

FELLOWSHIP IN GASTROINTESTINAL AND LIVER PATHOLOGY

NAME OF INSTITUTION: McGill University and McGill University Health Centre (MUHC)

LOCATION: Department of Pathology, MUHC, Glen site, Montreal, Quebec, Canada

TYPE OF FELLOWSHIP: One-year clinical fellowship in gastrointestinal and liver pathology

PROGRAM INFORMATION:

- **Fellowship Director:** Dr. Greta Evaristo

- **Teaching Faculty:**

Dr. Greta Evaristo, gastrointestinal and liver pathologist

Dr. Victoria Marcus, gastrointestinal and liver pathologist

Dr. René P. Michel, hematopathologist, liver and transplant pathologist

Dr. Chelsea Maedler-Kron, pediatric pathologist, gastrointestinal and liver pathologist

Dr. Pierre Fiset, gastrointestinal and molecular pathologist, artificial intelligence interest

- **Number of fellowship positions requested:** One

- **Academic Affiliation:** McGill University, Department of Pathology

- **Name of hospitals involved in training:** MUHC, Glen site (Royal Victoria Hospital)

- **Eligibility:** The candidates must have satisfactorily completed a pathology residency training

- **Background:** The MUHC Department of Pathology is known for its excellence in diagnostic pathology and its commitment to innovative research, teaching and other academic activities. With an annual volume of over 70,000 cases, the department offers subspecialty expertise and a wide array of routine and consult material. The department is integrated with the MUHC Core Molecular Diagnostics Laboratory, providing excellent molecular pathology and genetics exposure. Computational and digital pathology are an important focus, as the department prepares to integrate digital pathology workflow.

- **Clinical service:** The clinical service responsibilities focus on diagnostic review of anatomic pathology material of the entire gastrointestinal tract, in addition to the hepatobiliary system and pancreas. Biopsies, surgical resections, and consult material of both non-neoplastic and neoplastic disorders are covered. There is also significant exposure to transplant pathology, particularly liver transplant.

Optional exposure (longitudinal or block rotations) to the following subspecialty areas can be arranged to tailor the fellowship experience:

1. Pediatric gastrointestinal and liver biopsy service to enhance exposure to common and rare pediatric gastrointestinal pathologies.
2. Molecular pathology as it relates to gastrointestinal & hepatopancreatobiliary malignancies.

- **Research activity and publications:** Many research opportunities, both clinical and translational, are available within the department and conjointly with other departments. There are also potential projects in artificial intelligence. The fellow will be expected to participate in at least one on-going or new research project with a view to publication.

- **Mission and objectives:** The general mission of the fellowship is to promote the development of the fellow into an independent academic gastrointestinal and liver pathologist. At the end of this fellowship year, the trainee will have gained the knowledge base, will have perfected the technical skills, and will have developed the professional attitudes and expertise required to be a consultant in the field of gastrointestinal and liver pathology. This training will promote aptitudes, competence and leadership in the operation of a busy gastrointestinal and liver pathology service, as well as in research, teaching and other academic activities. At the end of this fellowship the trainee will have acquired the following CanMEDS competencies:

1. **Medical expert:** a) Acquisition of basic and clinical scientific knowledge pertinent to the pathogenesis, clinical manifestations and pathologic features of benign and malignant diseases of the gastrointestinal tract, hepatobiliary system and pancreas. b) Strengthening of diagnostic skills in gastrointestinal and liver pathology through the practice of interpreting histological findings with the consideration of the clinical presentation and with the full awareness of the potential clinical impacts of the different diagnoses. c) Consolidation of knowledge of ancillary techniques available for the accurate assessment and diagnoses of diseases in the field of gastrointestinal and liver pathology, such as, special histological stains, immunohistochemistry and molecular techniques. d) Acquisition of basic knowledge of the clinical procedures related to gastrointestinal and liver pathology, such as major resection procedures, endoscopic biopsies and needle core biopsies.
2. **Communicator:** a) Ability to communicate effectively with the treating physicians regarding the interpretation of the pathologic diagnoses, including at tumour boards and teaching rounds. b) Demonstration of the skills to interact professionally with pathologists, colleagues and the laboratory personnel to ensure the optimal operation of the service.
3. **Collaborator:** a) Readiness to function effectively as a consultant to provide optimal assistance in difficult or challenging cases encountered in surgical pathology practice. b) Development of teaching skills for the junior residents and medical students. c) Willingness to introduce new advancements in disease classification to the treating physicians. d) Willingness to cooperate with other pathologist or clinician colleagues to conduct research in the field of gastrointestinal and liver pathology.

