

McMaster Pediatric Neurology Fellowship Training Program

Program Year	Content and Sequence of Rotations – 3 Year Program												
	Number of Months (or 4-week blocks)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
First	Neuroanatomy/ Neuroscience			Pediatric Neurology			Electives		Adult Neurology			Rsrch	Vac
Second	Neurophysiology		Pediatric Neurology			Rsrch	Adult Neurology			Developmental Peds		Vac	
Third	Pediatric Neurology			Electives		Neuromuscular			Pediatric Neurology		Rsrch	Vac	

Mandatory Content of Training

Description	Duration	Sites in which this training may be taken
Core Pediatric Neurology	12 blocks	McMaster Children's Hospital
Adult Neurology	6 blocks	McMaster University Medical Centre Hamilton General Hospital St. Joseph's Hospital Henderson General Hospital Community Neurologist Offices
Pediatric Neurology Clinical Subspecialties (Neuromuscular, Developmental Pediatrics, Neurophysiology)	8 blocks	McMaster Children's Hospital Chedoke Hospital
Neuroanatomy/Neuroscience	3 blocks	McMaster University Medical Centre
Research	3 blocks + ½ day alternating weeks throughout training	McMaster University Medical Centre

Continuity Clinic	½ day alternating weeks throughout training	McMaster Children's Hospital
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Elective Content of Training

Description	Duration	Sites in which this training may be taken
Pediatric Neuroradiology	1 – 2 blocks	McMaster Children's Hospital
Neuropathology	1 – 2 blocks	McMaster University Medical Centre
Pediatric Neurosurgery	1 – 2 blocks	McMaster Children's Hospital
Ophthalmology	1 – 2 blocks	McMaster University Medical Centre
Pediatric Neuro-oncology	1 – 2 blocks	McMaster University Medical Centre
Child Psychiatry	1 – 2 blocks	Chedoke Hospital
Community Pediatric Neurology	1 – 2 blocks	Trillium Hospital
Epilepsy	1 – 3 blocks	McMaster University Medical Centre
NICU Neurology	1 – 2 blocks	McMaster University Medical Centre
PICU Neurology	1 – 2 blocks	McMaster University Medical Centre
Ambulatory Neurology Subspecialty Clinics	1 – 2 blocks	McMaster University Medical Centre
EEG	1 – 4 blocks	McMaster University Medical Centre
Research	1 – 3 blocks	McMaster University Medical Centre

Overview of Program Structure

Trainees will begin their neurology exposure with a 12 week block of structured self-directed learning about the fundamentals of neuroanatomy and the neurosciences. This will consist of a mixture of independent study and didactic sessions with neuroanatomy staff and neuroscientists. The progress of the trainee will be assessed regularly through written and oral examination. In the first two years, trainees will spend 6 months in both pediatric and adult neurology. These rotations are split into 12 week blocks in years 1 and 2 to allow for graded exposure. An additional 6 months of core pediatric neurology training will be completed in the final training year. Core pediatric neurology subspecialties, such as neuromuscular, neurophysiology (EEG, EMG/NCS, evoked potentials) and developmental neurology, will be completed during years 2 and 3. Sixteen weeks of elective time provide the trainee with the opportunity to gain exposure to a variety of specialties, such as: pediatric neuroradiology, pediatric neuropathology, community pediatric neurology, or genetics/metabolics.

Throughout training, the trainees are annually allotted 4 weeks of protected research time as well as a half-day every second week devoted to research. The expectation will be that a significant project will be undertaken or multiple smaller projects will be created and progress will be made throughout training.

In order to provide a balanced educational experience, while on the pediatric neurology rotation, trainees will be responsible for attending outpatient pediatric neurology clinics (up to 4 half-days per week), and assessing and following inpatients when a pediatric neurology consultation is requested. Trainees will also manage patients electively admitted for epilepsy monitoring or initiation of the ketogenic diet.

In addition, all trainees will be assigned to a biweekly continuity clinic beginning in their first year of training. The trainees will see new patients under the supervision of one of the neurology staff. Patients will be followed by the trainee during the duration of their training to allow for continuity of care.

The program director is responsible for ensuring that each trainee fulfills Royal College requirements over the three or five year training period. Elective rotations must be approved by the Training Committee and the trainees must ensure that the senior physician in the discipline chosen has agreed to accept responsibility for supervision of the trainee during the elective period.

