

**Pediatric Colorectal fellowship
in collaboration with the Colorectal Centre of Excellence (COCOE)
Montreal Children's Hospital – McGill University Health Centre**

Name of Institution: McGill University Health Centre and the Montreal Children's Hospital

Location: Montreal, QC

Number of positions: 1 per year

Length: 1 year

Start date: July 1st, September 1st, December 1st, or March 1st.

Program Information:

Academic affiliation

- McGill University

Name of hospitals involved in training (% time spent by the fellow in each institution)

- McGill University Health Centre (Montreal Children's Hospital (100%))

Requirements

- Enrolled-in or completed a general surgery residency program.

Background

Congenital colorectal disorders in children include Hirschsprung's disease and anorectal malformation. These conditions can profoundly impact a child's quality of life, dignity, and long-term health outcomes. The complexity of these disorders requires specialized knowledge and skills to provide optimal care. To address this need, the Montreal Children's Hospital (MCH) of the McGill University Health Centre (MUHC) has established a comprehensive Pediatric Colorectal Surgery Fellowship through its newly created Colorectal Centre of Excellence (COCOE).

This fellowship combined clinical and research fellowship aims to train participants in the comprehensive management of colorectal conditions using an interdisciplinary approach to care. The program addresses the growing demand for specialized care in pediatric colorectal disorders while providing advanced training opportunities for future leaders in the field.

COCOE offers a unique interdisciplinary approach to pediatric colorectal care, integrating expertise from various specialties including colorectal and general surgeons, pediatricians, gastroenterologists, gynecologists, urologists, radiologists, anesthesiologists, specialized nurses, and physiotherapists. This collaborative environment provides an ideal setting for fellowship training, exposing fellows to a wide range of complex cases and innovative treatment strategies.

McGill University (MUHC and MCH) is a unique and strategic training center for a fellowship in Pediatric Colorectal Surgery:

- The Colorectal Centre of Excellence (COCOE) at MCH is the first in Canada to offer a comprehensive complex digestive and pelvic reconstructive program for children with colorectal disorders
- Our colorectal research program dedicated to improving the life and care of children with complex medical needs is integrated into the structure of COCOE
- Access to passionate educators working in an environment which has a longstanding tradition in medical training.

Intended case load and case variety

COCOE is a national centre of excellence. While the majority of our referral pool is from all corners of Quebec, approximately 10% of patient were referred from British Columbia, Ontario, and Alberta. While the Montreal Children's Hospital typically sees a yearly average of 15 new patients diagnosed with Hirschsprung disease or anorectal malformation, in 2024, our team was referred, evaluated, and provided care for more than 60 patients who had a primary surgery and were not doing well. This represents 213 clinic appointments and 39 surgeries.

Mission

The goal of this Colorectal Fellowship is to train individuals who will become experts in managing pediatric colorectal disorders, from newborns to adulthood. This fellowship will provide the foundation for an academic career in pediatric colorectal surgery and research.

Training Objectives

The Training Objectives section of the Colorectal Fellowship at the Montreal Children's Hospital outlines the comprehensive and specialized skills that fellows are expected to acquire during their training. This section provides a detailed roadmap for the fellow's educational journey, encompassing four key areas of expertise

1. Evaluation and management of pediatric colorectal patients with Hirschsprung Disease and Anorectal Malformation

- a. Assess associated anomalies
 - i. Urologic
 - ii. Spinal
 - iii. Sacral
 - iv. Colorectal
 - v. Gynecological
- b. Understand the evaluation and management of newborns with Hirschsprung's disease and anorectal malformation



- c. Understand the assessment and management of Hirschsprung's patients who underwent primary surgery and are not doing well due to soiling or obstructive symptoms
 - i. Investigations
 - ii. Medical therapies
 - iii. Surgical therapies
- d. Understand the assessment and management of intractable idiopathic constipation
 - i. Investigation
 - ii. Medical therapies
 - iii. Surgical therapies
- e. Understand the assessment and management of patients who underwent a primary repair of an anorectal malformation and are not doing well due to soiling
 - i. Investigation
 - ii. Medical therapies
 - iii. Surgical therapies

