

## **Clinical neuromuscular, EMG, and neurological rehabilitation fellowship**

**Fellowship Supervisor:** Dr Daria Trojan

### **Fellowship Information:**

- Number of fellowship positions required: One
- Name of the hospitals involved in training:
  - Montreal Neurological Hospital (MNH)
  - Montreal General Hospital (MGH)
  - Montreal Children Hospital (MCH)
  - Jewish General Hospital (JGH)
- Time spent by the fellow in each institution:

MNH	85-90%
MGH	5-10%
MCH	5% (optional)

### **Description of Fellowship:**

- The fellowship year will be divided into 2 components:
- The first one will focus on neuro-muscular diseases in adults. The pediatric-adolescent populations can also be included.
- The second component will focus on electrodiagnostic evaluations including nerve conduction studies, electromyography, and sensory evoked potentials.
- The fellow will attend the ALS, Neuromuscular, Neuropathy, Myasthenia gravis, Post-Polio, neurological rehabilitation clinics as well as some MS clinics. The fellow will be supervised at these clinics by the clinic physician (s) who include Dr. Erin O’Ferrall, Dr. Bernard Brais, Dr. Rami Massie, Dr. Colin Chalk, Dr. Angela Genge, Daria Trojan, and MS Clinic Neurologists (Drs. Yves Lapierre, Jack Antel, and Paul Giacomini).
- In the pediatric-adolescent population, the fellow will work with Dr Chantal Poulin in her monthly neuro-muscular clinic.
- Electrodiagnostic procedures will be done at the MNH and the MGH under the supervision of the Neurology or Physiatry attending Staff. The fellow may work with several electromyographers including Dr. Colin Chalk, Dr. Mohan Radhakrishna, Dr. Daniel Gendron, Dr. Rami Massie, and Dr. Erin O’Ferrall at the MNH.
- There will be regular and fixed clinics that the fellow will attend all year long (Tuesday PM and Wednesday AM as available) as well as complete rotations up to a maximum of 5 months during the clinical fellowship year.
- The fellow will attend weekly Muscle Pathology Rounds on Thursday mornings. This is followed by a lecture or discussion on a neuromuscular topic.

- Research activity and publications related to fellowship: A clinical research project is strongly encouraged but not mandatory. It is anticipated that the fellow will complete a clinical research project under the supervision of a staff-researcher. It is expected that the fellow will present the project at an international scientific meeting. A manuscript may also be prepared and submitted for publication, depending upon the project.
- It is expected that the fellow will pass the CSCN exam at the end of the fellowship.
- Duration of Fellowship: 1 year
- Mission Statement for Fellowship: The clinical fellowship year is intended to offer the fellow a sound clinical experience, and wide and comprehensive exposure to neuromuscular diseases.
- Source of funding for fellowship:  
<http://www.mcgill.ca/pgme/admissions/prospective-fellows>

### **Names of the Teaching Faculty**

Teaching staff will include Dr. Erin O’Ferrall, Dr. Bernard Brais, Dr. Ramie Massey, Dr. Angela Genge, Dr. Colin Chalk, and Dr Chantal Poulin, from the Neurology and Neurosurgery Department.

The Teaching staff will also include Dr Mohan Radhakrishna and Dr Daria Trojan, Psychiatrists, who, respectively, work in the MNH EMG Clinic, and with the MNH Neuromuscular and MS Clinics.

- Roles of Teaching Faculty:
  - Neurologists and Psychiatrists will guide and supervise the candidate in several areas, and assess:
    - The fellow’s assessment and application of relevant information to clinical practice
    - The fellow’s clinical judgment,
    - The fellow’s clinical diagnostic and therapeutic skills
    - The fellow’s skills to gather pertinent information from family members and to establish therapeutic relationships with them,
    - The fellow’s capacity to consult with other physicians and allied health professionals,
    - The fellow’s contribution to effectively improve patients’ quality of life and social integration.
  - Dr Mohan Radhakrishna
    - Technically and clinically will supervise the fellow’s skills in conducting nerve conduction studies and EMG in the context of the Electrodiagnostic rotations at the MNH.

Dr Daria Trojan will

- Elaborate with the fellow the possibility of undertaking a clinical research project during his/ her rotation at the MNH.
- Supervise the resident during rotations in the neurological rehabilitation clinic and the post-polio clinic.

- Summary of clinical practice:

The clinical practice of Drs. O’Ferrall, Brais, Massey, Genge, and Chalk focuses on neuromuscular diseases, namely ALS, myopathies and neuropathies in the adult population.

