

# SECTION ON TUMORS



American  
Association of  
Neurological  
Surgeons

*A Section of the American Association of Neurological Surgeons  
and Congress of Neurological Surgeons*



## AANS/CNS Section on Tumors/BrainLAB International Research Fellowship Host Submission Form

The Tumor Section would like to establish a list from host institutions or laboratories in the U.S.A. and Canada who are interested in sponsoring a foreign neurosurgeon. The sponsoring investigator of the host laboratory will be required to submit a letter in support of the applicant, verifying the investigator's willingness to mentor the applicant and provide necessary space and supplies for the applicant during the project/study period.

If you are a member of the AANS/CNS Tumor Section and are willing to be listed as a Host Institution/Sponsoring Investigator, please complete the application form below and return it to Julie Quattrocchi at [Tumorfellowship@aans.org](mailto:Tumorfellowship@aans.org) or by fax to 847-378-0635.

Physician Sponsor: Professor Henry Brem

Institution/Organization Name: Johns Hopkins Hospital

### Contact Information:

Address: 600 North Wolfe Street, Meyer Building 7-113

City: Baltimore State: MD Zip: 21287

E-mail: hbrem@jhmi.edu Phone: (410)955-2252

Research Category: (please check all that apply)

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Anatomic studies                     | <input type="checkbox"/> Invasion                    | <input type="checkbox"/> Radiation therapy         |
| <input checked="" type="checkbox"/> Angiogenesis              | <input checked="" type="checkbox"/> Outcome Studies  | <input type="checkbox"/> Radiology                 |
| <input checked="" type="checkbox"/> Cell/Tumor biology        | <input checked="" type="checkbox"/> Pathology        | <input checked="" type="checkbox"/> Stem Cells     |
| <input checked="" type="checkbox"/> Delivery Methods          | <input checked="" type="checkbox"/> Pediatric tumors | <input checked="" type="checkbox"/> Tumor Genetics |
| <input checked="" type="checkbox"/> Experimental therapeutics | <input type="checkbox"/> Preclinical models          | <input type="checkbox"/> Other: _____              |
| <input checked="" type="checkbox"/> Immunology                | <input type="checkbox"/> Quality of Life             |  |

Research Interest/Projects: please provide a summary of your research interests or areas of expertise with an emphasis on potential projects for applicants (500 word limit):

The Brain Tumor Center of Johns Hopkins Hospital focus on extensive brain tumor research and offers the best possible adjuvant treatment following surgery. The research areas includes: Stem Cells and Brain Tumors; Immune Response to Brain Tumors; Local Drug Delivery to Brain Tumors; New Drug Targets for Brain Cancers, etc.

**Stem Cells and Brain Tumors:** to study the organization and cellular makeup of the stem cells in a particular portion of the human brain called the subventricular zone (SVZ). Our goal is to not only understand the function of these brain stem cells and how they may play a role in the development of brain tumors, but to ultimately genetically engineer these cells to fight brain cancer. This work is supported by grants from the NIH.

**Immune Response to Brain Tumors:** Our lab is currently working towards developing methods to down regulate the expression of FasL in tumor cells and facilitate a more effective immune response towards these highly aggressive tumors.

**Local Drug Delivery to Brain Tumors:** In our Hunterian Neurosurgical Research Laboratory, our Brain Tumor team seeks out ways to develop local drug delivery techniques that allow direct access to tumors while avoiding the adverse effects of standard systemic drug therapy. Under the direction of Henry Brem, the strategies of local drug delivery devised in the lab have had immediate impact on the care of patients with brain tumors. One of our recent developments is a novel microelectromechanical device (microchip) for local drug delivery.

**New Drug Targets For Brain Cancers:**To find and use drug targets for the most common malignant brain tumor in children (medulloblastomas) and adults (glioblastomas). In order to accomplish this goal, we have three active projects: Mutation and amplification detection in tumors, Large-scale expression analysis of brain cancers and brain cancer models, Drug development -- small-molecule screening and development as possible new therapies for brain tumors .

**Please submit your Host Submission Form to Julie Quattrocchi  
at [Tumorfellowship@aans.org](mailto:Tumorfellowship@aans.org) or by fax at 847-378-0635.**