

Your UMass medicine

From the University of Massachusetts Medical School and UMass Memorial Health Care
Produced by the UMass Medicine Development Office

New beginnings

AS THE FIRST FEW MONTHS of 2013 come to a close, we pause to reflect on the extraordinary changes that have been and are taking place at your academic health sciences system.

The year began with the unveiling of the Albert Sherman Center at UMass Medical School in January. With this magnificent facility, which is the cornerstone of the Massachusetts Life Sciences Act, we are entering into a new era of biomedical research and beginning yet another new chapter in what we call our Life Sciences Moment. The move-in process that began in January continues, with scientists, faculty and staff settling into their state-of-the-art facilities easily, and is expected to be completed later this spring.

In late February, a warm and enthusiastic welcome was given to Eric Dickson, MD, who took the helm at UMass Memorial Health Care. One of his first acts as the new president and CEO was to sign an Alternative Quality Contract (AQC) with our partners at Blue Cross Blue Shield of Massachusetts. Signing this four-year agreement, which will begin in January 2014, clearly demonstrates UMass Memorial's commitment to provide the highest quality care in the most efficient and fiscally responsible way. Later this spring, we look forward to the opening of the UMass Memorial Cancer Center Pavilion at Marlborough Hospital.

With these exciting beginnings, the entire academic health sciences system is making its way to a promising future—one that will benefit our local, national and global communities. Yet, the impact of the recent government sequester on the medical school has yet to be fully realized and the clinical system is still working diligently toward making quality health care affordable to all. We are, however, most certainly poised to exceed these challenges and to flourish doing so—particularly because we have your support.

As you have likely noticed, the name of this newsletter has changed. Since it is designed to provide you with important news and information about your academic health sciences system, we thought its title should reflect that—and that it should debut in the first issue of 2013. We also launched an e-newsletter earlier this year to complement this print edition. We hope you'll subscribe; see below for information about how to sign up.

Charles J. Pagnam

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Cutlers endow biomedical research chair

Catarina Kiefe named inaugural Melvin S. and Sandra L. Cutler Chair in Biomedical Research

MELVIN CUTLER and his wife, Sandra, long-time champions of the Worcester Foundation for Biomedical Research, have generously endowed the Melvin S. and Sandra L. Cutler Chair in Biomedical Research in support of innovative basic science research at UMass Medical School (UMMS). In conjunction with the gift, Catarina Kiefe, MD, PhD, chair and professor of quantitative health sciences, has been named the inaugural Cutler Chair in Biomedical Research.

“The support of local philanthropists like Mel and Sandy Cutler are a vital component of our thriving biomedical research enterprise,” said Chancellor Michael F. Collins. “Their generous support will provide the financial flexibility for faculty members, such as Dr. Kiefe, to pursue novel research ideas that might otherwise take years to get funding through traditional avenues. It's this freedom to

seek new discoveries unencumbered that often serves as a critical starting point for new cures and treatments for disease.”

“The discoveries being made at UMass Medical School are poised to fundamentally change how we treat disease,” said Mel Cutler.

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Catarina Kiefe, MD, PhD

Scientists establish link between inflammatory process, Alzheimer's

Finding offers a possible new clinical target for patients with the most common form of dementia



Douglas T. Golenbock, MD

AN INTERNATIONAL TEAM of researchers led by faculty at UMass Medical School (UMMS) have shown that an immune and inflammatory process already established as a clinical target for rheumatoid arthritis plays an important role in the pathology of Alzheimer's disease—meaning that drugs used to disrupt production of the pro-inflammatory

cytokine called interleukin-1 beta (IL-1 β) may one day be used to help patients with Alzheimer's.

“We've known for years that the plaques associated with Alzheimer's were surrounded by microglia, the resident immune cell of the central nervous system. What we didn't know was what role, if any, inflammation played in the progression of the disease,” said Douglas T. Golenbock, MD, professor of medicine and microbiology & physiological systems and chief of infectious diseases and immunology. “With this link we have a new path to potentially attack this horrible disease.”

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Marlborough Hospital expands surgical services

UMass Memorial Medical Center surgeon joins Marlborough Hospital surgical team

MARLBOROUGH HOSPITAL—a member of UMass Memorial Health Care—in partnership with UMass Memorial Medical Center, has expanded its surgical offerings to help bring the most advanced minimally invasive and general surgery services to the region. To facilitate this growth, Philip Cohen, MD, joined Peter Miotto, MD, and Theodore Patsos, MD, in October as part of the Marlborough Hospital surgical staff.

“We believe in delivering the very best and the safest health care to our patients by pairing excellent service and the most highly skilled physicians and staff,” explained Karen Moore, president and CEO of Marlborough Hospital. “As part of the expansion of our surgical offerings, I am happy to welcome Dr. Cohen to our team. He is part of a physician group that makes up one of the largest, most experienced teams of fellowship-trained minimally invasive surgeons in Central Massachusetts.”

With the addition of Cohen—a general surgeon who specializes in digestive diseases, weight loss surgery, gastroesophageal reflux disease (GERD), as well as small bowel and hernia conditions—patients will now have easy access to a full spectrum of board-certified surgical experts. Cohen’s distinct surgical expertise in digestive disorders complements Marlborough Hospital’s expertise in the fields of breast surgery, colon and rectal surgery, general surgery, plastic surgery, thoracic surgery, vascular surgery and wound care.