2. Surgical skills

- a. Interpret adequately the anatomy of a newborn with an anorectal malformation or Hirschsprung's disease
- b. Understand the surgical steps involved in the management of patients with index colorectal conditions
 - i. PSARP for male (rectobulbar, rectoprostatic and no fistula)
 - ii. PSAP for male (rectoperineal fistula)
 - iii. PSARP + laparoscopy/laparotomy for male with rectobladderneck fistula
 - iv. PSARP for female (rectovestibular fistula)
 - v. PSAP for female (rectoperineal fistula)
 - vi. Pull-through for Hirschsprung's (transanal techniques, laparoscopic techniques)
- c. Understand interdisciplinary medical and surgical management for the variety of colorectal problems
 - i. Management of idiopathic constipation
 - ii. Management of constipation in anorectal malformation
 - iii. Management of constipation in Hirschsprung disease
 - iv. Management of hypermotility in anorectal malformations
 - v. Management of hypermotility in Hirschsprung disease
 - vi. Management of enterocolitis
 - vii. Management of fecal incontinence
- d. Observe reconstructive procedures

3. Interdisciplinary care

- a. Collaborate effectively with gastroenterology, urology, and other specialties
- b. Participate and lead interdisciplinary clinics

- c. Facilitate access to, and delivery of, expert medical care for patients
- d. Understand the transition of a patient with anorectal malformations from pediatric to adult care

4. Research Activities

- a. Participate in research projects relevant to pediatric colorectal surgery
- b. Be a co-author on a peer-reviewed scientific article

Training Structure

Educational hierarchy

The colorectal fellow will respect the educational hierarchy already in place, with the Pediatric General Surgery Fellows having the right of first refusal to all clinical activities. The colorectal fellow will not be a senior supervisor of residents.

Clinical Activities

The Fellowship offers participant the opportunity to gain subspecialized expertise in pediatric colorectal surgery via COCOE related activities. It also allows trainees to gain substantial experience in pediatric general surgery through on-call activities.

COCOE Activities

The Colorectal fellow will be expected to assist on-going elective clinical activities. The clinical load will account for approximately 40% of the Colorectal fellow's time and is broken down as follows, over a 28-day period

- One COCOE surgical day per month
- Seven clinical days
 - Bowel Management Program
 - Multidisciplinary clinic
 - Specialist's clinic
- Three days of clinical preparation
 - Reviewing patient charts
 - Creation of an investigation plan
 - Treatment planning

Schedule



COCOE Clinical Activity	Frequency	Schedule
Specialist Clinic	Weekly	Mondays
Bowel Management Program	Monthly	Monday-Wed-Friday
Multidisciplinary clinic	Weekly	Mondays
Operating room	Monthly	Tuesday

On-Call activities

The on-call service will be a mandatory activity. The fellow will cover call for the Harvey E. Beardmore Division of Pediatric Surgery. The role of the on-call activities is for the fellow to maintain the level of training and adequate exposure to pediatric general surgery and to hone their technical and diagnostic skill set.

Frequency: 7-9 times a month – respecting the FRQS rules regarding call.

Duration: On-call shifts will be 5pm to 7am during the week in duration, and 7am – 7am on weekends.

Responsibilities: The fellow will have the same on-call responsibility as junior resident from McGill University rotating in pediatric general surgery. These include:

- a. Assess and manage children with surgical conditions
- b. Perform emergency surgical procedures as needed
- c. Be available for urgent inpatient concerns

Supervision: The colorectal fellow may either report directly to the attending pediatric surgeon or take call alongside both the attending and the pediatric general surgery fellow. In the latter case, the colorectal fellow works under the general surgery fellow in the educational and clinical hierarchy. An attending pediatric surgeon remains available on-call 24/7 to provide overall supervision and support, ensuring continuous coverage and appropriate oversight for the Colorectal Fellow's responsibilities.

Location: Fellows will be taking home calls and will cover clinical activities at the Montreal Children's Hospital.

Integration: The on-call schedule is coordinated with the pediatric surgery service, including staff surgeons, pediatric surgery fellows, and residents.

Finally, the fellow is encouraged to take charge of her own education depending on his/her intended future career duties and style of practice. The specific needs of each fellow will be assessed by the Program co-directors and Teaching Faculty and training will be tailored to best suit each individual fellow's needs.

