SOMnews
University of Maryland School of Medicine
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Brian Browne and Sanford Stass Assume Department Chair Positions

Two new department chairs have been appointed by Dean E. Albert Reece, MD, PhD, MBA. Brian Browne, MD, FACEP, professor and acting chair of the Department of Emergency Medicine, has been chosen as the department's chair on a permanent basis. Sanford A. Stass, MD, professor and chair of the Department of Pathology, has been appointed chair of the Department of Medical & Research Technology (DMRT). Both faculty members assumed their new positions in April.

"The mission of the University of Maryland School of Medicine is to improve human health through top-tier research and clinical care," said Dean Reece. "Choosing the best in academic leadership is key to accomplishing our ambitious goals. Throughout their careers at the University of Maryland School of Medicine, both Dr. Browne and Dr. Stass have proven themselves to be strong leaders who are passionately devoted to medical education and to the betterment of human health. I am confident that both will excel in their new roles."

Dr. Browne, who joined the School of Medicine in 1984, became acting chair of the Department of Emergency Medicine when the group was granted departmental status in 2006. Previously, he was a professor of surgery, and in 1996 he became head of the Division of Emergency Medicine. During his career at the School of Medicine, Dr. Browne has led the department through years of growth and expansion, including the opening of a new state-of-the-art emergency medicine facility in 2002, and

Brian Browne, MD, FACEP

Sanford A. Stass, MD

the achievement of departmental status three years ago. "This is very exciting for me. It's an honor to be at such a prestigious university and at the helm of such a strong, flourishing department," said Dr. Browne.

Dr. Browne's research focuses on several emergency medicine areas including chest pain evaluation, information systems and health surveillance and stroke and transient ischemic attack. He earned his medical degree at SUNY Downstate Medical Center College of Medicine in Brooklyn, New York. He trained as a resident in internal medicine at Saint Vincent's Hospital and Medical Center in New York City and completed a fellowship in emergency medicine at Massachusetts General Hospital in Boston.

Dr. Stass had served as interim chair of the Department of Medical & Research Technology (DMRT) since 2002. DMRT is the largest accredited medical technology program in the state of Maryland. It offers both undergraduate and graduate degrees, and its alumni work in hospitals, clinics, laboratories and research institutions throughout the state of Maryland and the entire country.

"It is an honor to continue to lead this department, where the educational programs fill a growing and critical need for trained individuals to support clinical diagnosis and biomedical research," said Dr. Stass. "Our goal is to continue the outstanding educational efforts within the department and to expand our research programs through new projects and a growing number of external grants."

Dr. Stass has served the School of Medicine as chair of the Department of Pathology since 2003. He will remain chair of the Department of Pathology as well. He had served as interim chair of that department for the preceding five years. In 1994, Dr. Stass joined the School of Medicine as vice chair of pathology, and director of the Laboratories of Pathology at the University of Maryland Medical Center. Dr. Stass also served as director of the University of Maryland Marlene and Stewart Greenebaum Cancer Center from 1997 to 2003. Before coming to the University of Maryland, Dr. Stass was founding director of the nationally recognized hematopathology program at the University of Texas M.D. Anderson Cancer Center, where he worked for 10 years. In 1987, he founded the first molecular diagnostic laboratory in the country, which continues in operation at the M.D. Anderson Cancer Center. Dr. Stass's research focuses on molecular biology and the genetic changes and biomarkers in cancer. Dr. Stass earned his medical degree from the University of Missouri School of Medicine.

Photography and Graphics Services Join the Office of Public Affairs

Tom Jemski

Mark Teske

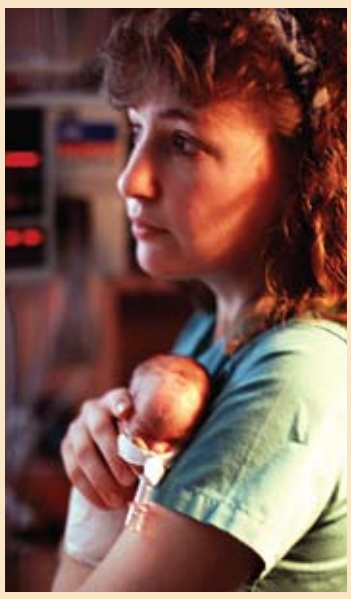
The School of Medicine's photography office, which was formerly housed within the Office of Medicine Education, has joined the Office of Public Affairs. Staff photographers Tom Jemski and Mark Teske have decades of experience in photography and presentation graphics.