As a member of UMass Memorial Health Care, Marlborough Hospital provides patients with a direct link to the advanced medical resources of UMass Memorial Medical Center in Worcester, a nationally recognized academic medical center.

For more information, visit www.umassmemorial.org/marlborough-hospital.



RNs Susan Hernandez, Reid McMullen, Michael Spiros and Brian Hill prepare for a mock code as part of the Graduate School of Nursing's Interprofessional Simulation Day.

Mock codes provide nurses with real-life training

Interprofessional day teaches communication and clinical skills

FEELING A SCARY FLUTTERING in his chest, a 79-year-old man calls for the nurse on duty. “What’s happening to me? Am I going to be all right?” asked the man, who was in the hospital recovering from pneumonia and had a history of a prior heart attack. His blood pressure was high at 142/56 and it was vital to determine the cause of his irregular heartbeat as quickly as possible.

That was the scenario encountered by one of the teams that participated in the Graduate School of Nursing’s (GSN) Fall Interprofessional Simulation Day in November. The intensive course lasted several hours and provided hands-on training in managing various acute-care emergencies in a hospital setting.

The teams consisted of new graduate nursing students, registered nurses (RNs) in the master’s program—including nurse practitioner and nurse educator students—and pharmacy residents. SimMan, the mannequin that plays the patient, was controlled by Johnny Isenberger, NP, instructor in the GSN and a nurse practitioner in critical care at UMass Memorial Health Care. He can change SimMan’s blood pressure or heart rate, or even adjust the sounds coming out of his chest or stomach, managing his vital signs viewed on the monitor.

The course is a unique opportunity for students to interact as an interprofessional team. “These urgent situations are the most stressful, so it’s important that students experience them

as close to the real thing as possible,” said Dawn Carpenter, DNP, ACNP-BC, who leads the program and is assistant professor and coordinator of the GSN’s adult-gerontology acute/critical care nurse practitioner track.

The session began with a classroom-based review of heart rhythm disorders and how to diagnose them from an electrocardiogram, or EKG, reading. Next, a pharmacy resident reviewed the contents of the bright red code cart and led a discussion of the relevant medications and their proper use. As most of the participating nurses are already working in clinical settings as they complete their coursework, they could also share their real-life experiences.

The team then ran through a couple of scenarios with SimMan in the Simulation Center. For each one, the RNs were first by the patient’s side, followed by the nurse practitioners and pharmacy resident, and then the entire group worked together as the “crisis” unfolded.

“This was the first time I’ve trained with a pharmacist,” said Susan Hernandez, an RN who completed the GSN’s Graduate Entry Program (GEP) last year. “I was glad to have that opportunity.”

A debriefing process included an appraisal and then more discussion about what certain symptoms may mean, how medications work and the dynamics of working as a team. ■



Richard P. Moser, MD

Department status conferred on neurosurgery

Richard P. Moser named interim chair

UMASS MEDICAL SCHOOL and UMass Memorial Medical Center have conferred departmental status on the surgical specialty of neurosurgery, creating the Department of Neurosurgery, as announced by Terence R. Flotte, MD, the *Celia and Isaac Haidak Professor of Medical Education*, executive deputy chancellor, provost and dean of the School of Medicine.

Richard P. Moser, MD, professor of surgery and radiation oncology and director of the Massachusetts Center for Translational Research in Neurosurgical Oncology at UMass Memorial, will serve as interim chair of the new department.

Previously, neurological surgery was a specialty division within the Department of Surgery, a once-common practice at

academic medical centers. The practice has been changing in recent years, however; as of 2011, more than 60 percent of accredited U.S. medical schools have independent neurosurgery departments.

“The newly established Department of Neurosurgery at UMass Medical School and UMass Memorial will enjoy a favorable position in the recruitment of additional faculty, implement strategies to build upon the high-quality clinical care and education provided by our outstanding neurosurgical faculty and staff, and expand upon the basic and clinical research underway,” said Dr. Flotte. One goal will include the re-establishment of the neurosurgery residency program.

“Establishing neurosurgery as a

department is in accordance with the Academic Affiliation and Support Agreement between the University of Massachusetts and UMass Memorial, which guides our strongly aligned and shared academic mission,” Flotte said. “We will develop complementary academic and clinical strategies, including the recruitment of faculty leadership, which are linked through joint investment.”

Dr. Moser is widely regarded for his excellent clinical skills and translational research interests. “He is an ideal steward to guide the transition from division to full department. He will work closely with his colleagues in the field and with academic and clinical leadership to define near-term plans for the organization and activity of the department,” said Flotte. ■



Robert Brown Jr., DPhil, MD

Two important ALS research breakthroughs made

Research shows ALS may be treatable using neural stem cells; discovery points to new pathways, potential treatment

Promising new research provides evidence that amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease, may be treatable using neural stem cells. A consortium of researchers at multiple institutions, including UMass Medical School (UMMS), have shown that neural stem cells, when transplanted into the spinal cord of a mouse model with familial ALS, slow disease onset and progression while improving motor function, breathing and survival time compared to untreated mice. A summary of the studies was published online in December 2012 in *Science Translational Medicine*.

Neural stem cells are the precursors of all brain cells. They can self-renew, making more neural stem cells, and differentiate, becoming nerve cells or other brain cells. These cells can also rescue malfunctioning nerve cells and help preserve and regenerate brain tissue. But they've never before been studied extensively in a good model of adult ALS.

