shifted to educational needs. "Education is integrally linked to health status," Valdman explained. "Being so behind in school is very discouraging to these kids. Without proper support some drop out of high school and some engage in risky behaviors—teen pregnancy, for example, is on the rise in this vulnerable population. When they first arrive, these kids want to learn, but they are at a great disadvantage."

In March, Valdman and ACE colleagues were recognized with a UniverCity Partnership Award presented by the Colleges of Worcester Consortium at its fourth annual "Colleges and Community - Creating Collaborations." The event recognizes

Liberian students Sara Barjolo, left, and Vakaba Kromah study at the ACE Saturday program.



the impact made by student volunteers in the community.

Most rewarding to Valdman and her fellow Medical School volunteers is the appreciation of ACE's young beneficiaries, many of whom aspire to be just like them. "More than anything, I would like to be a medical doctor," wrote 15-year-old program participant Gertura Gbarbo. Thanks to the volunteers of ACE, her chances for making that dream come true are improved.

While Yawo will continue to lead ACE when Valdman steps aside next year to focus on her medical training and conduct research in the Dominican Republic, the organization must expand its volunteer workforce, as well as generate consistent funding to support its educational activities. To learn more about ACE and ways to help, visit www.acechildren.com, or contact Valdman via global e-mail. ■

employees infocus

June Employee of Distinction Award

Vitals

Lillian Tartaglia

Financial Assistant III
Center for Mental Health Services Research
Department of Psychiatry

Year started: 1982

Hometown: Shrewsbury

Professionally Speaking

Recently honored for her 25 years of service to the University of Massachusetts Medical School, Lillian Tartaglia has spent the majority of her career supporting the Center for Mental Health Services Research (CMHSR) within the Department of Psychiatry. As a financial assistant for the center, Tartaglia is responsible for all financial transactions within it, from the day-to-day management of large grant and contract expenses to

purchasing basic office supplies. Tartaglia orders the statistical software packages used at the center and implements the required licenses, and also ensures that the requirements for each research project are met and that participants receive adequate compensation.

Points of Pride

Recently, Tartaglia managed the CMHSR's transition to the PeopleSoft system, and not only did she learn the new system, she trained new co-workers in addition to her daily tasks. Responsive and an excellent source of information, Tartaglia keeps her colleagues, support faculty and staff informed about the center's current research projects, new technology and upcoming office procedures.

Tartaglia's diverse strengths and skills coupled with her strong work ethic have made her a vital UMMS employee.

"Lillian's work habits and personal traits are a winning combination," said Joanne Nicholson, PhD, associate director of the CMHSR and professor of psychiatry and family medicine & community health. "Lillian is truly the quintessential example of someone we all want to have as part of the UMMS team. We feel extremely fortunate to have her as an essential member of our staff."

"Every day I enjoy taking on new challenges to ensure that the center's operations run smoothly," said Tartaglia. "I truly enjoy my work and the opportunity to contribute to UMMS."



Calendar

information infocus

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■ On Monday, June 16, at 5 p.m., the Lamar Soutter Library will hold a reception for the latest installment of its Artist in Residence Series, *The View from Here: Landscape Paintings in Pastels*, an exhibit featuring paintings by Nancy von Hone, administrator in the Department of Cell Biology. The exhibit will be located on the first floor of the library from Wednesday, June 11, through Friday, July 18. For information, contact Nancy Harger at 6-3334 or via global e-mail.



At a ceremony celebrating the

campus tobacco free kick-off on May 27, UMMS staff member Rachel Nolan spoke about her decision to quit smoking when she learned of the support services available through the Tobacco Free Initiative. She received one-on-one counseling and nicotine replacement therapy and has not smoked in more than two months. While smoking and the use of all tobacco products is prohibited on the UMMS and UMass Memorial Medical Center campuses, support services are still available to all employees, visitors and patients who want assistance in quitting or remaining tobacco-free while on campus. For more information, call x6-1555 or visit inside.umassmed.edu/tobaccofree.

■ *Cooking for Coumadin: A Recipe for Success*, a program that helps Coumadin patients learn why certain foods have an impact on warfarin therapy and INR results, will be held on Wednesday, June 18, from 5:30 to 7:30 p.m. at the Hoagland-Pincus Conference Center in Shrewsbury. Presented by UMass Memorial Medical Center, the program also teaches how to prepare meals and track and maintain control of Vitamin K intake. The program is free but seating is limited. For information or to register, call Keri Lynne Tellez at 407-563-2411.

