What’s On My Mind

The University of Maryland School of Medicine has already secured a place in the top-tier of US medical schools through our creativity and the hard work of our faculty, staff and ardent supporters. We must continue at our strong pace, especially in these challenging times. Setting priorities and staying on the right track will help us to continue to strengthen our mission areas. The School of Medicine’s 2010–2015 strategic plan will be instrumental in elevating this medical school to the next level of achievement in research, education, clinical care and community service and outreach.

In the relentless pursuit of excellence, I am Sincerely yours,

E. ALBERT REECE, MD, PhD, MBA
Vice President for Medical Affairs, University of Maryland
John Z. and Akiko K. Bowers Distinguished Professor and Dean, University of Maryland School of Medicine

School of Medicine Board of Visitors Welcomes Six New Members at Fall 2009 Meeting

Robert E. Fischell, ScD—Dr. Fischell, president of Fischell Biomedical, LLC, is a physicist, inventor and holder of more than 200 US and foreign medical patents. He invented the implantable insulin pump, numerous coronary stents and two extra-vascular feedback systems that provide early warning of epileptic seizures and heart attacks. Dr. Fischell and his wife, Susan, served as the chairs of the School of Medicine’s 2009 Fund for Medicine Gala.

Harriett C. M. Fack—Dr. Fack is an 1876 graduate of the University of Maryland School of Medicine and represents four straight generations of Maryland medical graduates, dating back to his great-grandfather of the Class of 1887. He is the founding member of Advanced Rodent, PA, the largest private medical practice in the state.

Martin J. Passen, MD—Dr. Passen, the current president of the University of Maryland Medical Alumni Association, graduated from the University of Maryland School of Medicine in 1990. He served as a clinical assistant professor of medicine from 1994 to 2004. He is president and director of the Center for Medical Weight Loss.

Timothy J. Regan—Mr. Regan is a senior vice president with The Whiting-Turner Contracting Company. He helped expand Whiting-Turner’s presence in the life sciences industries, including biotechnology, pharmaceutical processing and various federal laboratory clients.

Richard L. Taylor, MD, FAAN—Dr. Taylor is a past president of the University of Maryland Medical Alumni Association, where he served as a board member for ten years, including five years as treasurer. Dr. Taylor graduated with honors from the University of Maryland School of Medicine in 1975. He is the founder and past president of Taylor Medical Group, a single specialty neurology group medical practice dedicated to providing quality neurological care to people in central Maryland.

BOV Members at the Fall 2009 Meeting

Robert C. Embry, Jr., Esq.—Mr. Embry has been the president of The Abell Foundation for 22 years. He has worked in public service at the city and state levels in education and urban planning and was assistant secretary of the federal Department of Housing and Urban Development from 1977 to 1981.

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Photo by Tom Jenski
A study conducted at the School of Medicine provides the first direct evidence that cigarette smoke exposure prior to a heart transplant in the donor, recipient, or both, accelerates the death of a transplanted heart. The study, published this month in the journal Circulation, showed that tobacco smoke leads to accelerated immune system rejection of the transplanted heart, heightened vascular inflammation and increased oxidative stress, and a reduction in the transplanted organ’s chance of survival by 33 to 57 percent.

The study, conducted in rats, involved exposure to levels of tobacco equivalent to that of a habitual, light-to-moderate-range smoker and included comparisons between smoking and non-smoking donors and recipients. “Our research shows that if a heart donor has been a habitual smoker, and you put that heart in a non-smoking recipient, that heart would work better and will be rejected less, like a senior citizen,” said Mandeep R. Mehra, MBBS, professor, Department of Medicine, and head of the Division of Cardiology. “This study shows beyond a shadow of a doubt how smoking affects transplantation.”