In 11 independent studies, the group, headed by Evan Snyder, MD, PhD, of the Burnham Institute, transplanted neural stem cells into the spinal cord of a mouse model of ALS. The transplanted neural stem cells benefited the mice with ALS by preserving the health and function of the remaining nerve cells. Specifically, the neural stem cells promoted the production of protective molecules that spared remaining nerve cells from destruction. They also reduced inflammation and suppressed the number of toxin-producing and disease-causing cells in the host's spinal cord.

"It is striking that the stem cells improve motor neuron viability without generating new motor neurons. These findings encourage us to explore further the role of cell therapies in ALS," said Robert Brown, DPhil, MD, the *Leo P. and Theresa M. LaChance Chair in Medical Research* and chair and professor of neurology.

Another team of scientists, including faculty

at UMMS, have also discovered a gene that influences survival time in ALS. The study, published in *Nature Medicine* in August 2012, describes how the loss of activity of a receptor called *EphA4* substantially extends the lifespan of people with the disease. When coupled with a UMMS study published in July 2012 in *Nature* identifying a new ALS gene (profilin-1) that also works in conjunction with *EphA4*, these findings point to a new molecular pathway in neurons that is directly related to ALS susceptibility and severity.

"Taken together, these findings are particularly exciting because they suggest that suppression of *EphA4* may be a new way to treat ALS," said Dr. Brown, a co-author on the study.

Wim Robberecht, MD, PhD, lead investigator of the *Nature Medicine* study and a researcher at the University of Leuven in Belgium and the Vesalius Research Center, screened for genes in zebrafish that blunt the adverse effect of the ALS mutant gene SOD1. Through this process, his team identified *EphA4* as an ALS modifier. Dr. Robberecht's team went on to show that when this gene is deactivated in mice with ALS, the mice live longer.

Robberecht then turned to UMMS to confirm that turning off *EphA4* in human ALS cells would slow the progression of the disease. Brown and his team identified two human ALS cases with mutations in the *EphA4* gene which, like the zebrafish and the mice, had unusually long survival times. This suggests that blocking *EphA4* in patients with ALS may be a potential therapeutic target in the future. ■

Cutlers endow biomedical research chair

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"My hope is this work will ultimately lead to new cures and treatments for patients, thereby reducing the suffering of future generations."

A long-time supporter of UMMS, Cutler is a member of the Hudson Hoagland Society and has served as a trustee for the Worcester Foundation for Biomedical Research. He contributed to the UMMS Annual Research Grant program in 2010 to support young investigators and their independent research. In 2002, he established the Cutler Award, which supported the work of Phillip D. Zamore, PhD, Howard Hughes Medical Institute Investigator, the *Gretchen Stone Cook Chair of Biomedical Sciences* and professor of biochemistry & molecular pharmacology, who was then an assistant professor of biochemistry & molecular pharmacology. The Cutler Award allowed Dr. Zamore to hire lab staff to pursue an avenue of research related to the biochemical machinery behind RNA interference (RNAi), or gene silencing. RNAi was a relatively new field at the time and is now recognized as one of the most remarkable discoveries in contemporary science.

"I am honored to be the first recipient of the Cutler Chair," said Kiefe. "Mr. Cutler's gift will allow us to complement our current funding sources and augment our overall efforts to develop new, fundamental insights that will drive the improvement of health care quality and outcomes for patients."

Kiefe is a highly regarded scientist, clinical epidemiologist and internist who has published extensively in the fields of health care quality measurement and outcomes research. Recruited to UMMS in 2009 as chair of the newly created Department of Quantitative Health Sciences, her primary research interests are health disparities and measuring and improving health care. ■



UMass Memorial Cancer Pavilion at Marlborough Hospital to open spring 2013

IN THE COMING MONTHS, this state-of-the-art facility at Marlborough Hospital, which is part of the UMass Memorial Health Care Cancer Center of Excellence, is scheduled to open. The nearly 15,000-square-foot addition on the north side of the hospital will house cancer care services including medical oncology, radiation oncology and exam space in an environment designed to promote healing and compassionate, patient-centered care. For more information, visit www.umassmemorial.org/marlborough-hospital.

Scientists establish link

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A key physiological component of Alzheimer's disease is the presence of extracellular plaques, primarily composed of beta amyloid peptides, which aggregate in the brain. These plaques are believed to be toxic and the chief cause of nearby neuron death and cortical material loss.

Dr. Golenbock and colleagues had established in previous studies that beta amyloid peptide fibrils, such as those found in Alzheimer's plaques, incite inflammation in the central nervous system by activating microglia to produce neurotoxic compounds, including cytokines, resulting in neuron death. (Ironically, microglia cells are typically responsible for removing plaques, damaged neurons and infectious agents from the central nervous system.) There are a number of different genetic avenues capable of causing inflammation, however. Which one was being activated in patients with Alzheimer's disease was unclear.

Examining Alzheimer's tissue samples, Golenbock found that "every one of the cell samples contained increased evidence of activated inflammasomes [multi-protein molecules consisting of NLRP3 and caspase-1], suggesting that they were producing IL-1 β ," said Golenbock. "Taken together with our earlier studies, this strongly suggested a role for NLRP3 and caspase-1 in producing IL-1 β leading to Alzheimer's disease progression."

To fully gauge the role of NLRP3 and caspase-1 in Alzheimer's, Golenbock and colleagues used mouse models that expressed genes associated with familial Alzheimer's: one that was deficient in NLRP3 or caspase-1 and another that had an otherwise intact immune system. Examination revealed that the NLRP3 and caspase-1 deficient mice exhibited far better memory recall and appeared protected from memory loss. Scientists also recorded a decrease in beta amyloid plaques and mature IL-1 β , as well as an increased ability of the microglia to metabolize and remove fibrillar beta amyloid from the brain.

