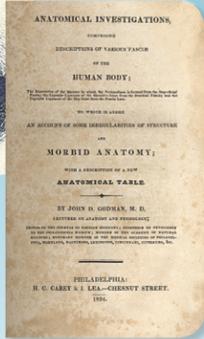




SOM *news*

Point of PRIDE



Dr. John D. Godman, Class of 1818, published *Contributions to Physiological and Pathological Anatomy*, the first monograph on pathological anatomy published in the U.S.



DEAN'S MESSAGE

Welcome to the new year of 2020. I am grateful to enter this decade together at the University of Maryland School of Medicine. A fresh year serves as a clean sheet of paper or a blank canvas—full of opportunity to create and begin ventures with renewed perspective. Renowned Austrian poet Rainer Maria Rilke once mused: *“And now we welcome the new year. Full of things that have never been.”* Throughout our careers, studies, and daily lives, we engage in many different routines, schedules, and processes. This tendency toward organized consistency leads to positive experiences and outcomes, including traditions, breakthroughs, and mastery. It may sometimes seem as if we are repeating the same actions over and over again, but Rilke reminds us that we must not mistake the conventional for the changeless. Even among similar encounters, we may always behold something original and unique which may open a door and lead us through a new path worth discovering. **We always have something new to discover.**

This year holds a great deal of promise for a particularly exceptional season of accomplishments. With several of our new chairs and interim chairs beginning their first full year in their new leadership roles, the School of Medicine has set off on an exciting trajectory. I extend an especially warm welcome to **Dr. Christine Lau**, Professor and Chair of the Department of Surgery, who joins us from the University of Virginia where she served as Professor of Surgery and Chief of the Division of Thoracic Surgery. Our other new chairs and interim chairs include:

- **Dr. Asaf Keller**, Interim Chair, Anatomy & Neurobiology
- **Dr. Victoria Marchese**, Chair, Physical Therapy & Rehabilitation Science
- **Dr. Jill RachBeisel**, Interim Chair, Psychiatry
- **Dr. Rodney Taylor**, Chair, Otorhinolaryngology-Head & Neck Surgery
- **Dr. Graeme Woodworth**, Interim Chair, Neurosurgery

We celebrate all our new leaders with great anticipation for an inspiring year of medical and scientific advancement. I expect great momentum from this group, great productivity, and for success to transcend their departments, which are expected to infiltrate the entire school and surrounding communities of Maryland.

What's on My Mind...



...is the gift of new beginnings and the opportunity of new experiences.

Now, after a full year since implementing the Culture Transformation Initiative, the School of Medicine is better poised than ever to take necessary action, such as completing the Gender Equity in Compensation Study and launching the Women in Medicine and Science. We just created a new contemporary pathway to promotion that will be especially beneficial to faculty who are clinician-educators or clinician-administrators. We based this new policy on a recent analysis of faculty promotions in our academic departments that revealed a gender disparity in promotion rates for some clinical faculty in clinical departments. It was very encouraging to note that the analysis revealed no gender disparity in promotion rates for basic science faculty in either basic science or clinical departments. I look forward to the opportunities this new pathway will bring in future years.

While a fresh start may certainly help with motivation and productivity, let us not give too much allowance for the calendar marker to give us permission to start anew. In reality, we have the liberty to refresh our perspectives whenever we choose. Sometimes this is what we need to achieve success. A winning combination of determination, perseverance, and passion brought us to the status of excellence we enjoy today, and it will require a renewed surge to bring us even further this year. I look forward to sharing in the following months with you, which are sure to hold great achievement, inspiration, and growth all around, for all.

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.

What's Inside...

- 2 **Combating COVID-19**
- 4 **Contaminant-Freed - Researchers Test Vaccine**
- 5 **New Study Tracks Rising Costs of Sleep Apnea**
- 6 **When Life's on the Line**
- 7 **School of Medicine Names Steven R. Gambert, MD, First Medical Director for Development**
- 8 **Diversity Dinner**

Dr. Seemant Chaturvedi Named the Stewart J. Greenebaum Endowed Professor of Stroke Neurology

On Dec. 3, **Seemant Chaturvedi, MD**, was recognized as the Stewart J. Greenebaum Endowed Professor of Stroke Neurology. Dr. Chaturvedi, who serves as the Stroke Program Director at the University of Maryland Medical System and Vice-Chair for Strategic Operations in the Department of Neurology at the UMSOM, has led several clinical trials that have had a major impact on stroke prevention practices.

