## **UAMS News Bureau**

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## Marius Nagalo, Ph.D., First at UAMS to Receive NIH New Innovator Award

LITTLE ROCK — A researcher at the Winthrop P Rockefeller Cancer Institute at the University of Arkansas for Medical Sciences (UAMS), Marius Nagalo, Ph.D., has received the prestigious <a href="New Innovator Award">New Innovator Award</a> from the National Institutes of Health (NIH).

Granted directly from the NIH Director's Office "this award supports early career investigators of exceptional creativity who propose bold and highly innovative research projects with the potential to produce a major impact on broad, important areas relevant to the NIH mission," according to the NIH.

Nagalo is the first UAMS researcher to receive the New Innovator Award from the NIH, joining an elite group of previous award recipients from Stanford University, Harvard, Cornell, MIT, Penn, Duke, Yale, and the Cleveland Clinic.

"This award is a first for the state of Arkansas and the Winthrop P. Rockefeller Cancer Institute and is reminiscent of Dr. Brian Koss several years earlier, another one of our investigators who was granted the NIH Director's Award," said Michael Birrer, M.D., Ph.D., director of the Winthrop P. Rockefeller Cancer Institute. "Two awards of this stature in a state the size of Arkansas is unheard of."

Nagalo is an assistant professor in the UAMS Department of Pathology and will receive a five-year \$2.3 million award from the NIH Common Fund.

The award will support Nagalo's research on pancreatic cancer, which is a cancer with few effective treatment options and extremely low survival rates.

"One of the biggest challenges in treating this type of aggressive pancreatic cancer is that the tumor is surrounded by a dense barrier of tough tissue, making it difficult for treatments or cancer-killing immune cells to reach the tumor site," said Nagalo.

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A type of virus called Vesicular stomatitis virus (VSV) has shown promise in treating tough-to-treat cancers like PDAC, but concerns about its safety, especially the risk of causing brain infection, have limited its use.

Nagalo's team has developed a new virus-based treatment called VMG that is designed to be safer and more effective. VMG is created using advanced technology that changes the virus to make it safer for humans while still being powerful against cancer. In lab studies, VMG has shown that it can trigger the immune system to fight the cancer without causing harmful side effects. "Our strategy involves using VMG to break down this barrier with special enzymes, allowing the virus to spread more effectively and the immune system to attack the cancer more easily."

"Dr. Nagalo's effort is an innovative and novel therapeutic approach aimed at a terrible disease whose patients are desperately searching for new solutions. We are particularly delighted that Dr. Nagalo has been awarded this prestigious grant, as he is a junior faculty member and a member of an entire wave of new faculty members that the Cancer Institute has hired," added Birrer.

Starting in 2020, the Winthrop P. Rockefeller Cancer Institute undertook a systematic broad cancer researcher recruitment, which resulted in the hiring of 23 brilliant young investigators occupying 30,000 square feet of laboratory space, including both Nagalo and Koss. These investigators have generated more than \$6 million in peer review grants, multiple publications and many presentations

"This is exactly what the taxpayers of Arkansas expected us to do to build a Cancer Institute worthy of being considered for National Cancer Institute designation," said Birrer.

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 eight 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, Institute for Digital Health & Innovation and the Institute for Community 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 3,485 students, 915 medical residents and fellows, and seven 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 <a href="https://www.uams.edu">www.uams.edu</a> or <a href="https://www.uamshealth.com">www.uamshealth.com</a>. Find us on <a href="facebook">Facebook</a>, <a href="mailto:Kormerly Twitter">Kormerly Twitter</a>), <a href="mailto:YouTube">YouTube</a> or <a href="mailto:Instagram">Instagram</a>.