"These findings suggest the possibility that drugs that block NLRP3 or IL-1 β —including some that are already in clinical trials or on the market—might provide some benefit," said Golenbock. "The critical part, though, is how much NLRP3 or IL-1 β production can these drugs disrupt. I believe that it's not enough to block just 90 percent; it will probably have to be closer to 100 percent."

To hear Douglas Golenbock, MD, discuss these findings, visit <http://bit.ly/15eJ7Dm>. ■



Albert Sherman Center at UMass opens

Gov. Deval Patrick headlined a host of elected officials and other dignitaries, including Lt. Gov. Tim Murray; State Senate President Therese Murray; Speaker of the House Robert DeLeo; UMass President Robert Caret; Worcester City Manager Michael O'Brien; 2006 Nobel Laureate Craig C. Mello, PhD, Howard Hughes Medical Institute Investigator,

the Blais University Chair in Molecular Medicine and distinguished professor of molecular medicine and cell & developmental biology; and Albert "Albie" Sherman, to mark the official opening of the Albert Sherman Center on Wednesday, Jan. 30. Speakers collectively praised the collaborative effort that allowed the building to be envisioned,

funded and constructed and marveled at the promise of transformative research and education that will take place within the building's walls.

For more information about the Sherman Center, visit www.umassmed.edu/shermancenter.

Honoring a life cut short by breast cancer

WHEN MEGAN LALLY DIED of breast cancer in September 2011, just before her 31st birthday, six of her friends and family members banded together to honor her too-short life.

"We wanted to remember her in a way she'd love and be proud of," said Terri Sacco, who met Megan when they attended Worcester Polytechnic Institute (WPI). "And we wanted to raise money for research so hopefully someone else wouldn't have to leave their family so young.

"She was big into running," Sacco continued, explaining what inspired their fundraising idea. "We did a lot of running events together where there was music and beer at the end, to celebrate after all the work."

So in the months following Megan's death, Sacco, Megan's husband David "Rusty" Gray, high

school friends Victoria Bartley and Sarah and Alex Fanous, and WPI classmate John Digiacoia sought to create a similar event.

They established the Megan Lally Memorial Fund, for which they obtained 501(c)3 nonprofit status, and organized and promoted "Run Like an Antelope," a 5K run and one-mile fun walk around Lake Quinsigamond in Worcester to raise money for metastatic breast cancer research. To further support the event, they enlisted sponsorships from local businesses and solicited donations for silent auction and raffle items.

On October 14, 2012, a little more than a year after Megan's death, the inaugural event attracted nearly 400 participants. Post-race live music was provided by Antelope All-Stars, a band that covers songs by the popular group Phish, one of Megan's favorite bands and whose song, "Run Like an Antelope," inspired the event's name. Beer was donated by a local brewery. At the end of the day, \$26,000 was raised, with

\$21,000 being donated to the UMass Memorial Cancer Center of Excellence to support metastatic breast cancer research being conducted there.

"Megan would have had a blast at the event and I think she'd be very proud of us," Sacco said. "She'd also be happy that we donated to UMass because that's the hospital where she was treated and they were wonderful to her. They really care about their patients and they're doing great work.

"It's sad that she's not here but, given the situation, this is the best way we could have honored her," she added. "Through this event, we want to keep remembering Megan, celebrating her life and making her proud."

The second annual Megan Lally Memorial Fund "Run Like An Antelope" 5K Race and Fun Walk is scheduled for October 6, 2013.

For more information, visit www.meganlallymemorialfund.org. ■



Members of the Megan Lally Memorial Fund presented a check to the Cancer Center in November.

UMMS enrolling mothers in a National Children's Study pilot

Pilot study tests whether provider-based sampling is a more efficient and cost-effective way to recruit

UMASS MEDICAL SCHOOL (UMMS) is enrolling expectant mothers from Worcester County in a pilot program in preparation for the much larger National Children's Study (NCS), the landmark undertaking in which 100,000 children will be followed from the womb to age 21 to determine the environment's impact on growth, development and onset of disease.

"We are excited to announce that we are enrolling our first participants in this pilot study, an effort that may significantly benefit children's health for generations to come," said Marianne Felice, MD, professor of pediatrics and obstetrics & gynecology, and principal investigator of the NCS Worcester County Study Site Center. "The National Children's Study is the largest nationwide longitudinal study of a birth cohort of children ever undertaken in the United States. The data collected will inform the policies by which we treat children in the future."

UMMS was awarded a \$3.6 million, one-year contract from

the National Institute of Child Health and Human Development to recruit study participants from local ob-gyn offices and hospitals. This method of recruitment, called provider-based sampling, is an alternative to the original National Children's Study plan in which data collectors would knock on doors in targeted neighborhoods across the country. Dr. Felice said the goal is to determine if provider-based sampling is a more efficient and cost-effective way of recruiting for the main study.

