Cytopathology Fellowship
Faculty of Medicine, Postgraduate Medical Education

Institution: McGill University and McGill University Health Centre
Location: Department of Pathology, MUHC and Duff Medical Building
Type of Fellowship: One year clinical fellowship in Cytopathology
Fellowship Program Director: Dr. Manon Auger

Program Information

Number of fellowship positions requested: One
Academic affiliation: McGill University
Name of hospitals involved in training: McGill University Health Centre (MUHC)
Background: The fellowship will be principally based at the MUHC.

This one-year post-residency clinical fellowship offers a comprehensive, integrated exposure to the field of Cytopathology. The cytological specimens handled at the MUHC include approximately 50,000 gynecological specimens per year (including approximately 7000 colposcopic specimens) as well as 10,000 non-gynecological specimens (including approximately 4000 fine needle aspirates). Exposure to liquid-based cytology is provided.

- **Research activity and publications:** The fellow will be expected to participate in at least one major research project involving, at minimum, a review of a series of cases (i.e., not simply a case report) with a view to publication in a peer-reviewed journal (i.e. not only presentation at a meeting). In addition, other research projects may be carried out, including case reports.

- **Mission and objectives:** The general mission of the fellowship is to provide training in the interpretation of cytopathology with a view to learn the entire spectrum of reactive and malignant entities seen in gynecologic and non-gynecologic specimens.

- The fellow will integrate light microscopy and ancillary studies (in particular, immunohistochemistry, and occasionally flow cytometry and molecular studies) to arrive at a precise diagnosis. The fellow will interact with secretarial and laboratory personnel (in particular cytotechnologists), other colleagues and residents, as well as clinical staff in order to develop skills that will enable him/her to practice at a high level in an academic or non-academic setting.

The specific objectives to attain these are as follows:

Upon completion of this rotation, the fellow should be proficient with the following aspects of Cytopathology:

a) Methods of tissue acquisition from various sites (including endoscopic- and endobronchial ultrasound-guided fine needle aspirations, i.e. EUS, EBUS)

b) Optimal fixation, tissue processing and staining (e.g. cytospins, direct smears, cell blocks)

c) Indications for, and limitations of, the various exfoliative and non-exfoliative cytological procedures

d) The criteria for satisfactory/unsatisfactory for gynecologic and non-gynecologic specimens
e) The diagnostic terminology and criteria of The Bethesda System for reporting gynecologic specimens
f) Recognition of normal and abnormal cytology of various common and uncommon entities from various non-gynecologic anatomical sites with formulation of adequate accurate diagnostic interpretation
g) The appropriate follow-up for lesions identified cytologically
h) The various uses of HPV testing in gynecologic specimens
i) Diagnostic pitfalls
j) Selection and integration of ancillary techniques to cytologic material
k) Measures of quality assurance (including use of rapid pre-screening for gynecologic cytology)

How intended fellowship will enhance residency training:
The fellow will participate in the teaching to the Pathology residents doing rotations in cytopathology. He/she will also serve as a resource person for the residents in these rotations, along with the responsible staff member.

Names of the Teaching Faculty

- Dr. Manon Auger, MUHC (predominantly)
- Dr. Yonca Kanber, MUHC (occasionally)

**Roles:** These staff members will participate in the teaching as per their rotations on the Cytopathology service.

**Summary** of clinical practice: At the MUHC, there are always two cytopathologists on service every week. As Dr. M. Auger is almost always on-service, most of the teaching and sign-out with the fellow will be done by her. Occasionally (i.e. when Dr. Auger is not on Cytopathology service), the fellow will rotate with Dr. Kanber.

**Major Strengths:**
Dr. M. Auger is a very experienced staff who has been teaching Cytopathology to pathology residents and fellows for the last 16 years; she has also given numerous lectures and courses in the field of Cytopathology throughout Canada and the United States. All three staff pathologists have had fellowship training in Cytopathology.

The material available for review is varied and covers the entire spectrum of non-neoplastic and neoplastic disorders from virtually all body-sites.

There are opportunities for teaching and research in Cytopathology.

**Academic Facilities**

- Facilities for clinical and academic pursuit: These are available at the MUHC. All appropriate facilities and ancillary studies in the form of immunohistochemistry, flow cytometry and molecular diagnostics are available for diagnosis of cytologic specimens
- Cytopathology "Prep-lab" for hands-on training sessions of cytopreparatory techniques
- Cytopathology glass slide teaching collection (approximately 2000 cases)
- Cytopathology textbooks (available in cytotechnologists' screening room and in Dr. Auger's office)
- Cytopathology journals (Acta Cytologica and Diagnostic Cytopathology available in cytotechnologists' screening room; Cancer Cytopathology available in Dr. Auger's office)
• Viewing PowerPoint presentations with Dr. Auger on selected topics (during didactic sessions)
• Various CD-ROMs on Gynecologic and non-GYN cytology topics (from Quality Assurance Program of the APQ, American Society of Cytopathology)
• Interlaboratory QA samples of gynecologic cytology (College of American Pathologists)
• Attendance and participation at Cytopathology rounds
• In addition, McGill University has access to a wide variety of journals on the web and has a very comprehensive library for reading and research.

**Fellow Duties and Responsibilities:** See also objectives above.

• There is no on-call responsibilities for the fellow.
• The fellow will have daily sign-out/review sessions with cytopathologists.
• The fellow will act as a resource person for the Pathology residents rotating in Cytopathology, also reviewing occasional cases with them.
• The fellow will also participate, as do Pathology residents, in medical student small group teaching of Pathology in first and second year medicine.
• The fellow is expected to attend and participate in the Cytopathology rounds
• The fellow is expected to organize and be the main presenter at one of the Cytopathology Rounds during academic year.
• Attend the weekly pathology rounds, and occasionally present at those rounds.
• Research productivity and publications expected by the fellow: See above objectives.

**Curriculum**

• **Intended case load:** In general, the fellow will spend four days/week reviewing diagnostic cytologic material, alternating between gynecologic and non-gynecologic material on a daily basis; the fifth day will be reserved for working on projects. The fellow is expected to be able to look at all the cases by the end of the fellowship, progressing from a smaller proportion at the beginning of the fellowship.

• **Regular reading materials provided:** The resident will have access to the books referred to above, as well as be required to carry out regular literature searches on cases found with a view to arrive at a specific diagnosis and rule out other differential diagnoses.

• **Conference weekly schedules:**
  Monday 8:15-9:15 AM (every week): Pathology Rounds
  Wednesday 11:00-noon (approximately 8/year): Cytopathology Rounds

**Evaluation methods**

• There will be regular, formal, written evaluation of fellows by teaching staff. Evaluations will be completed and discussed with the fellows at least once every 6 months, based on:
  • subjective assessment of diagnostic skills and general knowledge during sign-out sessions with pathologists, during research projects and at presentation at various rounds.

• The educational effectiveness of the Cytopathology fellowship will be evaluated in a systematic manner. In particular, the quality of the curriculum and the extent to which the educational goals have been met by fellows must be assessed. Fellows should submit formal, written evaluations of the program at least once each year for review by the director and the teaching staff.