Mr. Jemski, who has been at the School of Medicine since 1987, came from the commercial photography world and had a background in computer-generated (early digital) art. In his early days at the School of Medicine, he shot mainly medical—OR, clinical and autopsy—photography and created computer-generated slides for presentations. Mr. Teske started his career in medical photography in 1981 at the Johns Hopkins Hospital. He spent three years at Hopkins in the Pathology Photography Department where, like Mr. Jemski's early days, he shot OR, patient and autopsy photography. That position also required a lot of photomicrography, which is photography of objects under a microscope. Mr. Teske started at the School of Medicine in August 1984. Back then, in addition to the medical photography, a large portion of his day was spent producing slides for lectures and prints for publications.

Today, they liken the photography they shoot to photos one would see and utilize in day-to-day life—studio portraits, photos from special events, location setups and corporate annual report-type shots—and less of what is under a microscope. Presently, the need for Mr. Jemski and Mr. Teske to shoot medical photography has subsided due to advances in photographic technology. Everything changed with the digital revolution. Initially, 35mm film cameras became increasingly automatic, making close-up work easier for people to do themselves; the introduction of digital cameras, complete with preview screens, made it even easier. They also enjoy photographing the architecture of the UMB campus and the city of Baltimore.

Services offered include portraits, passport photos and head-shots which can be taken in their on-site studio in MSTF 357. In addition to the photography, Mr. Jemski and Mr. Teske do some graphic design work. In fact, they are available to custom design, layout and/or print signs for events (like the ones seen in the lobbies of campus buildings), scientific posters and large PowerPoint or other kinds of presentations with a brisk turnaround time. They welcome inquiries or referrals from School of Medicine faculty and staff.

The photography office can be reached at 6-7808 or by emailing Tom Jemski at tjemski@som.umaryland or Mark Teske at mteske@som.umaryland.edu. Visit their Website for more information at http://medschool.umaryland.edu/public_affairs/photo.asp#.



Samples of the photography work from School of Medicine photographers Tom Jemski and Mark Teske

New Insight into How Alcohol Consumption Reduces Risk of Lymphoma

Drinking alcohol is a known risk factor for many types of cancer, but studies also have shown that moderate alcohol consumption may actually decrease the risk of developing certain cancers, such as lymphoma. University of Maryland researchers have identified a molecular mechanism that helps to explain how alcohol protects against non-Hodgkin's lymphoma, the most common form of lymphoma.

The scientists report in the journal *Blood* that low-dose, chronic exposure to ethanol, regardless of whether the source is beer, wine or other types of alcoholic beverages, inhibits the activity of a protein called mTOR, which stands for mammalian target of rapamycin. That protein plays a key role in controlling important cellular processes, including the regulation of cell growth. The researchers found that the equivalent of several drinks a day resulted in "a striking inhibition of lymphoma growth" in mouse models.

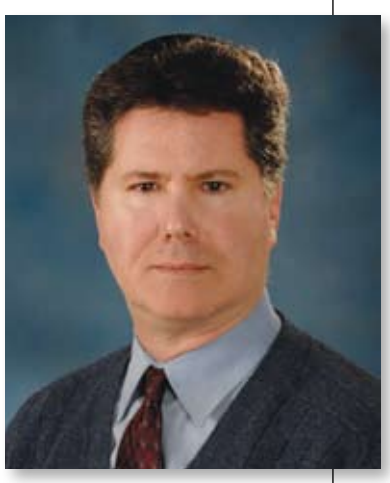
"We're not saying that people should have a couple of drinks a day to reduce their risk of developing lymphoma. But we believe that having a better understanding of this process may lead to more effective, targeted therapies to treat lymphoma and possibly prevent it. We hope to develop new compounds that will mimic the effect of alcohol, targeting the molecules that interact with this master regulatory molecule," said Ronald B. Gartenhaus, MD, associate professor in the Department of Medicine and the Program in Oncology, and the study's senior author. Dr. Gartenhaus will continue his research into lymphoma development, searching for other molecules involved in mTOR inhibition. "We're looking to develop very potent inhibitors of these molecules that will serve the same purpose as alcohol, but only better," he stated.