Family Health Center of Worcester is the first practice identified by the NCS for participation in the Worcester pilot study. UMMS is working with Family Health staff to arrange appointments for data collectors to meet patients at their first prenatal appointments and ask them to consider participating in the study. Women who agree to take part will meet at home with data collectors twice over the course of their pregnancies and again after their babies are born. At each visit, the women will answer a series of

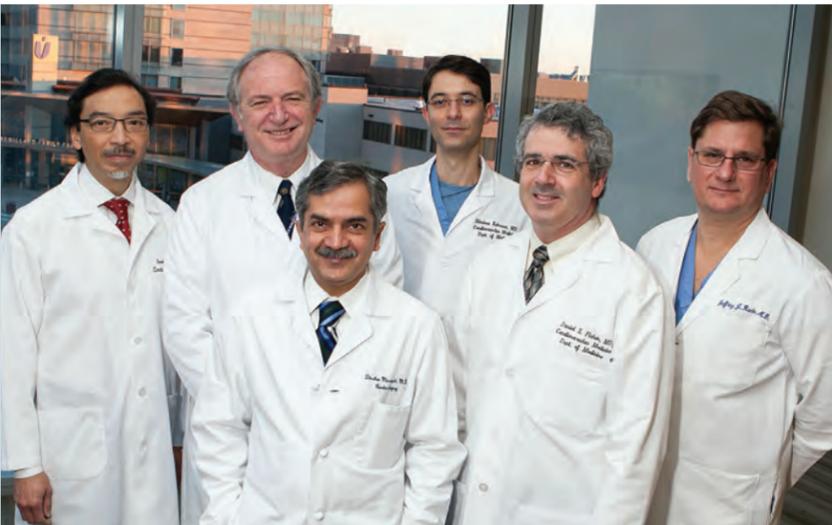


questions about their health and the environment in which they live. Participants must be residents of Worcester County and sign up at their first prenatal appointment with their medical care provider.

A total of 15 physicians' offices and prenatal clinics will be chosen to participate. The sites are being chosen by the national office of the NCS to ensure a representative sample of Worcester County.

This is the second NCS contract

for UMMS. In 2007, UMMS was awarded a \$16.2 million, five-year contract and served as one of 40 sites across the country conducting formative research projects to determine the least costly and most efficient way to conduct the study. Data from the NCS will be used to help determine how to prevent and treat some of the nation's most pressing health problems, including autism, birth defects, diabetes and obesity. ■



New valve clinic now open at UMass Memorial Heart and Vascular Center of Excellence

TAVI expert brings non-surgical treatment option to region

WITH AN AGING POPULATION has come an increasing incidence of cardiac valve disease. To serve this growing patient population, the UMass Memorial Health Care Heart and Vascular Center of Excellence recently launched Central Massachusetts' first and only clinic for the comprehensive diagnosis and treatment of cardiac valve disease, including acquired conditions such as aortic and mitral valve stenosis or regurgitation and congenital conditions such as bicuspid aortic valves.

"Fortunately, in the past 10 years there has been a real evolution in evaluating and managing cardiac valve issues," said Theo Meyer, MD, DPhil, director of the Advanced Heart Failure Program, clinical chief of cardiovascular medicine at UMass Memorial Medical Center and professor of medicine at UMass Medical School (UMMS).

"With 3-D echocardiography, we now have better ways of imaging the heart to more precisely detect anatomic

Pictured are members of the TAVI team (from left): Stanley Tam, MD, co-director of the program and chief of cardiothoracic surgery; Theo Meyer, MD, DPhil, director of clinical cardiology and the valve clinic; Divakar Mandapati, MD, cardiac surgeon; Nikolaos Kakouros, MD, PhD, co-director of the program and director of the Structural Heart Disease Program; Daniel Fisher, MD, PhD, director of interventional cardiology; and Jeffrey Rade, MD, medical director of the cardiac catheterization lab.

abnormalities of cardiac valves, which is essential for deciding whether valve replacement or repair is appropriate," Dr. Meyer continued. "We also have newer treatment modalities, including transcatheter aortic valve implantation (TAVI), which offers new hope for some patients with aortic stenosis who were previously deemed inoperable.

"But it takes an organized, multidisciplinary approach to quantify valve disease, evaluate symptoms and determine what type of intervention is most appropriate," Meyer added, noting that this is the strength of the new valve clinic. "We have people with extensive experience in valve disease in terms of quantification, selecting the appropriate treatment options and the timing of these treatments."

The clinic also has recruited a highly trained and experienced TAVI expert:

Nikolaos Kakouros, MD, PhD, director of the Structural Heart Disease Program and assistant professor of medicine at UMMS. He trained at St. George's Hospital in England with one of the world's leading authorities in transcatheter valve implantation, helping to build the program there, and he spent three years at Johns Hopkins where he helped start that institution's valve program as part of a national clinical trial. Now that TAVI has received FDA clearance in the United States, he will be building the program at UMass Memorial.

"TAVI requires a multidisciplinary team and we've been building it since I arrived in September 2012," Dr. Kakouros said. "It includes interventional cardiologists and cardiac surgeons as well as echocardiography experts, radiologists, geriatricians, vascular surgeons, anesthesiologists, neurologists, radiology techs, nurses and program coordinators.

"The valve clinic provides access for all valve patients to be evaluated by a multidisciplinary team who can advise on the best treatment approach," Kakouros noted. "With TAVI, we now have an opportunity to help even the patients who are too sick for surgery. We're working hand in hand to offer the best available therapy."

Husband establishes scholarship as a legacy to his inspirational wife

“You know, you get what you give, and she gave everything she had at all times,” reflected Francis “Fran” Charette on his late wife, Joanne LaMalva Charette. “Joanne was so special; she had a zest for life and an appreciation for others. Most importantly, she had an unselfish desire to help people.”

