GOALS AND OBJECTIVES

During the one-year training, fellows will be expected to progressively gain the knowledge and skills necessary for the diagnosis and management of a wide range of cerebrovascular diseases and others that result in vascular injury to the nervous system. The primary goal is for the trainee to be capable of independently managing any type of clinical situation related to stroke.

The overall objective for our Vascular Neurology fellowship training program is to provide the trainees with the skills and knowledge necessary to:

1. Provide high quality clinical care and assessment of patients with various cerebrovascular disorders in different settings (Emergency, inpatient, and clinics), including diagnostic evaluation, treatment, management, counseling and prevention.

2. Management of critically-ill cerebrovascular patients, such as those with ischemic stroke, cerebral hemorrhage, brain aneurysms or vascular malformations and be able to manage patients with secondary cerebrovascular injury such as trauma or cardiac arrest patients.

3. Work effectively with multidisciplinary teams oriented to the care of these patients.

4. Ordering and interpretation of laboratory and imaging tests in patients with cerebrovascular diseases and stroke.

5. Develop the capacity to pursue an academic career in the field of stroke and cerebrovascular disorders.

Clearly the goals during any given rotation will depend on the rotation. During ultrasound neck and TCD, performance and interpretation will be emphasized. In the clinic, consultative rotations clinical details and evaluation will be prominent, and in the emergency room rotation, rapid evaluation and treatment will take precedence. The specific goals and objectives of the cerebrovascular fellowship training are: 1) to become familiar with the clinical syndromes in patients with brain ischemia and hemorrhage; 2) to know the basic anatomy, pathology, and pathophysiology of the cerebrovascular system and the relevant cardiac and hematological systems; 3) to become very familiar with the important cerebrovascular disease literature; 4) to learn in depth the important therapeutic options, their indications, potential benefits and risks; 5) to become skilled in weighing benefits vs risks in making therapeutic decisions; 6) to become capable in interpreting the various cerebrovascular investigations- CT scanning, MRI, MRA, CTA, standard dye angiography, cervical ultrasound of the carotid and vertebral arteries, and transcranial Doppler; 7) to become skilled at rapid evaluation of patients with acute stroke syndromes; 8) to be able to tell patients their problems in a sensitive and clear fashion and to improve all interpersonal skills; 9) to understand basic research techniques; 10) to understand the major issues in cerebrovascular disease that already have been answered successfully and the conundrums and uncertainties that remain; 11) to learn how to design, plan, and carry-out research projects; and 12) to become familiar with biostatistical analyses of randomized trials.

Fellowship Duties and Curriculum

The two fellows will alternate being on call, one week at a time. While on call, the fellow will participate in the daily rounds and see all Code Stroke patients. He/She is required to be
familiar with all aspects of the individual patient’s care, but may delegate case presentation and management to the Neurology residents or attending when indicated.

The fellow will respond to Stroke Pager calls during weekdays and nights and weekends, when on service, and provide 24-hour coverage for the acute stroke service, including urgent Emergency Department evaluations and inpatient consultations, with individual case review for each case by the attending. The fellow will be required to obtain history, perform physical and neurological examinations, review all diagnostic studies, and write a detailed note on all patients seen as “code stroke”.

Each fellow will also spend a cumulative total of one and a half months in Neurosonology and two weeks in rehabilitation, where they will observe and learn interpretation of various imaging and vascular ultrasound studies and neurological rehabilitation. Additional elective time, when off service, may include rotations focusing on additional research or neurosonology, neurosurgery, interventional neuroradiology, Neurological ICU or rehabilitation according to the individual interests of the fellow.

Fellow Responsibilities:

The trainee’s mandatory duties and responsibilities include:

1. Evaluation of acute stroke patients in the Emergency Department
2. Supervise acute care of stroke patients (on the inpatient stroke service) and critically ill neurological patients in the inpatient setting
3. Attend outpatient clinic session when “prevention” fellow
4. Learn and interpret diffusion- and perfusion-weighted MRI and MRA; and perfusion CT and CTA; and carotid Ultrasound
5. Learn and perform, under supervision, transcranial Doppler studies
6. Organize weekly stroke team clinical case conference and a monthly Neurovascular interdisciplinary conference
7. Organize monthly resident stroke case conference
8. Attend all weekly and monthly stroke conferences
9. Alternate night call to provide 24/7 coverage for code stroke, on a weekly basis.
10. Participate in the ongoing clinical trials involving stroke patients
11. Enter patients’ data into our computerized stroke registry
12. Complete NIHSS and mRS training and maintain certification
13. Completion of the IRB required training for research on human subjects
14. Teaching medical students and residents during daily rounds