His research interests include carotid and intracranial atherosclerosis, gender differences in stroke and stroke in young adults.

“I’m so pleased to be part of this investiture. The level of care that we have received is second to none,” said Michael Greenebaum, on behalf of the Greenebaum Family Foundation.



(Continued on page 8)

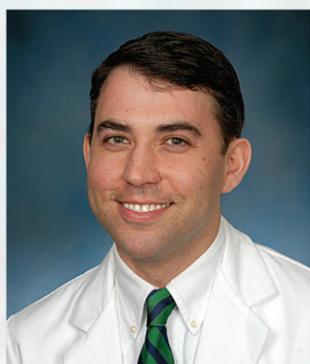
Combating

UMSOM Mobilizes Virus Experts to Prepare

From the time it was first reported to the World Health Organization on December 31, 2019, COVID-19, a new coronavirus strain, has spread from its starting point in Wuhan City, Hubei Province, China, to 28 countries around the globe in roughly a month, resulting in more than 31,000 cases and 638 deaths.

In response, the UMSOM has mobilized its top physicians and scientists in the UMSOM's Center for Vaccine Development and Global Health (CVD), and in its Department of Microbiology & Immunology, to study the virus and test potential vaccines and other therapies. In addition, the School is collaborating with the University of Maryland Medical Center (UMMC) on rapid response and preparedness planning in the event of a growing outbreak.

A team of experts also has been assembled by the University of Maryland, Baltimore (UMB) as the Emergency Management Unified Command Committee. This committee includes **Wilbur Chen, MD**, Associate Professor in the UMSOM Department of Medicine and an infectious disease expert in the CVD. At the University of Maryland, College Park, Dr. Chen is also a member of the Campus Infectious Disease Management Committee (CIDMC), where response planning is similarly ongoing for an appropriate campus-wide public health response to COVID-19.



Dr. Matthew Frieman

Matthew Frieman, PhD, Associate Professor in the UMSOM Department of Microbiology and Immunology, and an affiliate faculty member of CVD, is an expert on coronaviruses. He is providing guidance and support for identifying potential cases of COVID-19 infection. **Kathleen Neuzil, MD, MPH**, the Myron M. Levine, MD, Professor in Vaccinology, Professor of Medicine and

Pediatrics and Director of the CVD, is Co-Principal Investigator of the National Institute of Health's (NIH) Infectious Diseases Clinical Research Consortium Leadership Group. Dr. Neuzil has been in discussions on the planning of potential therapies and vaccines against COVID-19.

In coordination with UMMC, UMSOM's Senior Associate Dean for Clinical Affairs, **Anthony Lehman, MD, MSPH**, is working closely with **Michael Jablonover, MD, MBA, FACP**, Senior Vice President and Chief Medical Officer at UMMC to form a Coronavirus Preparedness Committee. The group is chaired by **David Marcozzi, MD, MHS-CL, FACEP**, UMSOM Associate Professor of Emergency Medicine, and **Gregory Schrank, MD, MPH**, Assistant Professor of Medicine at the UMSOM. They will be charged with ensuring that coordinated UMSOM/UMMC preparedness plans are defined, implemented and articulated to all relevant constituencies.

About the Coronavirus

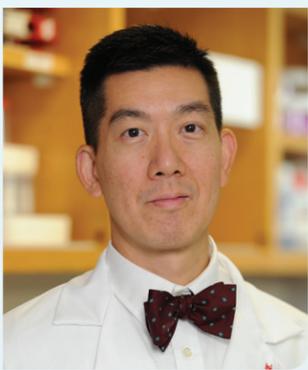
Coronaviruses are part of a family of viruses that can affect humans and are commonly found in many different species of animals. Symptoms are usually those of the common cold and can include a dry cough, fever, or chills. More severe cases can occur in individuals with weakened immune systems and the elderly.

The 2019 Novel Coronavirus (COVID-19) outbreak originating in Wuhan, China is a rapidly evolving situation. Scientists at UMSOM are well-positioned to respond to this situation because of their extensive experience.



COVID-19

for Potential Coronavirus Outbreak



Dr. Wilbur Chen

UMSOM experts note that coronaviruses are a leading cause of respiratory illness in patients, accounting for at least 15% of all viral respiratory illnesses. *“We typically do not test for what viruses cause common cold-like symptoms, so we don’t have a good estimate of the number of infections they cause each year,”* said Dr. Chen.

