

A Reason to Hope

UVA'S COMPREHENSIVE CENTER FOR BRAIN TUMOR CARE AND RESEARCH

“UVA provides an environment where the most promising research and advanced treatments are flourishing.

Here, outstanding caregivers address the challenging medical needs of brain tumor patients, while helping these individuals and their families maintain hope and a high quality of life.”

— David Schiff, M.D.

Co-director, Neuro-Oncology Center

She knows something is wrong. First she drops a plate. Suddenly she can't balance her checkbook. Her doctor orders an MRI, and the results are devastating: she is one of nearly 200,000 Americans who will be diagnosed with a brain tumor this year.

In the United States, malignant brain tumors are the leading cause of cancer death in children, the second leading cause in young adult men, and the fifth leading cause among women younger than 40. Brain cancer, which frequently metastasizes from other parts of the body, impacts the appearance, personality, intellect, and independence of men and women alike. Some call it the “cancer of the soul.”

Many individuals who learn they have a brain tumor seek help from the University of Virginia's Neuro-Oncology Center. UVA is home to cutting-edge research, where the latest treatments, as well as warm and compassionate care, are delivered by nationally renowned experts. UVA's team approach to treatment offers just what is needed by brain tumor patients and the families who love them: a reason to hope.

The Art of Caring, The Science of Healing

The UVA Neuro-Oncology Center is a multi-disciplinary program dedicated to patients with brain tumors. It offers a full spectrum of clinical trials and innovative treatments, delivered through a highly coordinated, team-based model of patient care.

Clinical Highlights

- UVA's neuro-oncology team—which includes neurosurgeons, neuro-oncologists, radiation oncologists, neuroradiologists, neuropathologists, neuropsychologists, nurses, and social workers—meets regularly to discuss, coordinate, and, most importantly of all, *customize* the best possible course of treatment for each patient.
- UVA offers a full complement of brain tumor treatments, ranging from surgery, chemotherapy, and radiation, to cutting-edge pharmaceutical agents, depending upon the unique needs of each patient.
- UVA's neuro-oncologists *exclusively* see patients with neuro-oncologic disorders,

making them experts on the latest standard and experimental treatment strategies.

- A robust clinical trials program makes UVA one of the nation's top sites for the testing of promising drug therapies to treat brain cancer.
- UVA neurosurgeons have nearly 20 years of experience using the gamma knife, a powerful instrument that directs extremely precise doses of radiation to brain tumors without surgery. UVA was the second medical center in the nation to obtain a gamma knife.

Research Highlights

- UVA is ranked one of the top cancer centers in the country by *U.S. News & World Report*.
- Thanks to the strength of its cancer research portfolio and scientific staff, as well as its excellent patient care, UVA is one of only two National Cancer Institute-designated cancer centers in Virginia.
- UVA's uniquely collaborative environment facilitates interdepartmental and interdis-

ciplinary research, creating a place that is keenly focused on the development of new ways to fight brain tumors.

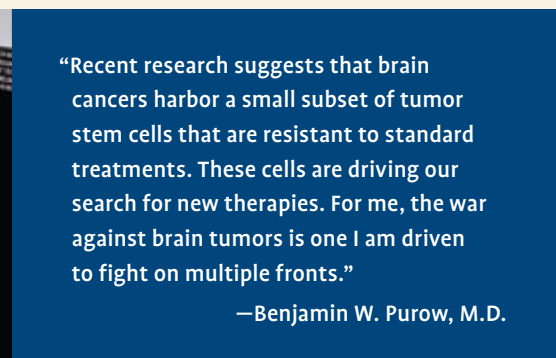
- UVA researchers are at work in the lab identifying chemical compounds and targeted therapies capable of stopping the cellular growth and invasion common in aggressive brain tumors.
- Other researchers seek to improve outcomes following radiation therapy by devising highly targeted molecular “sensitizers” that impede the repair process that enables some cancer cells to survive radiation exposure.

