

focus

Tom Manning receives Heart of Gold Award

During his years of service at the University of Massachusetts Medical School (UMMS), Thomas D. Manning, deputy chancellor for Commonwealth Medicine, has remained devoted to enhancing health services delivered to vulnerable populations. This year, the Central Massachusetts Division of the American Heart Association (AHA) recognized Manning and his efforts by honoring him with the prestigious Heart of Gold Award at the annual Central Massachusetts Heart Ball.

"I am deeply honored to be this year's recipient of the Heart of Gold Award," said Manning. "The award, of course, belongs to UMass Medical School and clinical partner UMass Memorial Health Care. Together they have a profound impact on the health and well-being of the region's population."

The Central Massachusetts Division of the AHA presents the Heart of Gold Award to an individual who exemplifies the values of its mission to build healthier lives free of cardiovascular diseases and stroke through education and awareness. More than 500 members of the business, medical, sports and political communities gathered last month to honor Manning, who was instrumental in the creation of Commonwealth Medicine and its charge to enhance the UMMS public

service mission by addressing health policy and health care needs of vulnerable populations through partnerships with local, state and federal agencies.

"UMass Medical School and UMass Memorial are steadfastly working to develop life-saving medical advances in cardiac care," said Manning. "And through our partnerships, Commonwealth Medicine is helping to bring care to our most vulnerable citizens, many of whom are at higher risk for, or already suffer from, cardiovascular disease."

Manning thanked the Central Massachusetts Division and its supporters for the award, and recognized Peter Paige, MD, clinical associate professor of emergency medicine at UMMS and vice chair of clinical operations for emergency medicine at UMass Memorial Medical



Center. Dr. Paige has chaired the Heart Ball event for the last four years and created lasting partnerships within the community during his tenure. Under his direction, the event has raised more than \$1 million for the Central Massachusetts Division of the AHA. ■

Zamore among the top cited molecular biology authors worldwide

Phillip D. Zamore, PhD, the *Gretchen Stone Cook Chair in Biomedical Sciences* and professor of biochemistry & molecular pharmacology, was recently named among the top 25 authors of high impact papers in molecular biology and genetics. Published in the January/February 2008 issue of *Science Watch*, the list ranks authors in the top one percent of most cited papers in their fields between 2002 and 2006. Dr. Zamore is number 18 on the list, with eight high-impact papers cited a total of 1,802 times, with an average 225 citations per paper.

Science Watch draws from *Essential Science Indicators*, Thompson Scientific's index of scientific journals that analyses and tracks trends in research. "Citations have the virtue of reflecting the judgments that scientists themselves make in selecting and acknowledging the published research that they view as most significant and useful," said *Science Watch* editor Christopher King. "Clearly, Dr. Zamore's papers on RNA interference and related topics, judging from their markedly high citation rates, are wielding notable influence in ongoing research and demonstrating that he and his colleagues have been in the thick of the action in recent biochemistry."

Zamore, who joined UMMS in 1999, 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. He now focuses his investigations specifically on the genetic analysis *in vivo* in flies and the biochemical analysis of *in vitro* extracts to study the machinery of RNAi and related pathways, such as the microRNA and piRNA pathways, in hopes of applying this phenomenon to mammalian cells and, eventually, human disease.

Among the high-impact papers Zamore authored or co-authored are *Asymmetry in the assembly of the RNAi enzyme complex*, published in the October 2003 issue of *Cell*, which was cited 526 times; *A microRNA in*



Phillip D. Zamore, PhD

a multiple-turnover RNAi enzyme complex, published in the Sept 2002 issue of *Science*, cited 453 times; and *A biochemical framework for RNA silencing in plants*, published in the January 2003 issue of *Genes & Development*, cited 335 times.

"It is a tremendous honor, and an affirmation of the incredibly hard work done by my students and postdocs," said Zamore. "As scientists, we all aspire to contribute to our understanding of how living things work. To have our peers acknowledge our contribution by citing our papers is a huge honor." ■

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



Lian receives prestigious NIH MERIT Award

The National Institutes of Health (NIH) recently recognized Jane B. Lian, PhD, professor of cell biology, for her research project *Synthesis of Osteocalcin in Bone* by awarding the prestigious Method to Extend Research in Time (MERIT) Award. The award is given to an investigator who has an excellent record of scientific productivity from previous research, and provides the investigator with continuous support and a grant extension, eliminating the administrative burdens associated with the grant renewal process. Dr. Lian has received continuous funding from the National Institutes of Health for this project since 1976, and with the MERIT award, will receive \$1.9 million over five years.