Dean E. Albert Reece, MD, PhD, MBA, said, "Lymphoma is a major hematological malignancy associated with considerate morbidity and mortality. These findings significantly advance our understanding of how lymphomas develop and offer clues that may lead to the development of new therapies. The fact that *Blood*, the most cited peer-reviewed publication in the field, decided to publish these results underscores the importance of the findings."

Lymphoma is a cancer that originates in the lymphocytes (a type of white blood cell) of the immune system. About 74,000 Americans are diagnosed with lymphoma each year. There are two major categories of lymphoma: Hodgkin's lymphoma and non-Hodgkin's lymphoma. Most non-Hodgkin's lymphomas are B-cell lymphomas, but there are other lymphomas that arise from T cells or NK cells. Lymphomas can be slow-growing or aggressive, and the more aggressive non-Hodgkin's lymphomas usually are treated with chemotherapy and a biological therapy such as the monoclonal antibody Rituxan. On occasion, radiation therapy is also utilized. Bone marrow or stem cell transplantation may also be a treatment option.

"We're looking to develop very potent inhibitors of these molecules that will serve the same purpose as alcohol, but only better."

Dr. Gartenhaus notes that a number of epidemiologic studies have found evidence that people who drink moderate amounts of alcohol—regardless of the type of beverage—have a decreased risk of having most types of non-Hodgkin's lymphoma. But researchers have not been able to pinpoint the exact reason for this phenomenon. "We were able to demonstrate in our study that low-dose, chronic exposure to ethanol disrupts the mTOR signaling pathway in lymphocytes, significantly inhibiting the growth of lymphoma tumor cells. Our findings underscore the critical role of mTOR signaling in lymphoma," said Dr. Gartenhaus.



Ronald B. Gartenhaus, MD

mTOR is known to be involved in the development of certain cancers, in particular those caused by a mutation in the PTEN gene. mTOR inhibitors are used to help prevent rejection of transplanted organs, but because of the growing evidence of a link between mTOR and cancer, researchers are now studying mTOR inhibitors as possible cancer treatments.

Patrick R. Hagner, a graduate research assistant who works with Dr. Gartenhaus and the study's lead author, said the study looked at the effect of alcohol on both breast cancer cells and lymphoma cells. "What we found is that the alcohol did not suppress the mTOR signaling pathway in breast cancer as it did in lymphoma, which was consistent with previously published clinical findings demonstrating a protective effect of moderate alcohol consumption on lymphoma development in contrast to the opposite effect for breast cancer," said Mr. Hagner.

The results of the study are available online in a first edition of *Blood*, which is published by the American Society of Hematology. To see an abstract of this study, visit: http://bloodjournal.hematologylibrary.org/cgi/content/abstract/blood-2008-11-191783v1.

"What Do We Do?"

The Baltimore Veterans Affairs Medical Center

One of the most important partnerships the School of Medicine has established is with the Baltimore Veterans Affairs Medical Center (VAMC) and the VA Maryland Health Care System (VAMHCS). This close alliance helps the Baltimore VAMC to fulfill its mission to honor America's veterans as heroes by providing the highest quality health care. The partnership also provides an invaluable venue for teaching residents, interns and students.

"This relationship serves to enhance the quality of the medical education provided by the School of Medicine and the quality of care provided to our veteran patients," said Dorothy (Dottie) Snow, MD, MPH, associate professor, Department of Medicine, and associate dean for Veteran Affairs at the School of Medicine, and chief of staff for the VA Maryland Health Care System. More than 175 faculty members provide care, teach and conduct research at the Baltimore VAMC. At the same time, more than 1,000 residents, interns and students from various disciplines are trained throughout the VA Maryland Health Care System each year.

Dottie Snow, MD, MPH

The participation of School of Medicine faculty in VA research has led to one of the largest funded research and development programs in the VA system, including studies in diabetes, immunology, oncology, virology, cellular biology and infectious diseases.

