

University of Arkansas for Medical Sciences

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A Newsletter for Medical Professionals

SUMMER 2024

UAMS OFFERS EXCLUSIVE PAIN MANAGEMENT OPTIONS BY NATIONALLY KNOWN EXPERTS

MULTIDISCIPLINARY APPROACH, RESEARCH EMPHASIS BOOST TAILORED TREATMENTS

When it comes to pain, the University of Arkansas for Medical Sciences (UAMS) has so many treatment options, it can make your head hurt.

But don't worry — we're here to help you painlessly navigate the options to make it easy to refer patients to the most appropriate clinic.



Sam Dalvi, M.D., a professor of medicine who directs the Division of Rheumatology and Immunology in the UAMS Department of

Internal Medicine, said his division specializes primarily in arthritic diseases, including osteoarthritis, gout, rheumatoid arthritis and psoriatic arthritis.

These conditions are usually treated with anti-inflammatory and disease-modifying, anti-rheumatic drugs (DMARDs), whether administered in pill form, as injections or as infusions. Whether the slower-acting conventional variety, newer biological therapies that target different proteins or small molecule therapies such as JAK inhibitors, DMARDs treat the underlying cause of conditions in

which the immune system attacks the body's healthy tissues. They can improve symptoms such as pain, stiffness and swelling.

Dalvi was recently recruited to UAMS from the University of Alabama at Birmingham, where he obtained his medical degree and completed his residency in internal medicine. He later completed a rheumatology fellowship at New York University.

"One of the diseases we see commonly in rheumatology is gout," he said, noting that it is a very common form of arthritis in the southeastern United States. The division also treats pseudogout, which is caused by a different type of crystals. In fact, the division is creating a Gout Clinic to enable patients to receive optimal management for this arthritic condition and to provide opportunities to participate in clinical trials for new medications to combat the disease.

For pain resulting from bone spurs or nerve problems, Dalvi's team refers patients to UAMS' Pain Clinic, where X-rays and ultrasound are used to provide minimally invasive treatments.



Johnathan H.
Goree, M.D., is an
anesthesiologist who
directs Interventional
Pain Management
Services at UAMS,

focusing on the treatment of chronic pain conditions. He treats patients at the UAMS Health Pain Clinic, where he provides spinal cord stimulation, vertebral augmentation, injections to treat back pain, neck pain and other, more complicated types of chronic pain. Two of these are Complex Regional Pain Syndrome (CRPS) and Painful Diabetic Peripheral Neuropathy (PDN) or painful foot pain from diabetes.

Goree is a nationally published expert on CRPS and PDN, and has given international lectures and published protocols for the treatment of both. They are extremely painful diseases, and UAMS offers cutting-edge therapies that often are not offered in many centers around the country.

UAMS Level 4 Comprehensive Epilepsy Center Uses Innovative Procedures to Treat Drug-Resistant Epilepsy

For patients with drug-resistant epilepsy, surgery is often the most viable option for relief from seizures.

Among the surgical options is deep-brain stimulation surgery (DBS). The FDA-approved DBS target for epilepsy is the anterior nucleus of the thalamus, but scientific evidence is gathering that stimulation of the centromedian nucleus is particularly effective for the treatment of generalized epilepsy. Meanwhile, the pulvinar is the largest thalamic nucleus and has extensive connections to the temporal, parietal and occipital lobes.



In January, neurosurgeon Viktoras Palys, M.D., surgical director of the UAMS Epilepsy Center, and PGY-3

resident Alaina Body, M.D., performed a cutting-edge DBS procedure in which they implanted electrodes into both thalamic nuclei

- the pulvinar and the centromedian - in a 36-year-old patient with drugresistant epilepsy.

Epilepsy patients who have not responded to two or more antiseizure medications have drugresistant epilepsy, also known as medically refractive epilepsy. Such patients constitute about 30% of the estimated 65 million people with epilepsy worldwide, and the condition is often difficult to manage. National guidelines stipulate that

such patients must be referred to a comprehensive epilepsy center where extensive tests and a multidisciplinary panel of experts determine the best treatment.

The University of Arkansas for Medical Sciences (UAMS) Epilepsy Center is the state's only adult Level 4 Comprehensive Epilepsy Center, which means it has the highest certification available from the National Association of Epilepsy Centers (NAEC) and offers the full spectrum of treatment options available for epilepsy management.

