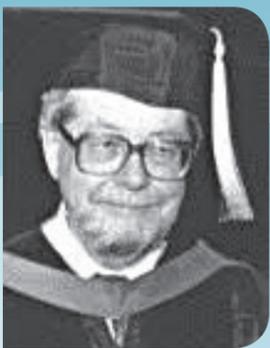




SOM *news*

Point of PRIDE



David Francis Clyde, MD, a world-renowned malaria expert whose pioneering work formed the basis for today's anti-malaria vaccine studies, served as the chief of malaria studies at UMSOM's Center for Vaccine Development and Global Health (CVD) from 1985 to 1992.



DEAN'S MESSAGE

This time of year provides an excellent opportunity for us to pause and reflect, practice self-awareness, and consider how our past activities may affect our future plans and goals. Our achievements do not come without challenge or courage, both of which require risk, hard work, and commitment. We risk failure when we attempt something new, yet we must remain committed to the vision — the big-picture goals — to continue our attempts until we succeed. **Dr. Graeme Woodworth**, Professor and Interim Chair of the Department of Neurosurgery, stated in this year's feature film at the State of the School Address, *"The ideas may be good — they may be really good, but in the end, they may be wrong. It has to be the truth. Science is about searching for the truth."* Personal dedication to finding the truth in the name of our mission — to improve the health of the citizens of Maryland and beyond — brings great accomplishment for all.

Sometimes, factors outside of our control help to deliver success, such as when change occurs, and we are prompted to respond and adapt. Recently it was announced that **Dr. Mohan Suntha** was appointed President and CEO of the University of Maryland Medical System and **Dr. Jay Perman** was appointed Chancellor of the University System of Maryland. We are delighted that both are highly accomplished UMSOM faculty members. Dr. Suntha and Dr. Perman will each now assume a much wider scope of responsibility that they distinctly earned. I look forward to continuing our record of excellence with their new distinguished leadership and new levels of support.

Change keeps us moving forward, and it opens our perspectives to new possibilities and opportunities. If we continued with the status quo, we would experience minimal forward movement. Amidst the changes, our mission remains the same. Dr. Perman made a most poignant commentary when he said, *"UMB has never been about the person leading it. It is, instead, about*

What's on My Mind...



...is the unique ability — and responsibility — of the School of Medicine to respond to and embrace change.

the work you do — giving hope to the sick, justice to the wronged, help to the vulnerable, comfort to the suffering." I am invigorated by, and confident in, the potential of the School of Medicine's path forward through these transitions, which we will undergo together while maintaining the same priorities.

Dr. Suntha eloquently spoke on some of those priorities on behalf of University of Maryland Medicine at our annual School of Medicine holiday reception: *"Care for today, cures for tomorrow."* Our responsibilities as an academic medical institution include both providing immediate care and service to our patients as well as proactively planning for their future health. Part of planning for the future includes setting and communicating goals. Together, Dr. Suntha and I are developing a **joint Vision 2025 Statement**, which will succeed Vision 2013 and Vision 2020 to continue our series. If our academic medical community sustains its focus on the vision and what we have always done well, while remaining flexible and adaptable, I believe we have yet another exceptional year in store.

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

E. Albert Reece, MD, PhD, MBA
Executive Vice President for Medical Affairs, UM Baltimore
John Z. and Akiko K. Bowers Distinguished Professor and
Dean, University of Maryland School of Medicine

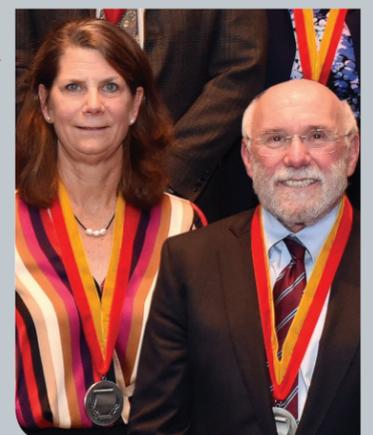
SOMnews is your source for all news and information regarding the University of Maryland School of Medicine, including Clinical Care, Research, Education, Community Outreach, and its Culture Transformation Initiative.