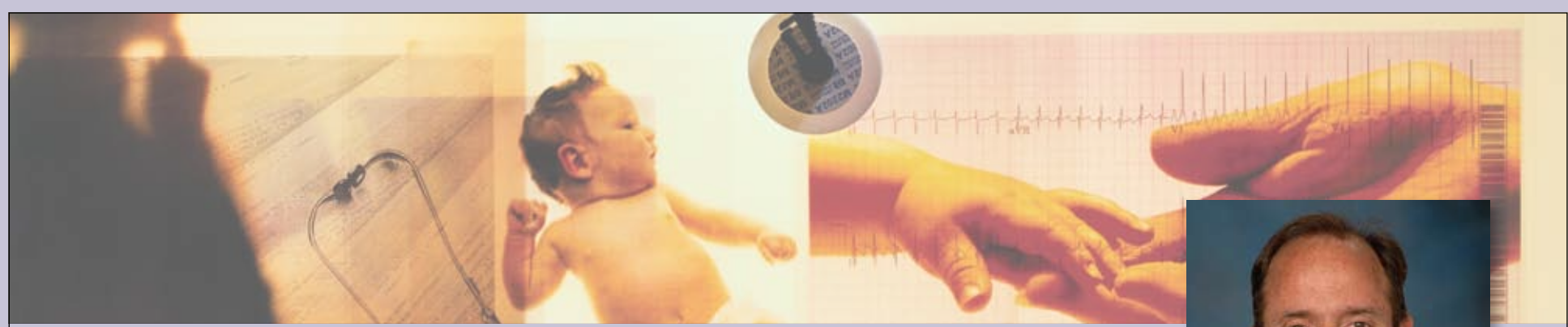
During their clinical years of education, most School of Medicine students will participate in rotations at the VA. "Our patients have an overwhelmingly positive response to our medical students. They understand the important role they are playing in medical education and feel confident in their care due to the high level of supervision of the students and the excellent quality of the attending staff."

It is a win-win collaboration for the School of Medicine and the VA. "Students and residents who rotate through the VA are an excellent pool of future staff, as they are bright, motivated and highly qualified," said Dr. Snow. Of the VA's 125 medical resident positions, 95 percent are from the University of Maryland. Dr. Snow herself is a product of this unique collaboration. She received her medical degree from the School of Medicine and completed her internship and residency in internal medicine at the Baltimore VA Medical Center and the University of Maryland Medical Center.

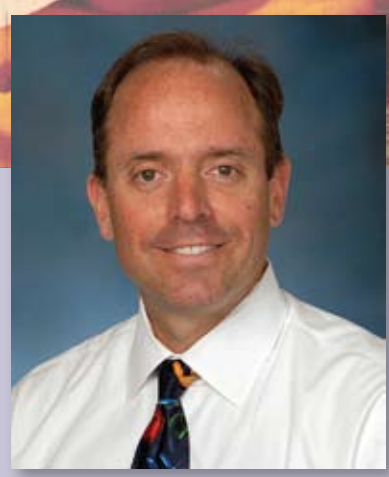
Thanks to the clinical collaboration between the institutions, veterans receive state-of-the-art care from faculty physicians at the Baltimore VAMC. In addition to providing a full range of inpatient, outpatient and primary care services, the Baltimore VAMC is home base for a Mental Illness Research, Education and Clinical Center and a Multiple Sclerosis Center of Excellence. In 2008 the VAMHSC handled nearly 600,000 outpatient visits and 8,000 inpatient visits with a full-time staff of about 2,700.

The VA research program is another area where the collaboration is fruitful. The participation of School of Medicine faculty in VA research has led to one of the largest funded research and development programs in the VA system, including studies in diabetes, immunology, oncology, virology, cellular biology and infectious diseases. A Geriatric Research, Education and Clinical Center, or GRECC, one of only 21 in the VA system nationwide, conducts research on the prevention of stroke and cardiovascular disease through exercise and nutrition therapy in older veterans.

Working with School of Medicine students is equally rewarding for Dr. Snow. "The experience of being part of a vibrant academic medical community with a world class faculty is intensely satisfying," she said. "Most rewarding, however, is participating in the process as our students of today make their metamorphosis into our physicians of tomorrow."



New Minimally Invasive Technique Helps Babies with Esophageal Atresia



James T. Moore, MD

When Matthew Bentz was born at a hospital near his home in Frederick in February, he looked like a perfectly healthy baby. There were no outward signs that he had an esophageal birth defect, or that he would become the first patient in Maryland to undergo an innovative new minimally invasive procedure, recalled his surgeon James T. Moore, MD, assistant professor, Department of Surgery.

The first sign something was wrong with Matthew was that the baby couldn't keep down any milk, said Dr. Moore. That can be a sign of something as simple as acid reflux. Or it can be an indication the baby has an esophageal atresia, meaning that the upper, or proximal, esophagus does not connect to the stomach. Instead, it ends in a pouch, making it impossible for the baby to eat.