This is the first study to look at the impact of smoking in heart donors, according to the principal investigator, Ashwana K. Khanna, PhD, associate professor, Department of Medicine. “There are already many risk factors that physicians and surgeons must consider when they try to match a donor with a recipient. This study makes clear that whether we look at donor or recipient, that heart won’t work, it will be rejected,” said the study’s senior author, Michael Terrin, MD, CM, MPH, professor, Department of Epidemiology & Preventive Medicine, was chosen by the National Heart, Lung and Blood Institute (NHLBI) to coordinate the research of this consortium of national experts, which will be called the NHLBI Progenitor Cell Biology Consortium. The coordinating center will be funded by a $10 million grant over five years.

“This consortium was developed to bring together the best and brightest researchers from around the country, to create a cell type, they create progenitor cell biology. They come from several specialties—cardiology, hematology and pulmonary medicine. All are doing cutting edge research in this exciting new field,” said Dr. Terrin.

Dean E. Albert Reece, MD, PhD, MBA, stated, “We have the full resources of the University of Maryland School of Medicine available for the benefit of this project, including a world-class Center for Stem Cell Biology and Regenerative Medicine.

Stem cells are uncommitted cells that can change into many types of mature functional cells and can divide indefinitely. Progenitor cells, on the other hand, are partially committed as far as the kind of cells they can become and how many times they can divide. Once stem cells start to commit to a cell type, they create progenitor cells. One major goal of this research consortium is to use these stem and progenitor cells as regenerative therapy to replace damaged tissues and organs.

The consortium investigators will next conduct pilot experiments to plan conference and digital media, as well as have 24/7 access to highly secure computer facilities to work on their research projects and help the investigators publicize their results of their research. Curt Civin, MD, associate dean for Research, professor, Department of Pediatrics, and director of the Center for Stem Cell Biology and Regenerative Medicine stated, “Our team is responsible for computer systems that operate at the highest level of regulatory standards, has doctoral level expertise in biological sciences and decades of experience in the administration of multi-center collaborations as well as an Oscar-winning production company, MedSchool Maryland Productions, which will help researchers with video presentations for the public.”

Dr. Reece added, “Running the consortium coordinating center here is ideal since the state of Maryland provides the perfect supportive environment for stem cell research through the Maryland Stem Cell Research Fund.”

Dr. Terrin is composed of individuals who can ensure that the information they put on the system, as well as records of samples and tissues they put in registries (physical and virtual), will be maintained. They will ensure that important information from sources outside the consortium is continually updated. Dr. Terrin’s team will seamlessly coordinate conference calls, meetings and funding for their research projects and help the investigators publicize their results of their research. Curt Civin, MD, associate dean for Research, professor, Department of Pediatrics, and director of the Center for Stem Cell Biology and Regenerative Medicine stated, “Our team is responsible for computer systems that operate at the highest level of regulatory standards, has doctoral level expertise in biological sciences and decades of experience in the administration of multi-center collaborations as well as an Oscar-winning production company, MedSchool Maryland Productions, which will help researchers with video presentations for the public.”

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Doctors Perform Four-Way Kidney Transplant Surgery

Transplant surgeons at the University of Maryland have successfully completed a four-way kidney exchange involving eight patients from four states, with the youngest recipient a 10-year-old Catonsville boy and the eldest a 74-year-old man from Virginia Beach, Virginia.

All four of the living donors had a kidney removed through a single incision laparoscopic surgery and leaves virtually no scar. University of Maryland surgeons have performed more of these single-incision laparoscopic surgeries than any hospital in the country, and this is the first time that the technique has been used in a multiple kidney exchange. All of the donors and recipients are recovering well following the surgeries, which took place on Nov. 2 and Nov. 3, 2009.

Stephen T. Bartlett, MD, professor and chair, Department of Surgery, who performed two of the transplants, said, “This large living donor kidney exchange requires extensive planning and coordination, but it provides great benefit to people with kidney failure who do not have a compatible living donor. We’ve been a national leader in kidney transplantation and laparoscopic donor kidney removal for many years, and our singular focus has always been on providing the highest quality care and the best outcomes for patients.” Dr. Bartlett also is surgeon-in-chief at the University of Maryland Medical Center (UMMC).

