Description of Rotations

- **Inpatient Neurology Service Rotation:** Residents rotating on the inpatient neurology service are responsible for the care of all patients with neurologic disorders admitted to the neurology floor or ICU from the emergency department, from the neurology outpatient clinics, or electively. The neurology inpatient team will consist of a neurology chief resident, neurology resident (PGY2 or 3), in addition to the medicine intern and two to three medical students. In addition, during certain months, there will be a psychiatry intern, or a radiology intern. The neurology chief resident is responsible for the supervision of the team. The Neurology attending assigned to the inpatient neurology service is responsible for making daily rounds on patients admitted to the neurology inpatient team. She/he should cosign the house staff admission and follow-up notes and add addendum as needed. She/he is expected to provide daily teaching, feedback and a final evaluation for each house officer whom he/she supervises.

- **Neurology Consult Service Rotation:** Residents rotating on the neurology consult service are responsible for the evaluation of all consults from the floors and from the emergency room. The neurology consult team will consist of a neurology resident (PGY2 or 3), and two to three medical students. In addition, during certain months, there will be a senior medicine resident, a pediatric neurology fellow, a senior family medicine resident, and an emergency room resident. The neurology chief resident is responsible for the supervision of the team. The Neurology attending assigned to the consult neurology service is responsible for staffing all consults from the ER and the floors. He/she is responsible for deciding whether ED patients should be admitted to the neurology service or discharged with outpatient elective follow up. She/he is expected to provide daily teaching, feedback and a final evaluation for each house officer whom he/she supervises. In addition the consult attending is responsible for staffing the neurology resident OPDs.

- **Outpatient Clinic Rotation:** The resident outpatient clinic rotation aims at increasing the residents' exposure to outpatient management of neurologic patients. The residents rotate in each clinic block for 2 weeks at a time. The clinic blocks are general neurology, epilepsy, neuromuscular, movement disorders, and multiple sclerosis. Each clinic session is a half-day session. If the primary attending the resident is assigned to, does not have clinic for any reason, then the resident should work with the alternative attending listed for that day if applicable. The epilepsy clinics are with Dr. Ahmad Baydoun and Dr. Wassim Nasreddine, the movement disorder clinic is with Dr. Samer Tabbal, the neuromuscular clinic is with Dr. Raja Sawaya, and the MS clinic is in the MS center. The role of the resident depends on each attending and should be clarified with them. Some may want the resident to shadow them in the clinic, while others would want the resident

to see the patient independently and then staff with the attending. The resident should try to be as involved as possible with the cases and to participate in the formulation of an assessment and plan of care, and should try to keep track and follow up on the outcome of these cases for learning purposes.

- **Clinical Neurophysiology Rotation:** The purpose of the clinical neurophysiology rotation is to provide an introduction to EEG, evoked potentials, intraoperative evoked potentials, sleep studies and inpatient CCTV/EEG monitoring. The following are the objectives of the rotation:

- Become familiar with EEG recording techniques and equipment in all age groups and conditions, including sources of artifacts.
- Understand the basic neurophysiological generators of the EEG.
- Be able to recognize normal adult and child recordings and their various patterns in all normal states.
- Be able to recognize common abnormal patterns including:
    - Encephalopathy and coma
    - Epileptiform discharges
    - Gross focal features and asymmetries
- Become familiar with other EEG uses (e.g. intraoperative) and EP.
- Demonstrate competence dictating a normal EEG report using AEEG society standards.
- Understand the clinical features of sleep disorders and the modalities used for their diagnosis and treatment. Become familiar with the diagnostic nomenclature of the
- International Classification of Sleep Disorders (ICSD).
- Understand the physiological substrates involved in normal and pathological sleep.
- Develop sufficient familiarity with the Polysomnogram (PSG) and Multiple Sleep
- Latency Trial (MSLT) to allow basic recognition of sleep stages and fundamental sleep disorders.