An X-ray showed that was the case for Matthew. A tube inserted down his throat came right back up toward his mouth; the X-ray showed it hitting the bottom of his esophagus and curving back. According to Dr. Moore, the deformity can be detected sometimes through higher levels of amniotic fluid during prenatal tests, but generally it's found when the baby doesn't eat and an X-ray is performed. "Esophageal atresia affects one out of about 3,000 live births. It's not terribly common," said Dr. Moore. "But about 85 percent of these babies have another complication—while the upper esophageal pouch ends blindly, the lower esophagus makes an abnormal connection with the trachea. These babies can aspirate their stomach contents and can get pneumonia."

Matthew's birth defect needed to be remedied in the first few days of his life, and Dr. Moore, who has an enduring interest in using minimally invasive surgery techniques in innovative ways to shorten recovery times and improve outcomes for his patients, was up to the task. Looking at Matthew's X-ray, Dr. Moore saw just such an opportunity. He and Matthew's anesthesiologist, Cynthia S. Tung, MD, assistant professor, Department of Anesthesiology, agreed that the baby was an ideal candidate for the minimally invasive surgery. They would use just three tiny incisions to repair Matthew's esophagus, instead of cracking open his chest and painstakingly separating his ribs to gain access to the site.

"Doing this procedure using minimally invasive techniques is still not common, but there are certain academic medical centers across the country that are increasing their attempts for less invasive surgeries in children," stated Dr. Moore. "These programs are driven by doctors who are pushing the envelope for what can be done with smaller incisions." Dr. Moore had performed esophageal atresia repairs using minimally invasive techniques during his fellowship at Le Bonheur Children's Medical Center in Tennessee. He wanted to bring these techniques to the University of Maryland.

"When you do this surgery with the open technique, you're opening about two-thirds of that side of the chest," Dr. Moore explained. "You're dividing many muscles, including the muscles in-between two ribs. It requires an incision that can be from six centimeters to eight centimeters long. The dividing of the muscles between the ribs, and the invasiveness of the procedures, can cause chest wall deformity in the child after the wound heals."

The minimally invasive technique, however, requires three small incisions in a triangle formation. One incision is five millimeters and the other two are three millimeters each. According to Dr. Moore, this type of procedure lowers the risk of chest deformity and, perhaps even more importantly, it is believed to lead to less pain during recovery. "Some people say babies don't feel pain like adults do," he said. "I don't believe that. Assessing and treating pain in infants is difficult because they can't communicate, so anything we can do to reduce pain after surgery is a good thing. These small, minimally invasive incisions can't help but make post-operative recovery better and less painful," he explained.

> "...academic medical centers across the country are increasing their attempts for less invasive surgeries in children."

However, some drawbacks to the less invasive surgery exist. Because it is new, surgeons are less accustomed to performing it than the open surgery, and so it can take longer. That means a longer period of anesthesia for the patient and an increase of the risks associated with anesthesia. Matthew Bentz's surgery, for example, took four hours. The ordinary surgery takes about an hour and a half to two hours.

Several weeks after his procedure, Matthew Bentz is doing well. He began eating normally almost immediately, and he went home in just a matter of days. He has no sign of leakage from his esophagus—a relatively common occurrence after such a surgery—and Dr. Moore plans to take him off antacids soon.

Dr. Moore said he will be watchful for more babies who would make good candidates for the minimally invasive form of the procedure, and hopes it can become more common among his fellow faculty members at the School of Medicine. "This was something I've been wanting to do for a long time," Dr. Moore explained. "I hope we can continue to operate this way when the right candidates come along in the future."

Civin Welcome Reception

A Warm Welcome to Curt Civin, MD

Curt I. Civin, MD, (left) who was officially welcomed to the School of Medicine at a March 2009 reception hosted by Dean Reece, poses for a photo with his wife Nancy and the dean. Dr. Civin, a pioneer in cancer research who is known for developing a method to isolate stem cells from other blood cells, joined the School of Medicine in February as professor of pediatrics and associate dean for Research. He also will oversee the development of the Center for Stem Cell Biology and Regenerative Medicine where he will serve as director.

