



UNIVERSITY OF  
ALBERTA



ALBERTA PRECISION  
LABORATORIES

Leaders in Laboratory Medicine

# CLINICAL FELLOWSHIP PROGRAM IN BREAST PATHOLOGY

Department of Laboratory Medicine and Pathology Faculty of  
Medicine and Dentistry, University of Alberta, and Alberta Precision  
Laboratories

Guidelines and Objectives October 2024



## CLINICAL FELLOWSHIP IN BREAST PATHOLOGY

### INTRODUCTION and BACKGROUND

The fellowship is designed to provide comprehensive training in breast pathology, including needle core biopsy, open biopsy, segmental resection, and mastectomy interpretation. Intraoperative interpretation of tumor margins will be taught.

Gross and microscopic interpretation will be augmented with knowledge in breast biomarker use and interpretation, as well as advances in cancer genetics and molecular markers for breast cancer treatment utilizing a multidisciplinary approach.

The fellow will have a comprehensive experience in diagnosing a variety of pathologic conditions including (but not limited to) benign lesions, inflammatory conditions, pre-malignant lesions, in situ carcinoma, invasive carcinoma, and spindle cell lesions of the breast.

Edmonton services a large number of patients residing in the Edmonton and Northern Zones of Alberta Health Services, Northwest Territories, Nunavut, and parts of Saskatchewan. The University of Alberta Hospital, Cross Cancer Institute (CCI) and Misericordia Hospitals (MIS) provide breast pathology expertise throughout Western Canada. Multiple teaching and non-teaching hospitals will be available as training sites for the fellow, including The Misericordia Community Hospital, The Grey Nuns Hospital (GNH), The Royal Alexandra Hospital (RAH), The University of Alberta Hospital (UAH), The Cross Cancer Institute and Base Lab (former Dynalife diagnostic laboratories).

## PROGRAM OBJECTIVES

### Diagnostic objectives

1. Gain experience in the gross, microscopic, and molecular diagnosis of

- ❖ neoplastic breast lesions
- ❖ precursor lesions of breast neoplasia
- ❖ non-neoplastic breast lesions
- ❖ mimics of neoplastic breast lesions

2. Gain experience in intraoperative consultation techniques used for diagnosis and margin interpretation in a variety of breast surgical procedures.

3. Write and interpret the following for breast specimens

- ❖ gross descriptions
- ❖ diagnostic surgical pathology reports
- ❖ intraoperative consultations
- ❖ consultation reports requested by other physicians
- ❖ cancer board review reports
- ❖ reports interpreting biomarker status for neoplastic breast lesions

4. Develop expertise in clinical-pathologic correlation with emphasis on

- ❖ radiologic-pathology correlation
- ❖ gross/surgical – histology correlation
- ❖ biomarker status – histology correlation
- ❖ treatment response – pathology correlation

5. Integrate special stains, immunohistochemistry, in-situ hybridization, and



molecular test results into the interpretation of breast pathology, and correlate these results with impact on patient diagnosis, treatment, and prognosis.

### Educational objectives

1. The fellow is encouraged to engage in teaching activities for medical students, pathology residents, allied sciences/technical students, and other clinical specialties, outlining basic and advanced concepts in breast pathology. The teaching activities include small group discussions and didactic sessions.
2. Attend, prepare cases for and present at a variety of clinical and pathology rounds (listed below)
3. Regular reference and reading of peer reviewed breast pathology journals and breast pathology textbooks will be required.

### Research objectives

The fellow will be introduced to ongoing translational and/or clinical research projects and will be encouraged to participate and complete at least one project.

## PROGRAM CURRICULUM

The Breast Pathology Fellowship program curriculum will include:

- ❖ Anatomy
- ❖ Gross pathology
- ❖ Normal histology
- ❖ Pathology
- ❖ Special stains
- ❖ Immunohistochemistry
- ❖ in-situ hybridization
- ❖ Other molecular tests
- ❖ Intraoperative consultation techniques
- ❖ Clinical pathologic correlation

### Mandatory and Elective Rotations:

1. Three months at the Misericordia community hospital, for gross and microscopic diagnosis of a variety of surgical breast specimens and Cancer Board reviews, intraoperative consultations.
2. Up to 1 month at the University of Alberta Hospital, for Molecular Pathology rotation
3. Up to 3 months at the CCI, for gross and microscopic diagnosis of a variety of surgical breast specimens, cancer board reviews, biomarker interpretation, intraoperative consultations.
4. Two months Base Lab (formerly Dynalife diagnostic laboratories), for needle core biopsy interpretation.
5. Three months elective, as approved by Fellowship Committee