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Continuing a Legacy of Leadership in Vaccinology

It was a family affair in historic Davidge Hall on November 7, when **Kathleen M. Neuzil, MD, MPH, FIDSA**, Professor of Medicine and Pediatrics, received the highest honor that can be bestowed on a UMSOM faculty member, as she was invested as the **Myron M. Levine, MD, Professor in Vaccinology**. Surrounded by members of both the extended Neuzil and Levine families, along with numerous friends and colleagues, Dr. Neuzil spoke passionately about the support she has received throughout her career, the legacy of Mike Levine, and what it is like to follow such a giant in the field of vaccinology. She referenced a recent visit to Monticello, where she saw a quote from Thomas Jefferson. *Continued on page 8*



Dr. Neuzil with Dr. Levine

Care in Mind

UM Medicine Partners Launch First Centers to Treat Adult Neurodevelopmental Disorders



Dr. Peter Crino, Chair of UMSOM's
Department of Neurology

They are a tangle of conditions as complex as the brain itself. Neurodevelopmental disorders, which include such disabilities as autism, attention-deficit/hyperactivity disorder (ADHD), learning disabilities, intellectual disability, and cerebral palsy, can result from a range of risk factors — genetic, biological, psychosocial, and environmental. As importantly, if left undiagnosed and untreated in youth, adults with these disorders are in many cases unable to work or even to care for themselves, creating a greater economic impact upon their families and the larger healthcare system.

But in Maryland, where one in 58 citizens is diagnosed with an autism disorder, a higher standard of care for adult neurodevelopmental disorders is now on the way. In a December 6 press conference, the University of Maryland School of Medicine (UMSOM), University of Maryland Medical Center (UMMC), and the Tuberous Sclerosis Alliance (TS Alliance) announced a joint venture to launch the first centers of their kind in the state to treat adults with neurodevelopmental disabilities, such as autism.

The two centers — **University of Maryland Center for Adults with Neurodevelopmental Disabilities (UMCAND)** and the **Tuberous Sclerosis Complex Center of Maryland (TSCCM)** — will provide clinical evaluation, care, and treatment for adults with neurodevelopmental conditions such as autism, intellectual disability, epilepsy and tuberous sclerosis complex (TSC).

“These new centers will focus on the needs of adults. It is a critical service that could ultimately change the lives of many in need, who have gone undiagnosed,” said Peter Crino, MD, PhD, Professor and Chair

of the Department of Neurology at UMSOM, who will serve as the director of these centers.

Dr. Crino is a highly regarded expert in tuberous sclerosis complex, and the TSCCM will serve as a model for the establishment of disease-specific programs for a broad range of neurodevelopmental disorders. The centers ultimately will expand to provide behavioral treatment and other needed services.

Clinical care for patients will be provided at the University of Maryland Rehabilitation and Orthopaedic Institute in Baltimore, and also through telemedicine for patients unable to travel or who are located in rural areas such as Maryland’s Eastern Shore region.

Using the centers as a portal for discovery, research goals are to identify genetic causes of autism, epilepsy, and intellectual disability; to better understand and identify environmental risks; and to use precision-medicine to develop new therapies.

The announcement of the new centers coincides with a critical need, as Maryland has the second-highest rate of autism in the United States. While two regional centers in Maryland focus on treating autism in children — Kennedy Krieger Institute and the Wendy Klag Center for Autism at Johns Hopkins — no centers for adults with the disorder have previously existed. The new centers will be the first to treat adults and, as importantly, will serve as a bridge from pediatric care to adult care. UMSOM faculty and pediatricians within the University of Maryland Medical System (UMMS) are working with Kennedy Krieger and the Klag Center to determine the best way to transfer or refer their pediatric patients once they reach adolescence, to ensure a continuum of quality care.

“Neurodevelopmental disorders are one of the more challenging issues Dr. Crino and other researchers at the University of Maryland School of Medicine are addressing,” says Dean E. Albert Reece, MD, PhD, MBA. “This collaboration with the University of Maryland Medical Center and the leadership of Dr. Crino is critical as we work to better understand and treat the most complex neurodevelopmental disorders in adults. These new centers are the first in the state of Maryland and will pioneer a path toward better treatment for adults who suffer from these disorders.”

“By opening these new centers, we are taking an important step forward in connecting people with doctors and services to help them overcome challenges that may be keeping them from living life to its fullest potential,” says Mohan Suntha, MD, MBA, president and CEO of UMMS and the Marlene and Stewart Greenebaum Professor

of Radiation Oncology at UMSOM. “Under Dr. Crino’s leadership, the new centers will fill a critical gap in services and allow for better diagnosis, treatment, and care.”

