inside: Neurosurgery Debuts New NeuroBlate® System



UNIVERSITY of MARYLAND School of Medicine

SOMnews

Point of PRIDE



Abraham M. Lilienfeld, MD UMSOM Class of 1944

Dr. Lilienfeld was known as the father of contemporary chronic disease epidemiology

for his instrumental work in epidemiology — expanding epidemiology from a discipline focused on infectious diseases to one embracing chronic diseases.



DEAN'S MESSAGE

During this academic year, we have continued our tremendous, recordsetting path of growth and success in each of our core mission areas (research, education, clinical care, and community impact). The UMSOM's strong trajectory of growing our total research and clinical programs persisted. The MD Program began a curriculum renewal process, and we expanded several community impact programs. We also sustained and advanced our global footprint through the research and clinical programs we maintain in 31 different countries worldwide.

In addition to consistently strengthening our core mission areas, we also focused on transforming our community in other significant and impactful ways. Many different teams joined each other to focus inwardly and closely examine culture and diversity issues. We initiated a series of Town Hall meetings, which gave us the opportunity to listen to faculty, staff, students, and residents as they shared their concerns and ideas. In collaboration with UMB President **Jay Perman**, **MD** and UMMC President and CEO, **Mohan Suntha**, **MD**, the UMSOM launched an historic, school-wide Culture Transformation Initiative (CTI), dedicated to ensuring we cultivate a safe, professional, inclusive, and diverse work environment for everyone.

I am proud of the way in which the UMSOM community identified, strategized, and implemented steps to recognize and address the challenges we have faced. These actions enabled us to take advantage of rare opportunities, which ultimately yielded major accomplishments in each of our mission areas throughout this academic year:

CLINICAL CARE

• We treated nearly a million patients this past year — over 750,000 across 60 locations around the state.

• We performed more than **30,000 surgeries** for our patients.

• In the Medical Center alone, we cared for nearly **28,000** hospitalized patients, including some of the toughest and most complex cases in the country.

RESEARCH & DISCOVERY

- We submitted more than 2,000 grants, worth over \$2 billion.
- We were awarded more than **1,700 total grants and contracts, projecting \$575 million** in total funding, another new record!

What's on My Mind...



... is the passion for excellence that has driven the activities and achievements of the School of Medicine throughout FY19.

COMMUNITY IMPACT

• We took on the opioid crisis with initiatives on multiple fronts, including telemedicine, community partnerships, public education programs, and aggressive medicine-assisted treatments (MAT) programs.

• We worked to decrease infant mortality through our close involvement in B-more for Healthy Babies (specifically Uptown/ Druid Heights), which is now celebrating 4 1/2 years with zero sleeprelated infant deaths.

EDUCATION

• We began an inclusive and thorough review and **renewal of our MD Program curriculum** with the goal of preparing our graduates to be successful physicians and lifelong learners for the rest of their careers.

• We had another highly successful **Match Day this year with 99 percent** of our students matching and exceeding the national average of 95 percent.

You have played extremely critical roles in making these achievements possible. Please accept my most sincere appreciation for everything you do, every day, to make the UMSOM a national and international leader in academic medicine and a valued neighbor and contributor in our state and local community!

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

E. albert luce

E. Albert Reece, MD, PhD, MBA



• In new ventures, we are on track to again **surpass 100 scientific disclosures** (pre-patent discoveries).

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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SOMnews has expanded! In addition to our features in Clinical Care, Research, Education, and Community Outreach, we have included a special section on the Culture Transformation Initiative.

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Making Good Things Happen

The following is excerpted from remarks made by Michael Cryor, Chair, UMSOM Board of Visitors, at the recent UMSOM Gala.



"As members of the School of Medicine Community, we come from backgrounds so diverse, interesting, and so remarkable. Yet, at the same time, we share a common bond. We are all committed to making people well — to healing those who face the most complex and daunting health challenges. We give of our talents, our expertise, our ideas, and relentless determination to make possible heroic feats of medicine and technological advances — to make possible comfort, assurance, and healing in the face of unreasonable odds. Every day, our students, our doctors, and researchers are creating FIRSTS in their fields and asserting why and how this institution of medical learning matters to Baltimore, to Maryland, to our Nation — and, in fact, our world. This is what we should not — must not — lose sight of.