Coronaviruses may affect people or animals. Other coronaviruses leading to outbreaks in the past include the Middle East Respiratory Syndrome coronavirus (MERS) identified in 2012 and the Severe Acute Respiratory Syndrome (SARS-CoV) outbreak identified in 2003. To date, MERS has infected almost 2,500 people resulted in 858 associated deaths (a case fatality rate of ~35%) and SARS resulted in 8,098 known cases resulting 774 deaths (a case fatality rate of ~10%), according to the World Health Organization.

While so far there has been limited spread of this latest strain of coronavirus outside of China, UMSOM experts recommend taking precautions to avoid spread of the illness, especially amid increased global travel and connectedness. According to the World Health

Organization and other global health officials, it only took weeks before the COVID-19 made its way outside of the region, with five cases as of Jan. 27 reported in the United States.



Dr. Kathleen Neuzil

“As we continue to learn more about this new strain of coronavirus, we encourage best hygiene practices, such as limiting exposure to those who are sick, staying home when you are sick, and regularly washing hands. We know that influenza has similar symptoms to the coronavirus and is circulating in Maryland. We encourage everyone who has not yet done so to receive the influenza vaccine,” said Dr. Neuzil.

There currently is no vaccine to prevent coronavirus infections, however experts say the best way to prevent the spread of illnesses from respiratory viruses, like COVID-19, are the same important precautions that should be taken with influenza. The 2019-2020 influenza season is underway, and the winter months bring on higher incidence of other respiratory illnesses. Currently there is widespread influenza in the state of Maryland.

“With our longstanding leadership in vaccine development, The University of Maryland School of Medicine is ideally positioned to mobilize resources around the research, prevention and treatment of infectious diseases, such as this new coronavirus,” said UMSOM Dean E. Albert Reece, MD, PhD, MBA. *“The physician-scientists in our Center for Vaccine Development & Global Health, and our Department of Microbiology & Immunology, are ready to study this new coronavirus, test potential vaccines, and work with health officials around the world. Through our partnership with the University of Maryland Medical Center, we are taking immediate steps to prepare for the potential outbreak of this virus.”*

For more information about the Coronavirus and prevention steps you can take, please visit:

<https://www.medschool.umaryland.edu/news/2020/University-of-Maryland-School-of-Medicine-Mobilizes-Virus-Experts-to-prepare-for-Potential-Coronavirus-Outbreak.html>

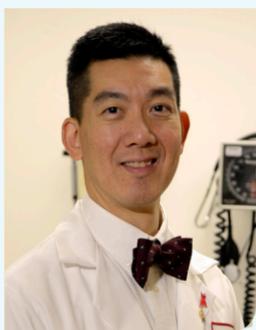
CONTAMINANT-FREE:

UMSOM Researchers Test Vaccine to Protect Against Serious Illness from Diseased Food and Water

Each year, millions of people worldwide contract serious diarrheal illnesses from contaminated food and water. Among the biggest causes of these diseases are the bacteria Shigella and enterotoxigenic Escherichia coli (ETEC). It is estimated that these two bacteria alone are responsible for more than 15 percent of the approximately 500,000 deaths among children under the age of five.

But now, researchers at the University of Maryland School of Medicine are testing a vaccine designed to offer protection against these serious pathogens. **Wilbur Chen, MD, MS**, Associate Professor of Medicine, is Principal Investigator for this research, along with **Eileen Barry, PhD**, Professor of Medicine, the co-Principal Investigator. The study is funded through a \$4.5 million agreement with Emergent BioSolutions, a global life sciences company focused on addressing public health threats, including travel health diseases.

Drs. Chen and Barry will conduct early clinical trials of a combined Shigella-ETEC vaccine called “CVD 1208S-122,” a vaccine comprised of a weakened live strain of Shigella expressing protective antigens from ETEC that was developed at UMSOM’s Center for Vaccine Development and Global Health (CVD). Their research will test the safety, tolerability, and potential protection of oral doses of the prototype Shigella-ETEC vaccine. Human trials will include testing how the immune system in healthy adults responds to varying doses of the vaccine. The goal is to determine the safety and best dosing of the vaccine, which could ultimately protect millions of people around the world who are at most risk to diarrheal diseases.