Dr Chantal Poulin’s practice involves the pediatric and adolescent populations with muscular dystrophy, myotonic dystrophy, spinal muscular atrophy and hereditary motor and sensory neuropathies.

Dr Chalk and Dr Radhakrishna are main collaborators at the EMG clinic at the MNH while Dr. Daniel Gendron is in charge of EMG at the MNH.

Dr Trojan is a clinical researcher whose interests lie in the late effects of polio and sleep disorders in MS. She has a neurological rehabilitation clinic and post-polio clinic at the MNH and Constance Lethbridge Rehabilitation Centre.

- Major Strengths:

The teaching faculty is widely and internationally recognized for its excellence in neuromuscular disease from both a clinical and research perspective.

The teaching members are dedicated to teaching.

The volume of patients assures an excellent exposure to the neuromuscular pathologies.

The academic program is well organized and interaction with physiatrists, neurologists, researchers, fellows, residents and students, and is very stimulating.

### **Academic Facilities:**

- Facilities for clinical and academic pursuit:

The clinics are managed and run by dedicated staff and experienced nurses and allied health professionals.

Teaching is delivered by staff and senior residents or fellows on a regular basis.

Specialized clinics are organized:

Neuropathy clinic at the MGH (Tuesday PM)

Neuromuscular/Myopathy clinic at the MNH (Wednesday AM and PM) (these patients are also seen other days of the week)

Myasthenia Gravis clinic (Friday AM)

Muscle Pathology Rounds (Thursday AM)

EMG clinics at the MNH (regular daily schedule).

In order to prepare the fellow for the CSCN EMG exam there will be an increasing focus on EMG toward the end of the fellowship.

Library access, etc. The candidate will obtain a hospital card and a pass to the different libraries as well to the multimedia learning material. He/she will have access to the photocopying machine.

### **Fellow Duties and Responsibilities:**

- The fellow will not be on call to cover the neurological wards. The fellow may be requested to be on call in their field of specialization (e.g. Physical Medicine and Rehabilitation) one week in four.
- The fellow will rotate among the three hospitals cited above: MNH, MGH and MCH.
- There will be fixed rotations specifically during EMG. These rotations are for a minimum of 4 weeks and can be extended to a maximum of 12 consecutive weeks.
- The fellow 's outpatient clinical responsibilities will be to :
  - Assess the patient and report in the chart, in a clear manner, the patient's medical condition, needs, therapeutic modalities and functional prognosis.
  - Organize a comprehensive treatment plan,
  - Report to the staff,
  - Ensure a regular follow-up and help organize, if needed, different investigation tests ,
- The teaching responsibilities of the fellow towards residents in Physical Medicine and Rehabilitation and Neurology consist of:
  - Delivering medical teaching on a regular basis,
  - Providing the residents with different review articles or books chapters for the purpose of reviewing their basic knowledge.
  - Mentoring for some medical students or junior residents.
- Participation in academic activities:
  1. The fellow participates in the Department academic activities under the supervision of the neurologist in charge of the activity. (seminars, M&M rounds, etc)
  2. The fellow will be supervised by a staff neurologist or physiatrist in his/her academic activities.
  3. The organization of the meetings and the distribution of academic material will be done by the neurology/physiatry staff's secretary.
  4. The fellow will attend a national meeting or symposium in neuromuscular diseases during his fellowship year.
  5. The fellow is encouraged to present a poster or deliver a talk during the event and will receive some funding to support this activity (as available).

## Curriculum

The fellow's case load will vary from one clinic to another.

The fellow is expected to assess and evaluate an average of 5 to 6 patients per clinic.

The fellow will also supervise some of the junior residents' case loads.

The fellow will take charge of the patients whom diagnosis is already established and ensure for them an adequate treatment and rehabilitation plan.

The fellow will have at least one day per week for educational/research activities.

The fellow is expected to get a balanced exposure to the population with neuromuscular diseases.

Myopathies and neuropathies will constitute approximately 50% of the patients.

ALS patients and other conditions (MG, spinal muscular atrophies, post-polio, etc.) will constitute the other 50%.

Reading material and reference books will be provided by the staff neurologist/physiatrist. The fellow will attend the following weekly/monthly conferences:

- Neurology grand rounds at the MNH
- Muscle pathology rounds at the MNH
- A province-wide Neuromuscular Journal Club occurs once per month (organized by Dr. Rami Massie)