Perspective — it is said — is the best friend in times of both awesome achievement and daunting challenge. And so, I urge each one — and all of us, to assert this broader perspective of what has brought us here together and what unites us in a common vision — and in the shared work of this celebrated School of Medicine.

Simply put — we are an institution that works every day to find solutions. Think about that — our enormous capacity to make things happen — good things happen! Because this is our basic disposition, and what defines our purpose and mission."

A Third Century Where Discovery Transforms Medicine 655 W. Baltimore Street • Baltimore, MD 21201

SOMnews NewProgram

TRANSFORMATION INITIATIVE PROGRESSES

CTI WEBSITE LAUNCHED

The University of Maryland School of Medicine's Culture Transformation Initiative (CTI) website has been launched. This site is designed to provide resources and information to support the UMSOM's CTI commitment to ensure that we have a safe, respectful, and inclusive working environment on campus.

The site provides background information, event details, contact information, and reports all designed to support an inclusive and safe environment across campus.

The site outlines the activities have taken place or are planned as part of the CTI, such as planned reporting equity in opportunity, promotions, and compensation, and development of the diversity dashboard.

The site provides a timeline for CTI initiatives through 2020, including activities such as Title IX training, the completion of the gender equity in compensation study, unconscious bias training, the establishment of centers of excellence, finalization of policy aligned across campus, support of implementation of the Just Culture Initiative at UMMC, and the launch of 360-degree evaluations for all UMSOM leaders.

For more information and to learn



UMSOM JOINS NAS EFFORT

The School of Medicine has joined with more than 40 colleges, universities and research institutions to collaborate with the National Academies of Sciences, Engineering and Medicine's (NAS) Action Collaborative on Preventing Sexual Harassment in Higher Education.

The purpose of the action collaborative is to bring together academic leaders and key stakeholders to prevent sexual harassment across all disciplines and among all people in higher education.

UMSOM is working on the *Action Collaborative's Working Group on Evaluation: Measuring Climate and Gauging Progress on Campus.*

Representatives serving on the committee are Nancy Ryan Lowitt, MD, EdM, Associate Dean for Faculty Affairs and Professional Development and Director of the UMSOM CTI, and Mikhel A. Kushner, JD, MSW, the University of Maryland, Baltimore Title IX Coordinator and Cleary Act Compliance Officer.

The goal of this working group is to develop and implement approaches for measuring the campus climate and gauge of impact of policies on analyzing data from those surveys. In addition, this group will develop guidelines or a framework for producing public reports and on how to measure progress of actions taken by Action Collaborative members to prevent and address sexual harassment. As well, the group will develop methods to increase transparency.

The NAS Action Collaborative on Preventing Sexual Harassment in Higher Education was formed earlier this year, largely in response to an NAS report that was issued in 2018.

The four main goals of the action collaborative, which includes 48 institutions nationwide, are to:

1) raise awareness about sexual harassment and how it occurs, the consequences of sexual harassment, and the organizational characteristics and recommended approaches that can prevent it;

2) share and elevate evidence-based institutional policies and strategies to reduce and prevent sexual harassment;

3) contribute to setting the research agenda, and gather and apply research results across institutions; and

4) develop a standard for measuring progress

more about the UMSOM CTI, visit: medschool.umaryland.edu/CTI



Culture Transformation Initiative



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hank-you for your active interest and participation in the University of larydand School of Medicin's Culture Transformation Initiative (CTI), ean Reec has launched this new initiative with an unwavering commitment ensure that we have a sale respectful, and inclusive work environment for ensure that we have a sale respectful, and inclusive work environment for ensure that we have a sale respectful, and inclusive work environment for ensure that we have a sale respectful, and inclusive work environment for ensure that we have a sale respectful, and inclusive work environment for each step of the change process.

ave already made tremendous strides. This school wide publication is bill recource gain for the C1-description the wide range of activities, ama and committees that are dedicated to making both short-term and there changes in critical areas. We are provide to say that many of these been initiated by members of our community, working collaboratively UMSON leadership. Importantly, the publication also **highlights key** being taken in policy exactiones, processinal development, equity

nsation, and culture/climate research.

and actions implemented by other working groups of the Action Collaborative. This working group will develop campus climate surveys and guidance toward reducing and preventing sexual harassment in higher education.