Dr. Wilbur Chen

“Our goal here is to develop a vaccine that can be delivered broadly to those who are most susceptible to the risks of these diseases,” said Dr. Chen. **“This is something that can help serve the most vulnerable populations in low-resource settings in sub-Saharan Africa and South Asia, where the disease burden is highest.”**

Development of the vaccine has been years in the making. Ultimately, it will be comprised of several weakened strains of Shigella, expressing a wide array of ETEC antigens, enabling the body’s immune system to generate antibodies and cellular protection against these diarrheal pathogens. Researchers at CVD, including Dr. Barry, have been constructing optimized vaccine components and analyzing their performance in preclinical studies to develop the best form of protection. Development of additional vaccine components will be supported by this partnership with Emergent.

“Development of this vaccine was based on epidemiologic studies that identified the most important strains and antigens associated with disease and included extensive genome analysis and pre-clinical testing,” said Dr. Barry.



Dr. Eileen Barry

In addition to the risk of child mortality, CVD research has shown that repeated infections and episodes of diarrheal diseases can lead to stunted growth in young children and impaired physical and cognitive development. Individuals typically contract Shigella and ETEC infection by ingesting contaminated food and water, but these illnesses can also be contracted through close direct contact with others who are infected.

Diarrheal diseases can typically be treated through rehydration therapy and with antibiotics for travelers to countries and regions where there is a high prevalence. However, many who are exposed to these pathogens — children under the age of five and others in low resource settings — do not always have access to these treatments. A vaccine, when finally tested and approved, could offer broad protection.

“Diarrheal diseases are one of the biggest challenges in global health,” notes UMSOM Dean **E. Albert Reece, MD, PhD, MBA**. **“Our researchers at the University of Maryland School of Medicine have developed critical tools to protect children and others in settings where there is high risk. This work not only tackles some of the most challenging diseases, but it will ultimately impact millions of people around the world.”** 

New Study Tracks Rising Costs of Obstructive Sleep Apnea

Seniors with Untreated Sleep Apnea Cost Nearly \$20,000 More a Year in Care



For those with obstructive sleep apnea (OSA), snoring is the least of their worries. This common and costly medical condition can lead to a host of health risks, including cardiovascular disease, stroke, depression, and diabetes — which in turn can drive a very unhealthy spike in health care costs.

Now, led by principal investigator **Emerson Wickwire, PhD**, Associate Professor of Psychiatry and Medicine, researchers at the UMSOM have verified that the medical costs are substantially higher among older adults who go untreated for the disorder.

The research, which was published in **the Journal of Clinical Sleep Medicine**, involved a review of a national sample of Medicare claims data. The research team measured the health care costs over a year among Medicare beneficiaries who were 65 years and older and were ultimately diagnosed with OSA. They found that patients who went undiagnosed with OSA over a 12-month period had more doctor's appointments, emergency room visits, and hospital stays prior to being treated for the disorder. These patients on average had nearly \$20,000 more in costs a year than those who were diagnosed and treated for OSA, the research found.

"Sleep disorders represent a massive economic burden on the U.S. health care system," said Dr. Wickwire, who also is the Director of the Insomnia Program at the University of Maryland Medical Center, Midtown Campus. Medical costs among those untreated for OSA will continue to rise, he warned, highlighting the importance of early detection and treatment among older adults.

This current study is the largest analysis to date of the economic burden of untreated OSA among older adult

Medicare beneficiaries. Its findings are critical as OSA affects up to 70% of elderly nursing home residents, and these individuals are at higher risk of death.

"We conducted the largest economic analysis of sleep apnea among older adults to date," said Dr. Wickwire.

"Medicare beneficiaries with obstructive sleep apnea cost taxpayers an additional \$19,566 per year and utilized more outpatient, emergency, inpatient, prescription, and overall health care services.

It's important to realize that costs associated with untreated sleep disorders are likely to continue to accrue year after year, which is why our group focuses on early recognition and treatment."

A 2016 report by the American Academy of Sleep Medicine estimated that undiagnosed OSA among U.S. adults costs \$149.6 billion annually. While the report projected it would cost the health care system nearly \$50 billion to diagnosis and treat every American adult with OSA, treatment would produce savings of \$100 billion.

The good news is that highly effective diagnostic and treatment strategies are available. **"Our team is currently using big data approaches as well as highly personalized sleep disorders treatments to improve outcomes and reduce costs associated with sleep disorders,"** said Dr. Wickwire. 



