



Educational Objectives for Clinical Fellowship

This form is for recognized specialists whose postgraduate medical training program is designed to give them additional expertise but does not lead to additional credentials for practice. The College of Physicians and Surgeons of Ontario (CPSO) requires the submission of a statement of objectives before issuing a postgraduate education certificate of registration for a clinical fellowship appointment.

- Fellowship
- SEAP – Subspecialty Examination Affiliate Program
- AFC – Areas of Focused Competence Diploma Program

Trainee Information

Name of Clinical Fellow: _____
First name *Last name*

Specialty Certification:

Title of Certification: Radiology

Country Issuing Certification: _____

General Information

Department Name: Medical Imaging

Division Name (If applicable): _____

Name of Fellowship (*Will appear on the Certificate of Completion issued by PGME – please inform PGME of any changes to name of fellowship*): Interventional Neuroradiology (Advanced Interventional Neuroradiology - Adult and Pediatric)

Fellowship Site: Hospital for Sick Children - Toronto Western Hospital - St. Michael's Hospital

Fellowship Start Date: _____ End Date: _____
Month, Day, Year *Month, Day, Year*

If re-appointment:

Reappointment Start Date: _____ End Date: _____
Month, Day, Year *Month, Day, Year*

Name of Supervisors: Dr. Prakash Muthusami, Dr. Pascal J. Mosimann and Dr. Jose Danilo Bengzon Diestro

Fellowship Overview

*Please provide a brief statement of the clinical focus and educational purpose of the fellowship:
The answer space below will expand to accept point form or paragraph entries. If this fellowship is a re-appointment, please describe the clinical focus and educational purpose of the re-appointment only.*



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The Hospital for Sick Children, Joint Department of Medical Imaging at Toronto Western Hospital and St. Michael's Hospital at the University of Toronto are coming together to offer a fellowship position in advanced neurointerventional techniques, including both adult and pediatric components. This will be a unique fellowship opportunity designed for aspiring academic neurointerventional practitioners seeking to advance their expertise in the latest neurointerventional techniques, learn the nuances of pediatric neurointervention, strengthen research skills and grow their professional network. Fellows will have the opportunity to work alongside world-class teams, gain hands-on experience with state-of-the-art neurointerventional technology, and progress towards independent clinical practice.



Fellowship Objectives: CanMEDS Roles

Where applicable, please provide objective(s) for each of the following:

The answer space below will expand to accept point form or paragraph entries; enter "N/A" if individual CanMEDS role is not applicable

1. Medical Expert

As Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework

- 1) To learn advanced neuroendovascular skills:
 - Treating vascular malformations (high-flow, low-flow) in the brain, spine and craniofacial region
 - Role and appropriate use of different liquid embolic agents
 - Trans-arterial and trans-venous endovascular embolization of brain vascular malformations including pressure cooker techniques
 - Treating complex aneurysms including saccular, blister, fusiform, dolichoectatic and dissecting aneurysms using reconstructive and intra-saccular flow diversion/disruption techniques
 - Venous interventions: role and techniques
- 2) Transitioning safely to primary operator
 - Sequential transfer of responsibility based on competence and skills
 - Guidance to independent decision making in pre-, intra- and peri-operative situations
 - Opportunity to train fellows in the role of a Senior Fellow
- 3) To gain familiarity with pediatric neurointervention
 - Familiarity with set-up and team dynamics
 - Spectrum of pediatric neurovascular disease
 - Risk-benefit and ethical considerations
 - Diagnostic cerebral angiography in neonates – adolescents
 - Physiological principles of high-flow shunts in neonates and small children
 - Craniofacial embolization in children, tumor embolization (RB-IAC and JNA)
- 4) Research
 - 20% protected time for research
 - Opportunity for citywide research collaboration
 - Opportunity and funding to present their research at national and international conferences, extending their professional network and visibility in the field.

2. Communicator

As Communicators, physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

- a) To establish relationships with referring physicians as advocate for patients and families
- b) To obtain and synthesize relevant history and information from referring physicians, patients, and families
- c) To effectively communicate with patients and with other health care professionals
- d) To maintain complete and accurate medical records

3. Collaborator

As Collaborators, physicians effectively work within a healthcare team to achieve optimal patient care.

- a) To effectively consult with other physicians and health care professionals
- b) To contribute effectively to inter-disciplinary team activities including rounds, pre-operative huddles and MDT conferences
- c) To effectively teach other physicians and health care workers regarding the role of neurointerventions, its applications and its limitations
- d) To effectively collaborate with other neurovascular colleagues for effective clinical strategies and care

4. Leader

*As Managers, physicians are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating **resources**, and contributing to the effectiveness of the healthcare system.*



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- a) To appropriately and effectively utilize time and resources to balance patient care, learning needs, and outside activities
 - b) To utilize information technology to optimize patient neurovascular care, continued self-learning and other activities
 - d) To participate in, and, as required, lead neurointerventional cases along with other healthcare teams
 - e) To assign protocols for neurointerventional examinations
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5. Health Advocate

As Health Advocates, physicians responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

- a) To recognize and respond to those issues where advocacy is appropriate, especially for the timely and judicious utilizing of resources
- b) To identify important determinants of health affecting patients
- c) To contribute effectively to improved health of patients and communities
- d) To triage physician requests regarding the urgency of a procedure
- e) To understand the fundamentals of quality assurance

6. Scholar

As Scholars, physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

- a) To develop, implement and document personal continuing education strategy
- b) To critically appraise sources of medical information
- c) To facilitate learning of patients, students, residents and other health professionals
- d) To contribute to the development of new knowledge
- e) To maintain current practice standards through continuing medical education
- f) To critically appraise the literature for developing treating strategies and mitigating procedural risks
- g) To develop skills in the use of image acquisitions and post processing as required for neurointerventional procedures
- h) To understand the methodology of clinical research and appreciate the importance of basic research and outcome analysis

7. Professional

As Professionals, physicians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

- a) Delivers highest quality care with integrity, honesty, and compassion
- b) Exhibits appropriate personal and interpersonal professional behaviors
- c) Practices ethically consistent with obligations of a physician
- d) Suggests appropriate follow-up and management whether it be conservative, medical or surgical.
- e) To appraise his/her own professional performance

Additional Comments (Optional)

On completion of the University of Toronto Residency program in Neuroradiology the graduate physician will be competent to function as a consultant Neuroradiologist. The expertise will include medical imaging of spine, head and neck, spinal cord and brain in both children and adults.