UAMS’ Justin Leung, Ph.D., Receives $1.47 million Grant from National Cancer Institute to Study DNA Damage Regulation

LITTLE ROCK — A five-year, $1.47 million National Cancer Institute grant has been awarded to researcher Justin Leung, Ph.D., at the University of Arkansas for Medical Sciences (UAMS) to study DNA.

Leung’s project is a collaboration with Robert Eoff, Ph.D., a professor in the Department of Biochemistry and Molecular Biology in the UAMS College of Medicine. Both Leung and Eoff are researchers in the UAMS Winthrop P. Rockefeller Cancer Institute.

“Our work will potentially provide a fundamental understanding of the molecular mechanism of DNA damage regulation in our body and also reveal potential targets for cancer therapeutic development,” said Leung, an assistant professor in the UAMS College of Medicine Department of Radiation Oncology.

Work on the NCI grant, “Mechanistic Characterization of Cell Cycle-Dependent DNA Repair,” focuses on dissecting the molecular mechanism on cell cycle-regulated DNA repair, specifically during early DNA replication. Leung and Eoff hope to identify a key group of proteins known as a histone-mark reader that work together to protect our genetic material from DNA damage.

The NCI grant comes on the heels of Leung receiving a four-year, $792,000 American Cancer Society Research Scholar grant to study DNA repair mechanisms. He will use that grant to investigate how signaling molecules on chromatin interact with proteins that repair broken DNA during replication.

In September 2020, the National Institute of General Medical Sciences awarded Leung a $1.9 million grant in support of the researcher’s roadmap project, “Deciphering the Chromatin-based DNA Damage Response Pathway.”

UAMS is the state’s only health sciences university, with colleges of Medicine, Nursing, Pharmacy, Health Professions and Public Health; a graduate school; 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 including its hospital, regional clinics and clinics it operates or staffs in cooperation with other providers. UAMS is the only adult Level 1 trauma center in the state. *U.S. News & World Report* named UAMS Medical Center the state’s Best Hospital; ranked its ear, nose and throat program among the top 50 nationwide; and named six areas as high performing — COPD, colon cancer surgery, heart failure, hip replacement, knee replacement and lung cancer surgery. UAMS has 2,876 students, 898 medical residents and four dental residents. It is the state’s largest public employer with more than 10,000 employees, including 1,200 physicians who provide care to patients at UAMS, its regional campuses, Arkansas Children’s Hospital, 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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