Funding and support for the centers have been provided by the State of Maryland with the support of Governor Larry Hogan.

“It is through the efforts of fierce advocates that rare diseases like TSC are getting the attention needed to find cures,” said Governor Hogan. “We were proud to work across the aisle to include \$500,000 for this center in our most recent budget, and the state will continue to strongly support this partnership. Now, families who are coping with this disease will have access to the best doctors and international experts, and Maryland will be recognized as a premier center for adult care and research in TSC.” 

RIGHT: Attendees at the press conference included (L to R) Gary Mangum, Sonia Mangum, Sommer Petrecca, Chase Mangum, Maryland Governor Larry Hogan, Sean Shillinger, Lauren Shillinger, Kari Rosbeck, Dr. Peter Crino, and UMB President Jay A. Perman, MD

BELOW: Governor Hogan addresses the press conference audience.

Photos courtesy of Maryland Governor’s Office



DIABETES STUDY

CONFRONTING THE **DIABETES** CONUNDRUM

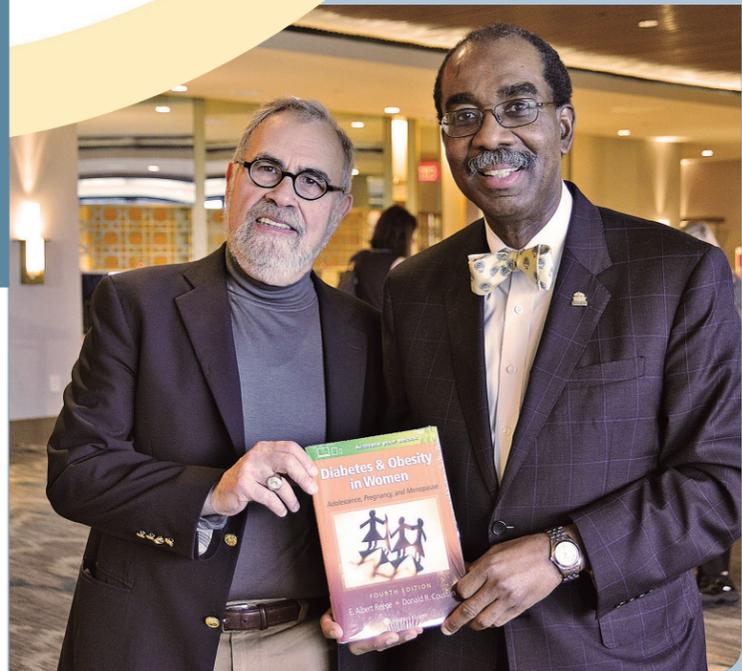
The subject of diabetes is sobering, especially in light of current statistics. Presently the seventh leading cause of death in the U.S., this disease carries a fiscal impact as well, costing some \$825 billion every year in related care. Due to this intractable and often fatal disease, over 30 million affected Americans are at risk for a host of other ailments, including cardiovascular disease, blindness, and kidney disease. Even more frightening, these potential complications can be passed on from mother to child.

“Diabetes is a lifetime disease that has so many tentacles,” asserts UMSOM Dean E. Albert Reece, MD, PhD, MBA. **“Currently, its incidence is doubling at a worldwide rate every eight years. With this rapid rate of rise, intervention is imperative, especially where it affects pregnant mothers and their unborn offspring.”**

Fortunately, those intervention efforts have been underway for some time, thanks to the efforts of a modest but dedicated cadre of research scientists and patient care professionals, first brought together by Dean Reece and four colleagues — the late Oded Langer, MD, Menachem Miodovnik, MD, Steven Gabbe, MD, and Patrick Catalano, MD — back in 1997. The **Diabetes in Pregnancy Study Group of North America (DPSG-NA)** was launched in recognition of the fact that pregnant women with type 1, type 2 or gestational diabetes mellitus had specialized needs requiring expert care.

Over the years, the DPSG-NA has grown from a small group of maternal-fetal medicine specialists to a burgeoning international organization that includes endocrinologists, obstetricians and gynecologists, midwives, nurses, nutritionists, basic research scientists, and more. Since 2017, UMSOM has been the academic home of the DPSG-NA, which recently hosted the organization’s

UMSOM- Led Meeting Tackles the Challenges of Diabetes in Pregnancy



The DPSG-NA Meeting coincided with the publication of “Diabetes & Obesity in Women: Adolescence, Pregnancy, and Menopause,” the seminal text now in an updated fourth edition, co-authored by Donald R. Coustan, MD (L) and UMSOM Dean E. Albert Reece, MD, PhD, MBA.