Palys, who has been surgically treating drug-resistant epilepsy patients at UAMS for six years, said this robotic DBS procedure required specific technical nuances and nonconventional planning to simultaneously target two areas in the thalamus.

"Very rarely are two procedures alike," he said. "Each patient is different, each patient's epilepsy is different, the work up is different, and then surgery is different."

"The goal," Palys said, "is to reduce seizure burden. Otherwise, patients are hopeless as they have already tried numerous medications for many years. Because of DBS, they can have hope back and can have up to 75% less seizures in the long term."

To refer a patient to the UAMS Health Epilepsy and Neurology Clinic, call 501-686-5838 or fax 501-526-7145.

SUMMER 2024 Message from Dr. Krause



Dear Colleagues,

As World Hepatitis Day approaches on July 28, practitioners should be aware that the World Health Organization released

new guidelines in March concerning prevention, diagnosis and treatment.

As we know, hepatitis B, whether acute or chronic, can be prevented by a safe and effective vaccine that is usually given soon after birth, with boosters a few weeks later. This offers nearly 100% protection against the virus, and is now recommended for all infants, all children or adolescents younger than 19 who haven't been vaccinated, all adults between the ages of 19 and 59, and anyone 60 or older with risk factors for infection.

The 2024 guidelines also prioritize alternative therapy regimens, expanded eligibility for antiviral prophylaxis for pregnant women to prevent mother-to-children transmission of the virus, and the use of point-of-care DNA assays and reflex HBA DVA testing.

Research shows that hepatitis B and C viruses can cause cancers in multiple organs, putting infected people at a similar or significantly higher risk of developing cancer than someone who smokes one pack of cigarettes a day.

So as we honor the birthday of the late Baruch Blumberg, M.D., the Nobel laureate who discovered the hepatitis B virus and developed the first vaccine, let us heed these priorities to further the goal of eliminating hepatitis by 2030.

Have a great summer!

Michelle Wiause

Michelle Krause, M.D. Senior Vice Chancellor, UAMS Health CEO, UAMS Medical Center Professor of Nephrology Department of Internal Medicine **UAMS** College of Medicine



Physician Relations

News to **Know:** Updates from UAMS

UAMS Offers Bariatric-Focused Intervention Program (B-FIT) For Obese Transplant Patients

The transplant team at UAMS is offering a new specialty service called the B-FIT Program, which stands for Bariatric-Focused Intervention for Transplant.

The program is for patients who need an organ transplant but have been told they don't qualify because of their weight. It offers multidisciplinary and comprehensive care to help them overcome obesity to become eligible for a transplant.

The program is accepting eligible patients with a BMI of 40-50. All patients must have a transplant referral and pass initial financial and medical screening for a transplant.

For more information, or to refer a patient, call 501-686-6640 for kidney patients or 501-686-8962 for liver patients.



UAMS is Only Place in Arkansas to Offer New Testosterone Therapy

Kyzatrex, a new drug for testosterone therapy, is now available at the University of Arkansas for Medical Sciences (UAMS) pharmacy.

The FDA-approved oral testosterone undecanoate softgel capsules, available through prescription from the UAMS Health Urology Center in the Premier Medical Plaza in Little Rock, isn't widely available through large retail pharmacy chains and isn't yet available anywhere else in Arkansas.

It is used to treat adult men who have low or no testosterone levels due to certain medical conditions, and is taken twice a day with food. It is formulated to bypass the liver to prevent damage.

Prescriptions must be paid for in cash, though patients may obtain the first month free.

UAMS Offers New Cardio-Obstetrics Program for Mothers with Cardiac Disease

The UAMS Health Cardio-Obstetrics Clinic is offering a new obstetrical program designed to provide multidisciplinary management of mothers with cardiac disease and their babies throughout pregnancy and the postpartum period.

The Cardio-Obstetrics team is a coordinated, collaborative group of experts in obstetrics, anesthesiology, cardiovascular medicine and surgery. Team members work together to optimize the health of pregnant women with cardiac disease before, during and after pregnancy.

Cardiovascular conditions treated in the program include cardiomyopathy, heart failure, valvular heart disease, aortic disease, pulmonary hypertension, cardiac transplant, congenital heart disease, arrhythmias, deep vein thrombosis and ischemic heart disease, among others.