■ UMMS employees who will reach employment milestones of 5, 10, 15, 20, 25, 30 and 35 years of continuous service by Dec. 31, 2008, can view the appreciation gifts provided by Sharfmans Jewelers on Thursday, June 19, from 10 a.m. to 4 p.m. in the old Medical School lobby. Letters of notification will be mailed to eligible employees prior to these dates. If you are unable to attend the showing, photos of the gifts will be available for viewing after Thursday, June 19, on the UMMS intranet under Human Resources. For more information, call 6-6097.

■ The Walk to Cure Cancer Kick-off Breakfast will be held Thursday, July 24, at the Aaron Lazare Medical Research Building on the University Campus. Registration is at 7:30 a.m.; continental breakfast and speaker's program will follow from 8 to 9 a.m. Teams will receive all the materials they need for gathering pledges for the Sept. 28 event on the UMass Medical School campus. For information, contact Sylvia Ciarlo via global e-mail or visit www.walktocurecancer.com.

grants infocus

□ **Elliot J. Androphy**, MD, the *Barbara and Nathan Greenberg Chair in Biomedical Research* and professor of medicine and molecular genetics & microbiology: *Optimization of Drug-like Compounds for Treatment of Spinal Muscular Atrophy*, National Institute of Child Health and Human Development, one year, \$225,000; recommended for one more year, \$253,125

Vesicular Transport Factor Interacts with SMN and the Pathogenesis of SMA, Muscular Dystrophy Association, one year, \$107,590; recommended for two more years, \$220,019

□ **Patrick Emery**, PhD, assistant professor of neurobiology: *Synchronization of Drosophila Circadian Rhythms by Temperature Cycles*, National Institute of General Medical Sciences, one year, \$322,000; recommended for three more years, \$975,000

□ **Jay S. Himmelstein**, MD, MPH, professor of family medicine & community health and medicine: *Massachusetts Medicaid Infrastructure and Comprehensive Employment Opportunities*, Department of Health and Human Services, Centers for Medicare and Medicaid Services, three years, \$3.8 million

□ **Jane B. Lian**, PhD, professor of cell biology: *Synthesis of Osteocalcin in Bone*, National Institute of Dental and Craniofacial Research, one year, \$373,750; recommended for four more years, \$1.5 million

□ **Oliver Rando**, MD, PhD, assistant professor of biochemistry & molecular pharmacology: *Genomic Analysis of Histone Replacement Dynamics in Yeast*, National Institute of General Medical Sciences, one year, \$331,455; recommended for four more years, \$1.3 million

□ **Charles G. Sagerström**, PhD, associate professor of biochemistry & molecular pharmacology: *Molecular Analysis of Hindbrain Development*, National Institute of Neurological Disorders and Stroke, one year, \$350,000; recommended for four more years, \$1.4 million

□ **Lawrence J. Stern**, PhD, professor of pathology and biochemistry & molecular pharmacology: *Class II MHC Antigen Processing in Dendritic Cells*, National Institute of Allergy and Infectious Diseases, one year, \$406,250; recommended for four more years, \$1.6 million

□ **Gyongyi Szabo**, MD, PhD, professor of medicine: *Toll Like Receptors—Mediated Pathways in Liver Injury*, National Institute of Diabetes and Digestive and Kidney Diseases,

one year, \$345,313; recommended for three more years, \$1 million

□ **Fumihiko Urano**, MD, assistant professor of molecular medicine: *Targeting ER-Stress-mediated Beta-cell Death*, Juvenile Diabetes Research Foundation International, one year, \$110,000

□ **Scott Waddell**, PhD, associate professor of neurobiology: *Motivational Control of Appetitive Memory*, National Institute of Mental Health, \$357,500; recommended for four more years, \$1.4 million

□ **Yu-Li Wang**, PhD, professor of physiology and cell biology: *Dynamics of Actin in Normal and Transformed Cells*, National Institute of General Medical Sciences, one year, \$614,236; recommended for three more years, \$1.7 million

□ **Zuoshang Xu**, MD, PhD, professor of biochemistry & molecular pharmacology and cell biology: *Transgenic Models of ALS Caused by VAPB Mutation*, National Institute of Neurological Disorders and Stroke, one year, \$355,469; recommended for four more years, \$1.4 million

Modeling TDP-43 Dysfunction In Vivo, National Institute of Neurological Disorders and Stroke, one year, \$177,734; recommended for one more year, \$213,281



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