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**News Release**

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**UAMS' Erika Petersen, M.D., Johnathan Goree, M.D., Oversee  
NFL-funded Study of Non-Opioid Concussion Treatments**

LITTLE ROCK — The National Football League (NFL) and the NFL Players Association (NFLPA) recently awarded more than half a million dollars to medical researchers, including two pain specialists at the University of Arkansas for Medical Sciences (UAMS), to study non-opioid alternatives for treating post-traumatic headache, a common after-effect of concussion and other forms of traumatic brain injury.

Post-traumatic headache (PTH) is a poorly treated, highly debilitating headache disorder where medications and other options for treatment aren't very effective, said Erika Petersen, M.D., a professor of neurosurgery at UAMS who chairs the multispecialty Sports Management Task Force for the American Society for Pain and Neuroscience (ASPN).

In July, Petersen became the executive board president of the ASPN, whose medical researchers shared \$526,525 with their counterparts at Emory University for the purpose of investigating innovative pain-management methods that could benefit NFL players and society at large. Petersen will be a primary investigator for her group's study, to be called "A Pilot Study Assessing Noninvasive Treatment of Refractory Post-Concussion Headache Pain."

Johnathan Goree, M.D., a UAMS associate professor of anesthesiology and director of the Division of Chronic Pain, is also a member of the task force, which developed the study's research plan, and will participate on the study steering committee.

"ASPN is very excited for the research grant," Petersen said. "Given that more than 3.8 million people are diagnosed with concussion in the United States annually, the persistence of PTH should be considered a substantial public health concern."

She said the ASPN researchers, who received about \$350,000 of the grant money, will study cannabidiol (CBD) and noninvasive vagal nerve stimulation (nVNS) in PTH patients.

“We will compare standard of care treatment for PTH to these two promising, less-studied options,” she said. “Our hypothesis is that both nVNS and CBD will reduce headache days and headache severity compared to standard of care treatment. The study will specifically be enrolling former contact-sport athletes with a history of concussion who have PTH. ASPN will be directing the research at about a dozen sites within 25 miles of an NFL franchise.”

Emory researchers, meanwhile, will study mindfulness-based intervention in sports medicine injuries.

“These awards are the second round chosen by the NFL-NFLPA Joint Pain Management Committee, which aims to facilitate research to better understand and improve potential alternative pain management treatments for NFL players,” according to the football league.

Last year, the NFL awarded \$1 million in funding to researchers at the University of California San Diego and the University of Regina in Saskatchewan, Canada, for studies focused on the effects of cannabinoids on general pain recovery and neuroprotection methods that may reduce the risk of prescription medication.

“This research is the first of its kind, seeking to evaluate the use of a noninvasive, nonpharmacological intervention for the treatment of PTH secondary to sports-related concussion/mild traumatic brain injury in contact sports athletes,” according to a project summary by Petersen’s task force. “The pilot data gathered in this study will guide future investigations into treatment of patients with post-traumatic headache. Demonstration of improvement in secondary headache disorders may also lead to earlier resolution of symptoms and will open the door to exploration of its use for prevention or early intervention in concussion.”

Petersen said the study will begin later this year, and the findings will be presented at ASPN’s annual meetings in 2024 and 2025.

“PTH affects millions of people, including our veterans, so we hope we can learn the potential of these non-opioid options to treat PTH,” she said. “In partnering with the ASPN, the NFL-NFLPA can lead national policy in addressing the problem among players, other contact sports athletes, military veterans and the larger population of patients with post traumatic headache.”

UAMS is the state's only health sciences university, with colleges of Medicine, Nursing, Pharmacy, Health Professions and Public Health; a graduate school; a hospital; a main campus in Little Rock; a Northwest Arkansas regional campus in Fayetteville; a

statewide network of regional campuses; and seven institutes: the Winthrop P. Rockefeller Cancer Institute, Jackson T. Stephens Spine & Neurosciences Institute, Harvey & Bernice Jones Eye Institute, Psychiatric Research Institute, Donald W. Reynolds Institute on Aging, Translational Research Institute and Institute for Digital Health & Innovation. UAMS includes UAMS Health, a statewide health system that encompasses all of UAMS' clinical enterprise. UAMS is the only adult Level 1 trauma center in the state. UAMS has 3,240 students, 913 medical residents and fellows, and five dental residents. It is the state's largest public employer with more than 11,000 employees, including 1,200 physicians who provide care to patients at UAMS, its regional campuses, Arkansas Children's, the VA Medical Center and Baptist Health. Visit [www.uams.edu](http://www.uams.edu) or [www.uamshealth.com](http://www.uamshealth.com). Find us on [Facebook](#), [Twitter](#), [YouTube](#) or [Instagram](#).

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