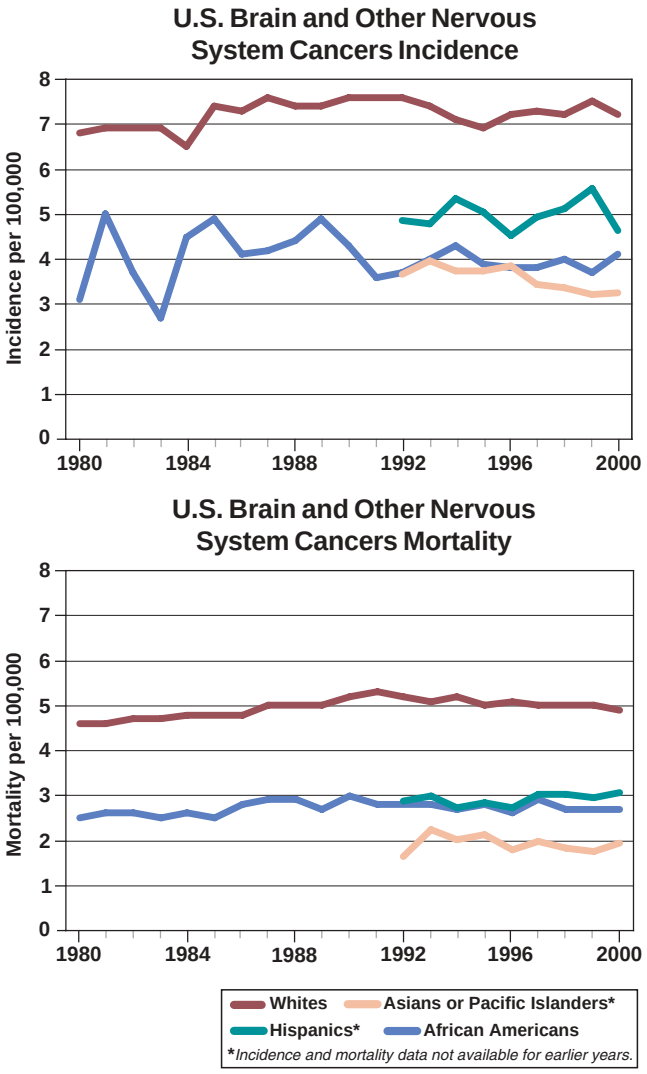
A Snapshot of Brain and Central Nervous System Cancers

Incidence and Mortality Rate Trends

The incidence and mortality rates for cancers that originate in the brain and central nervous system have remained relatively unchanged in the last decade. Both incidence and mortality rates are substantially higher for Whites than for other racial/ethnic groups. Regardless of racial/ethnic group, men have higher incidence and mortality rates than women.

Brain and other central nervous system cancers are the second leading cause of cancer-related death in children and make up 21 percent of all childhood cancers. In comparison to adults, the absolute number of brain and central nervous system cancer deaths in children is smaller and survival rates are higher.

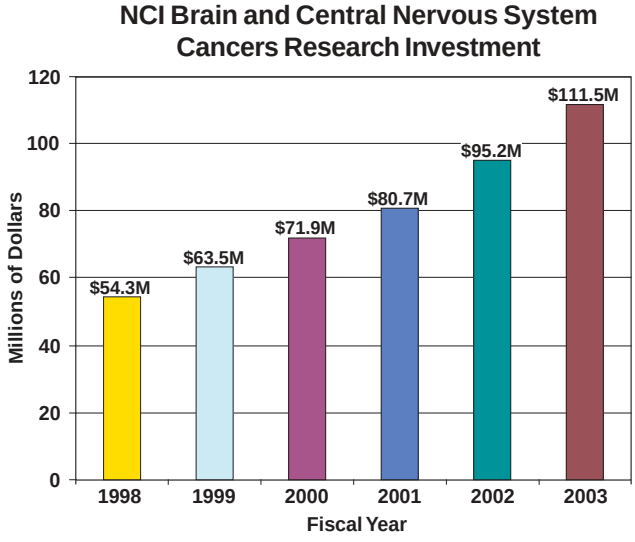
Source for incidence and mortality data: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts available at:
http://seer.cancer.gov/faststats/html/inc_brain.html
http://seer.cancer.gov/faststats/html/mor_brain.html



