



SOMnews

Point of PRIDE



Gideon B. Smith, MD, UMSOM Class of 1840, was responsible for tracking and predicting cicadas in the 19th century and was able to predict the cycles of 13- and 17-year cicadas in 16 U.S. regions. Born in 1793, Smith was an entrepreneur, inventor, editor, and entomologist. His work in entomology connected him with the school's Dr. Nathaniel Potter and is possibly why he ended up earning a degree in 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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DEAN'S MESSAGE

We are finally back on campus! When I think about where we were in this pandemic last summer, I am filled with encouragement and gratitude for where this journey has brought us. COVID-19 has certainly stretched us in many different ways, most of which were unpleasant and grueling in the process. Our health and wellbeing were threatened, our hospitals pushed to the limits, our clinical revenues strained thin, and our academic endeavors thrust into unknown territories. Many of us experienced a difficult transition to the work — and study — from home lifestyle. While we may have eventually grown accustomed to new schedules and new methods of being productive, the transition itself was not easy. This summer, we confront another transition — that of going back to in-person work and learning. This season of change will prove just as difficult as the first, as we are creatures of habit and we must change our habits once again.

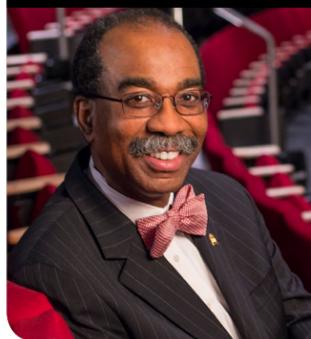
While the process of change does not always go smoothly, nor does it necessarily produce the most enthusiastic response, it is typically worth it. The pace of our research and discovery did not slow — in fact, we were busier and more productive than ever. Our research scientists helped to bring not one, but two COVID-19 vaccines to market and made critical coronavirus treatment advances. They began a Phase 3 clinical trial of a third COVID-19 vaccine candidate and a pediatric clinical trial of an already authorized vaccine. We found critical links between habitual snoring and significant brain changes in children, as well as life-saving links between malaria-preventive drugs and reduced infections in school children.

Most of us were able to stay safe and healthy by staying at home. We acquired new multi-tasking and technological skillsets. Social distancing reminded us of the importance of social activity and community. All of these benefits of the transition we made last year, we bring back to our in-person environments. We return with more capabilities and more resilience. That is why I am encouraged and hopeful that returning to campus will bring another season of growth and success for us all.

Aside from this major environmental change we are all experiencing together, and everything that comes with that, we also have a few key School of Medicine leaders who are in the process of making changes of their own.

Dr. Christopher Harman, the Sylan Frieman, MD Endowed Professor and Chair of the Department of Obstetrics, Gynecology and Reproductive Sciences,

What's on My Mind...



...are the many transitions we are facing and the hope they bring for more progress and success.

will retire in December. Dr. Harman has served as a key member of the department since 1997, and his leadership has dramatically increased its national Blue Ridge ranking, educational scholarship, and clinical revenues. **Dr. Robert Buchanan**, Professor in the Department of Psychiatry and Director of the Maryland Psychiatric Research Center (MPRC), will also leave his post as director in December. The MPRC has flourished as a national leader in translational research in schizophrenia and related disorders through Dr. Buchanan's influence. National search committees for both of these positions are currently underway. I want to thank both Dr. Harman and Dr. Buchanan for their steadfast commitment and unwavering dedication over the many years. The Department of Obstetrics, Gynecology and Reproductive Sciences and the MPRC will retain the marks each of them made, and carry their progress through to the next leaders and the next chapters.

As we all lower our guards and become re-accustomed to life as we knew it before COVID-19, I want to encourage you to remain cautious and careful. COVID-19 and its many variants have not yet been eliminated, so we must continue with certain practices of protection, including washing our hands, avoiding touching our faces, and getting vaccinated. Finally, if you haven't already, I hope that everyone will take the time they have earned this summer to take a break. This may be a transitional summer, but it is still a good time to rest and recharge. Stay safe and stay healthy.