When this remarkable woman died of a rare genetic cancer, multiple endocrine neoplasia type II, in January 2010, Fran was determined to do something to ensure that her name—and her spirit of giving—lived on. Already a supporter of the UMass Medicine Cancer Walk, he redoubled his fundraising efforts for this annual event. He also established the Joanne Charette Memorial Scholarship Fund at UMass Medical School (UMMS) in 2012.

Knowing others would want to honor Joanne’s memory, Fran invited friends and family to contribute to the scholarship fund. The outpouring of support that

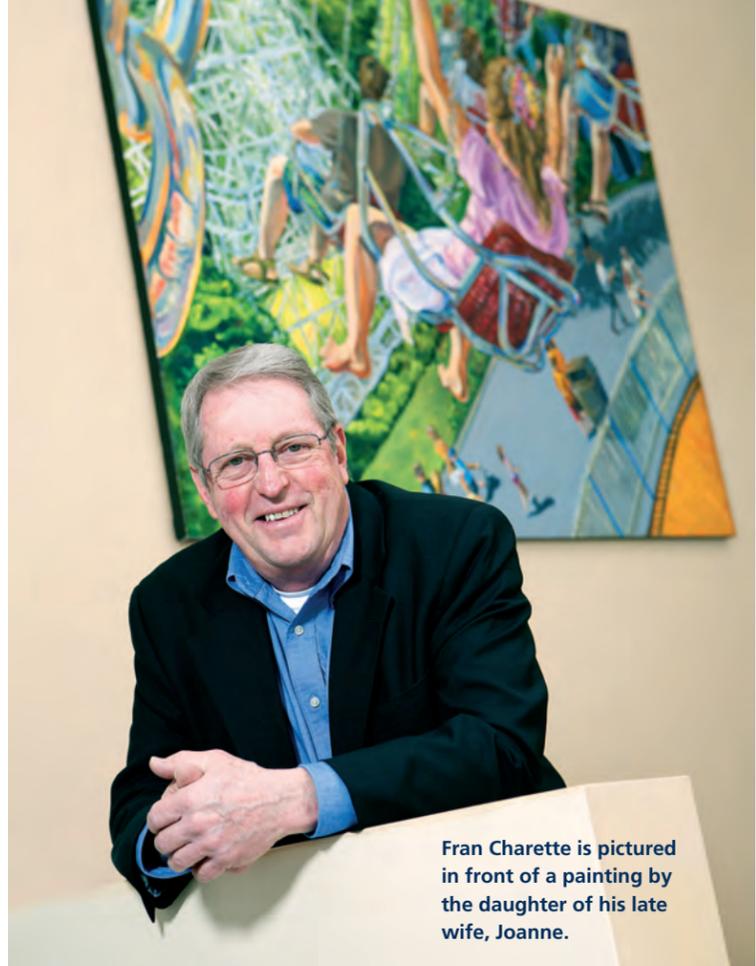
resulted left Fran both “humbled and gratified.”

With Joanne as inspiration, the scholarship will be directed to students who have also faced medical hardship—either personally or in their family—yet, despite these challenges, are continuing to pursue their dream of a career in medicine. The first scholarship is anticipated to be awarded in the fall of 2013.

Fran chose to honor Joanne’s memory with a gift to the Medical School for many reasons, among them his relationship with, and deep respect for, Joanne’s physician and longtime friend Neil Aronin, MD, professor of medicine, cell & developmental biology and microbiology & physiological systems at UMMS.

“Joanne believed in Dr. Aronin so much,” said Fran. “He taught her a lot, and she taught him a lot, too. He’s still an intricate part of our makeup.”

Fran believes that this scholarship is a fitting remembrance



Fran Charette is pictured in front of a painting by the daughter of his late wife, Joanne.

for Joanne, who had a lifelong passion for teaching and helping others. She served for many years as professor and chairperson of the Business Department and as assistant dean at Anna Maria College in Paxton, Mass., before earning her PhD in business management and becoming a certified financial planner.

A retired finish carpenter who also lost his first wife to cancer, Fran hopes that this scholarship will play a small role in the fight against the disease.

“I think someday someone’s going to cure cancer, and maybe this scholarship will help that happen,” he said. ■

NOTABLE GRANTS IN...



Jessica L. Griffin, PsyD

IDENTIFYING AND TREATING TRAUMA IN CHILDREN

THE EMOTIONAL CHAOS caused by trauma can alter children’s lives, but remain hidden from the teachers, doctors, police officers and court officials who routinely have to make fateful decisions for them. To recognize, address and alleviate child trauma where it exists, the Department of Psychiatry will use a \$1.6 million federal grant from the Substance Abuse and Mental Health Services Administration (SAMHSA) National Child Traumatic Stress Network to provide specialized training to some 1,800 professionals working in Central and Western Massachusetts.

“Children don’t talk about it and people in general don’t talk about it,” said

Jessica L. Griffin, PsyD, assistant professor of psychiatry and pediatrics, and principal investigator for the four-year project. “But trauma is very common. It’s one of those problems in our society that isn’t going away. We’re actually seeing more and more requests for training from clinicians and requests from families and child-serving professionals for trauma-specific treatments.”

The funding will establish the UMMS-based Child Trauma Training Center (CTTC) with the goal to increase trauma-sensitive care and streamline treatment for at-risk and underserved populations, including court-involved children and military families.

