

McGill Bone and Soft Tissue Pathology Fellowship

Program director : Dr. Sungmi Jung(Glen, MUHC)

Number of available positions : 1

Type of Fellowship : Clinical fellowship

Fellowship length : 1 year

Eligibility : The candidates must have satisfactorily completed pathology residency training as well as passed either the Royal College of Physicians and Surgeons of Canada examination or equivalent examination from another country

Funding : Candidates must secure funding in order to apply for this Fellowship

NAMES OF THE TEACHING FACULTY :

Dr. Yomi Ajise (Hematopathologist and soft tissue pathologist)

Dr. Van-Hung Nguyen (Pediatric Pathologist)

Dr. Robert Turcotte(Orthopedic oncology surgeon)

Dr. Ahmed Aoude(Orthopedic oncology surgeon)

Dr. A. Gomez (Molecular Pathology)

Dr. Livia Garzia (Orthopedic oncology researcher)

Dr. Joanna Przybyl(Orthopedic oncology researcher)

Background:

This fellowship is designed to increase the competence level of pathology graduates with bone and soft tissue specimens. It also allows for a better understanding of molecular pathology, to more adequately report bone and soft tissue pathology specimens through enhanced molecular and pathologic correlation. Teaching and translational research will also represent a significant component of the fellowship.

Bone and soft tissue pathology represents one of the subspecialties requiring special expertise, therefore ease with this type of specimen is beneficial for candidates who will practice as a pathologist working in an institution rich in bone and soft tissue specimens. This fellowship will also serve a candidate with a more academic career objective, because of the variety of cases, experience teaching residents, and exposure to research.

Objectives:

The objectives are detailed as follows according to the Competency-by-Design framework of competencies:

Specimen Grossing

Understand the pros and cons of different biopsy techniques (cytology, needle biopsy, excision)

Recognize the different techniques for grossing large and small specimens and the advantages and disadvantages of each for interpretation and laboratory work load

Understand the rationale for special processing of biopsies for molecular pathology

Frozen Section Preparation/Interpretation

Understand the different surgical procedures that may require frozen section assessment and how specimen margins may be submitted by the surgeon

Understand the process of debulking surgery and how margins are assessed and the specimen is submitted

Recognize the limitations of frozen section tumor subtyping and margin assessment and technical issues that may be encountered

Determine how best to sample margins from a specimen

Appropriately interpret the frozen section and be able to communicate the diagnosis and any relevant additional information to the surgeon

Correlate frozen section material with permanent sections, and demonstrate an ability to resolve and handle frozen section discrepancies

Microscopic Interpretation

Diagnose (with ancillary immunohistochemistry as appropriate) benign and reactive processes

Diagnose (with ancillary immunohistochemistry as appropriate) benign and malignant neoplasms

Perform appropriate work-up for challenging lesions such as epithelioid, spindle, and undifferentiated tumors

Recognize neoplastic patterns and their association with molecular phenotypes

Correctly diagnose common benign and malignant processes

Identify and report incidental findings in excisional specimens including effects from prior treatments/interventions

Understand how margins have been sampled from the excisional specimen and provide appropriate information to the clinician

Correctly interpret ancillary studies such as special stains and immunohistochemistry

Recognize artifacts in small biopsies such as hemorrhage, pinch artifact, displacement of epithelium, contamination

Explain the value of deeper sections and know indications for ordering them.

Understand issues involving orientation of small specimens and be able to suggest a means to correct sub-optimal sectioning

Correlate findings with results of prior biopsies/excisional specimens, and identify any discrepancies which may arise

Resolve any discrepancies between prior biopsies/excisions and current specimens.

Clinical/Pathological Correlation

Interpret the clinical history provided on the requisition and understand the clinical appearance based upon the differential diagnosis provided

Understand the importance of clinical and radiologic information in bone and soft tissue pathology and explain how histologically similar entities may have different clinical presentation and vice versa

Explain the importance of clear communication between clinicians and Pathologist in order to obtain the most appropriate diagnosis

Understand the implications of a diagnosis on clinical management of a patient for benign/reactive conditions

Understand the implications of a diagnosis on clinical management of a patient for neoplastic conditions

Reporting and Communication

Accurately stage and report malignancies using CAP criteria

Generate clear, accurate and complete reports that effectively communicate results and treatment implications to the patient's health care team

Demonstrate willingness and ability to discuss issues related to challenges encountered during interpretation

Explain which critical results require immediate communication to the treating physician

Openly accept feedback from clinicians regarding differential diagnoses rendered, report content and clarity of reporting

Appropriately utilize terminology of Bone and Soft tissue Oncology

Collaborate with Orthopedic surgeons, Orthopedic oncology surgeons, Medical and Radiation Oncologists in multidisciplinary conferences and other tumour boards to optimize patient care

Be able to select the appropriate material for clinical trials and molecular testing, and understand that these requests must be handled expeditiously.

The responsibility includes interactions with outside pathologists and clinician, presenting tumor boards, and independently designing research projects. There will be an emphasis on providing a solid knowledge basis as well as an adequate transition to faculty practice.

Resources for the fellow :

- The designated office space with required equipments will be provided.
- Pathology library is available in the resident room.

Expected workload throughout the one year:

- Report a total minimum of 500 routines cases, including benign and malignant bone and soft tissue neoplasms
- Gross and/or report a minimum of 50 resection specimens

Additional tasks and responsibilities :

- Dedicate an average of two days per week to translational research projects and tumor tissue biobanking under supervision of attendings and researchers
 - Commitment to supporting at least one new or ongoing research project is a strongly encouraged during the time of the fellowship. It will not be formally evaluated, but the expectation is to complete at least one project and one presentation (poster or platform) at a medical conference over the course of the fellowship.
 - The bone and soft tissue pathology tumor biobanking support will consist of reviewing the weakly operating room schedule and flagging cases for biobanking based on the clinicopathologic history.
 - Funding could be applied or shared with the research funds of attendings and researchers.
- Prepare, participate and present at Bone and Soft tissue Oncology Tumor Boards, which occur every Friday at 7:30 am
- Teach at least 25 % of the bone and soft tissue pathology resident teaching sessions and slide seminars under the supervision of attendings.
- Participate in one quality improvement project which will help the flow and efficiency of the Bone and Soft tissue Pathology service
- Do daily triaging of cases on the operating room list
- Answer Pathology Assistant and Laboratory Technician questions

- Contribute in building and organizing the Bone and Soft tissue pathology digital slide collection
- Answer calls and perform intra-operative consultations for bone and soft tissue pathology cases with the option of covering general frozen sections

To monitor the fellow's workload and activities, and compensate for deficiencies in certain types of cases, the fellow will maintain a logbook and provide a list of cases to the program director quarterly (at the end of every block of 3 periods).

The fellow will also have the following options :

- Complete a 1-2 period rotation in molecular pathology or orthopedic oncology research lab
- Complete a 1 period rotation in Musculoskeletal radiology
- Complete a 1 period "consultation" rotation, where the fellow only sees more complex consultation cases, and if possible, with particular attention to the type of consultations typically seen in the Institution where the fellow will eventually have a position

Evaluation

- The fellow will be given daily feedback.
- The fellow will also get a periodic ITER/CanMEDS format-evaluation at every period.