16th Biennial Meeting in Washington, DC on October 31 – November 1, 2019. With the theme of “Diabetes in Pregnancy Across the Care Continuum,” the symposium attracted more than 200 attendees, including internationally and nationally recognized experts who play an active role in a patient’s care, from pre-conception through the stages of pregnancy and delivery, to the mother’s long-term health. In addition, the meeting poster session featured basic, translational, and clinical research conducted by young investigators in the field.

“Within the medical community in general, there is significant attention paid to diabetes and its myriad complications,” notes Dean Reece. **“Many conferences address how to best manage patients. However, very few scientific meetings focus solely on the issues that arise when treating pregnant patients with diabetes. This is where the DPSG-NA has been so critical — in educating, informing, and connecting professionals to not just improve a woman’s health, but that of her unborn baby.”**

“At every DPSG-NA meeting, we are striving to pool our collective knowledge of what our fellow researchers have learned in the intervening years,” Dean Reece continues. **“By doing so, we can continue to advance our efforts in reducing the impact of diabetes on the lives of mothers and their unborn babies.”**



DPSG-NA attendees share insights on the latest research into diabetes in pregnancy.

10 Years of Tracking Trauma

STAR ANNIVERSARY

From traumatic brain injury to sepsis, critical care to organ support, spinal cord injury to surgical outcomes — for the past decade, the Shock Trauma and Anesthesiology Research (STAR) Center at the University of Maryland School of Medicine (UMSOM) has explored every facet of patient trauma. On November 22, this world-class, multi-disciplinary research center — the first in the U.S. dedicated exclusively to studying the prevention and treatment of trauma — held a full-day symposium to celebrate its 10-year anniversary.

“The strong partnership and collaboration between the programs in trauma and anesthesiology have led the STAR Center faculty to make important discoveries that have helped refine treatments and develop better therapies to improve the care of injured and critical care patients nationwide,” said UMSOM Dean E. Albert Reece, MD, PhD, MBA. **“I am particularly proud of the STAR Center’s leadership in conducting translational research, which has led to pioneering advances in the understanding and treatment of trauma, tissue injury, critical care and anesthesiology.”**

The STAR Center researchers have changed the landscape of critical care medicine through crucial advances in the understanding of how the body and brain reacts to and heals from serious illness and injuries. Some noteworthy accomplishments include: the discovery of “danger molecules” that trigger heart attacks and sepsis during times of critical illness; new insights into novel ways to stop profuse traumatic bleeding; and the role of neurotoxic inflammation in contributing to lasting effects of traumatic brain injury.

The 10th anniversary event featured internationally recognized researchers from outside institutions, as well as from UMSOM, who presented on the latest research in the field. Researchers from the STAR Center also provided the latest updates on their scientific investigations, including ways to improve outcomes for critically ill cardiac surgery patients and the use of virtual reality therapies to help patients recovering from trauma.