4. **Manager:** a) Ability to function in an organized and orderly fashion. b) Cost effective use of the ancillary techniques in making pathologic diagnoses. c) Ability to supervise the pathologist assistants in processing the gastrointestinal and liver specimens. d) Acquisition of skills in managing a histology lab in fields related to gastrointestinal and liver specimens. e) Developing expertise in quality assurance and quality control in gastrointestinal and liver pathology.
5. **Health advocate:** a) Willingness to give the treating physicians feedback regarding treatment effects and to provide them with the information related to better treatment of the patients, such as new classification system of a certain disease. b) Willingness to participate in awareness campaigns and public forums to promote health and to reduce the incidence of preventable gastrointestinal and liver diseases. c) Participation in equity educational opportunities available within McGill University and willingness to participate in inclusion-focused initiatives within the department and the McGill community
6. **Scholar:** a) Motivation to become familiar with the current literature relevant to the field of gastrointestinal and liver pathology. b) Enthusiasm to contribute to the advancement of the science of gastrointestinal and liver pathology through active involvement in research activities and scholarly publications. c) Active participation in academic societies and conferences.
7. **Professional:** a) Awareness of the ethical and medico-legal aspects of the practice of gastrointestinal and liver pathology. b) Demonstration of professionalism by being punctual, reliable and responsible and showing due respect and inclusivity to colleagues.

- **How intended fellowship will enhance residency training:** The fellow will participate in the teaching of residents, particularly those doing a rotation in gastrointestinal and liver pathology. The fellow's role will be active tutoring of the residents and ensuring that residents acquire the basic notions of normal histology and features of gastrointestinal and liver-related disorders. The fellow will also supervise residents performing grossing of gastrointestinal and liver specimens and serve as a resource person for the residents, providing help as needed. The fellow will also be involved in didactic teaching, including academic half-day lectures and slide seminars, as well as residency in-training examinations (either participating as an oral examiner or by providing exam material in the form of digital slides, gross images and written exam questions pertinent to gastrointestinal and hepatopancreatobiliary pathology).

ACADEMIC FACILITIES:

The department of pathology at the MUHC-Glen site (Royal Victoria Hospital) is well equipped to facilitate the teaching of residents and fellows. The department includes state of the art grossing, histology, cytology and electron microscopy facilities. Three separate residents' rooms with total 24-desk capacity are available to accommodate rotating residents, fellows and medical students. Each desk is equipped with a microscope and computer with full access to the MUHC intranet and internet. One microscope equipped with a digital camera is available in each residents' room. In addition to several digital scanners designated for clinical use, one digital scanner reserved for research and educational activities is available for trainees at all time. The trainees have access to the online McGill library catalogue as well as additional online resources such as WHO and UpToDate subscriptions. Essential textbooks and reference books are also

available in each residents' room. Research-focused resources, including SPSS statistical software, liaison librarian services and Adobe Photoshop software, are available within the department to support trainees' scholarly activities. In addition to several glass slides teaching collections, MUHC pathology department has curated a comprehensive in-house digital slide library with over 4,000 cases available via an interactive app with self-quiz and didactic modes. Four multihead microscopes and several conference rooms are available for teaching and inter-departmental conferences with the clinicians. Secretarial assistance is also available to the trainees.

FELLOW DUTIES AND RESPONSABILITIES:

1. Mandatory activities

The fellow will be responsible for interpreting the gross and microscopic features of gastrointestinal and liver pathology cases and for writing provisional diagnostic reports. For challenging cases, the fellow is expected to conduct literature searches and organize further investigation. The cases will be reviewed by the supervising staff before they are finalized. The fellow is expected to discuss the interesting cases and the relevant literature with the staff at the time of sign-out.

The fellow will be responsible for preparing and presenting cases at gastrointestinal tumor board conferences, hepatobiliary tumor board conferences, and medical liver rounds, after discussion with the appropriate staff. The fellow is expected to present the pathologic findings and discuss the case with the treating physicians at such rounds.

Regarding teaching duties, the fellow will be responsible for supervising residents performing the grossing of gastrointestinal and liver surgical specimens as well as teaching residents during their gastrointestinal and liver pathology subspecialty rotations. The fellow is expected to give presentations at the resident half-day teaching sessions and journal club. The fellow is also expected to teach medical students, both as part of their preclinical curriculum and during clerkship rotations within the department.

The fellow is expected to participate in departmental research as previously stated above.

2. Recommended activities

Attendance or participation at the Annual Meeting of the United States and Canadian Academy of Pathology and Annual Meeting of the Canadian Association of Pathologists is strongly encouraged. Attendance by the fellow at the following rounds is also recommended.

- Resident half-day teaching sessions, weekly
- Histoseminaire, combined McGill-Université de Montréal slide seminar

- Autopsy rounds

3. Optional activities

Opportunities for a one-block elective or rotations at the affiliated sites can be arranged on an individual basis to best adapt the educational experience to the fellow's professional goals and interests.

CURRICULUM:

- **Intended case load:** In general, the fellow will spend the equivalent of four of five days per week on the clinical diagnostic service. The equivalent of a fifth day will be reserved for working on research projects and teaching.
- **Regular reading materials provided:** The fellow will have access to books, as well as be required to carry out regular literature searches.
- **Conference weekly schedules:** See above objectives.

EVALUATIONS:

- The fellow will be evaluated as per McGill guidelines which at a minimum involve quarterly formal feedback documented on an ITER. Acquisition and development of CanMEDS competencies will be assessed and reported on evaluation forms similar to those used for the residents in the training program (ITERS). Evaluations will also be presented at the Residency Program Committee. Continuous formative feedback will also be provided to promote a positive and successful learning experience.
- The fellowship program will be evaluated by the trainee using a form similar to the one used by the residents to evaluate the residency program.