- **EMG Rotation:** The goals of each electrophysiologic study are to localize the lesion precisely, and determine its pathophysiology, severity and prognosis. This is accomplished as follows:

A directed history and a neurological examination are performed and recorded. A diagnostic hypothesis is generated, and an individualized electrodiagnostic study is then planned and performed. Nerve conduction studies are performed first, followed by needle electromyography. As the results of the study come in, the hypothesis may be changed and the study may be redesigned as necessary. At the end of the study, the electrophysiologic abnormalities must be internally consistent and correlate closely with the patient's signs and symptoms.

It follows that clinical electrodiagnosis requires knowledge of neuromuscular diseases, detailed knowledge of anatomy of the peripheral nervous system, understanding of normal and abnormal electrophysiology of nerve and muscle, technical expertise in performing the various tests and ability to differentiate abnormal from normal electrical signals. The fellow rotation in EMG is designed to teach the fundamentals in these various areas.

During the early part of the EMG rotation, neurology residents will begin to learn the detailed spatial anatomy of the peripheral nervous system with reference to surface landmarks. In addition, they will gain a basic understanding of the electrical signature of the various neuromuscular diseases affecting nerve, neuromuscular junction, and muscle. They will begin to learn to perform nerve conduction studies using surface electrodes and percutaneous nerve stimulation.

Subsequently, the fellows will have an opportunity to perform nerve conduction studies of the common nerves in patients referred to the laboratory. This will be done under direct supervision, and only after they pass a test documenting basic knowledge of peripheral anatomy, electrophysiological abnormalities of the most important neuromuscular diseases, and demonstrate that they are technically competent in placement of electrodes, stimulation of nerves, and use of the EMG machine. Needle electromyography will be performed when the attending physician that the fellow has acquired the necessary knowledge to perform this procedure. Needle electromyography will be done under direct attending supervision.

- **Neuroradiology Rotation / Elective:**The following are the objectives of the rotation:

- Residents will gain familiarity with indications and contraindications for ordering CT and MR of the head, neck and spine.
- Residents will gain familiarity with indications and contraindications for ordering angiography of the head, neck and spine as well as myelography.
- Residents will understand the limitations of each neuroimaging study.
- Residents will develop an ability to interpret an imaging study on an emergency basis.
- Residents will gradually learn to interpret imaging studies in common neurological disorders.

- **Child Neurology Rotation:**

The overall goal for the rotation on Child Neurology is to provide an opportunity for the resident to perfect his/her history taking skills and neurologic exam in infants and children, and to learn the interrelationship of abnormalities of the nervous system with normal growth and development of the nervous system. Additionally, our goal is to provide the resident with an exposure to and a forum for discussion of a wide variety of neurologic problems in infants and children of all ages.

- **Neurosurgery Rotation:**

The neurosurgery rotation is designed to expose the neurology residents to the spectrum of neurosurgical disorders which are closely related to neurological disorders. The resident will get familiar with the surgical management of both neurological and neurosurgical disorders, and will attend common neurosurgical procedures and operations.

The objectives of the rotation are:

- The residents will learn to assess neurosurgical emergencies and make accurate diagnosis and therapeutic management plans.
- The residents will learn the basic principles of the management of elevated intracranial pressure both pharmacologic and surgical.
- The residents will learn the basics of common neurosurgical procedures.
- The residents will attend/participate in common neurologic procedures such as insertion of a drain for elevated ICP, surgical management of intracranial bleeds, tumor resections, brain biopsies, DBS surgery, and epilepsy surgeries.
- The residents will learn the indications for surgical treatment in movement disorders, and epilepsy, and get familiar with the presurgical work up of these patients.

- **Psychiatry Rotation:**

The objectives of the rotation are:

- The residents will learn basic principles of psychopathology and psychiatric diagnosis.
- The residents will learn how to perform a psychiatric examination/assessment.
- The residents will learn the basic principles for the management of patients with common psychiatric disorders.
- The residents will learn about pharmacologic and nonpharmacologic treatment of psychiatric disorders with emphasis on psychopharmacology.
- The residents will learn about the psychiatric aspect of the doctor patient relationship and the importance of social and cultural factors.