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

E. Albert Reece

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

David R. Gens, MD Shock Trauma Scholarship Awarded to Gregory Boyajian, MD '21



Gregory Boyajian, MD '21

David R. Gens, MD is a legend in his own time. For decades, medical students have benefitted from his knowledge, expertise, and humanism. Established three years ago, the **David R. Gens, MD Shock Trauma Scholarship** was established to celebrate and honor Dr. Gens' passion and commitment to medical education and his impact and influence on aspiring physicians. This scholarship is awarded annually to a fourth-year medical student aspiring to pursue a career in general surgery, trauma surgery or emergency medicine..

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UMSOM Patients with COVID-19 Lung Damage Receive

Life-Saving Transplants

Two patients, who were near death after COVID-19 destroyed their lungs, have survived and are thriving due to state-of-the-art care and double-lung transplants by UMSOM surgeons.

John Micklus, 62, of La Plata, Md., had healthy lungs before the virus struck, but soon, doctors at one hospital told him to get his affairs in order, as nothing could be done to save him. Another Maryland man, Anthony (who asked not to reveal his last name), already had an underlying lung condition, but COVID-19 sparked a crushing struggle to breathe, which he didn't think he would survive.

“The learning curve for lung transplantation in COVID-19 patients has been particularly challenging because the infection is centered in the lungs,” said transplant surgeon **Daniel G. Maluf, MD**, Professor of Surgery at UMSOM and Director of the Program in Transplantation. ***“Add to that, we need to suppress the body’s immune system to help an organ survive after transplant and reduce the chance of rejection. Immunosuppression also turns down the body’s ability to fight infections. What happens if the coronavirus disease attacks the transplanted lungs, which are already quite fragile?”***

Despite his underlying lung condition, Anthony was able to move and exercise with little or no supplemental oxygen before getting infected with COVID-19. ***“After COVID, it was a different ballgame,”*** he said. As he required even higher levels of oxygen, it quickly became clear that he couldn't survive on a ventilator. He was placed on a transplant wait list, and, to buy time, his care team put him on ECMO (extracorporeal membrane

oxygenation), which works like the heart and lungs to remove carbon dioxide and return oxygen-filled blood back to the tissues. Then, on February 6, Anthony became the first patient to receive a COVID-related lung transplant.

COVID-19 has proved to be a challenge for the UMSOM lung transplant team, which routinely performs 25-30 lung transplants each year. Unique to COVID is the rapid ebb and flow of symptoms. Within a matter of months, the two men were sick with COVID-19, then seemingly recovered from their initial infection only to fall ill again, the second round producing significant lung deterioration. This contrasts with other lung conditions that may lead to transplant, such as chronic obstructive pulmonary disease (COPD) or pulmonary fibrosis (scarring of the lungs), which typically worsen gradually over many years.

In addition, lung transplant timing is a function of COVID-19 risk. ***“You cannot perform the transplant too early because you have to be sure the patient is cleared of the COVID virus. But you cannot do it too late, because at that point, patients may be so weak they cannot survive the operation and meaningfully participate in rehabilitation,”*** said **Robert M. Reed, MD**, Professor of Medicine at UMSOM, and Associate Medical Director of the Lung Transplant Program at UMMC.

The ebb and flow for John Micklus began with flu-like symptoms around Christmas 2020. A test result on New Year's Eve showed he was COVID-positive. By early January, he was admitted to a local hospital not affiliated with the University of Maryland Medical System for 10 days. He felt better at first after discharge, but within a week he was back in the



Daniel G. Maluf, MD



Robert M. Reed, MD



same hospital, with severe shortness of breath. After another 7-10 days, doctors said they could do nothing more for him. His wife desperately called several physicians and eventually learned that UMMC had recently completed Anthony's transplant. After a series of tests at UMMC, Micklus was listed for a transplant.

"I was lucky enough to be a match for a lung donor that the doctors felt was suitable for me within a few days," said Micklus, who was discharged from UMMC on March 30.

The two cases provided an important COVID insight for the transplant team, said Dr. Reed. Despite failing lungs, the rest of their bodies were sufficiently intact to move forward with transplant and expect a good result.