Kidney exchanges, or swaps as they are sometimes called, allow living donors and their intended recipients to proceed with surgery, even if their blood and tissue types don’t match. The transplant is paired with another donor and recipient who are incompatible with each other but are a match with others in the group. “Four people who otherwise would not have had matching donors now have lifesaving kidneys—from people they’ve never met,” Bartlett explained. The transplant chains were set in motion by a man who simply wanted to donate a kidney to someone in need.” He added, “The fundamental challenge in the early days was to change the culture of the hospital into an enterprising, competitive and innovative institution and to have enthusiastic physicians, nurses and staff who would support and become committed to that vision.”

At that time, the hospital, one of America’s oldest teaching hospitals, faced constant financial challenges, had outdated facilities and struggled to keep up with innovations in patient care and technology. Still, it was a bold idea since only one other teaching hospital, Shands Hospital in Florida, had ever made the switch from state governance to a privately run entity. In April 2009, University of Maryland Medical System, which took place over two days in four operating suites at the medical center, required extensive coordination and planning. The kidney exchange started with a 59-year-old man from a suburb of Boston, who offered to donate a kidney to someone in need. His kidney was given to a Maryland man who was not a match with his intended donor, a woman who is also from Maryland. The woman was matched with a 10-year-old boy from Catonsville whose kidneys were failing because of a congenital abnormality. A friend of the boy’s family, a 50-year-old lawyer from Catonsville, gave his kidney to a 64-year-old Florida man whose wife was a donor for a 74-year-old man from Virginia Beach. The Virginia man’s son-in-law will be a “bridge” donor, who will give his kidney to a yet-undetermined recipient at a later date, which will allow the chain of transplants to continue.

About one third of patients who have a relative or friend willing to donate are not able to receive the kidney because of blood type or tissue incompatibility. Kidney exchanges increase the pool of donors and allow incompatible pairs to be matched with other pairs in the same situation.

Benjamin Philosophe, MD, PhD, associate professor, Department of Surgery, notes that patients who receive kidneys transplanted from living donors fare better than those who receive kidneys from deceased donors. “There is a significant difference in outcomes with living-donor kidney transplants. There is also a severe shortage of kidneys from deceased donors, with people waiting three to five years to get a kidney. So, living donor transplants are often the best option for patients.” With these types of kidney exchanges, we can dramatically increase the availability of donor kidneys and help many more people who need a transplant,” he stated. Dr. Philosophe also is director of the Division of Transplantation at UMMC.

The University of Maryland Medical System (UMMS) celebrated the 25th anniversary of its transformation from an aging, state-run hospital in 1984 to a successful private, non-profit network of 11 hospitals, including those on the School of Medicine campus. Today we serve more than 15,000 employees and $2.5 billion in annual revenue. UMMS has some of the most sophisticated hospital facilities in the world during its entire 25-year history, added, “Today we celebrate another milestone—this is the first time in our history that we have performed a large kidney transplant exchange. We are grateful for the support of our patients, our faculty, our staff, and our board as we continue to grow statewide, beyond our current 11-hospital system, to continue to enhance its capabilities and ultimately to be recognized as one of the top academically centered hospital systems in the United States.”

Mr. Chrencik says he expects UMMS to continue to grow beyond its current 11-hospital system, to continue to enhance its capabilities and ultimately to be recognized as one of the top academically centered hospital systems in the United States. “I want to thank all the people who have made a difference in getting us to where we are today—our board, our employees, our patients, the community and the physicians who provide the outstanding care at all of our hospitals, including those on the School of Medicine faculty. They are the people who deserve credit for our success and will be central to our continued success moving forward.”
SOM Students Served Up a Happy Thanksgiving to Their Hungry Neighbors

Students from the University of Maryland School of Medicine held their 20th annual "Project Feast" on Thursday, November 26, 2009. The Thanksgiving Day event provided a hot holiday meal to 400 homeless and disadvantaged persons in the West Baltimore neighborhood near campus.