UMSOM-WIMS EDUCATION SERIES EVENT KICKS OFF IN JULY

Developing Your Personal Brand: Rising and Thriving as a Woman Leader Rajshree Agarwal, PhD, the Rudolph Lamone Chair and Professor in Strategy and Entrepreneurship and Director, The Ed Snider Center for Enterprise and Markets at the Robert H. Smith School of Business at the University of Maryland, will speak at the first UMSOM Women in Medicine and Science (WIMS) Education Series event.

Dr. Agarwal will discuss "Developing Your Personal Brand: Rising and Thriving as a Woman Leader" on July 10 at 1 pm in the HSF II Auditorium. In this event, Dr. Agarwal will discuss the challenges in leadership and how to reframe age-old patterns to bring out the best of oneself in the workplace.

First Annual WIMS Celebration On **September 26 from 4 to 6 pm in Leadership Hall,** WIMS will hold the first annual Women in Medicine Celebration to honor the incredible accomplishments of the women who have been promoted in the School of Medicine during the year.



WHITE COATS: Another Part of Our Culture

As part of UMSOM and UMMC's broader focus on achieving a culture that conveys the highest level of quality and professionalism, **Dean E. Albert Reece** is further emphasizing the UMSOM's policy that all clinicians, including faculty, fellows, residents, and students, must wear white coats in all clinical settings.

UMSOM and UMMC have worked together on several initiatives that focus on the delivery of compassionate, patient-centered care. A key component of that is the professional appearance of clinical faculty, fellows, residents, and students when meeting with patients. *"Patients and their families see our external presentation before they become exposed to our intellect,"* Dean Reece noted.

Recent studies have reaffirmed that most patients prefer to see their physicians in formal attire with a white coat. The white coat conveys a message

POLICY STATEMENT:

All School of Medicine clinical faculty members, residents, fellows, and students are required to wear white coats in all clinical settings —

of competence, confidence, and to some extent, consolation. Therefore, the dress code we choose goes a long way to ensure patient satisfaction and confidence in the services we provide. $\hat{}_{n}$

hospital or outpatient practices.

We appreciate your cooperation.

In addition to creating a positive impression on those we serve and with whom we interact, proper deportment also supports a more favorable perception of ourselves. When we dress our best, we are more likely to perform our best.

- Dean E. Albert Reece, MD, PhD, MBA





NEUROSURGERY

Targeting Brain Tumors And More UMSOM NEUROSURGERY DEBUTS NEUROBLATE

SYSTEM

FIRST IN THE STATE!



"

t's another great tool to have in our neurosurgical toolbox," says Graeme F. Woodworth, MD, FACS, Professor of Neurosurgery at the UMSOM. Dr. Woodworth is referring to the new NeuroBlate[®] System from Monteris® Medical, which was recently put into operation through a collaboration between the Departments of Diagnostic Radiology and Nuclear Medicine and Neurosurgery at the University of Maryland Medical Center (UMMC). Currently, the system is the first and only one of its type available to patients in Maryland.

As the Director of The Brain Tumor Treatment & Research Center at the University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center, Dr. Woodworth is clearly excited about offering another effective and minimally invasive treatment option that can preserve quality of life for his patients. *"The NeuroBlate® System is a next-generation technology for treating patients with brain tumors who would otherwise not be candidates for surgery, either because of high surgical risks or because the tumor's location deep within the brain is not amenable to surgery," he says. It is particularly effective in treating metastatic tumors in the brain that have not responded or partially responded to radiation.*