"The key message: this option of lung transplant is definitely not for every patient with COVID. It's for the patients who are still strong otherwise but have lungs that have been devastated by COVID."

Performing lung transplants in those recovering from COVID-19 has the added complication of the rejection-infection balancing act that is key to the survival of transplanted lungs.

"Lung transplantation holds the promise of extending the lives of people with debilitating lung disease, but chronic rejection, with its resulting decline in function, can wipe out that hope. Patients are often as sick as they were before the transplant," said **Aldo T. Iacono, MD**, the Hamish S. and Christine C. Osborne Distinguished Professor in Advanced Pulmonary Care at UMSOM and Medical Director of the Lung Transplant Program.



Aldo T. Iacono, MD



Katya Prakash-Haft, MD

Katya Prakash, MD, Assistant Professor of Medicine, said the immediate concern for these two patients was that a dampened immune system could open the door to COVID replication. The solution? Mild immunotherapy that protects key virus-destroying immune cells. ***"For Anthony, for example, we did not give him a high level of induction for transplant. We gave him just steroid induction instead of anything that would be T cell-depleting because we know that T cells are very important for fighting the virus,"*** she said.

"COVID-19 has presented new challenges across the field of medicine," said UMSOM Dean **E. Albert Reece, MD, PhD, MBA**. ***"The thoughtful deliberations that led to lung transplants for these two patients illustrate the value of a multidisciplinary approach as we rise to meet the individual care needs of our patients in the COVID era."*** 🏛️

NOTE: AN earlier version of this article was written by Bill Seiler/UMMC.



The Sum of Success

The Maryland Proton Treatment Center Achieves Goal of 3,000 Patients Treated, Reinforcing Leadership Position

As the first and most experienced proton center in the Delaware-Maryland-Virginia (DMV) region, the Maryland Proton Treatment Center (MPTC) has been long recognized as an engine for innovation since it opened its doors in 2016. This summer, the center achieved yet another first by reaching the highest patient volume of any proton center in the DMV area — **more than 3,000 patients treated in its first five years of operation.**

In doing so, MPTC has cemented its singular role as one of the world's leading proton centers for delivering innovative proton therapies to patients young and old who are afflicted with a range of cancers, including brain, head and neck, breast, lung, and prostate.



William F. Regine, MD, FACR, FACROMS

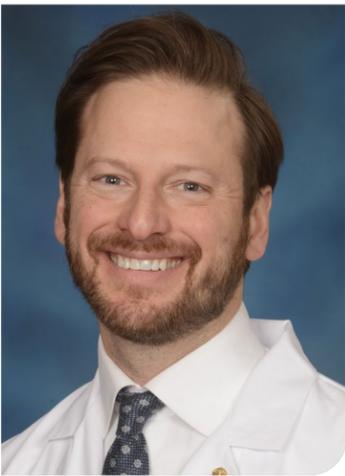
It's a singular milestone — and one about which MPTC's leadership is rightfully proud. *"This accomplishment not only reflects the efforts of our superb team of faculty physicians and staff, but also the confidence expressed by our patients across the U.S. and around the world,"* says William F. Regine, MD, FACR, FACRO, Professor and Isadore & Fannie Schneider Foxman Chair of UMSOM's Department of Radiation Oncology, and MPTC's Executive Director. *"With this momentum, the MPTC will continue to grow as a regional resource available to all providers and patients in the Mid-Atlantic, and at the*

same time, gain greater stature as a globally recognized center of excellence in the use of proton therapy."

For Leigh T. Howe, President and CEO of the MPTC, reaching this goal underscores the greater goal of the center's mission. *"The high point for me is just knowing that we're providing an alternative on a care plan that will help improve the quality of life for so many of our patients,"* she says. *"They know that this is the best alternative for them."* Ms. Howe joined the

MPTC in June 2018, following 40-years of experience working at major U.S. banks and private investment companies focusing on healthcare lending and investing.

