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**National Cancer Institute Awards UAMS Researcher \$1.8 Million
to Study Prevention of Major Chemotherapy Complications**

LITTLE ROCK — University of Arkansas for Medical Sciences (UAMS) researcher Amanda Stolarz, Pharm.D., Ph.D., recently received a five-year, \$1.8 million grant from the National Cancer Institute (NCI) at the National Institutes of Health (NIH).

Stolarz, an assistant professor of pharmaceutical sciences in the UAMS College of Pharmacy, is the principal investigator on a study investigating possible prevention of a major complication from chemotherapy in cancer patients.

Doxorubicin is a chemotherapeutic drug commonly used in breast cancer that carries a risk for lymphedema, a debilitating and often painful accumulation of fluid in the body. Stolarz's project explores how doxorubicin directly inhibits contractions of lymph vessels, which remove fluid from tissues to prevent lymphedema.

There are no FDA-approved medications to alleviate doxorubicin-related lymphedema, but Stolarz's team has identified a potential new therapy. Ryanodine receptors, which are proteins essential to muscle contraction, could be blocked as a new treatment strategy to prevent doxorubicin-related lymphedema.

The project, titled "Ryanodine Receptors as Therapeutic Targets to Prevent Doxorubicin-Induced Lymphatic Dysfunction," was initially funded as an R01 grant by the NCI in May, before being extended in August through an NCI MERIT Award.

"I am beyond excited to receive this award," Stolarz said. "It is a culmination of many years of research and will serve as the foundation to building my own independent research program. I am grateful for the support of UAMS, the College of Pharmacy and all of my mentors and collaborators who contributed to this application. We have a great team of scientists working on this project who were instrumental in putting this proposal together, and I look forward to continue working with them."

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Co-investigators on the project are:

- Nukhet Aykin-Burns, Ph.D., associate professor of pharmaceutical sciences in the College of Pharmacy
- Andrew Morris, Ph.D., professor of pharmacology and toxicology in the College of Medicine, and holder of the Mehta-Stebbins Chair in Cardiovascular Research
- Reid Landes, Ph.D., professor of biostatistics in the College of Medicine and Fay W. Boozman College of Public Health
- Theodore Brown, M.D., associate professor of pathology in the College of Medicine and the state's chief medical examiner

“It is exciting to see one of our junior faculty receive such a prestigious grant and become a major contributing member of the UAMS Winthrop P. Rockefeller Cancer Institute,” said Michael Birrer, M.D., Ph.D., director and UAMS vice chancellor.

The project is an expansion of Stolarz's postdoctoral work at UAMS. She thanked Nancy Rusch, distinguished professor and chair of the Department of Pharmacology and Toxicology in the College of Medicine; Robert Reis, Ph.D., professor of geriatrics in the College of Medicine; and Marjan Boerma, Ph.D., professor of pharmaceutical sciences and director of the Division of Radiation Health in the College of Pharmacy, for their assistance helping develop the project.

“Dr. Stolarz has worked carefully to build scientific evidence for her vision to reduce doxorubicin-related lymphedema, a topic that is highly understudied,” Boerma said. “Her work has been an integral part of the UAMS COBRE Center for Studies of Host Response to Cancer Therapy. Her new award will allow her to grow this research program with the amazing team of investigators in her lab.”

The project will also receive consultation from Suzanne Klimberg, M.D., Ph.D., former director of the Division of Breast Surgical Oncology at UAMS. Lab members include Ashim Bagchi, Ph.D., a research instructor in the Department of Pharmaceutical Sciences in the College of Pharmacy, and Soumiya Pal, a Ph.D. student in the College of Pharmacy.

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 or www.uamshealth.com. Find us on [Facebook](#), [Twitter](#), [YouTube](#) or [Instagram](#).