A Laser Interstitial Thermal Therapy (LITT) system, NeuroBlate[®] employs minimally invasive, robotically controlled laser thermotherapy that uses an MRI-guided laser energy source to ablate (destroy) diseased brain tissues, such as a brain tumors or radiation necrosis. Unlike traditional brain surgery, a procedure with the NeuroBlate[®] System does not require a large opening in the skull. Instead, the neurosurgeon creates a small hole about the diameter of a pencil. While the patient is in the MRI machine, the neurosurgeon uses an MRI-compatible robot to precisely guide the laser probe into the affected area of the patient's brain. The probe then delivers a measured charge of laser light energy that heats and destroys the affected tissue. Because the NeuroBlate[®] System is MRI guided, the neurosurgeon is able to visualize and continuously monitor the specific area of the brain to be ablated in real time. Post-surgery, patients undergoing this procedure have a short recovery time and are able to return home with only one or two stitches in their scalp. Dr. Woodworth points out that the NeuroBlate[®] System has an even greater treatment potential beyond that of ablating brain tumors. *"This tool is broadly approved for the controlled application and monitoring of thermal energy in the brain, which can be applied in a safe way to treat malfunctioning regions related to epilepsy,"* he says.

What's more, the system directly compliments therapies already in use by UMSOM neurosurgeons, from radiation and Gamma Knife radiosurgery to focused ultrasound (FUS) and deep brain stimulation (DBS). *"There have been decades of studies looking at the combination of thermal energy and radiation energy to treat tumors,"* says Dr. Woodworth. *"There is substantial evidence that these treatments synergize well together."*

In the future, neurosurgeons will likely pre-treat brain tumors with thermal energy to sensitize the tumor to the radiation effect. "NeuroBlate[®] has even been used for spine surgery, by feeding the laser probe into the bone where the tumor is located to ablate the tumor," says Dr. Woodworth. "All without having to perform more invasive approaches."

While he is currently the only UMSOM neurosurgeon presently employing NeuroBlate[®] to treat patients, Dr. Woodworth anticipates a much wider use of the new system to address intercranial and other cases. *"We are very excited to have this new technology to help our patients,"* he notes.



For more information call 410.328.6034 or visit neurosurgery.umaryland.edu



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DEPARTMENT OF EPIDEMIOLOGY AND PUBLIC HEALTH

Environmental Factors Play Key Role in Risk of Cancer

Obesity, smoking, drinking, and exposure to certain toxins play a role in increased risk of cancer.



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According to research by Joanne Dorgan, PhD, MPH, Professor of Epidemiology and Director of the Division of Cancer Epidemiology.

Dr. Dorgan conducts research on endocrine and metabolic influences on cancer risk, particularly breast cancer, and how lifestyle influence risk through these pathways. Part of her research focuses on early life exposures and adult chronic disease risk. Early life exposures have long been hypothesized to influence breast cancer risk, and her ongoing research in the Dietary Intervention Study in Children (DISC), in which childhood diet, adiposity, and hormones were found to influence later breast density, a strong risk factor for breast cancer, supports this premise.

She is a Co-Leader of the Population Science Program, University of Maryland Greenebaum Comprehensive Cancer Center and recently established the Maryland Cancer Survivorship Cohort (MCSC) to identify tumor, patient, treatment, and community level determinants of cancer risk and survivorship disparities. The MCSC provides the infrastructure to collect blood samples and demographic, lifestyle, and psychosocial data from UMGCCC and network hospital patients and a sample of non-cancer controls and link these resources to pathology specimens and treatment data. Patients enrolled in the cohort are followed to ascertain clinical and quality of life outcomes. The MCSC will support investigator-initiated translational research that is responsive to National Cancer Institute's Precision Medicine Initiative as well as behavioral research aimed at improving cancer patients' quality of life.

Cancer: A Disease of Aging

In a recent presentation to the University of Maryland School of Medicine's Seniors Medical Symposium, which was held during April and May, Dr. Dorgan presented on "Determinants of Cancer Risk Over the Life Course: An Epidemiologic Perspective." In her presentation, she highlighted data showing that although cancer is a disease of aging, in some cases *in utero* and childhood or adolescent exposures can influence risk of cancer diagnosed many years later in adulthood. For example, adolescence, when the breasts develop, may be a particularly vulnerable time for exposure to carcinogens related to breast cancer. Numerous other organs, such as the brain and lungs, continue to grow throughout childhood and adolescence into young adulthood and may be more susceptible to carcinogens during this time.