The award is given to an investigator who has an excellent record of scientific productivity from previous research.

For nearly 30 years, Lian's research has focused on osteocalcin, a bone-specific calcium binding protein. The osteocalcin gene, which she identified, is a marker for mature bone-forming cells known as osteoblasts. By measuring circulating levels in patients, Lian and other researchers have also laid the groundwork for clinicians to treat metabolic bone disorders and observe the effects of treatments.

"With every funding period, my colleagues and I have been able to reach significant milestones, and as we made new discoveries, the focus of the research shifted," said Lian.

Since the initial discovery of osteocalcin in 1975, Lian's research has led to additional breakthroughs in understanding bone formation. By isolating bone cells and creating a culture system for osteoblasts to progress through different stages of bone formation, molecular factors regulating osteocalcin were identified for their roles in promoting bone formation. She and colleagues found that osteocalcin is accumulated in bone in

Jane Lian, PhD, has had her research continuously funded by the National Institute of Arthritis and Musculoskeletal and Skin Diseases and the National Institute of Dental and Craniofacial Research for nearly 30 years.



relation to mineral deposition; that vitamin D regulates production of osteocalcin in osteoblasts; and discovered Runx2, a bone tissue-specific

transcription factor that is required for activation of the osteocalcin gene. Without Runx2, they found that the

continued on page 3

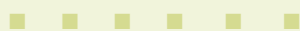
achievements

■ **Charlene Baron**, digital imaging specialist in cell biology, was elected president of the BioCommunications Association, an international association of media professionals who work in biological sciences. She was also honored with fellowship in the association for "distinguished craftsmanship and meritorious contribution to the advancement of media in the life sciences."

■ **Michael P. Hirsh**, MD, professor of surgery and pediatrics, delivered the Worcester District Medical Society's 212th Annual Oration. He presented "Profiles in Medical Courage: A Message of Hope, Survival and Transcendence."

■ **William C. Okulicz**, PhD, professor of physiology, recently served on the National Institutes of Health (NIH) Review Panel for the Specialized Cooperative Centers Program in Reproduction and Infertility Research as a reviewer and group leader. The panel rates the scientific merit of an individual Center Grant application and its assessment is used by the NIH to help make funding decisions.

■ Graduate School of Nursing PhD student **Ellen M. Rearick**, a 2006 graduate of the GSN nurse educator master's program, was awarded a \$2,500 scholarship from AfterCollege and the American Association of Colleges of Nursing.



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 Administration.

Roy Guharoy, PharmD, appointed clinical professor of medicine
Jonathan Rhodes, MD, appointed adjunct associate professor of pediatrics
Alan Rosmarin, MD, appointed professor of medicine
Barry Saver, MD, appointed associate professor of family medicine & community health
Zhiping Weng, PhD, appointed professor of biochemistry & molecular pharmacology

Julia D. Andrieni, MD, promoted to associate professor of medicine
Jason J. Chen, PhD, promoted to associate professor of medicine
Andrew H. Fischer, MD, promoted to professor of pathology and cell biology
Romolo J. Gaspari, MD, promoted to associate professor of emergency medicine
Joonsoo Kang, PhD, promoted to associate professor of pathology
Nathan Lawson, PhD, promoted to associate professor of molecular medicine
Egil Lien, PhD, promoted to associate professor of medicine and molecular genetics & microbiology
Elisabet C. Mandon-Menetret, PhD, promoted to research associate professor of biochemistry & molecular pharmacology
Sridhar Shankar, MD, promoted to associate professor of radiology
Marian Walhout, PhD, promoted to associate professor of molecular medicine

Tobacco Free Initiative update

Support for quitting smoking now available

To support individuals who currently use tobacco as the campus transitions to a new tobacco-free environment on May 27, the Tobacco Free Initiative Committee has announced the availability of a number of tobacco cessation support services beginning March 1 for all UMass Medical School and UMass Memorial Medical Center employees, physicians, faculty, students and volunteers.

