

UAMS News Bureau

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**UAMS Cancer Researcher Hong-yu Li, Ph.D.,
Awarded \$1.27 Million Grant**

LITTLE ROCK — Hong-yu Li, Ph.D., a researcher with the Winthrop P. Rockefeller Cancer Institute at the University of Arkansas for Medical Sciences (UAMS), recently received a five-year, \$1,265,834 grant from the National Institutes of Health and the National Cancer Institute to work toward developing treatment options for acute myeloid leukemia patients.

Li, a professor with the College of Pharmacy in the Pharmaceutics Department, leads the Developmental Therapeutics research program at the Cancer Institute. His research focuses on treatment involving cancer of the brain, breast, stomach and intestines, head and neck, and skin as well as leukemia, lymphoma and myeloma.

“I am so pleased that Dr. Li’s research is being recognized and supported in this way by the National Institutes of Health and the National Cancer Institute,” said Michael Birrer, M.D., Ph.D., director of the Winthrop P. Rockefeller Cancer Institute. “The results of his work, made possible by this grant, could be life-altering for some of our acute myeloid leukemia patients.”

The R01 grant is in support of the study, “Development of Potent, Selective, Non-Myelotoxic FLT3 Inhibitors that Retain Efficacy Against Common Mechanisms of Resistance,” with Li serving as a principal investigator.

This is a multiple principal investigator project working with Neil Shah, M.D., Ph.D., from the University of California at San Francisco and John Kuriyan, Ph.D., from the University of California at Berkeley, an HHMI investigator. The project was funded from NCI for \$3.3 million with \$1.27 million for Li’s lab at UAMS.

Li’s lab will further optimize experimental drugs by using tissue samples from acute myeloid leukemia patients with the hope of improving the effectiveness of the two existing drug therapies.

“This research is important to the public health because acute myeloid leukemia has a major impact on our society in the patient’s suffering and shortened life and the financial burdens it creates,” Li said.

He said that despite recent advances in the development of drugs to treat it like RYDAPT (midostaurin), results from clinical trials show that few acute myeloid leukemia patients are cured and that most of them succumb to the disease, typically within two years of being diagnosed.

“At the end of our research, we will likely have two potential treatment options that will hold significant promise for effectively preventing and treating the two most common mechanisms of resistance to potent FLT3 inhibitor therapy,” Li said. “This is expected to block or prevent disease relapse and substantially improve outcomes in some acute myeloid leukemia patients.”

Li currently holds another five-year NIH grant, which concludes in August, for his work as a principal investigator on “Selective RET Kinase and Its Mutant Inhibitors for the Treatment of Medullary Thyroid Cancer.”

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

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