In addition to real-time multidisciplinary care, patients will have access to maternal echocardiograms, fetal echocardiograms and routine prenatal care at the UAMS Health Women's Center.

To refer a patient to the program, call Cindy Hairston, RN, at 501-526-7313 and specify "cardio-OB clinic." Referrals also may be faxed to 501-526-7287 or emailed to ACSchedulingOBGYNClinics@UAMS. edu. Use routine scheduling for patients who have already been seen at the UAMS Health Women's Center, but specify "cardio-OB clinic appointment."

Testosterone replacement therapy (TRT), used to return T-levels to a normal range, has traditionally consisted of patches, gels, pellets and injections.

(Continued on page 4)

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Quiz of the Month

QUESTION

A healthy 42-year-old woman had an LDL-cholesterol level of 157 mg/ dL when measured 2 years ago. When should her lipid levels be remeasured?

- a) When she develops a cardiovascular risk factor
- b) When she becomes postmenopausal
- c) Now
- d) In 2 years
- e) When she reaches age 50

News to Know: Updates from UAMS

(Continued from page 3)

New Website Provides Information on Maternity Care Services, Initiatives Statewide

The Arkansas Perinatal Quality Collaborative (ARPQC), a partnership between UAMS, the Arkansas Department of Health and 34 birthing hospitals across the state, has launched a new website to create a hub for patients and health care providers to access pivotal information related to maternal health in Arkansas.

The site, arpqc.org, includes information about the collaborative, education to help patients make informed health care decisions and resources for providers.

"This is the first time this information is available in one place for all hospitals in Arkansas," said **Jennifer Callaghan-Koru, Ph.D.**, an associate professor in the UAMS Department of Internal Medicine and the director of evaluation for the ARPQC. The goal is to strengthen the quality of maternal care and to improve patient outcomes and experiences.



UAMS Opens Clinic for Substance Abuse Patients Ages 12-21

The University of Arkansas for Medical Sciences (UAMS) recently opened the Six Bridges Clinic, which treats patients between the ages of 12 and 21 for dependency on substances like opioids, alcohol and marijuana.

The first of its kind at UAMS, it was developed in conjunction with Arkansas Children's Hospital and is funded by a grant from the Blue & You Foundation for a Healthier Arkansas. It offers screening and evaluation services, in addition to treatment for substance abuse

disorders and up-to-date recovery resources.

"We are currently in a serious public health crisis," said **Srinivasa Gokarakonda, M.D.**, the clinic's medical director. "In Arkansas, there are only a handful of providers that treat substance abuse disorders in adolescents."

While the clinic's name honors the six bridges that span the Arkansas River between Little Rock and North Little Rock, it accepts patients in that age group from across the state.

Housed in the UAMS Psychiatric Research Institute, the clinic is open from 11 a.m. to 7 p.m. Mondays, Wednesdays and Thursdays, and from 8 a.m. to 5 p.m. Tuesdays and Fridays. *To refer a patient, call 501-526-8487.*



Access to Cancer Clinical Trials

The Clinical Trials Office at the Winthrop P. Rockefeller Cancer Institute at the University of Arkansas for Medical Sciences offers the largest number of therapeutic clinical trials in the state of Arkansas. We are the state's only academic cancer research center and home to the only Phase 1 Clinical Trials Unit in Arkansas testing novel, first-in-human immunotherapies that offer hope for patients with the most advanced stage cancers. Our commitment is to make a difference in the lives of Arkansans and cancer care throughout the state.

Call 501-686-8274 to inquire if your patients may qualify for a clinical trial.

UAMS PHYSICIAN RECRUITMENT & PROVIDER PLACEMENT PROGRAM

The UAMS Physician Recruitment & Provider Placement Program has

a team of Placement Specialists dedicated to serving the recruitment needs of our partner communities, Regional Programs and UAMS Faculty. Physician/ Provider opportunities are available in many specialties throughout Arkansas.

FEATURED PHYSICIAN JOBS

Endocrinology: The Division of Endocrinology and Metabolism of the University of Arkansas for Medical Sciences (UAMS) is seeking to hire a board certified/board eligible clinical endocrinologist with a focus on obesity management.