Dr. Griffin, a clinical and forensic psychologist, said she and her colleagues hope the center may ultimately help reduce the number of children in the court system and reach an estimated 1,800 professionals across the state, impacting more than 20,000 youth during the grant period. Roughly 400 Worcester police officers are targeted for training, along with hundreds of teachers, school counselors and nurses in the school systems in Worcester and Hampden counties, pediatricians, probation officers, attorneys in Worcester and Hampden counties, and judges across the commonwealth. Mental health providers will also receive training.



Ann Marshak-Rothstein, MD

LUPUS RESEARCH

ANN MARSHAK-ROTHSTEIN, MD, professor of medicine in the Division of Rheumatology, was recently named as one of two recipients of the first Lupus Research Institute (LRI) Distinguished Innovator Awards. The \$1 million awards were established by the LRI to address the current lack of treatments for lupus and aim to encourage new directions toward a cure or prevention.

Systemic lupus erythematosus is a chronic and often disabling autoimmune disease in which the human immune system becomes hyperactive and attacks normal, healthy tissue. As a result, no

two cases of lupus are alike. Symptoms may affect many different body systems, including joints, skin, kidneys, blood cells, heart and lungs. There is no known cause or cure for lupus and no new treatments have been approved for the disease in 50 years. The treatments currently available can often be toxic and more damaging than the disease itself. Estimates indicate that more than 1.5 million Americans have lupus.

“Support from the LRI will enable us to extend our analysis of the cell components recognized by toll-like receptors in mice models to toll-like receptor activation in human cell populations, and allow us to identify those patients most likely to

respond to therapies directed at blocking specific toll-like receptors,” said Dr. Marshak-Rothstein. Her research group was the first to propose that toll-like receptors (TLR)—a class of proteins that play a key role in the innate immune system—could have a primary role in lupus by turning on the immune system to attack the body. Because TLR proteins are essential in fighting any infection, how the body loses control over their activity is a fundamental question in immunology. Finding the causes of lupus, the prototype for autoimmune disease research, could have broad implications across a wide range of illnesses affecting millions.

HEALTH ADVICE

Helping your children chill out



OVERACHIEVING and overscheduled. Facing high expectations from teachers and parents, and goading from peers. Getting into the best college. Whew! Today's kids face enormous stresses—particularly adolescents, who are regularly confronted with decisions about their future.

In fact, the normal stresses of adolescence are often compounded by the pressure to succeed, whether it is at play or in academics, and by media and advertisements, which reinforce the "need" to be perfect and to get ahead.

"Kids must cope with many issues today, including global matters, such as violence or the environment, that often stress out adults," said Pauline Sheehan, MD, adolescent medicine specialist at the UMass Memorial Children's Medical Center. "They must also handle other pressures from parents, their peers and the media."

Adolescents who have good coping skills are more likely to become strong, independent adults who live balanced, fulfilling lives. Parents can teach their children how to deal with stress effectively by setting positive expectations and providing support, guidance, encouragement and, above all, unconditional love. According to Dr. Sheehan, the following are ways parents can help children:

Model good behavior. "Kids do as we do, not as we say," said Sheehan. Show your children how you care for yourself by eating right, exercising, sleeping well and proactively dealing with your own emotions. This is particularly important in the adolescent years, a time when teens can be very critical of their parents' behaviors.

Make sure younger children have time to play. Play and leisure activities let kids think, dream and relax.

Help kids build coping skills at an early age. Teach children to look at things within the big spectrum of life—that they can avoid some problems, let others go or break tasks into small parts they can do more easily.

Redefine success. Let children know you want them to do their best and to be kind, generous, creative, productive and innovative adults. A thriving learning environment is as important as the prestige of an academic setting.

Support your children in making age-appropriate decisions. Teach them how to set boundaries and how to manage their time. Work with them on problem-solving techniques and allow them to learn from the process of making a mistake. This will help them develop a resiliency to stress. ■

Annual Parents Dinner

Wednesday, April 24, 6 p.m.

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL, Worcester

This annual gathering offers parents of School of Medicine (SOM) students the opportunity to meet and connect with each other and school leadership.

For more information, contact Anastasia Grady in the Office of Alumni and Parent Relations at 508-856-1593 or anastasia.grady@umassmed.edu

The 19th Annual Teddy Bear Clinic

Saturday, April 27, 10 a.m. to 3 p.m.

SOLOMON POND MALL, Marlborough

Families can enjoy games and entertainment at interactive booths. Kids can dress up like a surgeon, have a stuffed toy examined or hop aboard an ambulance.

To learn more, visit www.umassmemorial.org

What You Need to Know about Living with Afib

Wednesday, May 1, 6:30 to 8:30 p.m.

HOAGLAND-PINCUS CONFERENCE CENTER, Shrewsbury

Experts from our Atrial Fibrillation Treatment Program will discuss the risk factors, signs and symptoms of afib, an irregular and often rapid heartbeat, as well as treatment options available at UMass Memorial Medical Center. The program is free to the public, but reservations are required and seating is limited. Refreshments will be served.

For more information, call 774-441-6649 or visit www.umassmemorial.org/heart

UMMS School of Medicine Alumni Reunion

Saturday, May 4

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL, Worcester

Celebrating SOM Classes 1978, 1983, 1988, 1993, 1998, 2003, 2008

More information is available online at <http://alumni.umassmed.edu>, or by contacting Anastasia Grady in the Office of Alumni and Parent Relations at 508-856-1593 or anastasia.grady@umassmed.edu

UMass Medicine Development Council Spring Meeting

Tuesday, May 7, 4 p.m.