Both environmental factors and genetics play a critical role in cancer incidence according to Dr. Dorgan. Cancers that are primarily genetically determined tend to occur at an earlier age, as is the case for breast and ovarian cancer among BRCA1 and BRCA2 carriers. Numerous environmental exposures also contribute to cancer risk and timing of exposure can be critical. Studies of atomic bomb survivors clearly demonstrate the influence of age at exposure to radiation on subsequent cancer risk; individuals who were children at the time of the blast were at a substantially increased risk of subsequently developing cancer compared to those who were adults. But childhood is not always the most relevant time for exposure. For example, sun exposure is associated with skin cancer risk; but whereas melanoma is more strongly associated with childhood sun exposure, squamous cell carcinoma of the skin is more strongly associated with adult sun exposure.

Duration of exposure is also an important factor in determining risk and sometimes can be difficult to tease apart from timing of exposure. Though for smoking, studies of quitters suggest smoking duration is more important than age started smoking in association with lung cancer risk. Smokers have a 25-fold excess risk of developing lung cancer compared to non-smokers. However, their risk falls off exponentially after quitting, such that after about 30 years, the likelihood of a prior smoker developing lung cancer approaches though never reaches that of a never smoker.



Number of New Cancer Cases Worldwide Attributable to Overweight/ Obesity, 2012

Obesity is a generally underappreciated cancer risk factor, but it is associated with increased risk of cancer at multiple sites. Risk is strongest for liver, gall bladder, kidney and uterine cancers, but colorectal, pancreas, ovary, and thyroid cancer risk also are increased in association with obesity. The association of obesity with breast cancer risk differs by menopausal status. Whereas premenopausal obese women are at a lower risk of breast cancer, postmenopausal women who are overweight and obese are at an increased risk.

From a public health perspective, attributable fraction can frequently be more informative than relative risk. Relative risk is a measure of the strength of an association, while attributable fraction also takes into account the number or people exposed and is a measure of the proportion of cancers caused by a risk factor. Because it is so common, more adult cancers in the US are attributed to obesity than any other cause except smoking.

Dr. Dorgan's DISC was a National Institutes of Health funded longitudinal study that tracked 230 girls aged 8-10 years at baseline for almost 20 years with the goal of identifying childhood and adolescent influences on breast cancer risk factors in young adulthood. Women who have less dense Rate of New Cancers by Age Group, All Races, Both Sexes All Types of Cancer, United States, 2015



breasts are at a decreased risk of breast cancer, and among their numerous findings, Dr. Dorgan and colleagues reported that young women who were heavier during childhood and adolescence had less dense breasts compared to those who were leaner, independent of their weight at the time breast density was measured. In her current R01, Dr. Dorgan is using global metabolomic profiling to identify serum metabolites and associated metabolic pathways that mediate the inverse association of childhood adiposity with young adult breast density and potentially breast cancer risk.

SOMnews CommunityImpact

UM WATERLOO CROSSING

Integrated Lyme Disease Care at UM Waterloo Crossing

UMSOM Physicians are Offering Integrative Modalities for Patients with Lyme Disease

Approximately 300,000 people in the U.S. may get infected with Lyme disease this year, according to the Centers for Disease Control and Prevention. Lyme disease is the leading vector-borne illness in the United States, with the northeastern and upper midwestern regions at highest risk for infection. Maryland, in particular, is one of the hardest-hit states. In 2016, some 21.2 per 100,000 residents had a confirmed case of the disease. While Lyme disease is curable typically with antibiotics, if left untreated, the disease may cause severe and persistent symptoms.

Through an integrated, multi-disciplinary, and holistic approach, University of Maryland School of Medicine (UMSOM) faculty physicians are offering additional treatment options for adult patients with acute and chronic Lyme disease. **Kalpana Shere-Wolfe, MD,** an Assistant Professor in the Department of Medicine, directs the new Integrated Lyme Program at the University of Maryland Waterloo Crossing Center.