Matthew E. Witek, MD, MS, Associate Professor of Radiation Oncology and Medical Director of the MPTC, agrees. *"There are no other centers in the region that can compete with the level of experience and the treatments we are offering now,"* he says. *"Our priority is to continue to provide unparalleled clinical excellence through a patient-centered approach, and to support that through innovative research initiatives."*



Matthew E. Witek, MD, MS

Advancing on All Fronts

MPTC's state-of-the-art facility offers a fully integrated system of non-invasive, image-guided proton therapy (IGPT) and intensity-modulated proton therapy (IMPT). What's more, the center is also one of just a few proton therapy facilities in the country to provide advanced "pencil-beam scanning" technology, which essentially paints the radiation onto the tumor like a 3-D printer for pinpoint accuracy without affecting the surrounding healthy tissue.

In addition, MPTC is the only center in the world to offer the combination of deep hyperthermia therapy (DHT) and proton therapy under one roof. The application of DHT causes blood vessels in a tumor to dilate, making the cancer cells more vulnerable to proton therapy. This tandem approach can significantly shrink tumors and even has been shown to enhance anti-tumor immune response. Recent research indicates that DHT can be especially useful in treating difficult-to-reach cancers in the abdomen and pelvic region.

Patients First

But what drives this array of sophisticated technologies, as Dr. Witek points out, is the collective experience of the center itself. *"What really sets us apart are the people that make up our center,"* he says. MPTC's world-class team of dosimetrists, physicists, therapists, anesthesiologists, radiologists, nurses, and nurse practitioners bring a combined 40+ years of specialized proton therapy experience to bear in treating patients. Additionally, the center's expert physicians, all faculty of UMSOM's Department of Radiation

Oncology, are actively engaged in cutting-edge research to ultimately help diagnose, treat and prevent cancer, making MPTC one of the top two centers in the nation with access to cutting-edge treatment via clinical trials sponsored by the National Cancer Institute (NCI). As important, MPTC patients can participate in these research studies that test promising new therapies, often years before they are in widespread use.

MPTC patients also gain greater access to all-inclusive cancer care, thanks to the center's affiliation with the University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center (UMGCCC),



Leigh T. Howe

one of only 51 such NCI-designated comprehensive cancer centers in the nation. And, unlike many other proton treatment centers, MPTC has established a cost-neutral rate for treatment between protons and photons. Because of this affordable cost structure, MPTC currently has an insurance approval rate of over 90 percent. Add to this a complete concierge service catering to a growing number of out-of-state and international patients, and it's no surprise that the center's patient volumes are continuing to grow substantially through its robust referral network and affiliate program.

"At the end of the day, it's really about pursuing our core mission of excellence in care by achieving the best possible experience and outcomes for our patients," says CEO Howe. *"They inspire us every day — while facing a difficult situation, their spirits remain strong. And our team is right there to support them along every step of their journey."*



MPTC staff prepare a patient for proton therapy.

Isabel Lauren Jackson, PhD,



Named UMSOM's Second Marlene & Stewart Greenebaum Endowed Professor in Radiation Oncology

Isabel Lauren Jackson, PhD, Associate Professor and Deputy Director of the Division of Translational Radiation Sciences (DTRS) in the Department of Radiation Oncology, has been named as the second **Marlene and Stewart Greenebaum Endowed Professor in Radiation Oncology**, the 85th such Endowed Professorship at the UMSOM. A formal investiture ceremony was streamed online on January 26, 2021.

An Endowed Professorship is the highest honor that a faculty member can receive at the UMSOM. This honor recognizes Dr. Jackson to be among the most distinguished faculty members at the School of Medicine. She joins **Mohan Suntha, MD, MBA**, who is also a Marlene and Stewart Greenebaum Endowed Professor of Radiation Oncology, as well as the President and CEO of the University of Maryland Medical System (UMMS). **"For the past three decades, the Greenebaum family have been tremendous supporters of our collective mission,"** said Dr. Suntha. **"This recognition of Dr. Jackson's track record of academic excellence is the latest way we are paying tribute to the family's aspirations for our institution."**

This endowed professorship has been made possible by the continued generosity of the Greenebaum Family Foundation. Speaking on behalf of his family, **Michael Greenebaum**, President of Greenebaum Enterprises and a member of the UMSOM Board of Visitors, said, **"We are so pleased that Dr. Jackson is receiving the Marlene & Stewart Greenebaum Professorship in Radiation Oncology. Our family continues to support the University of Maryland School of Medicine, and this professorship will provide vital funding for Dr. Jackson's outstanding research in the fight against cancer."**

Dr. Jackson, who joined UMSOM's Department of Radiation Oncology in 2012, is a dynamic and outstanding researcher and educator who has brought international attention and significant research and funding to the University of Maryland School of Medicine in the research area of radiation countermeasures.

