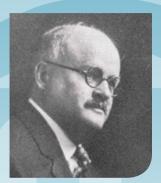
# UMSOM Neurologists Contribute to New Stroke Standards



# Mews

## Point of PRIDE



Charles H. Jones, MD, UMSOM professor of hygiene and public health, was appointed health commissioner of Baltimore City in 1898. Instrumental in the construction of the city's sewer system and improved municipal drinking water, he also pressed successfully for new laws requiring the pasteurization and modern distribution of milk, which greatly reduced the incidence of typhoid fever and other intestinal ailments.



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.

- **New Stroke Standards**
- Isabel L. Jackson, PhD Named Director of the Division of Translational Radiation Sciences (DTRS)
- **Honoring an Exceptional Educator**
- **AHEC Scholars Program: Expanding** the Circle of Care

#### DEAN'S MESSAGE

As the University of Maryland School of Medicine community begins to return to campus for the fall semester, we still face many unknowns regarding the pandemic. The Delta variant threatens to reverse the progress we have made as a country, and those who remain unvaccinated against COVID-19 are not being helpful to this threatened loss of great progress. The SARS-CoV-2 virus has found a way to live and thrive through a

variant nearly twice as contagious as previous forms. While those who are fully vaccinated can contract and spread the Delta variant of the virus, they are less likey to do so, and they are less infectious for less time than unvaccinated persons. Those who are unvaccinated remain the greatest concern for transmission. One of our biggest unknowns remains whether or not enough people will become vaccinated against COVID-19 in order to fully immunize our nation (herd immunity) against the rampant spread of the virus in this country. What we do know is that the vaccine is our greatest weapon, and we need more people to use it.

One of the biggest reasons people may choose not to get vaccinated at this time includes concerns about the vaccine's safety. As with anything subject to the age of digital news and social media, the COVID-19 vaccines have fallen victim to a wealth of misinformation. It is important to be aware of the source of our news and data that guide our decision-making, and it is extremey valuable to find people and authorities who we can trust, especially in matters critical to our health and safety. We are all looking forward to being able to live our lives as we did before the pandemic — without masks, without physical distancing, and with normal, worry-free gatherings where we share meals and conversations. The quickest way that we'll be able to do that is through the vaccine.

I am thankful that we were able to hold both our Student Clinician Ceremony and our White Coat Ceremony in

#### What's on My Mind...



...is our return to campus and the critical importance of COVID-19 vaccines.

person this summer. We were only able to do so because of the vaccination status of our students and faculty. These two major milestone celebrations represent significant beginnings of new chapters for our students — one marking the start of their medical school journeys and the other marking the start of their clinical rotations. It is important that we continue to honor events like these, especially given the circumstances, as these students represent the near future of our victory against this pandemic.

While we are uncertain of exactly what the fall and winter will look like this year, we do know that we are in excellent hands to guide us through these next seasons. With a brand new curriculum that has already made it through one year of adjustment due to COVID-19, and our superb researchers, clinicians, and public servants, the School of Medicine is well positioned to stay on track and accomplish all of our goals in all mission areas. I wish for a productive and healthy semester and return to school/work for all. Please stay safe, stay engaged, and stay hopeful that we will soon experience the end of this pandemic together.

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

E. allest Ruce

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



Dr. Mark Mishra

#### Dr. Mark Mishra Receives NCI Team Leadership Award to **Promote Collaborative Clinical Research**

Mark Mishra, MD, Associate Professor of Radiation Oncology and Director of Clinical Research for the Department of Radiation Oncology at the UMSOM, has been named a 2021 recipient of the National Cancer Institute's Cancer Clinical Investigator Team Leadership

Award (CCITLA). Dr. Mishra's clinical trial work at the University of Maryland Greenebaum Comprehensive Cancer Center (UMGCCC) led the center's director, Kevin Cullen, MD, to nominate him for the award.