UMSOM Marks 10th Anniversary of STAR Center

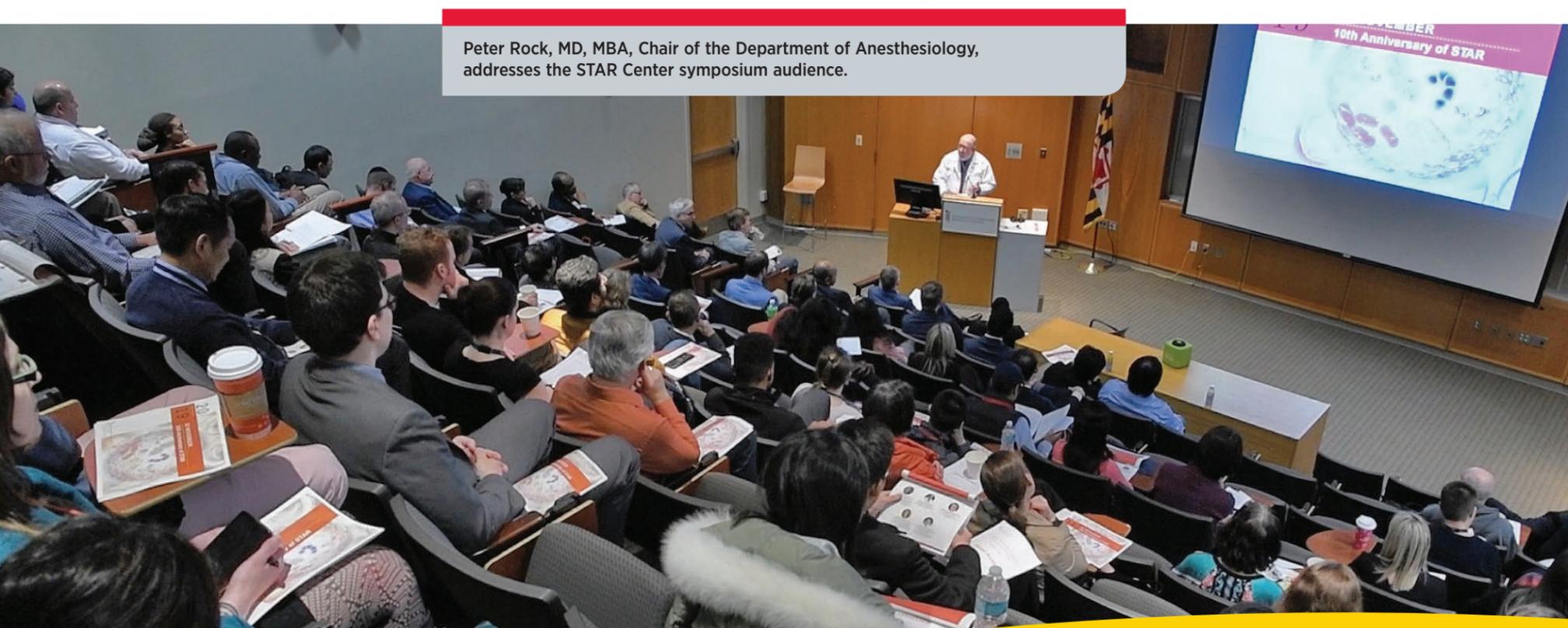
“This celebration was an opportunity to learn about the latest research developments in TBI, hemorrhagic shock, and sepsis care and management,” said **Thomas Scalea, MD**, Physician-in-Chief of the R Adams Cowley Shock Trauma Center. **“Our intention was to celebrate our achievements in the spirit of collegiality and collaboration.”**

Research support for the STAR Center has risen through the years, increasing in fiscal year 2019 to nearly \$20 million, about double the \$10 million in total funding that the STAR Center received five years earlier. Over the past decade, STAR Center researchers brought in a total of more than \$135 million in research grants. In addition, nearly 60 faculty members last year published a total of 212 research papers, the most ever for the STAR Center.

“This increased funding and the recruitment of talented new faculty over the past several years will serve to accelerate our research discoveries related to trauma, shock, critical care and peri-operative care,” says STAR Center Director **Alan Faden, MD**, the David S. Brown Professor in Trauma at UMSOM.

Peter Rock, MD, MBA, Chair of the Department of Anesthesiology, agrees. **“We have a wide array of new research planned for the future including investigating new treatments for bleeding disorders, acute lung injury and sepsis,”** he notes. **“We also plan to expand the use of big data, machine learning, and artificial intelligence to aid in clinical decision-making both in trauma and the critical care unit.”**

Peter Rock, MD, MBA, Chair of the Department of Anesthesiology, addresses the STAR Center symposium audience.



MENTORING MATTERS

For UMSOM’s **Melissa Motta, MD, MPH**, Assistant Professor of Neurology, mentoring has always mattered. *“I still remember people even in high school or college who fostered my interests and really paved the way to get me where I am today,”* she recalls.

So, when Dr. Motta learned that the American Academy of Neurology (AAN) was offering funding for a new program that focused on getting US undergraduate students interested in a career in neurology and the neurosciences, she applied right away — with one student in mind.

That person was Sasha Baghdadi, a sophomore majoring in Neurosciences at the University of Maryland, College Park. In 2017, when Baghdadi was a senior in high school, she had met and worked with Dr. Motta during a yearlong internship spent managing data test trials for a patient app.

Although the two had kept in touch subsequently, Baghdadi was still completely surprised when she received a call from Dr. Motta in late



Dr. Melissa Motta (L) meets with Sasha Baghdadi (R) to discuss her internship.

