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The National Brain Tumor Society has awarded one of its Mary Catherine Calisto Systems Biology Planning grants to UAB researchers to develop a systems-biology approach to understanding how best to treat brain tumors.

Systems-biology research seeks to integrate all the information about a specific disease process to bring new therapies to patients faster than traditional research methods. Instead of focusing on a particular gene, protein or series of biochemical reactions that appears to drive cancer growth, scientists examine whole brain tumors to determine the means by which parts of the system work together to sustain the tumor.

“We are excited about the prospects of bringing together scientists from varied disciplines to devise innovative approaches to develop safe, more effective therapies for malignant brain tumors and bring them to the patient faster,” says Markus Bredel, M.D., Ph.D., associate professor and director of the Radiation Oncology Brain Tumor Laboratory in the Department of Radiation Oncology
, who will lead UAB’s multi-disciplinary team. Experts from the schools of
Medicine
and
Public Health
and UAB’s
College of Arts & Sciences
will work together to create a broad research plan.

The UAB team was one of only six awardees from more than 50 applicants; each will receive approximately $100,000 for a one-year planning process to develop a three-year research plan to design and undertake a clinical trial for patients with brain tumors. Of those, three will be chosen to receive a $1.5 million, three-year award to implement their research plan.

Systems-biology research is one of the major new strategic initiatives of the UAB Comprehensive Cancer Center, which will provide additional funds to facilitate the planning process.

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.