Continued on page 8

NEW STROKE STANDARDS PUBLISHED

**UMSOM Physicians Tapped as** Part of Elite National Group to **Revise Guidelines** 

edicine is an ever-evolving science, with clinical discoveries and translational research driving new perspectives and treatments in patient care. Nowhere is this pace of innovation more apparent than in the efforts to prevent and treat the fifth leading cause of death and a top cause of long-term disability in the United States — namely, stroke. Every 40 seconds, someone in the U.S. has a stroke; every 4 minutes, someone dies of stroke.

This past May 2021, the American Heart Association/American Stroke Association (AHA/ASA) released its **"2021 Guideline for the Prevention** of Stroke in Patients with Stroke

and Transient Ischemic Attack." This new set of guidelines, updated for the first time since 2014, was developed under the auspices of the AHA Stroke Council's Scientific Statements Oversight Committee on Clinical Practice Guidelines, and authored by an elite group of 19 neurologists, neurological surgeons, cardiologists, and internists — all volunteer representatives from the American Heart Association/ American Stroke Association and the American Academy of Neurology.



Steven J. Kittner, MD, MPH



Seemant Chaturvedi, MD

Among the select writing group of medical professionals were two of UMSOM's own — **Seemant Chaturvedi, MD**, the Stewart J. Greenebaum Endowed Professor of Stroke Neurology, and Steven J. Kittner, MD, MPH, Professor of Neurology. Dr. Chaturvedi is internationally recognized for his research and discoveries in the fields of stroke and vascular neurology. He

was recently named the recipient of the Association of Indian Neurologists in America (AINA) Lifetime Achievement Award. Dr. Kittner is an internationally respected physician-scientist specializing in the epidemiology and genetics of ischemic stroke, particularly stroke in young adults. His collaborative work with researchers around the world has been instrumental in identifying novel genetic risk loci for ischemic stroke.

The new guidelines, which take a more holistic and expansive focus, include a recommendation that performing a diagnostic evaluation within 48 hours of symptom onset to determine the causes of a patient's first stroke is critical to developing strategies to prevent additional strokes. This guideline includes a section outlining treatment recommendations based on the cause of the initial stroke or transient ischemic attack (TIA). Underlying causes could be related to blockages in large arteries in the neck or brain, small arteries in the brain damaged from high blood pressure or diabetes, irregular heart rhythms, and many other potential causes.

Ischemic strokes account for 87% of strokes in the United States, occurring when blood flow in a vessel leading to the brain is blocked, by either clots or plaques. A TIA (transient ischemic attack) happens when an artery is blocked for only a short amount of time; thus, the blockage is transient (temporary) and does not cause permanent brain injury. As prevention strategies have improved, studies have noted a reduction in recurrent stroke rates from 8.7% in the 1960s to 5.0% in the 2000s. Yet many risk factors for a second stroke remain poorly managed among stroke survivors.

The new guidelines also emphasize the importance of patient lifestyle choices, such as managing blood pressure levels, reducing or quitting smoking, eating a healthy diet, and regular physical activity as the best means of reducing the risk of a second stroke, along with managing conditions such as Type 2 diabetes and high cholesterol. The full set of guidelines can be viewed here.

"I think that's one of the key messages is that instead of focusing on just one risk factor, we need to see what is the overall constellation of risk factors that each patient has, and how to best address those," said Dr. Chaturvedi. "In some patients, it's going to be hypertension and diabetes, whereas in other patients, physical activity and poor diet could be some of the key factors. So, these new guidelines are really trying to encourage clinicians to take a broad view and realize that there are multiple different facets that need to be treated and addressed."

Dr. Kittner agrees. "This new set of stroke guidelines are more clinically useful, because I think that they give more of a context for each of the recommendations under different situations," he said. "As a result, most of them are very easily implemented as a recommended" standard of care."

Both physicians are on the faculty of UMSOM's Division of Stroke and Cerebrovascular Diseases within the Department of Neurology — and on the University of Maryland Comprehensive Stroke Center, which is certified by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) and the Joint Commission as a Comprehensive Stroke Center as a regional center of excellence in stroke care and research.

"Our mission as a comprehensive stroke center is to be a national leader not only in acute stroke care, but also in stroke prevention," said Dr. Kittner. "An important part of this mission is to share this vital information with community neurologists to improve treatment and to save lives."