Research Activities

Research projects depend on the fellow's interest and prior knowledge and can include a range of methodologies available at the MUHC and MCH. Fellows are expected to spend a minimum of 60% of their time on research-related activities.

Areas of research activity may include:

1. Clinical Research
 - a. Retrospective and prospective studies on surgical outcomes for anorectal malformations or Hirschsprung's disease Quality improvement projects aimed at enhancing patient care and surgical techniques
 - b. Long-term follow-up studies on patients with colorectal disorders to assess functional outcomes and quality of life
2. Translational Research
 - a. Collaborative projects with basic science laboratories, potentially exploring topics related to improved immunohistochemistry testing for Hirschsprung's disease
3. Health Services Research
 - a. Analysis of large databases to study trends, outcomes, and disparities in pediatric colorectal care
 - b. Cost-effectiveness analyses of various treatment modalities
4. Educational Research
 - a. Development and evaluation of surgical training curricula specific to pediatric colorectal surgery
 - b. Assessment of simulation-based training methods for complex colorectal procedures

Research Responsibilities

- Attendance to at least one clinical conference relevant to the field colorectal surgery. The fellow will also be expected to submit an abstract (minimum 1 during the fellowship).
- It is expected that the fellow will complete one research project (with/without a laboratory component) and that this project leads to a minimum of one publication and a conference meeting.

Faculty

Leadership:

Colorectal Fellowship Program Director

Dr. Hussein Wissanji, MD, MPH, FRCSC, FACS is an Assistant Professor of Surgery and Pediatric Surgery at McGill University and Director of the Colorectal Center of Excellence (COCOE). He completed his mandate as the Pediatric General Surgery Fellowship Program Director in 2024. With subspecialized training in pediatric colorectal surgery, Dr. Wissanji's expertise spans colorectal surgery, minimally invasive techniques and chest wall reconstruction. His research focuses on addressing health inequities in pediatric surgical care across Canada, improving patient outcomes for children with colorectal disorders, and collaborating with Indigenous communities to tackle healthcare disparities.

Pediatric General Surgery Fellowship Director

Dr. Kenneth Shaw, MDCM, FRCSC is an Assistant Professor of Surgery at McGill University, and the Program Director for Pediatric General Surgery. With extensive training including a research fellowship at UCLA and a clinical fellowship at Ste-Justine Hospital, Dr. Shaw's expertise specialized in pediatric trauma and neonatal surgery, both as a clinician and as an educator. His research interests focus on surgical education, clinical Research and trauma systems.

Teaching Faculty:

The teaching faculty has a broad range of expertise in a number of fields related to pediatric general surgery, colorectal surgery, pediatrics, urology, gynecology and pathology. The clinical and laboratory faculty collaborate closely with respect to patient care and training of residents and fellows.

Colorectal Surgery

Dr. Hussein Wissanji, MD, MPH, FRCSC, FACS: Assistant Professor of Surgery at McGill University and Director of the Colorectal Center of Excellence at Montreal Children's Hospital. He completed his medical education at Université de Laval and fellowship at McGill University, specializing in pediatric surgery.

Dr. Dan Poenaru, MA, MHPE, MD, PhD: Professor at McGill University and pediatric surgeon at Montreal Children's Hospital. He holds multiple advanced degrees, including a PhD in Health Strategy & Management from Erasmus University, and has extensive experience in academic surgery and global pediatric surgery.

General Surgery

Dr. Étienne St-Louis, MDCM, PhD: Pediatric surgeon at Montreal Children's Hospital, specializing in minimally invasive and robotic surgery. He completed his MDCM

and PhD, focusing on health outcomes for surgically correctable anomalies in newborns and infants.

Pediatrics

Dr. Mylene Dandavino, MDCM, MHPE, MSc, BSc, FRCPS(C): Associate Professor of Pediatrics at McGill University and pediatric hospitalist at Montreal Children's Hospital. She holds a master's in health Professions Education from Maastricht University and a Master's in Epidemiology and Biostatistics from McGill University.

Dr. Nadine Korah, MD, MSc: Assistant Professor of Pediatrics at McGill University and attending physician in the Division of General Pediatrics at Montreal Children's Hospital. She completed her medical degree at McGill University and a master's in quality Improvement and Patient Safety from the University of Toronto.