Based in Columbia, Md., Waterloo Crossing is one of more than 20 locations that are part of the University of Maryland Faculty Physicians, Inc. network. The multi-specialty facility includes an ambulatory surgery center and immediate care center.

"What sets our program apart is that we take into account the whole person and make use of all appropriate therapies," says Dr. Shere-Wolfe. *"We work closely with other University of Maryland experts to treat all aspects of the disease."*

The Program's faculty physicians work alongside sleep medicine experts, rheumatologists, cardiologists, pain medicine physicians, neurologists and other infectious diseases specialists to provide a variety of treatment options for patients with both acute and chronic symptoms related to Lyme disease. Treatments include both conventional and integrative options, such as oral and intravenous therapy (IV), antibiotics, acupuncture, cognitive behavioral therapy, and mind body practices. The Program also provides consultation services to those that have been misdiagnosed with the disease.

"We try to ascertain the etiology of our patient's symptoms and

To date, the program has provided care for over 180 patients.

"There is a huge need for patients getting this type of care," says Dr. Shere-Wolfe. *"We hope our center will serve as a model for other centers in Maryland and the nation."*

Integrated Lyme Program Snapshot

- Consultations for Acute Lyme Disease and Post-Treatment Lyme Disease.
- Walk in Lyme/Tick Clinic in Summer Months.

• Conventional Treatment Options: Peripherally Inserted Central Catheter (PICC) line placement and intravenous therapy (IV) antibiotics, Oral antibiotics, Neurology and Rheumatology referrals, Physical therapy, and Cognitive behavioral therapy.

- Innovative Treatment Options: Mind-body practices, Breathwork, Meditation, Dietary evaluation, Referrals for acupuncture, Biofeedback, Massage, and Reiki.
- Access to University of Maryland Medical Center (UMMC) and National Institutes of Health (NIH) research studies.
- Access to Lyme Wellness Workshops: Lyme information, Nutrition and Wellness education, and Patient support.

develop a treatment plan that meets their needs," Dr. Shere-Wolfe says.



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"The foundation of every integrated medicine consultation is the relationship between the practitioner and the patient. We consider that relationship to be healing, and we intentionally strive for that in what we do and what we say."

- Dr. Shere-Wolfe



FREE



Lyme Wellness WORKSHOPS

WORKSHOP TOPICS:

July 18, 2019 6:30–7:30 pm **Lyme Basics and Q&A**

August 15, 2019 6:30 – 7:30 pm **Lyme Support Group**

5900 Waterloo Rd., Suite 250, Columbia, MD 21045

Ask the Expert Dr. Shere-Wolfe

What is Lyme disease?

Lyme disease is caused by *Borrelia burgdorferim*, a bacterium, which is transmitted by the bite of infected blacklegged ticks. The risk of infection is highest in late spring and summer months, and typical symptoms include fever, headache, and a gradually expanding rash called erythema migrans. Most cases are cured with antibiotics, but approximately 10 to 20 percent who are treated with antibiotics will have symptoms that persist well after treatment, often known as post-Lyme disease syndrome.

Why is Lyme disease so hard to detect and diagnose?

Lyme diagnosis depends on symptoms, physical findings, tick exposure history, and lab tests. Because the bacteria are difficult to culture, we rely on a serology blood antibody test and patient history to help us. The CDC recommends two-tier testing, which means an ELISA antibody test; if that test is positive or equivocal, we then administer a Western Blot test. The Western Blot test measures your body's antibody response to Borrelia antigens.

Typically, when we have an infection, our body first produces a IgM antibody that takes about four weeks to be positive. IgM antibiodies are the first antibody produced when you are infected with new bacteria. It rises first before the IgG [also an antibody] and then declines after a few weeks. They usually start to appear one to two weeks following a tick bite and peak around three to six weeks, but then decline over next few weeks or months. Only 30 percent of people with Lyme disease will have positive IgM after infection in the first few weeks, but after four weeks about 70 percent will have positive IgM. The IgG test will be positive in most patients with Lyme disease for four to six weeks. IgG are also antibodies, but they take longer to become detectable, and they usually will last many years, decades, or even a lifetime.

