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The UAB Comprehensive Cancer Center and the UAB Division of Neurosurgery have been awarded a prestigious SPORE, or Specialized Program of Research Excellence, grant from the National Cancer Institute
for $2.3 million over three years to conduct research and develop new therapies to treat brain tumors.

UAB is one of an elite group of NCI-designated comprehensive cancer centers in the United States with four SPORE programs — for brain, breast and pancreatic cancers and a shared grant with Johns Hopkins for cervical cancer. UAB also is one of only four institutions awarded a brain-tumor SPORE grant.

G. Yancey Gillespie, Ph.D., professor of surgery, and James M. Markert, M.D., M.P.H., James G. Galbraith Professor of Neurosurgery and division director, both from the UAB Division of

Neurosurgery and senior scientists in the neuro-oncology program in the UAB Comprehensive Cancer Center, will co-lead the program to study contemporary therapeutics for anaplastic gliomas, the most deadly and most frequent form of malignant brain tumors. The award includes $200,000 from the National Institutes of Neurological Disorders and Stroke to accelerate the initiation of two new clinical trials in the first year.

“We are honored to receive this recognition and support from the NCI and the NINDS designating our brain-tumor program as one of the top five in the country. This funding will enable us to gain new insights into this devastating disease and rapidly advance novel therapeutics developed in UAB laboratories into clinical trials,” Gillespie says.

One of the primary objectives is to develop and test a genetically engineered herpes simplex virus, known as the cold sore virus, to infect and kill brain tumor cells while sparing normal brain cells. UAB researchers will establish the safety and high quality of the virus preparation for the “first-in-man” clinical study. Another project will test the ability of a monoclonal antibody, produced at UAB, to bind to human brain-tumor cells and cause them to be killed. UAB has already conducted two clinical trials with this monoclonal antibody in patients with other types of cancer.

Other pilot projects include designing a clinical trial to test a small-molecule inhibitor of a critical enzyme that is overactive in brain tumors and also re-purposing an older drug with a proven safety history for treating malaria and testing its outcomes in patients with anaplastic gliomas.

The research team of 14 investigators from seven departments at UAB will comprise the interactive multi-disciplinary research team. The NCI SPORE program was started in 1992 as a way to promote interdisciplinary research and speed the transition of basic science findings to the clinical testing arena with the hope of reducing cancer-death rates and improving survival.

“This award reflects the strength of our research team to rapidly move innovative discoveries from our laboratories to our patient clinics,” says Edward Partridge, M.D., director of the UAB Comprehensive Cancer Center. “It’s a perfect example of our ability to collaboratively work together and conduct groundbreaking, leading-edge translational research."

Five core facilities will provide administrative assistance, maintain a patient clinical specimen repository to allow direct studies on tumor tissues, design and conduct clinical trials, provide biostatistical and bioinformatic support and conduct preclinical studies of new therapies in animal models of brain tumors to ensure they are safe and effective for human studies.

The UAB Comprehensive Cancer Center is among the 40 cancer centers in the nation to meet the stringent criteria for the National Cancer Institute's comprehensive designation. The center is a leader in groundbreaking research, reducing cancer disparities and leading-edge patient care.