Dr. Emerson Wickwire

WHEN LIFE IS ON THE LINE

Study Finds UMSOM's Novel CCRU Improves Chances of Patient Survival

Where do area patients with acutely life-threatening health conditions have the best chance for survival? According to a recent

study in the *Journal of Emergency Medicine*, conducted by researchers at the University of Maryland School of Medicine (UMSOM), patients treated in the innovative **Critical Care Resuscitation Unit (CCRU)** received faster treatment and had better health outcomes, including a 36 percent lower risk of dying than those who were transferred from a hospital's emergency department, then evaluated and treated in a traditional intensive care unit.

Critically ill patients who experience a sudden life-threatening condition like a stroke, ruptured aneurysm, or a massive pulmonary embolism (blood clot in the lung) are often first brought to the emergency department of the closest hospital and then transferred to a larger institution if their condition is deemed to be beyond the scope of the hospital's level of care. The process of evaluating and transferring these patients, however, is generally ad hoc and fragmented, which results in delays of patients getting time-sensitive care that could save their lives or prevent permanent disability.

To improve access to care for critically ill patients, the University of Maryland R Adams Cowley Shock Trauma Center, in conjunction with the Program in Trauma at UMSOM, established the CCRU in 2013 as the first resuscitation unit in the nation. The recent study demonstrated for the first time that utilization of the CCRU not only helped double the number of transferred patients from other hospitals' emergency departments, but also led to faster access to critical care resources and definitive surgical treatment, which decreased a patient's risk of dying from their illness.

"We have provided an important validation of the CCRU model, showing that it significantly improves patient outcomes," said **Quincy Tran, MD, PhD**, Assistant Professor of Emergency Medicine at UMSOM who led the study. *"Now that we have the data on the lifesaving potential of the CCRU, we hope to see other hospitals creating similar models."*



Dr. Quincy Tran

The study analyzed medical records from 1565 critically ill patients with 644 treated in the CCRU at the University of Maryland Medical Center (UMMC) during the first year of its operation in 2013. The



rest served as control groups who were transferred directly from other hospitals' emergency department to traditional intensive care units at UMMC during the year 2012 before the CCRU opened, and the year 2013 after the CCRU was opened.

The researchers found that the average time to get into an intensive care unit after a transfer request was filed was 108 minutes for CCRU patients, compared to 158 minutes for the control group of patients who were transferred and treated in 2012 before the CCRU opened, and 185 minutes for those in 2013. CCRU patients requiring emergency surgery received that surgery about 3.5 hours on average after they arrived at UMMC, compared to 6 to 7 hours after arrival for those in the control group. After controlling for variations in the severity of disease and care, the researchers found that the CCRU patients were 36 percent more likely to survive than those in the control group, which was a statistically significant finding.

Procedures performed in the CCRU include massive blood transfusions, continuous renal replacement therapy (dialysis) for patients with malfunctioning kidneys, continuous EEG monitoring of the brain, and organ support with a heart-lung machine.

"We are leading the way in critical care medicine by having the first dedicated Critical Care Resuscitation Unit in the nation," said UMSOM Dean E. Albert Reece, MD, PhD, MBA. *"Having the data to demonstrate improved patient outcomes will hopefully convince other hospitals to consider adopting this model of care."* 

School of Medicine Names **Steven R. Gambert, MD, AGSF, MACP,** First Medical Director for Development

UMSOM Dean E. Albert Reece, MD, PhD, MBA, along with Mary Pooton, Assistant Dean

for Development at the University of Maryland School of Medicine (UMSOM), announced today that **Steven R. Gambert, MD, AGSF, MACP**, UMSOM Professor of Medicine and Division Head for Gerontology and Geriatric Medicine, has been named the school's first Medical Director of Development.

In his new role, Dr. Gambert will serve as a philanthropy partner with the Dean and the Assistant Dean for Development to build stronger connections between physicians and the development office. As the principal medical liaison between the Office of Development and faculty, he will collaborate with development colleagues to help increase the understanding of how philanthropy fits in the School's overall vision in reaching its institutional goals.