OB/GYN: Obstetric and Gynecology opportunities available in Dumas and Pine Bluff.

Family Medicine: Family Medicine opportunities available in the academic, private, and rural settings around Arkansas, including Little Rock, Texarkana, Helena, Fayetteville, Crossett, Clarendon, Dumas, Pine Bluff and more.

Contact Carla Alexander (501-686-7934 or carla@UAMS.edu) to find out more about recruitment services.

Visit **MedJobsArkansas.com** for a complete listing of job descriptions and opportunities. **Follow MedJobArkansas:**









Cover story continued

"CRPS is a rare, painful disease, and not many patients receive adequate care," Goree said. "We want to give them a home."

"I consider myself a Quality-of-Life specialist," he said. "My goal is to create an individualized, personalized treatment plan for every patient. The plan should not only treat their pain but also improve their function and get them back to their goals in life. I am happy to bring this high level of care to Arkansas."

Goree is board-certified in anesthesiology and pain medicine. He received his medical degree and completed a residency in anesthesiology from Cornell University in New York City and completed a fellowship in interventional pain management at Emory University in Atlanta. He has been at UAMS since 2014.

He said that at the Pain Clinic, located in The Orthopaedic and Spine Hospital just southwest of the main hospital on the UAMS campus, patients first complete a digital questionnaire about their degree of pain, sleep quality, physical function and related issues, such as depression or anxiety. This helps doctors hone in on more than pain to assess true "quality of life" care.

In addition to all the standard pain care options that are available across the state, UAMS' multidisciplinary nature and its research component allows it to offer several minimally invasive, outpatient treatments that are exclusive to Arkansas and the region.

These include:

- High-frequency spinal cord stimulation, a breakthrough treatment for painful diabetic neuropathy (PDN), using an implanted device.
- **Erika Petersen, M.D.**, a UAMS neurosurgeon, led the largest randomized controlled study of spinal cord stimulation for PDN, which was conducted at UAMS and 18 academic centers and community pain clinics in the United States.



- Dorsal Root Ganglia Stimulation for patients
 with focal nerve pain, which is typically caused
 by compression or trauma and includes pinched
 nerves and pain following hip, knee, foot or hernia
 surgery. It is a type of spinal cord stimulation.
- Basivertebral nerve ablation, a same-day, implantfree treatment for patients with chronic back pain that often results from wear and tear on a spinal disc. It uses heat under X-ray guidance to provide long-lasting results.

To refer a patient to the UAMS Health Pain Clinic, call 501-686-8818 or fax 501-526-4216. To refer a patient to the UAMS Health Rheumatology Clinic, call 501-603-1919 or fax 501-526-7506. Referrals can also be made through EpicCare Link.

PHYSICIAN PROFILE



S. THOMAS KANG, M.D. Assistant Professor, Division of Colorectal Surgery, Department of Surgery, UAMS College of Medicine

What inspired you to become a doctor?

I immigrated to the United States when I was 12 years old. While my family was quite affluent in our home country, we experienced for the first time what it was like to have financial, social, and healthy-access insecurities. I watched my parents work long, hard hours to become successful in a new country while neglecting their own basic health needs. This was one of the sparks that prompted me to become a physician.

What do you like most about your specialty?

Colorectal surgery is dynamic. I can address benign issues like hemorrhoids and fissures as well as complex colorectal diseases. In addition, I get to utilize multiple platforms like open, laparoscopic and robotic approaches. Oftentimes, the issues are embarrassing for the patients to talk about, but I enjoy being able to build rapport with them and help them feel comfortable.

What makes you unique among your peers?

I bring my own perspective from having experienced what it's like to be marginalized and then to become assimilated into a culture. I think these past exposures give me a platform from which to be able to connect to patients and colleagues from various backgrounds.

What do you like about working at UAMS?

I completed my colorectal fellowship at the University of Alabama at Birmingham. I absolutely adored my time there, and it is at UAB where I first encountered true healthcare disparity unique to those in the South. I wanted to be of service to a population similar to those I met at UAB. UAMS offers help to those patients who may have been turned away from elsewhere and do not know where to go next.

What are your clinical specialties?