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL, Worcester

Hudson Hoagland Society Annual Meeting

Wednesday, May 14, 6 p.m.

HOAGLAND PINCUS CONFERENCE CENTER, Shrewsbury

Hudson Hoagland Society (HHS) members are invited to a cocktail reception in recognition of their commitment to advancing biomedical research at UMass Medical School. John F. Keaney Jr., MD, and Heidi Tissenbaum, PhD, will present. HHS members will receive further details by mail.

For more information, contact Kate Gomes at the UMass Medicine Development Office at 508-856-1994 or kate.gomes@umassmed.edu

Commencement

Sunday, June 2, noon

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL, Worcester

For more information, contact the Office of University Events at 508-856-1821

UMass Medicine Cancer Walk Kick-off Breakfast

Wednesday, July 24, 7:30 a.m. Registration, 8 to 9 a.m. Program

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL, Worcester

This annual breakfast kicks off the vital fundraising efforts of the UMass Medicine Cancer Walk by providing team leaders with an opportunity to learn more about the Walk and the life-saving work being conducted by the UMass Medicine Cancer Center of Excellence.

Companies interested in sponsoring the Walk, recruiting teams or offering challenge grants to fundraisers, should contact Becky Moore at 508-856-5512 or visit www.umassmed.edu/cancerwalk

The 21st Annual Tee Up for Tots Golf Tournament

Monday, August 12, 9 a.m. Registration, 11 a.m. Shotgun Start,

4:30 p.m. Reception and Silent Auction, 5:30 p.m. Buffet Dinner and Live Auction

MOUNT PLEASANT COUNTRY CLUB, Boylston

What better way to spend a summer day than on the golf course—all while raising money for the Neonatal Intensive Care Unit at the UMass Memorial Children's Medical Center. If golf is not your game, you can join the fun during the dinner and auction portions of the day's events.

For more information and to register, visit www.teeupfortots.info

Sponsors of the 2012 Winter Ball Thank you for your support!

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The next Winter Ball will be held on **Friday, Dec. 6, 2013**. For more information about how you can participate, contact the UMass Medicine Development Office at 508-856-5520.



From the University of Massachusetts Medical School and UMass Memorial Health Care
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NEWS BRIEFS

■ **New England Patriots safety Steve Gregory and his wife, Rosanne, paid a visit to patients** at the UMass Memorial Children's Medical Center in February as part of the team's continuing "Celebrate Volunteerism" campaign. According to one patient, "It was really neat. It was a great experience to meet someone like that. It helped me get into a good mood."

■ **The School of Medicine at UMMS was awarded full 8-year accreditation by the Liaison Committee on Medical Education (LCME)**, marking the successful end to a year-long self-evaluation and external review process. In its letter apprising UMMS of accreditation, the LCME lauded UMMS for collaborative curriculum reform.

■ In September, **Allan Jacobson, PhD**, chair and professor of microbiology & physiological systems, was invested as the *Gerald L. Haidak, MD, and Zelda S. Haidak Professor of Cell Biology*, and **Robert H. Brown Jr., DPhil, MD**, chair and professor of neurology, was invested as the *Leo P. and Theresa M. LaChance Chair in Medical Research*. These named professorships were made possible by the extraordinary generosity of donors.

■ **David McManus, MD, was appointed director of the Atrial Fibrillation Treatment Program in September.** The afib program, the only one of its kind in Central New England, uses the latest techniques and therapies to treat patients with afib, the most common type of cardiac arrhythmia affecting millions of patients.

■ **Mary Lee, MD, director of the Division of Pediatric Endocrinology, became interim chair of the Department of Pediatrics in October** when the former chair, Marianne Felice, MD, stepped down. Dr. Lee has been at UMMS and UMass Memorial since 2004 and is currently serving as the vice chair of academic affairs.

■ **UMMS and UMass Memorial faculty and docs receive accolades for their work:**

Estela McDonough, coordinator of education and translation of the Interpreter Services Department, received the prestigious International Medical Interpreters Association Educator of the Year Award.

Family Health Center of Worcester primary care physician and pioneering community health advocate **Lucy Candib, MD**, received the 2012 5-Star Doctor Award from the North American Region of the World Organization of

National Colleges, Academies and Academic Associations of General Practitioners/Family Physician (WONCA).

Sandra Mayrand, director of the UMMS Regional Science Resource Center and the STEM Pipeline Network of Central Massachusetts, received the 2012 Steve Mills Founders Award from the Worcester Education Development Foundation in October.

Julia Johnson, MD, chair and professor of obstetrics & gynecology, received the 2012 Felix G. Cataldo Lifetime Achievement Award from Family Health Center of Worcester (FHCW) in October. The annual award recognizes a clinician who works in the community and supports FHCW and its patients.

Kathleen Miller, EdD, associate dean for clinical scholarship, diversity and evaluation in the Graduate School of Nursing (GSN) and professor of nursing and medicine, received one of the nursing profession's highest honors when she was inducted as a fellow of the American Academy of Nursing (AAN).

John Zawacki, MD, was recently recognized with the prestigious 2012 Compassionate Caregiver Award. Established by the Schwartz Center for Compassionate Healthcare, the award honors health care providers who display extraordinary compassion in caring for patients and families.

■ **Gifts, flowers and more for UMass Memorial patients may now be ordered online!** For more information, visit www.umassmemorial.org/for-patients-and-visitors/gift-shops.

Contact Information:
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