1. EEG/Epilepsy
   **Length of rotation:** Minimum of 1 week and up to 4 weeks
   **Brief description:** Time spent learning how and actively engaging in the interpretation of EEG, including LTM monitoring and patient exposure in the Epilepsy Monitoring Unit
   **Preceptor:** Dan Weber, Cathy Phillips, Felicia Chu, Ika Noviawaty
   **Contact person:** Dan Weber, Daniel.Weber@umassmemorial.org

2. EMG/NCV/Neuromuscular Medicine
   **Length of rotation:** 4 weeks
   **Brief description:** To get exposure to patients with neuromuscular disorders, learn the diagnostic approach and work up, recognize when tissue biopsy is indicated, interpret results of EMG/NCS studies, and learn the management of common neuromuscular disorders. To learn NCS/EMG and describe and interpret NCS/EMG data in common disorders, learn the pitfalls and formulate basic NCS/EMG plans for specific common clinical presentations.
   **Preceptors:** Kate Daniello, Isabelita Bella, Lan Qin, Jane Sargent, Ayo Owedi
   **Contact person:** Kate Daniello, Pager 7208; kate.daniello@umassmemorial.org

3. Clinical Neuroimmunology/Multiple Sclerosis
   **Length of rotation:** 2-4 weeks
   **Brief description:** To see patients with various forms of MS, and evaluate a variety of `MS mimics” such as SLE, sarcoidosis, etc and learn aspects of neurological examination that are most relevant to demyelinating disease patients
   **Preceptors:** Peter Riskind, Carolina Ionete
   **Contact Persons:** Peter Riskind, Carolina Ionete, Peter.Riskind@umassmemorial.org

4. Movement disorders
   **Length of rotation:** minimum 1 week
   **Brief description:** This rotation will provide residents with the opportunity to see patients with a variety of movement disorders including Parkinson’s disease, tremor, multiple system atrophy, progressive supranuclear palsy, ataxia, and dystonia. They will also have the option to attend deep brain stimulation clinic and botulinum toxin clinic. The goals of the rotation are to learn techniques pertinent to the movement disorders exam, the movement review of systems, forming a differential diagnosis, and principles of management.
   **Preceptors:** Dr. Anindita Deb, Dr. Kara Smith
   **Contact person:** Anindita Deb, 774-455-4208, Anindita.deb@umassmemorial.org

5. ALS clinic
   **Length of rotation:** Two days in the ALS clinic per resident (2nd and 4th Friday of the month).
   **Brief description:** Exposure to ALS patients, learning history and examination, evaluations done to rule out mimics of Motor neuron disease as well as multiple aspects of care including
multidisciplinary evaluations/approach to issues such as dysphagia and need for PEG, respiratory care and pulmonary aspects, as well as clinical trials and research on ALS

Preceptor: Ayo Owegi D.O.
Contact person: Renee Tetreault/508-334-0248, renee.tetreault@umassmemorial.org

6. Neuropathology

Length of rotation: 1-2 months (Depending on Schedule) 2 one hour microscope sessions per week plus additional ´ad hoc´ brain cutting sessions (TBD)

Brief description: The elective will provide an opportunity to: 1) review normal histology and a variety of pathologic abnormalities involving CNS, nerve and muscle 2) review and discuss the pathophysiology of CNS/PNS diseases; 3) review normal/abnormal brain anatomy and function by attendance at brain cutting sessions.

Preceptor: Thomas W. Smith, MD
Contact person: Thomas W. Smith MD, 508-856-2331. thomas.smith@umassmemorial.org

7. Neurocritical Care

Length of rotation: Minimum of 1 week up to 4 weeks

Brief description: Exposure to severe neurologically critically ill disease patients such as cerebral hemorrhage, traumatic brain injury, subarachnoid hemorrhage and stroke and to the clinical approach and critical care management of these patients.

Preceptors: Raphael Carandang, Wiley Hall, Susanne Muehlschlegel, Marcey Osgood
Contact person: Raphael Carandang, 508-856-4666, pager 5503, raphael.carandang@umassmemorial.org

8. Diagnostic Neuroradiology

Length of rotation: Minimum of 1 week/Can be individualized

Brief description: Experience interpretation and reading CT scan and MRI imaging studies with Neuroradiology attendings

Preceptors: Andrew Chen, Sathish Dundamadappa, Deepak Tahktani
Contact person: Andrew Chen, Sathish Dundamadappa, Andrew.Chen@umassmemorial.org

9. Neurointerventional Radiology

Length of rotation: 4 weeks

Brief description: Exposure to clinical approach and treatment of patients with neurovascular disease, interventional-angiogram/catheter based procedures for ischemic and hemorrhagic stroke.