She has also proven to be a leader in laboratory development and management, working to create new models for extramural support.

"Dr. Jackson is an exceptionally talented faculty leader who is increasingly recognized as a national and international leader for her research and discovery in developing medical countermeasures against radiation sickness," said UMSOM Dean **E. Albert Reece, MD, PhD, MBA**. **"In recognition of the impact Dr. Jackson has as an academic leader in her field, she is most deserving of this high honor."**

As Director of the Medical Countermeasures Program in Radiation Oncology, Dr. Jackson has strategically developed the organizational structure, recruited talent, and secured funding to build the reputation of the program into the premier site for medical countermeasure research on the national and international stages. **"Dr. Jackson is an internationally recognized rising superstar in the field of Radiation Biology who has brought tremendous recognition to both our department and School of Medicine,"** said **William F. Regine, MD, FACR, FACRO**, Professor and Isadore & Fannie Schneider Foxman Chair in Radiation Oncology. **"She will no doubt soar to even greater heights of research success as a Marlene and Stewart Greenebaum Endowed Professor, which will ultimately improve the lives of cancer patients around the world."**

During the ceremony, Dr. Jackson expressed her gratitude to both UMSOM's leadership and the Greenebaum Foundation. **"I am both humbled and honored by this appointment,"** said Dr. Jackson. **"In no small measure, this recognition springs from the support and opportunities that Dean Reece and Dr. Regine have given**

me over the years. Looking ahead, I will employ this professorship thoughtfully and purposefully in honoring the Greenebaum family's commitment to improve the lives of cancer patients." 🏛️



Michael Greenebaum



William F. Regine, MD, FACR, FACRO

GRADUATION

Class of

2021



For the second time in the school's 212-year history, the University of Maryland School of Medicine (UMSOM) held a virtual commencement on May 20 to celebrate the graduating Class of 2021. For the 151 newly minted physicians earning medical degrees as well as combined MD/PhD and MD/Masters degrees, the ceremony marked an occasion of personal and professional triumph over the adversities of the past pandemic year.

Speaking in his video address of the impact of the previous year, UMSOM Dean **E. Albert Reece, MD, PhD, MBA**, noted, *"Although the pandemic has prevented us from physically gathering, we are joined in spirit collectively in recognizing what this occasion means. I am confident that this talented and socially conscious class is well equipped and fully armored to join the ranks of physicians and physician-scientists on the front lines."*

In addition to remarks from Dean Reece and selected faculty and students, as well as the reading of graduate names and a conferral of degrees, the

ceremony also featured a keynote address to the Class of 2021 by **Victor J. Dzau, MD**, President of the US National Academy of Medicine (NAM), and Vice Chair of the US National Research Council, as well as Chancellor Emeritus and James B. Duke Distinguished Professor of Medicine at Duke University. Dr. Dzau also was presented with the Dean's Distinguished Gold Medal for his outstanding contributions to medicine and science. In addition, an honorary degree was conferred upon **Ralph Snyderman, MD**, Chancellor Emeritus, James B. Duke Distinguished Professor of Medicine, and Director of the Duke Center for Personalized Health Care at Duke University.

In an effort to honor Class of 2021 graduates in person as well, a COVID-safe, In-Person Graduation Hooding Event took place on May 19, with a bout 100 graduating students taking part and having their photos taken in front of historic Davidge Hall. Faculty members selected by students served as hooders. 

Graduates Reflect on Their UMSOM Training



"Through the School of Medicine's global health programs, I actually was able to go to Lusaka, Zambia, which really shaped my perspective moving forward. I now know I want to get involved in advocacy and working with different communities."

Amber Herbert, MD will complete her residency in Urology at the Stanford University Program in Stanford, CA.



