

## **New Grant, National Fellowship for UA Little Rock Nanotechnology Researcher**

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Dr. K. Bao Vang-Dings, research assistant professor at the Center for Integrative Nanotechnology Sciences at UA Little Rock, is ringing in the summer with exciting news.

In May, the American Association of Immunologists (AAI) named Vang-Dings one of its nine 2021-22 Public Policy Fellows. Additionally, the Arkansas IDeA Network of Biomedical Research Excellence (INBRE) has awarded her a 2021 Summer Research Grant.

The \$36,593 INBRE grant will support Vang-Dings' cancer vaccine research, as well as an undergraduate research assistant to aid the project. For the next three months, Vang-Dings and her student assistant will investigate the ability of a unique nanoparticle-based system to fight melanoma. This nanosystem is designed to work in concert with the body's immune system to trigger an aggressive reaction against tumor cells. This type of technique, called "immunotherapy," boosts the body's own natural defense (immune cells) against cancer.

Existing immunotherapy-based approaches have a very low patient response rate. Vang-Dings seeks to disrupt this statistic with the unique multi-component system she and her colleagues have created. The nanosystem builds on the ongoing plasmonic nanoparticle research at the Center for Integrative Nanotechnology Sciences. Dr. Zeid Nima Al Sudani, research associate professor, will lend his nanomaterial expertise to the project.

If successful, this nanosystem-based vaccine may one day be the first of its kind for melanoma treatment and prevention. While the nature of research means that such success is likely far down the road, Vang-Dings is excited to begin this crucial next phase of her research this summer.

“If we are successful, our nano-based cancer vaccine could not only improve melanoma treatment, but it may be useful to treat other cancers as well,” Vang-Dings said.

Vang-Dings’ desire to improve human health is reflected in her recent AAI fellowship appointment. According to the association’s website, “the PFP provides early-career researchers, who are within 15 years of receiving their terminal degree and who are committed to a career in biomedical research, with the opportunity to learn about and participate in the public policy and legislative activities of AAI.”

As a Public Policy Fellow, Vang-Dings will be educated on and actively participate in the collaboration that exists between the scientific community and the government. The fellowship includes a trip to Washington, D.C., to meet with members of Congress and receive additional training. The end goal of the fellowship is equipping participants to advocate for biomedical research and its continued growth in the public policy sphere.

Vang-Dings, who received her doctoral degree from the [University of Minnesota](#), has been at UA Little Rock for around seven years, during which time she has been a mentor, an author on 15 peer-reviewed publications, and the recipient of a 2018 Arkansas Economic Development Commission seed grant through the National Science Foundation-supported Center for Advanced Surface Engineering.

Read the [original article](#) on University of Arkansas at Little Rock.