How important is it to get quick treatment?

It is important to get quick treatment if you are symptomatic as Lyme disease can progress from early disease to disseminated infection and then cause later, long term issues. It is also important to remember not every tick is an Ixodes scapularis tick and not every Ixodes scapularis tick is infected with Borrelia. Even if a tick is infected with Borrelia, it not necessarily a given that infection is transmitted especially if the tick is removed early. If you get a tick bite, monitor yourself carefully. If you are symptomatic or develop a rash, seek prompt medical evaluation and treatment.

You can decrease your risk by:

• If possible, avoid tick-infested areas. Ticks like humid moist areas in wooded and grassy areas. That's why they also like moist, humid parts of the human body like the armpits and groin areas.

• Wear sneakers or shoes instead of sandals and long pants. Ticks can't fly or jump. Instead, they wait for a host, resting on the tips of grasses and shrubs, and then attach on. They are usually closer to the ground, so wearing long pants and tucking pant legs into socks, and wearing shoes instead of sandals, makes sense too.

• Keep to the center of the trails.

• Use insect repellents containing DEET (N,Ndiethyl-meta-toluamide) or permethrin, but with caution. Check the CDC website about which insect repellent is right for you.

• Do daily tick checks if out in the woods often. Look especially in the groin and armpits. In small children, they can also be found on the head and neck, so be sure to check there as well.



How can people prevent contracting Lyme disease and other tick-borne illnesses?

Tick exposure is the key to infection and anything that decreases tick exposure decreases chance of infection. Deer ticks are found primarily in heavily wood areas from Maine to Maryland, Midwest, and upper regions of California. Spending a lot of time in wooded or grassy areas in these regions of the US increase chances of tick exposure and tick bite. Ticks need to attach to skin to spread infection, so exposed skin also increases chances of tick bite.

• Shower after being outdoors to wash off ticks and also to find ticks more easily.

Learn more about us at **umfpi.org/Lyme**

To schedule a consultation with our Lyme experts, please call: **410-328-9102.**

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SOMnews

2019 UMSOM Celebrates its 210th Graduation Ceremony

The Class of 2019 received their doctoral hoods in a special graduation ceremony at the Hippodrome Theater on May 16. The ceremony marked the culmination of at least four years of studies for the 162 physicians who earned medical degrees, as well as combined MD/PhD and MD/Masters degrees. Hundreds of family, friends, and faculty were there to cheer on the graduates as they officially transitioned from students to doctors.

The themes of collaboration, gratitude, and innovation were the focus of remarks by the commencement speakers.









Diana W. Bianchi, MD, Keynote Speaker In a captivating keynote address, Dr. Bianchi, Director of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), underscored the power of touch and technology.

"In medicine we have the unique privilege of touching our patients, both literally and figuratively," she said. "Over the next four decades, the technologies that you will use to do your job will certainly change. One thing that will not change, however, is the power of observation and the healing proprieties of human touch. We need both to provide optimal care."

The Class of 2019 matched at 73 different hospitals in 29 states, with 57 members of the class staying in the state of Maryland for their residency training.

A Develor No.6 Mews



MUCH TO BE GRATEFUL FOR, AND MUCH DIVERSITY TO CELEBRATE.

June is no exception as it is Pride Month, dedicated to celebrating sexual diversity and gender variance. Baltimore and UMSOM have a vibrant sexual and gender minority community. Our School of Medicine students in the LGBTQ Health interest group are collaborating with sister groups across the campus to represent our institutions at events across the city this month, and to engage in fellowship, inclusion, and community building that celebrates living one's truth, and the dignity of all.

UNIVERSITY of MARYLAND School of Medicine 655 West Baltimore Street Baltimore, Maryland 21201-1559



AVE the DATE Wednesday, October 30 2019 STATE of the SCHOOL ADDRESS

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