Gastroenterology

Dr. Gaël Kornitzer: Pediatric Gastroenterologist specializing in inflammatory bowel disease and gastrointestinal disorders.

Gynecology

Dr. Ian Comeau: Specializes in pediatric and adolescent gynecology with a focus on minimally invasive surgery.

Dr. Janie Benoit: Specializes in pediatric and adolescent gynecology.

Urology

Dr. Mohamed El-Sherbiny, MD: Associate Professor in the Department of Surgery (Division of Urology) at McGill University, practicing at Shriners' Hospital and Montreal Children's Hospital.

Radiology

Dr. Christine Saint-Martin

Dr. Karl Muchantef

Dr. Caroline Lacroix

Dr. Zonah Khumalo

Anesthesiology

Dr. Chantal Frigon

Dr. Anelise Schifino Wolmeister

Pathology

Dr. Karl Grenier

Dr. Chelsea Maedler Kron

Dr. Chantal Bernard
Dr. Van-Hung Nguyen

Nurse practitioner
Marcy Horge

Registered nurses
Carla Vitali
Courteney Allan

Research and Education
Dr. Lee Hill, PhD

Academic Facilities

The fellow will be able to attend the weekly Wednesday AM General Pediatric Surgery teaching sessions.

The fellow has full time electronic access to the McGill University libraries.

Evaluation

The colorectal fellow undergoes a comprehensive 360-degree evaluation based on the CanMEDS competency framework, occurring quarterly throughout the year. This multifaceted assessment involves feedback from various members of the interdisciplinary team. The process evaluates the fellow's performance across all CanMEDS roles, providing a holistic view of their development.

Medical Expert:

1. Demonstrates the capacity to evaluate, diagnose, and develop comprehensive treatment and investigation plans for patients with anorectal malformations and Hirschsprung's disease.
2. Makes accurate surgical decisions—operate, observe, discharge or seek further investigations—based on thorough patient evaluations and evidence-based guidelines.
3. Understands case nuances and assesses the pros and cons of diagnostic and management approaches, demonstrating sound clinical judgment.
4. Demonstrates expertise in peri-operative preparation of patients seen in the outpatient setting
5. Analyzes all information to make decisions, indicating that he/she is thoroughly prepared for the case and its potential variations

Communicator:

1. Communicates effectively and respectfully with patients from diverse cultural backgrounds, ensuring understanding and sensitivity to their values, beliefs, and language, including the appropriate use of a translator when necessary.
2. Maintains clear, timely, accurate and appropriate records (both written and dictated) of procedures and other clinical encounters (consults, operative dictations, progress notes, referral letters)

Leader:

1. Efficiently manages clinical responsibilities across ER, OR, and inpatient settings, focusing on multitasking, time management, prioritization, and appropriate help-seeking behaviour to ensure optimal patient care.
2. Demonstrates availability, visibility and approachability to junior trainees in reviewing daily clinical activities and consults (ER, OR, wards) as part of fulfilling the role of an effective team leader.

Collaborator

1. Interacts effectively with all health professionals by recognizing and acknowledging their roles and expertise in an interdisciplinary setting.
2. Recognizes and handles situations of conflict with sensitivity and effectiveness

Scholar:

1. Supports clinical reasoning with relevant, evidence-based data.
2. Seeks out new research and evidence to navigate and resolve complex clinical scenarios effectively

Leader

1. Demonstrates the ability to assume administrative roles, particularly in the coordination of case management and research activity.
2. Efficiently manages clinical responsibilities across clinic, OR, and inpatient settings, focusing on multitasking, time management, prioritization, and appropriate help-seeking behaviour to ensure optimal patient care

Health Advocate

1. Demonstrates an understanding of the determinants of health, and recognizes opportunities for health advocacy intervention.

Professional:

1. Demonstrates initiative and responsibility in actively seeking sufficient clinical exposure and involvement across outpatient clinics, OR, ER, and inpatient care settings, demonstrating ownership of their educational and professional development.
2. Acknowledges personal limitations and remains open to learning and growth.
3. Demonstrates emotional intelligence in recognizing and managing one's own emotions and those of others to foster a supportive work environment



For further information on this fellowship program, please contact Dr. Hussein Wissanji at Hussein.wissanji@mcgill.ca