Dr. Chaturvedi, who also serves as the Director of the Division of Stroke and Cerebrovascular Diseases, believes that stroke guidelines will continue to evolve in reflecting the continuing arc of medical discovery. "There's been tremendous progress made in the field of cardiovascular medicine in general, and in stroke prevention in particular," he noted. "The role of these guidelines will continue to be to survey the broad landscape and then distill it down for clinicians to make the more most practical and meaningful recommendations."

# Major Highlights of the "2021 Guideline for the Prevention of Stroke in Patients with Stroke and Transient Ischemic Attack."

- Instead of treating only one risk factor (such as high blood pressure), intensive medical management, including a combination of both medication and lifestyle factors, is recommended, creating a a more holistic approach.
- Lifestyle factors such as dietary change and physical activity are very important. Low salt and/or Mediterranean Diets are recommended.
- Atrial fibrillation remains a leading cause of stroke that is undertreated. Blood thinners are very effective in stroke prevention for patients with AF but are used in only 40-50 percent of eligible patients
- Treatment of high cholesterol is very important.
   The guideline includes the first recommendation for treatment of high triglycerides.
- Several new medications for diabetes have now been shown to have benefits for reducing vascular disease. Consideration of these medications is recommended for the first time for stroke prevention.

To learn more about philanthropic opportunities and how to support ground-breaking research in the University of Maryland Comprehensive Stroke Center, please contact:

**Emily Greene**, Director of Development, Neurology, University of Maryland School of Medicine - (410) 706-5269 or egreene@som.umaryland.edu

# SOMnews Clinical Excellence

DTRS WELCOMES NEW DIRECTOR

# Isabel L. Jackson, PhD Named Director of the Division of Translational Radiation Sciences (DTRS)

illiam F. Regine, MD, FACR, FACRO,
Professor and Isadore & Fannie Schneider
Foxman Chair of UMSOM's Department
of Radiation Oncology, has announced the
promotion of Isabel Lauren Jackson, PhD,

to the position of Director of the department's Division of Translational Radiation Sciences (DTRS). Dr. Jackson, the Marlene & Stewart Greenebaum Professor in Radiation Oncology, previously served as that division's Deputy Director and Director of the Medical Countermeasure Program (MCP).

"Given Dr. Jackson's formidable ability to advocate for DTRS and its ultimate vision of benefitting cancer patients worldwide, she is the perfect choice to oversee and guide this division's growth and success," said Dr. Regine. "I am confident that she will bring continued vigor and unprecedented academic and scientific success to our department's radiation research activities."

Dr. Jackson, who joined the Department of Radiation Oncology in 2012, is a dynamic researcher and educator who has brought international attention and significant funding to the USMOM in advancing radiation countermeasures. As a leader in laboratory development and management, she has worked with Zeljko Vujaskovic, MD, PhD, Professor of Radiation Oncology and the department's Vice Chair of Research, to create new models for extramural support. As MCP Director, Dr. Jackson strategically developed the organizational structure, recruited talent, and secured funding to build the scope and reputation of the program into the premier site for medical countermeasure research, managing all aspects of study execution while overseeing a faculty and staff of 70 individuals. The division currently has a funding portfolio of more than \$50 million, including significant funding from the federal government's Biomedical Advanced Research and Development Authority (BARDA) and the National Institute of Allergy and Infectious Diseases (NIAID), among others. Most recently, she wrote and coordinated submission of the proposal that led to MCP's designation as a NIAID/NIH Center for Medical Countermeasures against Radiation (an award of more than \$12 million plus options), along with a sustaining award from BARDA (more than \$7 million) to ensure continuation of essential translational research activities during the pandemic.