After 5 years of general surgery training, I completed an additional year of colorectal fellowship. I offer a broad range of treatment modalities for benign anorectal ailments as well as for intraabdominal diseases like colorectal cancer and diverticulitis. My interests are colorectal malignancies, minimally invasive surgeries (laparoscopic or robotic) and surgical education.

What is the phone number doctors can use to make a referral to you?

My clinic number is 501-686-8211. My cell is 818-987-4314.

MEDICAL CASE STUDY:

RUPTURED SINUS OF VALSALVA ANEURYSM, AORTO-RIGHT VENTRICULAR FISTULA

Initial Contact:

A 21-year-old man with a heart murmur since birth began experiencing worsening shortness of breath over a period of weeks and went to a hospital in western Arkansas, near his home. Doctors diagnosed him with a ventricular septal defect, a congenital condition commonly known as a hole in the heart, and referred him to a specialty hospital in Little Rock, where surgeons suggested surgery to repair the defect. The young man's parents sought a second opinion at the University of Arkansas for Medical Sciences (UAMS), which brought them to an outpatient consult on Jan. 25, 2024, with John Streitman, M.D., chief of cardiovascular surgery at UAMS.

Assessment:

Streitman said that after looking at an echocardiogram, he suspected a different problem. He concluded that the patient had a ruptured Sinus of Valsalva aneurysm — a weakness in the wall of the aorta, which had ruptured into an adjacent heart chamber, the right atrium. He suspected the rupture had occurred three or four weeks earlier, causing increased shortness of breath and fatigue.

While not urgent, Streitman said the condition could be life-threatening if left untreated.

A CT scan confirmed the diagnosis, as did colleague Tushar Tarun, M.D., a noninvasive cardiologist at UAMS with whom Streitman conferred to rule out other anatomical considerations. Meanwhile, Streitman said, imaging showed that the rupture had also caused a short-circuit of



blood flow, which caused the right side of the patient's heart to work harder than normal and enlarge, causing severe tricuspid valve leakage, "so we knew that we really had two problems to fix with one operation."

After meeting with the patient and his parents, the surgery was scheduled for Feb. 2 at UAMS.

Procedures:

Streitman began the open-heart surgery with an incision in the breastbone. He connected the patient to a cardiopulmonary bypass pump, which temporarily takes over the function of the heart and lungs by

maintaining the circulation of blood and oxygen throughout the body, allowing him to safely stop the heart by clamping the aorta.

Streitman then opened the pericardium and identified the connection with the right atrium. He divided the common area and stitched the hole closed, to repair the ruptured aneurysm. After using additional sutures to close the right atrium,

> Streitman began the second part of the operation: installing a ring to tighten the tricuspid valve.

> > The annuloplasty ring is designed to restore the tricuspid valve to its normal size and shape. It's a metal band covered with a durable polyester fiber that is fitted around the leaky tricuspid valve, then sutured all the way

around, to ensure the heart valve continues to close tightly,

preventing further leakage.

After closing the wound, Streitman restarted the patient's heart, removed him from the heart-lung machine and sent him to the ICU. The patient felt better immediately and was discharged five days after surgery.

His progress went well until March 28, more than seven weeks after the surgery, when he returned to

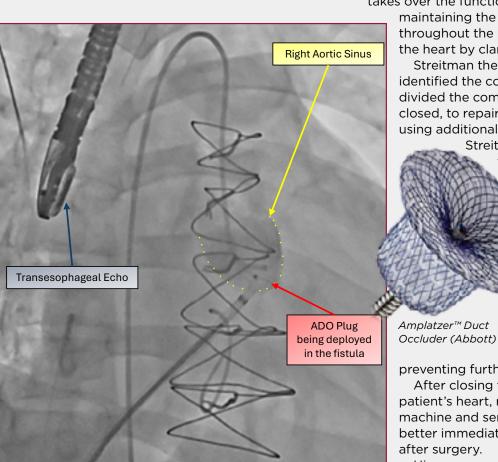


Image of the catheter-based procedure performed by Michael Luna, M.D.

6 (Continued on page 7) (Continued from page 6)

UAMS with a new heart murmur and a different kind of shortness of breath.

Cardiologist **Yusuf Hassan, M.D.**, performed an echocardiogram that showed the patient had developed a second connection between his aorta and the right ventricle — an aorto-right ventricular fistula.