Trends in NCI Funding for Brain and Central Nervous System Cancers Research

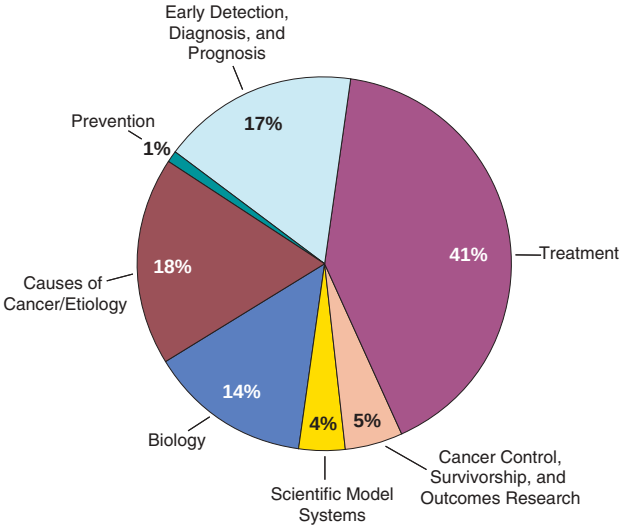
The National Cancer Institute's (NCI's) investment in brain cancer research has increased from $54.3 million in fiscal year 1998 to $111.5 million in fiscal year 2003.

Source: NCI Financial Management Branch
http://www3.cancer.gov/admin/fmb



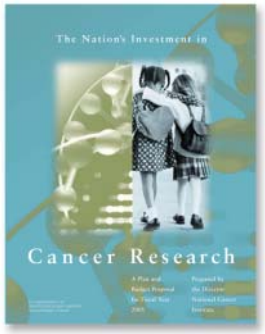
NCI Brain and Central Nervous System Cancers Research Portfolio

The pie chart shows the distribution of NCI brain and central nervous system cancer research dollars by scientific area for fiscal year 2002. Such portfolio analyses along with the recommendations of the Progress Review Groups (PRGs) are used to (1) identify research gaps, (2) develop strategic plans that will address future research needs, and (3) track and assess progress.



NCI Brain and CNS Cancer Research Portfolio*
Percentage of Total Dollars by Scientific Area
Fiscal Year 2002

*A description of the relevant research projects can be found at the NCI Cancer Research Portfolio website at http://researchportfolio.cancer.gov.



Examples of NCI Research Initiatives Relevant to Brain and Central Nervous System Cancers

- Four brain tumor-specific **Specialized Programs of Research Excellence (SPOREs)** are moving results from the laboratory to the clinical setting. http://spores.nci.nih.gov/brain/brain.html
- The **Neuro-Oncology Branch (NOB)** engages the strengths and resources of NCI and National Institute of Neurological Disorders and Strokes (NINDS) to develop novel experimental therapeutics for children and adults with tumors of the brain and spinal cord. In 2003, the NOB initiated a major tissue banking protocol in collaboration with two NCI-funded clinical trials consortia, the North American Brain Tumor Consortium (NABTC) and the New Approaches to Brain Tumor Therapy CNS Consortium (NABTT). http://home.ccr.cancer.gov/nob/default.asp
- The **Pediatric Brain Tumor Consortium**, the **North American Brain Tumor Consortium** and the **New Alternatives in Brain Tumor Therapy** are dedicated to conducting innovative clinical evaluations of new therapies and technologies for patients with malignant brain tumors. http://www.pbtc.org, http://www.nabtc.org, and http://www.nabtt.org
- The **Glioma Molecular Network** is developing an extensive molecular profile of brain tumors as a tool for researchers and clinicians to identify and evaluate molecular targets in brain cancers. These data will be publicly available through the NCI's Cancer Genome Anatomy Project (CGAP) and Cancer Molecular Analysis Project (CMAP) websites. http://home.ccr.cancer.gov/nob/mds/research.asp#1
- The **Mouse Models of Human Cancers Consortium (MMHCC)** is developing mouse models that mimic human nervous system cancers including those of neuronal and glial origins. http://emice.nci.nih.gov/emice/mouse_models/organ_models/cns_models
- The **Brain Tumor PRG**, a panel of prominent scientists and patient advocates, assessed the state of the science and identified future research priorities for brain cancer. http://prg.cancer.gov
- The **Brain Tumor Home Page** provides up-to-date information on brain cancer treatment, prevention, genetics, causes, and other topics. http://www.cancer.gov/brain/

Last updated February 2004