

McMaster Pediatric Neurology Residency Training Program

About Our Program

Our Vision:

“To maintain a flexible, well-rounded, life-style friendly learning environment that allows trainees to pursue a variety of career paths, ranging from community pediatric neurology to academic medicine”

Program Curriculum

Program Year	Content and Sequence of Rotations – 5 Year Program												
	Number of Months (or 4-week blocks)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
First	Peds Neuro	Gen Peds	Child Psych	ER	Gen Peds	NICU	Adoles Med	Gen Peds	Rsrch	Com Peds	Gen Peds	PICU	Vac
Second	Neuroanatomy Neuroscience			Pediatric Neurology			Pediatric Neuroradiology		Genetics Metabolics		Neuro path	Rsrch	Vac
Third	Neurophysiology		Pediatric Neurology			Rsrch	Adult Neurology			Developmental Peds			Vac
Fourth	Pediatric Neurology			Pediatric Neurosurgery		Neuromuscular			Adult Neurology			Rsrch	Vac
Fifth	Pediatric Neurology			Electives								Rsrch	Vac

PGY1

The first year will consist of core training in Pediatrics that is designed specifically to meet the goals and objectives in pediatric neurology. Rotations during the first year will include:

- general pediatrics/community pediatrics
- neonatal medicine
- pediatric intensive care medicine
- child psychiatry
- adolescent medicine

- emergency medicine

The year will begin with a 4 week rotation in pediatric neurology to familiarize the incoming trainee with the staff of the pediatric neurology program

PGY2

We strongly feel that our residents should have a solid basic knowledge of neuroanatomy and the neurosciences BEFORE being expected to function as a “pediatric neurology resident”. Consequently, after the first year of general pediatric training, the residents 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 resident will be assessed regularly through written and oral examination. The remainder of the second year will be spent in clinical pediatric neurology and related sub-specialties: pediatric neuroradiology, pediatric neuropathology, and genetics/metabolics.

PGY3-4

In the PGY3 year, residents are exposed to clinical neurophysiology, which encompasses EEG, evoked potentials, and EMG/NCS training. During the remainder of the PGY3 and PGY4 years, residents are exposed to additional pediatric neurology sub-specialties and related services such as: developmental pediatrics, pediatric neuromuscular medicine, and pediatric neurosurgery. In addition, residents will spend 6 months in both pediatric and adult neurology. These rotations are split into 12 week blocks in years 3 and 4 to allow for graded exposure.

PGY5

The final year of training is mainly an elective year with the opportunity for residents to construct 24 weeks of activities in their area of choice including rotations in community pediatric neurology, electrophysiology (EEG, EMG/NCS), or a variety of sub-specialty electives.

All trainees will be assigned to a biweekly continuity clinic beginning in their first year of training. The residents 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.

Research

Throughout training, the residents 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.

Seminars

Residents attend the pediatric academic half-day during their first year of training, and the combined adult/pediatric neurology half-day for the remainder. 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 sub-specialists.

In addition, residents 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 residents 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 residents 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 electromyographs and nerve conduction studies are done each year. Training in other aspects of neurophysiology is also available, including EEG and evoked potentials. Residents 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. Residents 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 residents 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 residents 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.

Application Process

Required Documentation:

Medical School Transcript

Order from your Registrar

Medical Student Performance Record

Order from your Dean's office

Curriculum Vitae

Three Reference Letters

At least one should be from a supervising staff pediatric neurologist. The remainder can be from academic physicians familiar with the candidate's abilities. An additional reference from a supervising senior resident or fellow will be accepted. Late reference letters will not be accepted.

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.

Proof of Citizenship Status

Proof of citizenship MUST be submitted with each application since only Canadian Citizens, Permanent residents or Landed Immigrants can apply to CaRMS positions in Ontario. One of the following documents must be submitted: Submit one of the following:

Notarized / certified of

- Canadian Birth Certificate
- Passport page showing Canadian Citizenship
- Record of Landing, clearly showing the date of landing
- Permanent Resident Card (both sides of the card)

Photograph

Not required

Review Process

First Iteration Review Process Instructions

- Applications submitted after the file review has opened will be considered
- References and other supporting documents which arrive after the file review has opened will be read and considered

Second Iteration Review Process Instructions

- Applications and documents submitted will be considered.

Interviews

Notification / Invitation

Program will notify all applicants

Details regarding the interview process

Candidates will be interviewed by all faculty members of the Division of Pediatric Neurology, as well as a Pediatric Neurology trainee representative, using a standardized format. An information session will be held for all candidates to provide further details about the facilities.

Selection Criteria

Candidates with the following qualities will be given priority:

- evidence of acceptable academic achievement, particularly related to neurology and pediatrics
- interest in pediatric neurology and the complimentary fields of pediatrics and adult neurology as demonstrated by elective experience or relevant previous exposure
- capacity for self-directed/problem based learning
- exemplary communication and interpersonal skills
- interest in working with children and families

Elective Requirements

Applicants are encouraged to have had some previous elective exposure to pediatric neurology, pediatrics, and adult neurology, but we also strongly support having had a broad exposure to a variety of disciplines during undergraduate training.

On Site Elective

We do not require applicants to do on site electives to be considered for selection

Contact Information

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