Preceptors: Ajay Wakhloo, Ajit Puri, David Rex
Contact person: David Rex, David.Rex@umassmemorial.org

10. Neurosurgery

Length of rotation: 2-4 weeks
Brief description: Rotate with Neurosurgery Pas and Attending physicians and get exposure to neurosurgical diseases such as brain tumors, aneurysms, spinal disease, hydrocephalus etc and an opportunity to see surgical management of these diseases.
Preceptors: Richard Moser, John Weaver, Oguz Cataltepe, Urvashi Upadhyay, Mark Johnson
Midlevels: John O’Grady, Jennifer Corriveau
Contact info: Jennifer.Corriveau@umassmemorial.org; Richard.Moser@umassmemorial.org

11. Ophthalmology
Length of rotation: 2-4 weeks.
Brief Description: Shadow ophthalmology attendings in the clinic and see patients with a variety of ophthalmologic conditions. Get more experience with fundoscopy, recognizing common variants, optic disc edema, etc. Gain exposure to the OCT and retinal fluoroscopy which helps to further visualize retinal disease.
Location: Hahnemann campus in downtown Worcester on Lincoln Street. Parking and ID access can be set up by contacting the secretary of Dr Asdourian
Preceptors: Dr George Asdourian, Dr David Hinkle, and other attending present as scheduled.
Contact person: Dr George Asdourian, George.Asdourian@umassmemorial.org

12. Neurorehabilitation/Women’s Neurology/Community Neurology
Length of rotation: 1 month
Brief description: The resident will participate in a community neurology clinic with special emphasis on cases in brain injury/neurorehabilitation and community neurology. We will be forming partnerships with colleagues at rehabilitation centers to help create a multidisciplinary brain-injury and neurorehabilitation service. We will also be working with our OBGYN colleagues at the Memorial Campus across the street. Rotation will be primarily outpatient but resident will also help with consults during the day on the Memorial campus wards which have a heavy component of OB and Women’s neurology. There will be a monthly journal club on the specialty topics in which the resident will participate.
Preceptors: Ari Wilkenfeld, MD, PhD; Muhammad Ramzan, MD, Naren Sodha MD, Grazyna Pomorska MD, Joan Puglia MD
Contact person: Ari Wilkenfeld, MD, PhD, 508-334-6543, ari.wilkenfeld@umassmemorial.org

13. Global Neurology
Length of rotation: 2-4 weeks
Logistics to be determined/worked out but resident needs to set aside elective time to travel abroad
Brief Description: Initiative to interact, travel and engage with communities abroad in teaching, establishing education programs, research collaboration and providing neurological outreach.
Preceptor: Anindita Deb
Contact person: Anindita Deb, 774-455-4208, Anindita.deb@umassmemorial.org

14. Trauma
**Length of rotation:** 1-4 weeks

**Brief Description:** Rotate as a resident on the trauma service and experience acute trauma cases and their emergent assessment and management under the supervision of trauma attendings, senior residents and NPs. This is a unique experience given that we are the only Level 1 trauma center in Central Massachusetts. Regular Trauma Rounds are held weekly as well.

**Preceptors:** Timothy Emhoff, Bruce Simon, Heena Santry, Ulises Torres, Jon Dorfman, George Debusk

**Contact person:** Timothy Emhoff MD, 508-856-1168, Timothy.Emhoff@umassmemorial.org

15. **Neuroscience Laboratories**
These can be arranged on a case-to-case basis based on the Specific Laboratory, and Neuroscientist/Investigator as well as the individual resident’s interest and qualifications.

16. **Neurorehabilitation/Fairlawn Rehabilitation Hospital**
**Length of Rotation:** 1-4 weeks

**Brief Description:** Rotate with Neurology attendings on rounds at our Flagship Rehab hospital and obtain exposure to patients who are in rehabilitation after being discharged from the acute care hospital.

**Contact Person:** Jordan.Eisenstock@umassmemorial.org