To encourage tobacco cessation, both institutions have made extensive arrangements, at considerable investment, to subsidize the cost of a three-month supply of over-the-counter and prescription medications, as well as offer face-to-face or telephone support for nicotine-dependent individuals trying to quit smoking. The result will be availability of these medications at no cost to employees, physicians, faculty, students and volunteers.

Over-the-counter medication (patches, lozenges and gum), also known as nicotine replacement therapy, is available upon request from Employee Health Services after a brief screening for medical contraindications and to help individuals select their best option. UMMS staff, faculty, students and volunteers opting for prescription medication (Chantix and Zyban/Bupropion) can have their co-payments reimbursed after obtaining the prescriptions from their personal physicians and filling them at their local pharmacies. This program will continue through September 30, 2008.

While medications have proven effective in helping tobacco users quit, many experience better results with a

combination of medication and support. Tobacco treatment specialists are now available to provide individual and group education and support. Individuals can receive up to five sessions, face-to-face or via telephone, at no cost, and group sessions can be arranged if there is sufficient interest. Additionally, managers and department heads may request presentations for staff and student meetings about the benefits, and obtain consultation and training to help them communicate the impact of the Tobacco Free Initiative and the availability of these benefits. (Tobacco cessation support for UMass Memorial Medical Center employees, patients, visitors and vendors is detailed here: <http://our-net.ummhc.org/default.aspx>)

A dedicated phone line for assistance in quitting tobacco has been established: 508-856-1555. Details about the available services, including the process for acquiring over the counter and prescription medications at no cost, are also posted on the UMMS intranet at inside.umassmed.edu/tobaccofree. ■



A scientist in the making

UMMS professor helps student shape his future

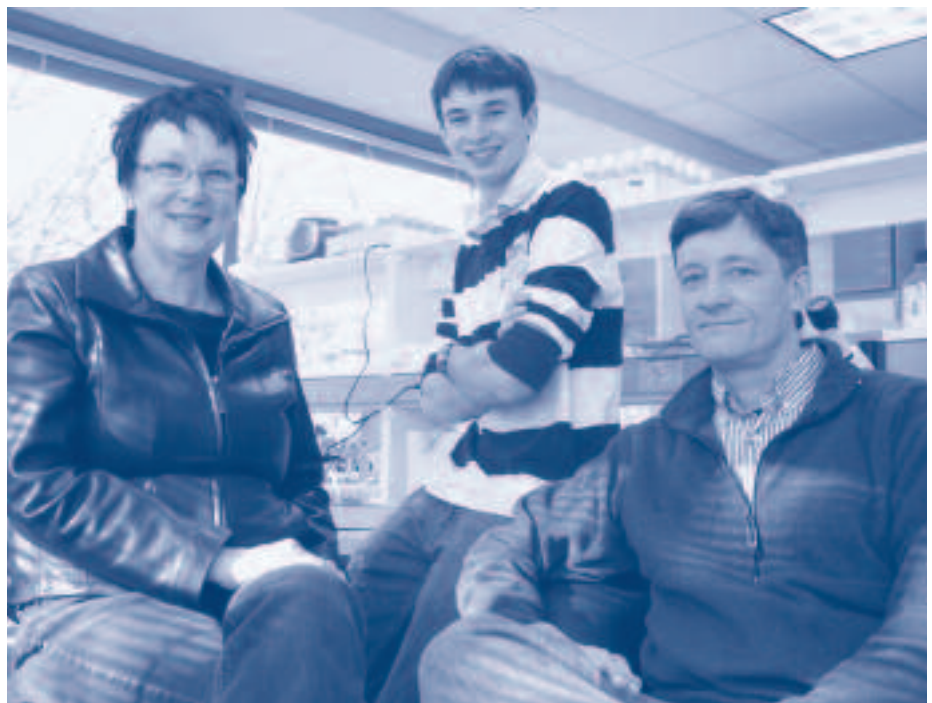
William Theurkauf, PhD, is passionate about the importance of science faculty reaching out to potential future scientists. “I urge colleagues to take high school students into their labs. We need to encourage the next generation of scientists, and there’s no better way to bring kids on board than working with them one on one.” James Valcourt couldn’t agree more.