Trainees from out-of-country who will not be writing the Royal College Pediatric Neurology Certification Examination must successfully complete a formal long case oral exam, as well as a written short answer exam set at the Royal College level, in order to be given credit for their training. Those not successful will be asked to undergo additional training in their areas of weakness, and then to re-write the examination.

Trainees will attend the combined adult/pediatric neurology half-day each week. The neurology half-day sessions are comprised of case-based tutorial style sessions covering aspects of both pediatric and adult neurology, and recurring interactive expert

sessions with neuroradiologists, pathologists, neurophysiologists and neurology subspecialists.

In addition, trainees will participate in weekly and monthly seminars during their various rotations (e.g., Brain Hour, Neuromuscular Rounds, Neuroscience Rounds, etc.).

Training Sites

McMaster Children's Hospital has 117 acute care beds, including the NICU, Level II Nursery, and PICU. There are approximately 3000 outpatient visits to the pediatric neurology clinics each year. The mix of presenting problems and patient socio-demographics is diverse, drawing from the regional referral base of 2.2 million population in Central South Ontario. In addition to their exposure to clinic patients during their pediatric neurology rotations and during their own continuity clinics, Pediatric Neurology fellows will have the opportunity to consult on outpatients in other clinical services (Hematology, Oncology, Neonatal Follow-Up, General Pediatrics) as well as in the Emergency Department.

A specific group of interest at McMaster is the neonatal population. The neonatal intensive care unit at McMaster is one of the largest in Canada, and consequently fellows will gain exposure to a wide variety of issues in neonatal neurology.

Another exceptional component at McMaster University Medical centre is the new, fully-equipped neuromuscular clinic. This facility utilizes bench-to-bedside neuromuscular analysis, with hundreds of muscle biopsies performed each year. It also includes a complete exercise laboratory. Almost 1000 electromyograms and nerve conduction studies are done each year.

Training in other aspects of neurophysiology is also available, including EEG and evoked potentials. Fellows will also be exposed to inpatient and outpatient video EEG monitoring.

Developmental training will largely be completed at Chedoke hospital, which is a multi-disciplinary outpatient rehabilitation centre. Fellows will participate in specialty neurodevelopmental clinics, such as spasticity clinic and botox clinic, as well as spend time in our state-of-the-art motion analysis laboratory.

The hospitals that will provide training in adult neurology will include: Hamilton General Hospital, McMaster University Medical Centre, Henderson General Hospital, and St. Joseph's Hospital. Together they draw from a population of 2.2 million, and the clinical case load and resources equal or exceed most teaching centres in Canada. There is a defined neurological ISU (Integrated Stroke Unit) at Hamilton General Hospital, consisting of 16 acute stroke unit beds and 16 acute rehab beds. The neurology services at the other sites (MUMC, Henderson, SJH) comprise inpatient consultative services as well as outpatient clinics. Pediatric Neurology fellows undertaking their Adult Neurology rotations during PGY3 will join the inpatient consultation services as

well as taking part in general neurology and subspecialty neurology outpatient clinics. Pediatric Neurology fellows rotating on Adult Neurology during PGY4 will spend time on the ISU and have the opportunity to take on a supervisory role in a CTU setting.

Prerequisites

Canadian Graduates

Completion of three years of postgraduate training in pediatrics.

Foreign Medical Graduates

Successful completion of the pre-entry assessment program (PEAP).

Information about the PEAP for Clinical Fellows

Minimum 4 weeks, maximum 12 weeks in duration

After arrival within Canada, the Clinical Fellow will be evaluated based on their general knowledge and competency in general pediatrics, and appropriateness for entering practice in pediatric neurology.

This evaluation will assess: mental competence to practice medicine, knowledge, skill and judgment, communication skills, and appropriateness of professional attitude.

An assessment will be completed at the end of the 2nd week and at the end of the 4th week. After the 4th week assessment, the PEAP can be successfully completed. If unsuccessful, the evaluation period can extend up to a maximum of 12 weeks.

Required Documents

1. Medical School Transcript
2. Medical Student Performance Record
3. Curriculum Vitae
4. Three Letters of Recommendation

Two of these must come from a supervising staff pediatrician or pediatric neurologist. One reference should be written by a peer. Late reference letters will not be accepted.

5. Personal Letter

This should outline the following: 1) reason for interest in pediatric neurology, 2) strengths and weaknesses, 3) career goals, 4) interests outside of medicine. Maximum length: 1000 words.

Application Deadline

Minimum 6 months prior to start date – usually January 1st for a July 1st start

Program Contact

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