Burt Nabors, M.D. - Leader

G. Yancey Gillespie, Ph.D. - Co-Leader

Overview:

Each year, nearly 20,000 Americans are diagnosed with primary brain tumors, and the majority of these are malignant. Because these tumors arise from the brain and spread within the brain, they can produce a host of devastating neurologic problems, from seizures to personality change, to loss of memory and judgment, to paralysis. Conventional treatments for this disease that are available in the general medical community are not very effective, and most patients with malignant primary brain tumors live no more than 1-2 years after diagnosis. The Comprehensive Cancer Center Neuro-Oncology Program consists of a multi-disciplinary team all devoted to the care and treatment of patients with brain tumors and neurologic complications of systemic cancers.

This team includes Neurosurgeons, Radiation Oncologists, Neuro-Oncologists, Neuropathologists, Neuropsychologists, Nurse Practitioners, and Research Scientists.

The program focuses on 3 areas of research interest:

1) basic effort to understand the role post-transcriptional processes play in cancer initiation and progression,

2) the acquisition and post-processing of magnetic resonance imaging data in patients with primary brain tumors, particularly the utility of perfusion and diffusion tensor imaging as non-invasive modalities to evaluate tumor angiogenesis, proliferation, and invasion,

3) the design and implementation of trials for newly diagnosed and recurrent malignant glioma that utilize biologically targeted strategies and includes non-invasive endpoints in the evaluation of a biological effect.

Goals:

Our goal and commitment is to improve the outcome of people afflicted with brain tumors. Commitment is our support of a team of research scientists who devote their efforts to identifying promising new treatments in the research laboratory.

These research efforts are devoted to: 1) understanding how brain tumors start to grow, 2) how they spread through the brain, 3) how they provide themselves with a blood supply to support their growth, 4) how they damage normal brain in the process of growing, and 5) how all this information can be translated into new therapies.

A goal of finding and designing novel, non-toxic new treatments that are more effective than what is currently available in the general community.

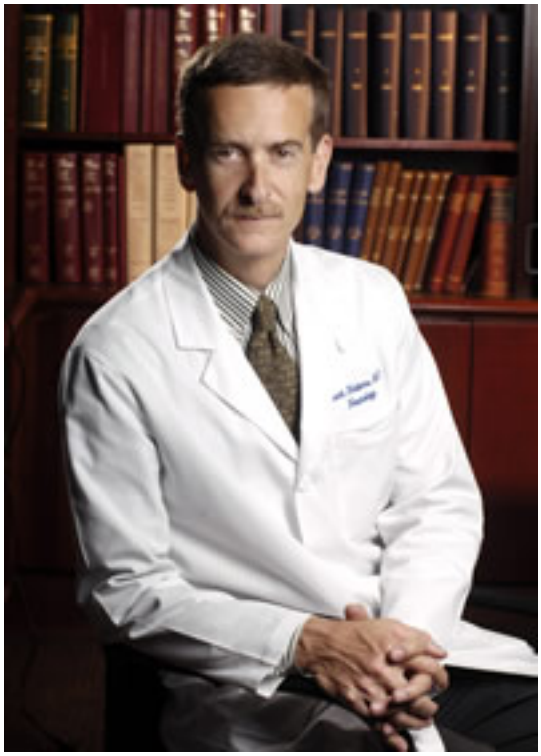
Meetings & Events:

-Weekly Brain Tumor Case Conference for Neuro-oncology Program members

-Quarterly Brain Tumor Working Group meetings for Neuro-oncology Program members.

- UAB Neuro-Oncology Program is a leading member of one of the two national brain tumor clinical cooperative groups, Adult Brain Tumor Consortium (ABTC) that are supported by the National Cancer Institute to study new, experimental treatments for patients with malignant brain tumors. The ABTC meets twice yearly to introduce new forms of chemotherapy, gene therapy, and biologic therapy that are only available to a limited number of centers nationwide in sharing "cutting edge" information on brain tumor diagnosis and treatment. This provides the UAB Neuro-Oncology Program with access to the latest information and the latest medications--often long before these become available to the general medical community.

Leadership:



Louis Burt Nabors, M.D., is the Director of the Comprehensive Cancer Center Neuro-Oncology Program. He is a Professor in the Department Neurology, Division of Neuro-oncology. His three areas of research interest are 1) investigating the role of post-transcriptional regulation of gene expression in primary brain tumors, particularly tumors of astrocytic lineage. With a focus on growth factors, cytokines, and regulatory genes involved in proliferation, survival, angiogenesis and invasion. RNA stabilization is an emerging area of importance in the control of mRNA levels. Interested in factors important in stabilization (RNA-binding proteins) and the signaling pathways which control this level of gene regulation, 2) the acquisition and post-processing of magnetic resonance imaging data in patients with primary brain tumors, 3) and third area of interest involves the early phase clinical evaluation of novel cancer therapies.

Neuro-Oncology Program Members