A gifted Wachusett Regional High School senior, Valcourt was always interested in science and leaning toward a career in physics until an opportunity to work with Dr. Theurkauf changed all that. “My plans to study molecular biology or biochemistry are all thanks to him,” said Valcourt.

Theurkauf, professor of molecular medicine, became involved in science education at Wachusett Regional as a concerned parent and community

research he did in the Theurkauf lab has propelled Valcourt to success in national and international science competitions. “Dr. Theurkauf gave me free rein in his lab and was a great sounding board,” he said.

Valcourt’s numerous honors include being a national semifinalist in the 2008 Intel Science Talent Search; national semifinalist in the Siemens Competition in Math, Science and Technology; and second place in the International Science and



Valcourt (center) and Theurkauf (right) are grateful to Wachusett Regional High Science Chair and Science Seminar leader Carol Sullivan (left) for making their collaboration possible. Wachusett Regional High’s Science Seminar program was established in 1959.

“We need to encourage the next generation of scientists, and there’s no better way to bring kids on board than working with them one on one.”

William Theurkauf, PhD

member. A resident of Sterling with his own children headed to Wachusett Regional, Theurkauf learned about its Science Seminar program for advanced students and signed on, serving as a scientific advisor to the program since 2001. Theurkauf met Valcourt in 2005 and invited the budding investigator to conduct research in his UMMS lab, which studies cell division and development in the *Drosophila* (fruit fly) model. The

Engineering Fair (also sponsored by Intel Corporation). He also presented at the American Academy for the Advancement of Sciences (AAAS) Annual Meeting, held last month in Boston, as a member of AAAS American Junior Academies of Sciences. “It’s been great getting to meet so many awesome high school students from all over the country,” said Valcourt of the enriching experiences these honors have afforded him.

Valcourt’s work with Theurkauf explored suspended animation in fruit fly embryos, a process whereby embryonic development is arrested when oxygen is removed, and then development restarts following reoxygenation. “My findings indicate that there may be a new pathway involved in allowing embryos to ‘escape’ suspended animation,” Valcourt explained. “This pathway could have implications in humans for diseases like heart attack and stroke where an absence of oxygen occurs.”

Theurkauf emphasized that this work would be considered sophisticat-

ed for a graduate student, and is truly remarkable for someone in high school. “When I met Jim as a sophomore biology student, he had already started to read the literature on suspended animation, and he dove right in when he came into the lab,” Theurkauf said. “He was able to arrest embryonic development for several days and then restart the developmental program by reoxygenation. A significant number of embryos went on to hatch and develop to flies, and Jim showed that several genes in a key pigmentation pathway are required for this process.” ■

NIH MERIT Award

Continued from page 2

skeleton would be composed only of cartilage.

Most recently, Lian’s research has addressed the importance of transcription factors related to the formation,

maintenance and remodeling of bone tissue. Her studies now focus on how factors that pattern the skeleton in the embryo regulate osteoblast differentiation in the adult by turning bone matrix genes on and off during

bone formation.

“It was quite a surprise to learn that I would be receiving this prominent award from the NIH,” said Lian, who has served on several NIH study sections. “I look forward to this opportu-

nity to explore new dimensions in science. The MERIT Award recognizes all participants of the program, colleagues, fellows and graduate students who are in the labs contributing to these discoveries within the supportive Medical School environment.” ■

employees infocus

March Employee of Distinction Award

Vitals

James Aquilino

Property Manager

Year started: 1997

Hometown: Walpole

Professionally Speaking

Property management is complex and challenging, especially when buildings are older. March Employee of Distinction James Aquilino is responsible for some of the oldest buildings owned by UMMS, including one that is more than 100 years old. Managing a staff of 40 and working with dozens of outside contractors and hundreds of tenants, at locations from the Jamaica Plain campus and Charlestown’s Schrafft’s Building to Waltham (home to the Shriver Center) and the Department of

Radiation Oncology’s Quality Assurance Review Center in Providence, Aquilino oversees the maintenance and repair of buildings and their systems, including electrical, plumbing and HVAC. A recent significant accomplishment was installation of an emergency electrical generator to back up the Jamaica Plain campus’ aging electrical system.