In her new role, Dr. Jackson will direct a division dedicated to tackling the most important challenges in clinical radiotherapy and life-threatening radiation exposures. DTRS was established by Drs. Vujaskovic and Jackson to accelerate the discovery and clinical implementation of new therapeutic strategies to improve tumor response in clinical radiotherapy, minimize post-radiation therapy complications, and treat the life-threatening health effects



Isabel L. Jackson, PhD

of a radioactive or nuclear agent. To accomplish its mission, research within the Division is focused on bridging the gap between novel hypothesis-driven science and contract research services to advance new drugs, medical devices, and therapeutic techniques from preclinical efficacy studies toward clinical trial for radiation oncology and biodefense applications. In doing so, the Division provides a comprehensive set of services to the U.S. government and to pharmaceutical, biotechnology, and medical device companies in the areas of medical and radiation oncology, radiation biology/physics, and biodefense.

"My goal over the past nine years has been to focus on developing an agile and sustainable animal model framework and talent infrastructure for development of Medical Countermeasures from discovery to approval under the U.S. Food and Drug Administration Animal Rule regulatory pathway. We've built productive partnerships with both government and drug companies that are working in this area to improve the medical management of individuals acutely exposed to radiation in a nuclear incident," said Dr. Jackson.

Looking ahead, Dr. Jackson sees an expanded potential for DTRS. "My goal over the upcoming years is to leverage the infrastructure we've established to expand our programs in tumor radiobiology and clinically relevant normal tissue injury to improve the therapeutic ratio in cancer treatment," she noted. "As the number of cancer survivors grows, long-term quality of life has become a primary outcome measure secondary only to survival. The added value of the government and industry investment in medical countermeasures is to translate these new therapeutics to reduce side effects in cancer patients undergoing radiation therapy.

"In collaboration with our Cancer Center colleagues, the Division is identifying new therapeutic targets in cancer biology and investigating new multimodality therapies to improve cancer cure rates. I am excited about what the future holds and our faculty contributions to advancing radiation therapy in the  $21^{st}$  century," she said.  $\hat{\mathbb{Q}}$ 

# HONORINGAN EXCEPTIONAL EDUCATOR

Dr. Samuel D. Friedel Endowment for Ophthalmic Resident Education Announced

s the old saying goes, "The good teacher explains. The superior teacher demonstrates. The great teacher inspires." For the past forty years, Samuel D. Friedel, MD '77, Clinical Associate Professor in UMSOM's Department of Ophthalmology and Visual Sciences, has been that source of inspiration for residents and then some. As one of the nation's longest-serving program directors of an ophthalmology residency training program, Dr.



Samuel D. Friedel, MD

Friedel has taught and trained more than 100 ophthalmology residents at the UMSOM and Maryland General Hospital throughout his career. Generations of former residents, many of whom experienced their first cataract surgeries under his watchful eye, continue to look up to him



Bennie H. Jeng, MD

for being their devoted mentor, exceptional educator, and fiercest advocate.

In June 2020, Dr. Friedel announced his retirement as the department's Vice Chair for Education and the Residency Program Director, although he will continue to serve as a faculty member within the Department of Ophthalmology and Visual Sciences. (Ramya N. Swamy, MD, MPH, Assistant Professor, Department of Ophthalmology and Visual Sciences, has been appointed as the new residency program director.) To honor

his decades of outstanding service, Bennie H. Jeng, MD, Professor and Chair, Department of Ophthalmology and Visual Sciences, has announced the creation of the Samuel D. Friedel **Endowment for Ophthalmic Education.** 

The new endowment will ensure that the UMSOM ophthalmology training program is able to further grow and optimize the medical training of future generations of ophthalmologists by funding lectureships, courses, and other cutting-edge educational resources and materials. "Training in ophthalmology is highly varied, from intraocular surgical procedures that require microincisions, to extraocular surgery involving eye muscles, orbital bones, eyelid, and adnexa," notes Dr Jeng. "Resident education, which this endowment is intended to support, includes training the novice surgeon on these procedures and in reducing complications."

Since the endowment was announced, former residents, UMSOM alumni, UMSOM faculty, and friends have stepped up to make significant donations, with Dr. Friedel himself leading the fundraising effort with a lead major gift. "I'm hoping that all of my residents and colleagues who I've known over the years will contribute, so that residents to come can enjoy the superior benefits of our department's educational program," he said.