UVA's Neuro-Oncology Center is already recognized for its excellent clinical trials program. It is also renowned for providing outstanding care to brain cancer patients and compassionate support to both patients and their families. Recent additions to the center's basic science research staff have further heightened its profile. Despite these considerable accomplishments, there is still much work to be done. Brain cancer remains a devastating disease, with a grim prognosis for many patients. UVA aims to lead the fight against brain cancer, making it a manageable disease, rather than a deadly one. Private support accelerates the pace of our progress and helps us offer new hope to patients and their families.



“First and foremost, we think about what serves the patient best, what offers the optimal quality of life. It is our mission to advance treatment through research that continually improves both the quantity and quality of life.”

— Mark Shaffrey, M.D.
Co-director, Neuro-Oncology Center



“Recent research suggests that brain cancers harbor a small subset of tumor stem cells that are resistant to standard treatments. These cells are driving our search for new therapies. For me, the war against brain tumors is one I am driven to fight on multiple fronts.”

— Benjamin W. Purow, M.D.

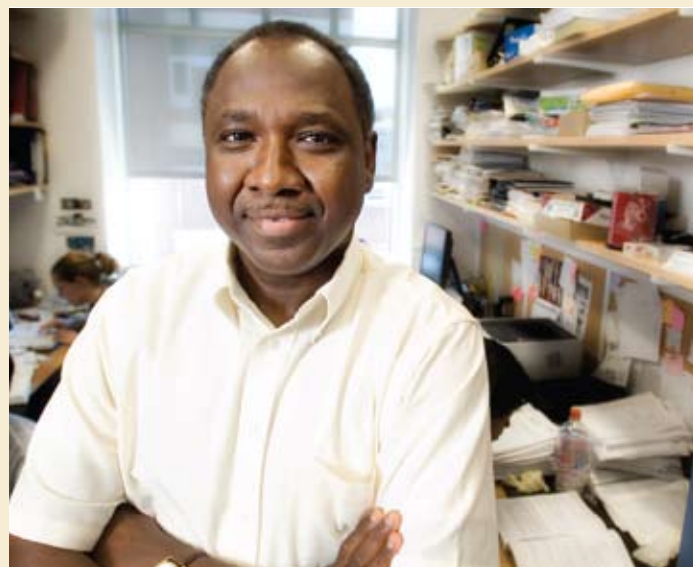
Find Out More

To join those individuals who are supporting neuro-oncology care and research, please contact the Director of Development for Neurological Programs, (800) 297-0102, (434) 924-8432.



“Developing convection-enhanced delivery of drugs directly to the brain should permit new treatment approaches, many of which can be launched at UVA. Treatments could target the molecular vulnerabilities in brain tumors that have been identified by recent research.”

— Edward Oldfield, M.D.



Looking to the Future

Isa Hussaini, Ph.D., associate professor of pathology, is attempting to identify chemical compounds capable of arresting the expression of an enzyme that causes explosive cell growth in glioblastoma multiforme (GBM). GBM, the most common and aggressive of brain tumors, is resistant to radiation and chemotherapy and impossible to remove completely through surgery.

“We’ve identified nine potential compounds, established models for drug screening, and are working to synthesize the compounds for testing,” says Dr. Hussaini. “We hypothesize that pharmacological regulators, in combination with drugs targeting cellular invasion and migration, may present a new therapeutic paradigm for aggressive brain tumors.”

Such research, under way by talented teams of UVA researchers, holds the greatest hope for brain tumor patients and their families.



Beatriz Lopes, M.D., leads a meeting of the Neuro-Oncology Tumor Board. Here, multidisciplinary teams review individual cases and plan customized courses of care.

Fighting Brain Cancer

AT THE UNIVERSITY OF VIRGINIA HEALTH SYSTEM



Janet and Victor Bernhards and Cindy Reynolds number among the millions of Americans who have lost a loved one to brain cancer. They envision a future when fewer families will suffer the same loss.