Aquilino is praised for the immediate response to mechanical and systems emergencies. “The facilities operations work that Jim performs behind the scenes is essential to the core business operations of UMMS, allowing researchers and administrators to conduct their work in the best possible environment,” wrote nominators Paul Casey, director of Planning and Property Management, and Jay Mitchell, managing director of the Jamaica Plain campus.

Points of Pride

“We’ve accomplished a lot over ten years,” said Aquilino of the extensive renovations and consolidation of space he has overseen at the Jamaica Plain facilities, whose occupants include the Department of Public Health (a UMMS tenant) and the UMMS Massachusetts Biologic Laboratories (MBL). “We freed up an entire floor of contiguous space for the MBL, before the construction of their new facility in Mattapan, when they desperately needed space.”



Calendar

information infocus



Don't forget to recycle!

UMMS recently introduced new opportunities to recycle at the Worcester campus. In addition to the recycling stations adjacent to the cafe in the Lazare Research Building, new “co-mingled” green recycling bins have been placed in or near all the elevator lobbies in the main Medical School building. These new bins are for recycling plastic, glass and metal items. A list of acceptable items is posted here: inside.umassmed.edu/sustainability.aspx.

Paper recycling has been in place for several years. There are central recycling stations on each floor of the main school/hospital building and in the LRB. These stations include large blue, BFI recycling containers for mixed paper. In addition to these containers, a significant part of the paper recycling initiative is the desk-side container that allows staff to quickly and easily separate trash from valuable recyclable materials. These containers are emptied into the large recycle bins on a weekly basis by EBS staff. (There are also secure HIPAA compliant recycling containers in a number of convenient locations on each floor of the main hospital facility.) If you would like a desk-side paper recycling container, call EBS at 6-5212.

For details on recycling and other sustainability initiatives at UMMS, visit inside.umassmed.edu/sustainability.aspx.

■ Carla Yanni, PhD, associate professor of art history at Rutgers University and author of *The Architecture of Madness: Insane Asylums in the United States*, will give a lecture and book signing on Wednesday, March 12, from 5 to 7 p.m. in the Rare Book Room of the Lamar Soutter Library. Dr. Yanni promotes the study of architectural history as a way of understanding a society's values. The event is sponsored by the Humanities in Medicine Committee.

■ The ninth annual Primary Care Days Conference will be held Thursday, March 13, and Friday, March 14, at the Hoagland-Pincus Conference Center in Shrewsbury. The conference is designed for physicians, physician assistants, nurse practitioners and physicians-in-training specializing in general medicine, family medicine, pediatrics, geriatrics and ob-gyn. For details about the conference and fees or to register, visit www.umassmed.edu/cme/events.

■ *New England Landscapes*, photography by Paul Berman, MD, assistant professor of medicine, will be on display on the first floor of the Lamar Soutter Library from Friday, March 7, through Friday, April 18. A reception for this latest installment of the Artist in Residence Series will be held on Tuesday, March 11, at 5 p.m. in the library.

■ The Office of Continuing Medical Education and the Center for Mindfulness are co-sponsoring the Sixth Annual International Scientific Conference, Integrating Mindfulness-Based Interventions into Medicine, Health Care and Society, Wednesday, April 9, through Sunday, April 13, at the Crowne Plaza Hotel in Worcester. Conference participants will interact with a pioneering group of scientists, clinicians and educators presenting approaches and findings about the connections between neuroscience, medicine, healing, meditation and the mind. For more information, visit www.umassmed.edu/cfm.

■ The ninth annual Educational Recognition Awards Ceremony will be held from 1 to 2 p.m. on Tuesday, April 15, in the Arthur and Martha Pappas Amphitheatre (Amphitheatre I). This special event celebrates the educational achievements of faculty and students from all three schools. The Lamar Soutter Award for Excellence in Medical Education, Deans' Awards, Educational Achievement Awards and other awards recognizing outstanding faculty and students, will be presented. A reception will follow immediately in the Faculty Conference Room. All are welcome to attend.