Streitman speculated that the ring had put pressure on the patch and eroded a new hole in the bottom chamber of the heart — a rare occurrence. Aware that a second surgery so soon after the first would be hard on the patient, Streitman consulted **Michael Luna, M.D.**, an interventional cardiologist



at UAMS who is triple fellowship-trained and a nationally recognized leader in structural heart disease.

Luna, an expert in cutting-edge catheter-based technologies, offered a nonsurgical option for plugging the hole in the right ventricle. On April 2, he performed the image-guided, minimally invasive, catheter-based procedure through a vein and an artery in the groin. A nitinol-based plug that is usually used to repair other forms of congenital heart disease was then used to plug this new communication.

The patient was able to return home the following day and within weeks had resumed normal activity. Follow-up visits indicate all is well.

Discussion:

"This was a rare presentation of a congenital heart defect in young adulthood," Streitman said. "It's a rare congenital defect, which required surgical intervention. It also presented a second problem that we solved using UAMS' team approach — a unique combination of surgery and a catheter-based approach. It's easy to do with the unique relationship we have between cardiology and cardiac surgery."

"We realize that if we work together, we can be better than our individual parts," Streitman said.

He said the case exemplifies why UAMS is developing an adult congenital heart disease program.

John E. Streitman, M.D.



Associate Professor
Chief of Cardiovascular Surgery
Department of Surgery
UAMS College of Medicine

Education

Doctor of Medicine, UT Health Science Center, San Antonio

Residency

Thoracic and Cardiovascular Surgery, University of Florida, Gainesville

General Surgery, Scott and White Memorial Hospital, Texas A & M Health Science Center; Temple, Texas

Professional Certifications

Thoracic and Cardiovascular Surgery, University of Florida American Board of Surgery - General Surgery American Board of Thoracic Surgery - Thoracic and Cardiac Surgery

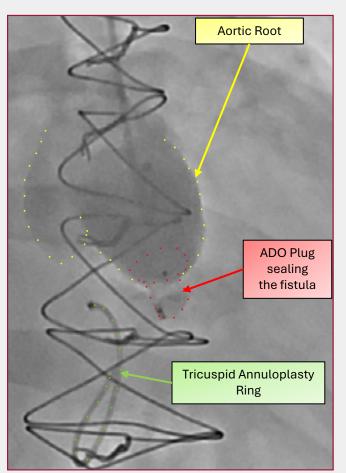


Image of the catheter-based procedure performed by Michael Luna, M.D.

"We see maybe a handful of congenital cases arising in adults every year, but there are more of these out there than you'd think," Streitman said.

Michael Luna, M.D.



Professor

Department of Internal Medicine

Division of Cardiovascular Medicine

UAMS College of Medicine

Education

Doctor of Medicine, UT Southwestern Medical Center, Dallas

Residency

Internal Medicine, UT Southwestern Medical Center

Fellowship

Head and Neck Surgical Oncology, Cardiovascular Disease/Congenital Heart Disease, UT Southwestern

Interventional Cardiology/Congenital Heart Disease, UT Southwestern Children's Medical Center Pediatric Interventional Cardiology, UT Southwestern Children's Medical Center Dallas



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ADDRESS SERVICE REQUESTED

UPCOMING EVENTS | SPRING 2024

JULY 12 • 12:15 - 1:15 PM

Lunch & Learn Webinar "ARDS and When to Transfer for VV-ECMO"

UAMS Pine Bluff Regional Program Matthew Roberts, MD

AUGUST 1 • 5:30 - 8 PM

Transplantation Lecture Series "Current State of Transplantation in Arkansas" Mermaids - Fayetteville Lyle Burdine, M.D., Ph.D.

AUGUST 8 • 6 - 8 PM

UAMS Gut Club "IBUS and IBD"

Jackson T. Stephens Spine & Neurosciences Institute Mohammad Alomari, M.D

AUGUST 14 • 6 - 8 PM

Chest Club

"Benign Chest - Airway Surgery"
Jackson T. Stephens Spine &
Neurosciences Institute
Matthew Fox, M.D.
University of Louisville

AUGUST 22 • 6 - 8 PM

Cardiac Club

Jackson T. Stephens Spine & Neurosciences Institute Michael Luna, M.D.

For more information on upcoming events, please visit **UAMShealth.com/MD**





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