

UAMS News Bureau

Office of Communications & Marketing
4301 West Markham # 890
Little Rock, AR 72205-7199

uamshealth.com/news



News Release
Aug. 15, 2022

Media Contacts:

Leslie W. Taylor, 501-686-8998
Wireless phone: 501-951-7260
leslie@uams.edu

Yavonda Chase, 501-686-8994
Wireless phone: 501-416-0354
yavonda@uams.edu

**UAMS' Ashley Nemec-Bakk, Ph.D., Awarded
Postdoctoral Fellowship for Space Health Research**

LITTLE ROCK — Ashley Nemec-Bakk, Ph.D., a postdoctoral fellow in the UAMS College of Pharmacy's Division of Radiation Health and Department of Pharmaceutical Sciences, is one of three researchers nationwide to receive a postdoctoral fellowship from the [Translational Research Institute for Space Health \(TRISH\) at Baylor College of Medicine](#).

TRISH is backed by NASA's Human Research Program, with a mission, in part, to support the upcoming Artemis missions, which aim to put the first woman and first person of color on the Moon. The institute funds innovative and disruptive research that can improve and protect the health and safety of humans, wherever they explore.

"Cultivating the next generation of space health researchers is one of our strategic goals," said Dorit Donoviel, Ph.D., TRISH executive director. "We aim to prepare a diverse workforce from a variety of scientific backgrounds to help us solve the challenges facing space explorers on future missions to the Moon and beyond. We are thrilled to welcome this next batch of postdocs as they help bring us closer to that goal."

"We are excited to be working with TRISH," said Nemec-Bakk. "With this funding, we will be able to investigate the cardiovascular effects of the simulated space environment. This research will aid NASA in determining how the heart is affected by space travel and what countermeasures may be suitable for future space missions."

Nemec-Bakk joins two other researchers in the new fellowship cohort supported by the TRISH Academy of Bioastronautics, which will supply research funding for two years. Using her research background in the effects of heavy ion radiation on the cardiovascular system, she will use two new ground-based models of deep space travel to study the effects of radiation and microgravity on form and function of the heart, major arteries and blood vessels of the eye.

"Dr. Nemec-Bakk's research is cutting-edge and will show us new approaches and research models to examine health effects of space travel," said Marjan Boerma, Ph.D., director of the

Division of Radiation Health, a professor of pharmaceutical sciences in the College of Pharmacy and Nemec-Bakk's mentor. "We are fortunate that NASA TRISH has given her this opportunity to pursue her novel research ideas, and she will enjoy the training and networking activities of this fellowship program."

In addition to research funding, TRISH fellows receive mentorship from experienced faculty mentors, connections to space flight experts and the opportunity to expand their network and their project's reach.

Nemec-Bakk received her Master of Science degree in free radical biology in 2016, and her Doctor of Philosophy degree in radiation-induced fetal programming in 2020, from Lakehead University in Thunder Bay, Ontario, Canada. She joined UAMS in January 2021.

Led by Baylor College of Medicine's Center for Space Medicine, TRISH is a consortium that includes the California Institute of Technology in Pasadena and Massachusetts Institute of Technology in Cambridge. NASA recently awarded the institute a six-year extension to further its work by delivering disruptive solutions to mitigate biomedical risks for human exploration while advancing terrestrial health technologies.

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 3,047 students, 873 medical residents and fellows, and six 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 or www.uamshealth.com. Find us on [Facebook](#), [Twitter](#), [YouTube](#) or [Instagram](#).

Like us, we're social:    