Barish Farewell Reception

Thank You and Goodbye to Bob Barish, MD

Bob Barish, MD, shares a laugh with Frank Calia, MD, (right) at Dr. Barish's farewell reception on April 1, 2009. After 25 years of service to the School of Medicine, Dr. Barish, former vice dean for clinical affairs, and professor, Department of Emergency Medicine, left to become chancellor of the Louisiana State University Health Science Center at Shreveport. Dr. Calia has been appointed as the new vice dean for Clinical Affairs and will leave his position as chair of the Department of Medicine as soon as a replacement has been determined.

Match Day!

Historic Davidge Hall was the site of Match Day festivities March 19, when the School of Medicine's Class of 2009 discovered where they will spend the next step in their medical careers. Held in medical schools around the country, Match Day is when graduating medical students find out the residency program into which they have been accepted. The National Resident Matching Program conducts the Match nationwide, using a computer algorithm that aligns the preferences of applicants with the preferences of residency programs in order to fill the thousands of training positions available at US teaching hospitals.

David Trotter (middle), with proud mom Nadine, will do his residency in emergency medicine at the University of Chicago Medical Center. He is congratulated by Joseph Martinez, MD, assistant dean for Student Affairs and assistant professor, Department of Emergency Medicine, who called the students up to receive their Match Day letters.

"You matched in 110 different programs, in 72 different hospitals and 24 different states," said Gina Perez, MD, assistant dean for Student Affairs, and assistant professor, Department of Psychiatry, to the Class of 2009. "We wish we could keep you all here, but many of you are going elsewhere." In 2008 School of Medicine students matched to 102 different programs within 62 hospitals and across 20 states.

This year, 17 percent of the Class of 2009 matched into the primary care field of internal medicine. Three other primary care fields—pediatrics, family medicine and OB/GYN—will receive five percent, 10 percent and three percent of the graduates, respectively. For family medicine that equals a two percent increase from 2008. Four percent of the students matched into general surgery, which is down from 10 percent last year, while nine percent went into emergency medicine, five percent into anesthesiology, four percent into psychiatry, five percent into radiology, three percent into neurology, and three percent into dermatology. Three percent matched in orthopaedic surgery, up from 2.5 percent last year, while 62 percent matched into non-primary care areas such as urology, with three percent matched, and neurosurgery, plastic surgery and radiation oncology with two percent apiece, and vascular surgery, thoracic surgery, pathology and ophthalmology each with one percent.

Amir Abdel-Wahab matched to his first choice, the University of Pittsburgh Medical Center, where he will specialize in pediatrics. "So now I have to become a Steelers fan," he joked. "You'll need this," said David Mallott, MD, associate dean for Medical Education and associate professor, Department of Psychiatry, presenting him with a Pittsburgh Steelers cap.

Amir Abdel-Wahab, with girlfriend Etheline, might have to change his football alliances now that he's heading to Steelers country for a pediatrics residency at the University of Pittsburgh Medical Center.

Jonathan Mezrich and wife Lisa were happy to learn they'll be staying in Baltimore.

"I didn't know how I would feel today. It's almost like your wedding day—you wake up and you know something wild is going to happen."

David Trotter also is headed out of Maryland. "I matched to the University of Chicago Medical Center where I will specialize in emergency medicine," he revealed. "It's going to be a great experience." His mother Nadine, who lives in Michigan, is thrilled he will be closer to home and carry on the family tradition. "His father was a family practitioner," said Mrs. Trotter. "He passed last year, but I know he would have been so elated about this news."

Fellow student Patrick Hemmings commented, "I matched at Hopkins Bayview Hospital in internal medicine, which was my first choice. I didn't know how I would feel today. It's almost like your wedding day—you wake up and you know something wild is going to happen. It feels so good to finally know. My wife and I can make some plans."

Jonathan Mezrich and his wife Lisa are happy they won't have to uproot their baby plans now that he's learned he'll be spending a preliminary year at Union Memorial Hospital before returning to the University of Maryland Medical Center to specialize in radiology. "We're having a baby next month, so I am so excited we don't have to move out of Baltimore," said Mrs. Mezrich. "I'm very, very proud of him." Jonathan Mezrich will follow in the footsteps of his father, Reuben Mezrich, MD, PhD, professor and chair, Department of Diagnostic Radiology & Nuclear Medicine.

After more than an hour of fist pumping, shouts of joy and sighs of relief, all but one envelope had been handed out. As a reward for her patience, Sherese Phillips, the final student to receive her envelope, was given the bag into which each student had tossed a small monetary donation as they were handed their Match Day letters—money that is traditionally used for an after-Match celebration.

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