Project Feast is a Thanksgiving tradition sponsored by the University of Maryland, Baltimore, the University Student Government Association, the Medical Alumni Association and the School of Medicine Student Council. Students, faculty, staff and friends of all six University of Maryland, Baltimore schools gathered at Booker T. Washington Middle School to assist with the event. As in recent years, a line of people waited outside to receive a hot meal. In addition to serving the Thanksgiving meal, students also collected clothing, toiletries and non-perishable goods to be distributed after dinner.

"It's exciting to see how many students get involved either beforehand by collecting donations, or on the day of Thanksgiving to help serve the meal," said Project Feast co-organizer Beth Lidinsky, a second-year med student. "Plus many students and staff bring along family members, so it really is a large group of people giving back to our local community."

Co-organizer Katie Duncan, Ms. Lidinsky's classmate in the Class of 2012, added, "Project Feast is such an exciting opportunity, because it allows students from all of the University of Maryland graduate schools to work together to make sure no one in our community is left without a place to go on Thanksgiving."

Overall, more than 100 people participated in organizing the event, serving the meals and distributing the clothing and canned food to the 400 attendees.

A happy Project Feast recipient walks in line for his hot Thanksgiving Day meal.
(SOMnews/Photo by Patricia Fanning)

Serving the Underserved is the Highlight of Med School for Nidhi Goel

Among the many opportunities available for students at the School of Medicine is the chance to study internationally. Fourth-year Nidhi Goel took advantage of this opportunity in between her first and second year of medical school when she was awarded the Doris Duke Clinical Research Fellowship, which enabled her to work with Christopher Plowe, MD, professor of medicine.

She spent four weeks in Dr. Plowe’s laboratory in Baltimore, followed by another four weeks working with him and his team in Mali, West Africa.

“I spent the entire time at the rural clinic site where Dr. Plowe and his group were conducting a Phase-2 clinical trial of a malaria vaccine,” Ms. Goel remembered. "All of the physicians, pharmacists, laboratory staff and data analysts were Malian. I worked alongside them to help conduct the trial. Although the clinic was built only for the purpose of research, it was the only site for hours in any direction where people had access to doctors and was, thus, the main provider of medical care in the area. So I also had the chance to work with the physicians treating patients who came to the door."

The experience had a profound effect on her. "It gave me a new appreciation for the art of medicine, and for the provision of medical care in a desperately resource-poor setting," she said. "These doctors make a significant sacrifice to practice in that setting, but do so because they believe in what they are doing. They practice without the benefit of even basic imaging. History and physicals were of paramount importance. I watched two children die in front of me, due to ailments that would have been easily treated in another setting. That image is forever burned in my memory. It makes me realize how much power we have in the US with resources at our disposal, and drives my desire to bring those resources to underserved populations, both here and abroad."

In between raising funds so she can take another trip to Mali in the spring, and applying and interviewing for residencies in her chosen specialty of Med-Peds, Ms. Goel worked in rural medicine again this year. It was part of her AHEC rotation, eight weeks during which fourth-year students practice in underserved areas. Four of her weeks were spent in Western Maryland, the other four weeks at the Crow/Northern Cheyenne Indian Health Service Hospital in southeastern Montana, which in many ways was reminiscent of her time in Mali.

"Again I encountered physicians who were sacrificing of themselves to practice in a much more resource-poor environment than I had ever encountered," said Ms. Goel. "So in Mali, we had patients with no running water, no electricity and extremely limited means. We didn’t charge for any of the services provided at our facility, but the flip-side was that the patient population was largely limited to getting the only kind of care that could be provided directly at our hospital. Any other services were often out of reach, unless a medical issue was going to immediately cost them life, limb or vision. It astounds me that there are so many striking similarities between a rural clinic in West Africa and a site here in the United States."

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