

# **FELLOWSHIP in CEREBROVASCULAR SURGERY**

Type of Fellowship: **Clinical fellowship in cerebrovascular/skull base neurosurgery**

Supervisors & Teaching Faculty: Dr David Sinclair, Dr Denis Sirhan, and Dr Benjamin Lo

Fellowship information:

Number of fellowship positions available: 1 per year

Name of hospitals involved in training: Montreal Neurological Hospital and Institute

Duration of fellowship: 1 year

Description of fellowship:

This cerebrovascular fellowship is set up to provide the fellow with advanced microsurgical training so as to acquire expertise in the diagnosis, treatment, and management of patients with different intracranial and intraspinal neurovascular disorders with frequent exposure to various skull base pathologies including pituitary and CP angle neuro-oncological disorders.

The fellowship's clinical care component will be coupled with participation in, and development of clinical research projects in patients with various neurovascular and skull base diseases.

The cerebrovascular neurosurgical fellow will spend a minimum of 75 to 80 % of his/her time on clinically-related patient matters (surgical rounds, clinics and operations). The fellow will be encouraged to interact with, and to initiate collaborative research involving the McConnell Brain Imaging Centre (BIC), the Departments of Neuroradiology, Neuroanesthesia, Neuropathology, Otolaryngology and the Neuro-Intensive Care Unit (NICU). The fellow will also be actively involved in competency-based neurosurgery residency training and with medical student teaching (journal club and academic rounds) and will also be expected to further develop and lead the teaching and training of the microsurgical training

facilities that helps to develop sound neurosurgery resident microscopic operative skills.

Research activities and publications related to fellowship:

Please see the supervisors' CVs - appended.

Mission statement for fellowship:

The fellowship will provide, for those individuals aiming to pursue an academic/clinical career in intracranial, intraspinal, and skull base neurovascular surgery, the needed clinical and surgical expertise in treating the spectrum of these challenging cerebrovascular and skull base disorders.

Source of funding for fellowship:

Please check acceptable sources of funding on the postgraduate medical education website : <http://www.mcgill.ca/pgme/admissions/prospective-fellows>

Faculty roles:

The fellow will be expected to interact on a regular basis with all the faculty in the Department of Neurosurgery and in particular with the teaching faculty of the cerebrovascular and skull base surgical service. This will offer the fellow the broadest exposure to the different areas of staff expertise, both in the clinical care of neurosurgical patients and in clinical research.

Summary of clinical practice:

The cerebrovascular and skull base neurosurgical program is based primarily at the Montreal Neurological Hospital and in collaboration with the Department of Neuroradiology annually treats between 200 and 300 stroke patients and 50-100 patients with surgical skull base pathologies. Three or 4 operative days per week are devoted to cerebrovascular and skull base surgery. The cerebrovascular service is the busiest emergency surgical service at the MNI. The cerebrovascular service

follows, studies and treats a large outpatient clinical cohort encompassing the spectrum of cerebrovascular neurosurgical disorders. The cerebrovascular neurosurgical fellow will be exposed to the full gamut of cerebrovascular pathologies including those surgical disorders requiring skull base microsurgical approaches.

The cerebrovascular neurosurgical service is a dynamic clinical service which works closely with the stroke and neurology cerebrovascular programs. As such we discuss on a daily basis clinical treatment plans with our nurse clinician and the stroke team. The fellow's participation in this continued dialogue will be encouraged.

#### Academic facilities:

The Montreal Neurological Hospital cerebrovascular and skull base neurosurgical service, the neurosurgical intensive care unit, the clinical research unit (CRU), the McConnell Brain Imaging Centre, and MNI affiliated basic research laboratories studying cerebrovascular disease offers to the fellow a full complement of academic and research support.

#### Information and materials relevant to fellowship training:

The Montreal Neurological Institute has extensive library resources with both in-house textbooks and journals, supported by on-line digital access available through the McGill University Library network.

#### Fellow's duties and responsibilities:

The fellow will round on the patients daily with the residents in an advisory and teaching capacity. Treatment disagreements re the course of clinical care amongst the service team members requires staff consultation in finding a resolution.

The fellow will be involved on a day to day basis with teaching residents through both informal bedside and clinical rounds, supplemented by further instruction in the operating room, or through formal teaching during the academic half day program.

The fellow will also be responsible for participating in weekly clinics under the supervision of the responsible staff and to develop a research project which should result in a number of papers by year's end.

There are a number of weekly and monthly interdisciplinary rounds with other intersectional services for which the fellow will be expected to attend and contribute.

The fellow is expected to take general neurosurgery "call" to a maximum of 9 calls per month as per the "Collective Agreement guidelines established with provincial resident unions.

Although the majority of time will be spent at the Montreal Neurological Hospital, the fellow will be encouraged to attend, where possible, interesting cerebrovascular cases that arise at the Montreal Children's Hospital and the Montreal General Hospital. Rounds attendance when applicable and presentations at these institutions will also be encouraged.

Along with formal teaching seminars during academic half day activities the fellow will also be responsible for presenting morbidity and mortality rounds of behalf of the cerebrovascular and skull base service as required.

### Curriculum:

The fellow will be expected to spend the majority of his / her time in both clinical endeavours and the OR setting. This should still leave enough time however for academic pursuits. Different assigned readings, from staff (reflecting their areas of expertise), and organizing monthly journal clubs, along with academic half day seminars will constitute just some of the learning exercises expected of the fellow. Attendance at cerebrovascular meetings offered in both the departments of Neurosurgery and Neuroradiology along with paper presentations at national and international conferences is expected.

### Evaluation:

The fellow will receive an evaluation every 3 months by the fellowship director (after receiving input from the attending staff) who will then submit this evaluation to the residency program director and the residency committee for review.

The fellow will have the opportunity to offer formal feedback to the fellowship director and staff every 3 months. Any fellowship concerns will be promptly addressed by the residency program director.

This fellowship program is recognized by the Department of Postgraduate Medical Education of McGill University but is not recognized by the Royal College of Physicians and Surgeons of Canada. Cerebrovascular surgery is a recognized subspecialty within the teaching of neurosurgery at the national level and subspecialty recognition will eventually be sought from the Royal College but this is not the case at this time.

This fellowship training will add critical experience and exposure to managing complex cerebrovascular neurosurgical diseases along with obtaining important academic experience in clinical trial research participation and teaching.