To date, the Friedel Endowment has raised over \$140,000 toward its goal of \$165,000, thanks in part to four former residents, Dr. George Malouf '79, Drs. George '77 and Katie Duncan '12, and Dr. Robert Kennedy, whose combined major gifts created an \$80,000 matching gift offer. "The Dr. Samuel D. Friedel Endowment for Ophthalmic Resident Education will provide needed materials and opportunities for Department of Ophthalmology residents today and for years to come," said Dr. Jeng. "We are asking every resident and ophthalmologist affiliated with Dr. Friedel at MGH and the UMSOM to join us in this effort to honor his years of service to our department and our field, while advancing outstanding resident education, research, and community service." 🗓

The Dr. Samuel D. Friedel Endowment for Ophthalmic Resident Education is an investment in the future of ophthalmology. To learn more and to make a secure donation online today, please visit here.

# SOMnews AcademicInnovations



### AHEC Scholars Program Trains UMSOM Medical Students to Meet Health Needs in Underserved Communities

or the thousands of Marylanders who live in disadvantaged rural or urban areas, access to primary health care services can be particularly challenging. Whether rooted in poverty, racism, or other social ills, the festering problem of health disparities continues to be an issue across the state. However, a new program supported by faculty from UMSOM's Department of Family and Community Medicine seeks to train a new generation of health professionals to improve the state of health equity across Maryland.

The AHEC (Area Health Education Center) Scholars Program is an interprofessional program for health

Richard Colgan, MD

profession students who seek exposure to interdisciplinary didactic and community-based clinical training in rural and underserved communities. Scholars receive a hands-on opportunity to enhance their learning and credentialling by agreeing to a two-year long commitment which runs between July 1 and June 30 of the following year.

During their time in the program, students will enhance their professional network by making valuable connections with leaders in their field and learn how to communicate with their patients, their families, and other health care professionals in order to meet the individual needs of every patient. At the completion of the program, scholars receive Maryland AHEC Scholar Certificate of Completion and pin to represent their advanced accomplishment and distinguishes them apart from other health profession students.

This program is a part of the larger Maryland Area Health Education Center (MAHEC) community engagement and impact initiative that was founded

more than 40 years ago as a means to promote health equity and eliminate health disparities for all Marylanders. MAHEC receives funding through the Health Resources & Services Administration and Maryland Department of Health and has three regional training centers across the state, including AHEC West (formerly Western Maryland Area Health Education Center) established in 1976, ESAHEC (The Eastern Shore Area Health Education) established in 1995, and Central Maryland AHEC (formerly Baltimore Area Health Education Center) established in 2003. Although each center has their own board of directors and support staff, constant collaboration takes place across the three sites, often through the leveraging of UMSOM resources, contributions to the program's monthly newsletter, and the sharing of grant opportunities.

**Richard Colgan, MD**, Professor of Family and Community Medicine and Program Director for the Maryland Area Health Education Center cited that "One focus of the program is to recruit future healthcare professionals directly from the same underserved communities in which they will train."

Dr. Colgan credits the success of the AHEC Scholars Program to Ms.



Allison Robinson

Allison Robinson and Dr. Julia Silva. Both individuals serve as Associate Program Directors for the MAHEC and lead the AHEC Scholars Program.

"We are placing a significant amount of emphasis on recruiting students from diverse backgrounds and first-generation college students. I would like to truly immerse our scholars in underserved areas of our state so they can see and really understand what their patient population would be like," said Allison Robinson, AHEC Associate Program Director and AHEC Scholars Administrative Coordinator.



(Left to Right) Bruce Conklin, Pharm D, Gabriella Miller, MD, Emma Kaplan, MD, Georgia Harper, PA-C, and Grace Efunbajo, DNP, FNP — all AHEC Scholar Program graduates.

One recent graduate of the program, Johanna Thompson-Westra, MD '21, credits AHEC West with giving her the training necessary to practice medicine in a community other than in the inner city. In the fall, she will begin her Family Medicine residency in Colorado and wishes to return to a community similar to the one in Maine where she grew up.