2019, offering her the **Neuroscience Is...™ Rewarding Internship**, which provides a college student with a stipend to work in a clinical, research, or academic neurosciences environment with mentorship from an AAN member. Baghdadi immediately accepted and currently is engaged with Dr. Motta in evaluating the effectiveness of integrating the Neurocritical Care Family Centered Checklist into an electronic patient portal. This decision support and communication tool is intended to provide education and guidance to loved ones of patients in the Neurocritical Care Unit at the

University of Maryland Medical Center.

“For someone like Sasha who already has an interest in the neurosciences, this internship opens your eyes to all of the possibilities in that field,” says Dr. Motta. *“It provides a next level of opportunity for her to see other neurologists at work.”* Baghdadi’s response? *“Dr. Motta is amazing!”* she says. *“This internship means so much in helping me to pursue a field I’m really passionate about.”* 🏠

LEARNING TO LEAD

UMSOM GPILS Student Qualifies for Exclusive Leadership Program

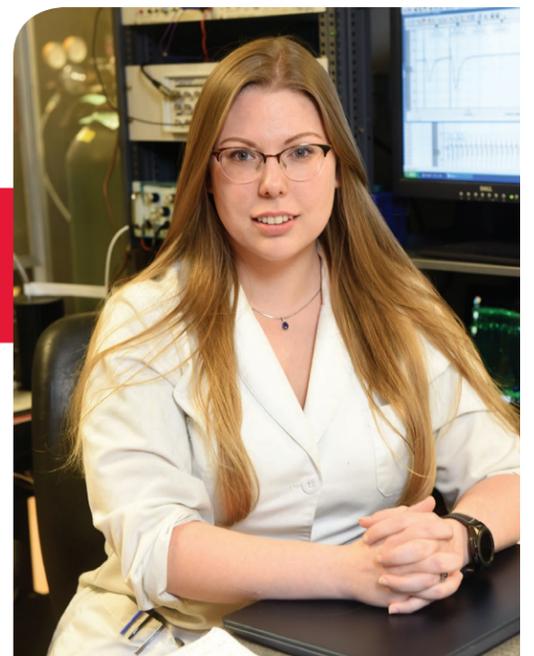
Lace M. Riggs, MA, is anything but your average student. After earning her graduate degree in Experimental Psychology from California State University, she was accepted into the PhD Program in Neuroscience in UMSOM’s Graduate Program in Life Sciences (GPILS), and advanced to candidacy last year. Riggs is pursuing her research studies in the lab of **Todd D. Gould, MD**, Associate Professor in the Departments of Psychiatry, Pharmacology, and Anatomy & Neurobiology. While at UMSOM, Riggs has received NIH training support from the R25 Meyerhoff Graduate Fellowship Program, the T32 Training Program in Neuroscience, and the T32 Training Program in Integrative Membrane Biology, and most recently, has earned a second percentile score on her F31 NRSA pre-doctoral grant application scheduled to begin next year. After finishing her PhD, Riggs plans to pursue postdoctoral training, with a long-term career objective “to use multidisciplinary approaches to advance novel therapeutic development for treatment-resistant psychiatric conditions.”

Even with her academic successes to date, Riggs says she was surprised and “honored” to learn that she had recently been selected as one of just 15 members in the initial cohort of the one-year Leadership Development Program (LDP), a pilot initiative of the Society for

Neuroscience (SfN), an international organization with 37,000 members in more than 95 countries. Chosen from a national pool of 200 high-ranking graduate and postdoctoral applicants, Riggs and her fellow LDP trainees

will gain the skills, knowledge, and confidence to effectively perform as leaders through monthly distance learning sessions, an in-person conference in Washington, DC, and additional funding to cover costs of supplemental training opportunities. The LDP is made possible through additional support from the Dana Foundation.

“The Leadership Development Program takes a multifaceted approach to helping us develop as leaders who will be effective scientists and professionals,” says Riggs. *“Though most of us are interested in pursuing a career in academia, the benefits of this training experience are applicable to any field that PhD would want to pursue, so it’s a truly valuable opportunity that SfN provides.”* 🏠



Lace M. Riggs, MA

PROJECT FEAST

An Appetite for Outreach

Project Feast Turns 30

In a tradition that has brightened Thanksgiving Day for three decades, second-year students at the **UMSOM** organized Project Feast in West Baltimore on November 28 to serve nearly 800 meals to the homeless and residents in need. The 2019 student organizers were **Sarah Heaps, Rami Yanes, Isabelle Lock, Stephen Semick, and Nevin Varghese.**

Like many of the previous Project Feast events, the 30th took place in the Baltimore City Public Schools (BCPS) building that houses Booker T. Washington Middle School and Renaissance Academy, a high school. And as always, Project Feast centered on an ample meal of turkey and trimmings served by smiling volunteers.