"We've all navigated the last year of our lives in the midst of a pandemic, the likes of which haven't been seen in 100 years. We've experienced the highs along with the lows. Today we can say that we've finally accomplished what we set out to do."

Madeleine Smith, MD, Class President for the Class of 2021, will complete her residency in Neurological Surgery at George Washington University in Washington, DC.



"Faculty support here has been phenomenal. Without that, I don't think I would have been able to make it through these difficult years. That was a really big cornerstone of the program here that I've deeply valued."

Zachary Bolten, MD will complete his residency in Internal Medicine and Diagnostic Radiology at the University of Maryland Medical Center in Baltimore, MD.



"You know at medical school, you're there to learn as much as you can, and to be the doctor that you want to be. But through this process, I realized that being the best doctor is also about having the right supportive network to get you to where you need to be."

Lawrence Lee, MD will complete his residency in Otolaryngology at Virginia Commonwealth University Health System in Richmond, VA.



"I was able to experience a wide variety of opportunities here. After exploring so many aspects of medicine, I feel confident that I was able to get the most out of my medical school experience."

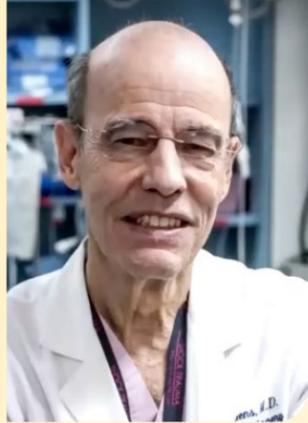
Shannon Kirby, MD will complete her residency in Pediatrics at the University of Maryland Medical Center in Baltimore, MD. She and Zach Bolten are married and departed on their honeymoon following graduation..

David R. Gens, MD Shock Trauma Scholarship

Continued from page 1

“When one looks up ‘teacher’ in the dictionary, one sees a picture of Dr. David Gens,” says **Thomas M. Scalea, MD**, the Honorable Francis X. Kelly Distinguished Professor of Trauma Surgery. **“There is no one in the world more dedicated, enthusiastic, expert, and passionate about training the next generation of physicians.”** Dr. Scalea also is the Physician-in-Chief of the R Adams Cowley Shock Trauma Center; System Chief for Critical Care Services, University of Maryland Medical System; and Director of the Program in Trauma.

The 2020/21 recipient of the Gens Shock Trauma Scholarship, **Gregory Boyajian, MD ‘21** is a nontraditional student who came to UMSOM as one of the oldest in his class after a brief career in EMS, followed by military service as a US Air Force officer. While expressing gratitude for the generous financial support of this scholarship, Dr. Boyajian notes, **“I’m actually more excited about what the scholarship stands for than the monetary value attached to it. To be given a scholarship named for my personal mentor is both humbling and inspiring. Dr. Gens cares deeply about his students, and he is interested in both their personal lives and professional success. He makes his time available for students, and often anticipates each student’s individual needs. Receiving the David. R. Gens, MD Shock Trauma Scholarship**



David R. Gens, MD



Dr. Gens works with UMSOM medical students in the anatomy lab

is an incredible honor because I know Dr. Gens’ character and kindness. I respect him greatly, and I aspire to be more like him as I progress through my career.”

As he prepares for the next chapter in his medical education, Dr. Boyajian recalls, **“I remember sitting down in Dr. Gens’ office in my first semester, saying I wanted to be a surgeon. He made me a roadmap and walked me through the process. Here I am, a couple years later, about to be an integrated cardiothoracic surgery resident at Baylor College of Medicine in Houston, TX. I can see that Dr. Gens has been incredibly influential all throughout the way.”** 🏛️



Help Support Student Activities and Resources!

Will you help fund the endless possibilities that stem from a good medical education? Your contributions support the House Advisory System, the White Coat Ceremony, essential wellness programming, mentorship activities, the Renaissance Curriculum, and more! No students graduate without somehow being impacted by private giving. When you **donate today**, you enhance the quality of education for which UMSOM is nationally recognized. You may also mail your donation directly to the **UMSOM Office of Development** with a check made out to **UMBF, Inc./2604** and sent to:

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