

Neonatal follow-up Fellowship Program

Length: 12 months

Number of positions: 1 per year

Name of Hospital: Montreal Children's Hospital

Fellowship program director: Dr. Andreea Gorgos

Funding: Candidates must secure funding (as per PGME guidelines) to apply for this fellowship

The program:

This program is designed for physicians who wish to develop clinical expertise in the field of medical and developmental follow-up of neonates who are at high risk of neurodevelopmental disabilities. The McGill Neonatal follow-up program is one of the biggest in Canada, following a large number of neonates with various issues, including extreme prematurity, hypoxic ischemic encephalopathy, cardiac surgeries, complex feeding difficulties, etc. Longitudinal follow-up is provided to children and families, from discharge from hospital to school entry. The program promotes an interdisciplinary approach to performing medical and neurodevelopmental evaluations, as well as assessing the need for, and providing family support. Trainees have extensive opportunities for work with allied health and community partners (rehabilitation centers, specialized developmental disabilities programs, etc.). A short clinical research project or systematic literature review is required during the academic year.

Entry requirements:

The program is open to physicians who have completed a four-year program in general pediatrics (4 years) or a residency program in neonatology (5 years).

Language requirements:

Candidates must be proficient in conversational English and French.

Detailed description of Neonatal Follow-up (NNFU) Program

Location:

The neonatal follow-up program of the McGill University Health Center is based at the Montreal Children's Hospital, but trainees are offered opportunities to pursue elective months in other centers with NNFU programs (Jewish General Hospital, Sainte-Justine Hospital) or community rehabilitation centers.

Patient population:

Newborns who are at risk of neurodevelopmental sequelae secondary to pre or perinatal illness are referred to the NNFU program for longitudinal follow-up. Reasons for referral to the program include prematurity (born less than 29 weeks gestation), hypoxic ischemic encephalopathy, congenital heart disease operated early in life, severe intrauterine growth restriction, brain anomalies, conditions having required extracorporeal membrane oxygenation (ECMO), significant feeding difficulties requiring home enteral feeding support, genetic syndromes associated with developmental delays, as well as several other risk factors for neurodevelopmental impairments. Patients are evaluated at regular intervals, from the time they are discharged from hospital until they enter school.

The core team:

The core team consists of 4 pediatricians, 2 neonatologists, 1 pediatric nurse practitioner, 3 nurses, 2 nutritionists and 1 psychologist, who provide medical as well as neurodevelopmental surveillance and management from infancy until school age.

Clinical activities:

The NNFU program fosters an interdisciplinary approach with close collaboration between pediatricians, nurses and the extended allied health professional team (nurse practitioner, specialized educator, nutritionists, occupational and physical therapists, speech and language pathologists, audiologists, psychologists, social workers, etc.). Communication with community partners (primary care doctors and rehabilitation services) is strongly encouraged and supported.

Neonatal Follow-up physicians perform medical and neurodevelopmental evaluations at set intervals over the course of the infant's follow-up, in collaboration with the allied health team. Particular attention is given to family and psychosocial needs. Physicians from the program also participate in interdisciplinary clinics which care for infants with complex medical issues (severe bronchopulmonary dysplasia dependent on home oxygen (BPD), congenital diaphragmatic hernia (CDH), dysphagia clinic) and where multiple specialists see the patients together, in collaborative fashion.

The members of the NNFU team also provide a "liaison service" on the inpatient wards to provide anticipatory guidance and discharge planning for neonates with complex neurodevelopmental and medical problems, who have prolonged neonatal admissions. In addition, they participate in the "developmental care team" where NNFU and NICU clinicians meet on a weekly basis to assess and promote developmental care for premature infants who are still hospitalized.

The NNFU fellow has many opportunities to work in the different outpatient neonatal clinics, interdisciplinary clinics (BPD and CDH) as well as on the liaison and developmental care teams. The fellow becomes an integral part of the team and is encouraged to build a continuity relationship, under supervision, with a select population of patients and families for the duration of the fellowship (fellow continuity clinic).

Academic Curriculum:

The trainee's educational curriculum is tailored to his/her individual career plan. It includes practice of clinical techniques for neurodevelopmental assessment (General Movements Assessment, Hammersmith Infant Neurologic Examination), extensive exposure to the multidisciplinary approach to care of children with complex medical and developmental problems, as well as optional rotations in related fields (NICU, complex care program, neonatal neurology, developmental pediatrics, rehabilitation, etc). Trainees participate in the neonatal fellows teaching program at McGill University and receive teaching sessions from the core members of the NNFU team. They are also encouraged to participate in available research courses at the university (Fellows' Research Epidemiology Statistics Curricula; McGill University Postgraduate courses in research methods and statistics).

Research:

Trainees are expected to complete a short research project or review paper suitable for their level of training. Fellows may also use the mandatory 4 weeks research rotation to complete a project initiated in Pediatrics or Neonatal-Perinatal medicine, provided that it is related to the field of Neonatal follow-up and approved by the Neonatal follow-up fellowship director. Fellows are encouraged to share their research via presentations at academic rounds (NNFU and NICU) and at conferences.