Helpers ranged in age from pre-teens to older adults, some drawn from **University of Maryland, Baltimore (UMB)** faculty, staff, and students and others drawn by word of mouth or holiday signups from within Baltimore City and its suburbs. Volunteers who repeat their service for year after year reappeared from the high school and from a Baltimore church.

Beyond the cafeteria, with its festive decorations, UMSOM students and faculty members provided health screenings, a UM School of Social Work staff member offered parenting and other information, and numerous volunteers assisted in a giveaway of clothing, shoes, and pantry items. At this year's event, guests and volunteers alike were surprised by a 30th anniversary ceremony to mark the occasion.

UMSOM **Dean E. Albert Reece, MD, PhD, MBA**, expressed gratitude to volunteers and commended the team of medical student volunteers. **"Project Feast exemplifies the commitment to the community by the University of Maryland School of Medicine,"** Dean Reece said. **"By giving, we are receiving."**

Next, the student organizers honored Project Feast leaders. They gave flowers to faculty advisor **Sheri Slezak, MD**, Professor of Surgery and Division Head of Plastic Surgery. They also presented a framed certificate of appreciation to Chef Sheila Travers and co-chef Clinton Bates.

Travers, a BCPS employee, has presided over the Project Feast kitchen for 20 years; Bates has handled logistics and more for 19 years. The pair work closely with the student organizers to stage the complex event. By one estimate, Project Feast has served more than 7,400 pounds of turkey to thousands of people over its three decades.

For widower Darrin Scarbough of Baltimore, the comforting surroundings of Project Feast beckoned as he confronted the first Thanksgiving since he had lost his wife, Maria. **"We were inseparable,"** he said, expressing grief over her death from cancer last winter. The one setting where he thought he might pull himself together was Project Feast, which they had attended together during holidays past.

Other diners who return to Project Feast on Thanksgiving Day come for both the food and the camaraderie. Demetrius Frazier of Baltimore had one word to describe his turkey dinner: **"Magnificent."**

RIGHT: Diners eagerly await their Thanksgiving dinner.



BELOW: Dean Reece and faculty advisor Dr. Slezak (center left) were on hand to present a certificate of appreciation to Chef Sheila Travers and co-chef Clinton Bates (center right).



Project Feast volunteers stand ready to serve up a hearty meal.



Neuzil Endowed Professorship

Continued from page 1

When asked what it was like to replace Benjamin Franklin as Ambassador to France, Jefferson said, “You don’t replace Dr. Franklin. You just succeed him.” **“That is exactly what it is like following Mike Levine,”** she said. **“No one can replace him. You just succeed him.”**

It was a fitting celebration for Dr. Neuzil, who has had a historic year in her own right. After recently being named to the World Health Organization’s Strategic Advisory Group of Experts on Immunization, she was elected to the prestigious National Academy of Medicine. Shortly after, the Center for Vaccine Development & Global Health (CVD), which she directs, received a \$200 million contract from the NIH to test and develop a universal vaccine for influenza, the largest contract ever for the UMSOM.

The ceremony was hosted by Dean Reece along with **James Kaper, PhD**, James & Carolyn Frenkil Distinguished Dean’s Professor, Vice Dean for Academic Affairs, and Chair, Department of Microbiology & Immunology. Dr. Levine made the opening remarks **“I am thrilled to witness the investiture of Kathy Neuzil,”** he exclaimed.

Dr. Neuzil gave specific recognition to her team at CVD, describing them as “visionary.” **“None of this would be possible without them,”** she said. 🏛️



At her investiture, Dr. Neuzil was joined by her immediate and extended family.

SAVE THE DATE!

CONFRONTING CRISPR:
Science, Ethical, Legal, and Social Issues
on the Path Forward

January 30, 2020, 9:00 a.m. to 11:00 a.m.
Elm Ballroom @ The SMC Center

This meeting will convene a panel of experts, including Harvard Medical School Dean, Dr. George Daley, to discuss CRISPR, a gene editing technology that has the potential to permanently alter DNA.

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