"Dr. Gambert represents the consummate seasoned professional who is the perfect fit for this new role," says Ms. Pooton. ***"In the past, he has been engaged actively in philanthropic efforts both here and at other institutions. As a senior physician and gerontologist, he possesses a broad knowledge through his interactions with all branches of medicine and has relationships with many different faculty members across the School of Medicine."***

"As a development advocate, Dr. Gambert will be able to support our faculty in their efforts to design proposals for donor prospects," she says. What's more, she points out that Dr. Gambert will encourage faculty members to ***"present big ideas for transformational gifts."***

"I congratulate Dr. Gambert on his new position, which will provide vital support for philanthropy in communications with UMSOM faculty members," said Dean Reece. ***"As our own resident expert, he can conduct important philanthropy training with our faculty and help them focus on their own departmental needs in working with our development officers."***

Currently, Dr. Gambert is Professor and Director of Geriatric Medicine at the University of Maryland Medical Center and Director of the Geriatric Medicine Program at the R. Adams Cowley Shock

Dr. Gambert Will Serve as the Principal Medical Liaison Between UMSOM Office of Development and Faculty



Dr. Steven Gambert



Ms. Mary Pooton

Trauma Center in Baltimore, Maryland. Prior to joining the faculty at the University of Maryland, he held positions as Professor of Medicine at the Johns Hopkins University School of Medicine, Chairman of the Department of Medicine at Sinai Hospital of Baltimore, and Program Director of the Johns Hopkins University/Sinai Hospital Residency Program in Internal Medicine.

A graduate of Columbia University College of Physicians and Surgeons, he received post-graduate training at Dartmouth and Harvard Medical Schools where he specialized in Internal Medicine, Endocrinology and Metabolism, and Gerontology and Geriatric Medicine. He has authored or co-authored over 400 journal articles, book chapters, and research reports, has been editor of numerous publications, and serves on many editorial boards. He is currently Editor-in-Chief of *Clinical Geriatrics*, the clinical journal of the American Geriatrics Society. He is the author of *Be Fit for Life: A Guide to Successful Aging*, published by World Scientific Press. 

Chaturvedi Endowed Professorship

Continued from page 1

The Stewart J. Greenebaum Professorship of Stroke Neurology was established through the generous support of the Greenebaum Family Foundation and recognizes the life-saving care provided by Dr. Chaturvedi and the physicians at UMSOM. Funding from this professorship will be used to advance biomedical research aimed at understanding, diagnosing, and treating stroke.

This latest investiture keeps in line with the more than 500-year tradition, and it is one of the highest tributes than an academic institution can bestow on its most distinguished faculty. To date, UMSOM is fortunate to have 82 endowed chairs and professorships in various stages of completion and held by esteemed faculty members.

“This has become very important to the School of Medicine to sustain and expand promising research,” said UMSOM Dean **E. Albert Reece, MD, PhD, MBA.**

Dr. Chaturvedi completed his undergraduate education at Princeton University and medical school at the University of Connecticut School of Medicine. He then completed his neurology residency at the University of Massachusetts Medical Center, followed by a stroke fellowship at the University of Western Ontario. 



Seemant Chaturvedi, MD, (center) is named the Stewart J. Greenebaum Endowed Professor of Stroke Neurology by UMSOM Dean E. Albert Reece, MD, PhD (R), accompanied by Peter B. Crino, MD, PhD, Professor and Chair of Neurology (L).

UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE

13th Annual
CELEBRATING Diversity
Reception and Dinner

SAVE THE DATE

**SATURDAY,
FEBRUARY 29, 2020**

**Renaissance Baltimore
Harborplace Hotel**
202 E Pratt Street, Baltimore, MD
6:30 pm

Proceeds will benefit the Dean Emeritus Donald E. Wilson Endowed Scholarship Fund


NOW ACCEPTING NOMINATIONS FOR THE CELEBRATING DIVERSITY ALUMNI AWARD
to be presented to an SOM Graduate who has contributed to advancing diversity in medicine
For additional information, please contact Ashley Hines at ahines@som.umaryland.edu or 410-706-0820.

SOMnews is produced by the University of Maryland School of Medicine Office of Public Affairs

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

Chris Hardwick, Executive Editor
Dave Beaudouin, Managing Editor

Tom Jemski & Mark Teske, Photos
Oriyomi Dawodu, Deborah Kotz, Lisa Morris & Joanne Morrison, Contributing Writers
Kris Rifkin, Art Direction



Find the University of Maryland School of Medicine on Facebook, <http://www.facebook.com/Maryland.Medicine> or follow us on Twitter @UMmedschool.



www.medschool.umaryland.edu