■ Save the date! UMass Night at the Pops 2008, Thursday, May 8, featuring a concert by Keith Lockhart and the Boston Pops with special guest Natalie Cole, UMass Amherst '72, '93H. For details and tickets, visit www.massachusetts.edu/pops.

grants infocus

□ **David C. Ayers**, MD, the *Arthur M. Pappas, MD, Chair in Orthopedics* and professor of orthopedics & physical rehabilitation; **Jerry H. Gurwitz**, MD, the *Dr. John Meyers Professor of Primary Care Medicine* and professor of medicine and family medicine & community health; and **Sarah M. McGee**, MD, MPH, assistant professor of medicine: *Geriatrics Education for Specialty Residents Program*, The American Geriatrics Society, two years, \$40,000

□ **Vivian Budnik**, PhD, professor of neurobiology, and **Marc R. Freeman**, PhD, assistant professor of neurobiology: *Role of Glia in Sculpting Synaptic Fields During Development and Plasticity*, National Institute of Neurological Disorders and Stroke, one year, \$355,469; recommended for three more years, \$1.1 million

□ **Stephen J. Doxsey**, PhD, professor of molecular medicine, biochemistry & molecular pharmacology and cell biology: *A New Paradigm for Cellular Aging Based on Asymmetries During Cell Division*, The Ellison Medical Foundation, four years, \$975,000

□ **Albert J. Grudzinskis**, JD, clinical associate professor of psychiatry: *University of Massachusetts Medical School's Boston Police Study/Boston Police Training Initiative*, Sidney R. Baer, Jr. Foundation, one year, \$200,000; recommended for two more years, \$350,000

□ **Eric S. Huseby**, PhD, assistant professor of pathology: *The Role of CD8 T-Cell Avidity and Specificity in Experimental Models of Multiple Sclerosis*, Arnold and Mabel Beckman Foundation, three years, \$300,000

□ **Jeanne B. Lawrence**, PhD, professor of cell biology: *The Potential Role of BRCA1 in Maintaining Silent Constitutive Heterochromatin*, USA Med Research ACQ Activity, 13 months, \$121,875

□ **Connie W. Lee**, MS, a PhD student in the lab of **Dario C. Altieri**, MD, the *Eleanor Eustis Farrington Chair in Cancer Research* and professor and chair of cancer biology: *Notch Survivin Signaling in Breast Cancer*, National Cancer Institute, one year, \$27,161; recommended for two more years, \$54,322

□ **Darlene M. O'Connor**, PhD, associate professor of family medicine & community health: *Real Choice System Grant: State Profile Tool—Assessing a State's Long Term Care System*, Department of Health and Human Services, Centers for Medicare and Medicaid Services, three years, \$506,460

□ **Robert A. Phillips**, MD, PhD, professor of medicine: *Pilot Study to Assess the Feasibility of Reducing Nocturnal Blood Pressure in African-Americans with Hypertensive*

Chronic Kidney Disease, King Pharmaceuticals, one year, \$1.2 million

□ **Irena Pekker**, PhD, post-doctoral fellow in the lab of **Phillip D. Zamore**, PhD, the *Gretchen Stone Cook Chair in Biomedical Sciences* and professor of biochemistry & molecular pharmacology: *The Role of the Essential RNA Helicase Armitage in Gene Silencing*, United States–Israel Bi-National Agricultural Research and Development Fund, one year, \$40,000

□ **Joel D. Richter**, PhD, professor of molecular medicine: *Polyadenylation and Translational Control*, National Institute of General Medical Sciences, one year, \$381,875; recommended for three more years, \$1.1 million

□ **Charles G. Sagerström**, PhD, associate professor of biochemistry & molecular pharmacology: *Genetic Regulation of Beta Cell Formation*, Juvenile Diabetes Research Foundation International, one year, \$165,000; recommended for two more years, \$330,000

□ **Gary S. Stein**, PhD, the *Gerald L. Haidak, MD, and Zelda S. Haidak Professor of Cell Biology* and chair of cell biology: *Institutional Research Grant*, American Cancer Society, one year, \$120,000

focus

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