Evaluations:

Fellows are evaluated monthly, after each rotation, using fellowship-specific evaluations available in One45. Additional longitudinal evaluations (every 3 months and at the end of the fellowship) are performed by the program director, to assess progress on fellowship objectives.

On call duties:

Clinical call duties are required during the fellowship, usually at the rate of 2 shifts per month, in the NICU or on the general pediatrics wards of the Montreal Children's Hospital.

Educational objectives (based on CANMEDS competencies)

At the end of the Neonatal follow-up training program, the trainee will demonstrate the following skills:

MEDICAL EXPERT:

- Identifies the pre-natal, perinatal and post-natal risk factors for neurodevelopmental problems in the Neonatal Intensive Care Unit (NICU) graduate population
- Elicits a structured medical history from the caregivers, oriented to the needs of the patient and family, including relevant nutritional and psycho-social information
- Obtains a developmental history of children with perinatally-acquired health and developmental needs
- Performs a physical exam targeting specific findings more commonly seen in graduates of NICU, examples: technology devices, gastrostomy and others
- Performs an age-appropriate neuro-developmental assessment of the newborn, infant and pre-school child with identified risk factors
- Becomes familiar with and integrates the process of diagnosis of developmental conditions such as cerebral palsy, feeding disorders, developmental coordination disorder, autism spectrum disorder
- Integrates the NICU discharge planning process
- Recognizes deviance of standardized growth and developmental skills
- Formulates a problem document with differential diagnosis from history and physical exam
- Formulates a comprehensive Care Plan from all sources of information that reflects the patient and his/her family's needs
- Recognizes the role of the pediatrician in the multidisciplinary approach, medical management and developmental assessment of various conditions

- Explores behavioral issues, common in Neonatal Intensive Care Unit graduates (e.g. sleep disturbances, feeding aversion, others) and provides guidance for appropriate referrals and resources for parents
- Discusses the valid and reliable tools used to perform developmental surveillance and screening in several populations at high risk of developmental impairments
- Explores an appreciation of the impact of a disease on daily living activities and on the family
- Explores various resources for children with special needs and their families: Specialized multidisciplinary clinics, Rehabilitation services, Community-specific resources, Home support
- Recognizes and responds to harmful situations from health care delivery and disclosure to patient safety incident reports

COMMUNICATOR

- Establishes patient-family therapeutic relationship with neonates, infants and children, and families, characterized by understanding, trust, respect, empathy and confidentiality
- Identifies patient and family's concerns and needs during the assessment
- Delivers information to the child with complex special needs and his family in a humane, culturally sensitive, timely and family centered manner
- Demonstrates skills in having challenging discussions with families of children with complex developmental needs
- Discusses developmental anticipatory guidance with parents of children with special needs
- Appreciates the importance of cooperation and communication with other professionals involved in the care of individual children
- Documents accurate information and care plans in written health record, electronic medical record, or other digital technology
- Discloses harmful patient safety situations to patient and family accurately and appropriately

COLLABORATOR

- Identifies and describes the role and expertise of all members of an interdisciplinary team-Neonatal Follow-up Clinic
- Elaborates accurately patient- specific concerns when consulting other specialists and allied services
- Demonstrates partnerships in establishing and applying care plan with physicians and allied professionals
- Shows active participation as a team member in ongoing care

LEADER

- Utilizes resources effectively to balance patient care, learning needs and personal activities
- Utilizes information technology to optimize patient care and life-long learning activities

- Delegates tasks to team members in an appropriate and respectful manner
- Contributes to a culture that promotes patient safety
- Demonstrates continuity of care for patients with chronic conditions and special needs

HEALTH ADVOCATE

- Identifies determinants of developmental health and outcomes affecting Neonatal Intensive Care Unit graduates
- Adapts health promotion and disease prevention to patients and families with complex chronic condition
- Supports the prioritization of family-centered care for children with complex perinatally-acquired needs
- Offers support and resources to empower family in their search of health and well-being, in context of high-risk population

SCHOLAR

- Develops and shares personal continuing education strategy
- Participates actively in self-directed reading
- Prepares and presents on a selected topic related to Neonatal Follow-up
- Applies evidence-based approach into care management and outcome evaluation
- Demonstrate adequate knowledge of screening tests and neurodevelopmental outcome measures of high risk NICU populations
- Attends required teaching sessions and courses.
- Completes a clinical research project (chart review, systematic review or prospective study) under the supervision of a staff member of the Newborn Medicine Division or General Pediatrics

PROFESSIONAL:

- Demonstrates respectful behavior towards patients, families and different professionals
- Displays a sense of ethics and responsibility in relation to chronic perinatally-acquired conditions
- Demonstrates sensitivity and respect for diversity
- Exhibits self-discipline
- Delivers highest quality care with integrity, honesty and compassion
- Acknowledges level of competence and seeks advice as necessary
- Demonstrates a commitment to patient safety and quality improvement
- Promotes a culture that recognizes, supports and responds effectively to colleagues in need
- Exhibits professional behaviors in the use of technology enabled communication