"For me, it was really important to get a different experience other than the inner-city resident clinic because I knew I didn't want to eventually practice there. Being trained at a major academic institution we're generally just exposed to that type of medicine, but most



Johanna Thompson-Westra, MD '21

places around the country aren't large academic institutions. There are many private practices or smaller community group practices, so I think programs like these are really important to show that there are other avenues to train and work in," said Thompson-Westra. "The training that I got as a AHEC scholar will help prepare me to think outside of the box in terms of how to help patients when you don't have many resources in these smaller communities."

Not only does AHEC Scholars encourage scholars to eventually practice in disadvantaged and rural communities, but the program realizes the need to focus its recruiting efforts on attracting applicants from disadvantaged neighborhoods, underrepresented minorities, and first-generation college students.

"Ideally, I would love to see students learn more about health care disparities and care for the underserved in these communities, then

go on to pursue a career in their health profession that may lend them the opportunity to perhaps one day go back and serve in the same community they were trained," said Julia Silva, MD, MAHEC's Associate Program Director.

The immersion experience, commonly referred to as "ACT" (Advocacy for Underserved and Underrepresented Communities Through Training), is afforded by a grant from the UMB Interprofessional Education (IPE) Center. Scholars are given stipends so they can spend an entire weekend immersed in underserved communities. During this unique experience, they are exposed to substantive Covid-19 education and participate in antibias training.

"The immersive component is the best! I really felt that it added to my education; just to see how medicine is practiced on the Eastern Shore...



Brenten Hurt, MD '21

I think it's important not to get locked in to practicing in one setting. That was the best benefit of the program," said Brenten Hurt, MD '21, a graduating AHEC East scholar pursuing Emergency Medicine.

Other priorities for AHEC Scholars include meeting its recruitment goal for the upcoming cohort and securing additional funding so that all scholars can be offered stipends.

The application cycle for Cohort 3 is open until October 15, 2021. All eligible UMB students are encouraged to apply online here.

#### **Dr. Mark Mishra Receives NCI Team Leadership Award**

Continued from page 1

Dr. Mishra, who focuses on treating patients with tumors of the central nervous system and genitourinary tract, also oversees all radiation oncology clinical trial activities at UMGCC and at affiliated practices across the state of Maryland. He also serves as vice-chair of the UMGCCC Clinical Research Committee.

"I am honored to receive this award from NCI and to represent UMGCCC," said Dr. Mishra. "I look forward to working with outstanding clinical investigators across our campus to help grow our oncology clinical trials program and the UM Cancer Network, as well as further develop our brain tumor clinical trial portfolio."

The prestigious research award, established in 2009, was created to recognize and support outstanding clinical investigators at National Cancer Institute (NCI)-designated cancer centers who dedicate their work to improving the lives of cancer patients through clinical trials. Through their leadership and activities, these investigators promote a successful culture of NCI-funded collaborative clinical research.

"Dr. Mishra truly has epitomized the essence of this award.
Under his leadership, among hundreds of cancer centers world-wide, our department has been recognized for being a top-enrolling institution to NCI-sponsored trials, thus impacting the lives of thousands of cancer patients world-wide, a truly remarkable achievement we can all be proud of," said

William F. Regine, MD, FACR, FACRO, Professor and Isadore & Fannie Schneider Foxman Chair in Radiation Oncology.

Dr. Mishra has also been the PI of a number of investigator-initiated clinical trials at UMGCCC, including two recently activated trials focused on combining radiation therapy with laser-interstitial thermal therapy for patients with a newly diagnosed or recurrent glioma. He has also worked with leadership within the NCI National Clinical Trials Network through an affiliation with UMGCCC to help bring access to NCI-funded clinical trials to patients in India and the United Kingdom.

Dr. Mishra is among 10 talented investigators who were formally recognized as CCITLA recipients at the NCI Clinical Trials and Translational Research Advisory Committee Meeting on July 14. Each awardee is a full-time faculty member and a board-certified physician who has practiced medicine between three- and eight-years post-fellowship and who has contributed significantly to promoting NCI-funded trials at his or her cancer center.

As an award recipient, Dr. Mishra will earn partial salary support for two years with the purpose of engaging in activities and efforts related to the award.

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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

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Morris, January Payne, Contributing Writers

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