## Seminars, Rounds and Teaching Sessions

1. The fellow will teach (at least one) didactic breast pathology lesson to:
  - ❖ medical students
  - ❖ pathology residents
  - ❖ Edmonton zone pathology staff
2. Participation at LMP rounds (at least one presentation)
3. Participation at Province Wide Pathology Rounds (at least one presentation)
4. Participation and presentation at Discovery, Research, and Innovation (DRIVE) meeting in Lab Medicine, University of Alberta
5. Attendance, preparation and presentation at the following clinical breast rounds will be required;
  - ❖ Cross Cancer Institute's New Patient rounds (BRNP) (Tuesday and Wednesday noon rounds, in coordination with the supervising pathologist)
  - ❖ Edmonton and North Zone Breast Tumor Boards (Wednesday pm rounds)
  - ❖ other subspecialty and multidisciplinary group meetings (when available)

## Clinical/On Call Experience

1. Attendance at all breast pathology intraoperative consultations will be expected when on site, to be coordinated with the assigned pathologist.
2. No formal on call duties are expected, however, some after-hours on-site work may be expected for surgeries performed outside of normal operating room hours.

## Quality Management

1. The fellow will adhere to all Alberta health services and Alberta Precision Laboratory's quality assurance and quality control processes, procedures, and policies.
2. Participation and understanding of quality assurance and quality control processes is mandatory.
3. The fellow will integrate surgical pathology quality assurance practices into his/her daily practices.



## Research and Development

1. Research project/publication, chosen by the fellow in collaboration with a supervising pathologist.

## SPECIALTY TRAINING REQUIREMENTS

### Eligibility:

Eligible candidates must have completed a residency training in Canada or equivalent, according to the standards set by the Royal College of Physicians and Surgeons of Canada and the College of Physicians and Surgeons of Alberta, with focus on anatomical or general pathology through a recognized program.

Fellowship with the Royal College of Physicians and Surgeons (RCPSC) is recommended but not required.

If the candidate does not hold a fellowship with the Royal College of Physicians and Surgeons of Canada, they will be strongly encouraged to prepare for either the general or anatomical pathology Royal College exam during this fellowship, and the curriculum and rotations will be modified accordingly with approval of the fellowship committee.

International Medical Graduates (IMGs) must be able to register with the College of Physicians and Surgeons of Alberta, please visit their website for more information [Registration - College of Physicians & Surgeons of Alberta | CPSA](#). IMGs also need to start the registration process and source verify their credentials through the Medical Council of Canada. Please visit their website for details; <https://mcc.ca> and <https://physiciansapply.ca>

The preferred fellowship candidates will demonstrate the following attributes:

- 1) An aptitude for specialty practice in anatomical pathology including excellent communications skills, leadership skills, interest in advocating for patients and the ability for complex thinking with regards to clinical-pathologic correlation.
- 2) A special interest in breast pathology as proven by previous experience, such as educational rotations in breast pathology and/or research projects that pertain to breast pathology.
- 3) Proven ability to function as an independent consultant including traits such as willingness to take responsibility, paying attention to detail, trust, motivation, good judgment, initiative, insight and ability to relate well with other pathologists, technologists, administrative staff and clinical colleagues.
- 4) Candidates are expected to commit at least 8 hours per day, 5 days a week in a clinical setting. Other time commitments may include some evenings and weekends as required





for research, preparation for rounds, on call duties, professional meetings and/or independent study.

5) The fellow is expected to diligently work-up as many cases as possible to acquire the necessary knowledge and expertise in Breast Pathology. To this end, candidates are expected to take on a minimum of ten cases/week, at least five of which are complex, and worked up from grossing to completion (render the case sign-out ready). Equivalent case workload and variety will be determined by site and availability under the guidance of the supervising pathologist.

### Duration and Location

Twelve months of approved training in adult breast pathology and/or other approved electives. The fellow will rotate through the Misericordia Hospital, the Cross Cancer Institute, the University of Alberta Hospital, Base Lab (formerly Dynalife diagnostic laboratories), and other community hospitals based on availability. Suggested guidelines for the length of each rotation are given above. There is potential for concurrent site rotations or increased duration of any site rotation depending on mutual interest and inter-site coordination.

### Evaluations

Formal written and/or electronic evaluations will be provided to and discussed with the fellow during and at the conclusion of each mandatory and elective rotation, in addition to informal/formative evaluations. The frequency and type of evaluations will be modified based on the fellow's performance in alignment with the University of Alberta's Post Graduate Medical Education standards. It is the responsibility of the fellow to ensure the timely documentation and submission of evaluations (written/digital format) required during each rotation.

The successful completion of the fellowship will be evaluated by the breast pathology fellowship committee, based upon the fellow's overall performance, completion of all fellowship requirements and demonstration to the committee that the fellow can practice in an independent, responsible, ethical, and professional manner.



## RESOURCES AND PERSONNEL

### Workspace and educational resources

Each rotation site will provide the fellow with a microscope, computer and private or shared office facilities.

The fellow will have access to online resources via APL/AHS. Orientation and training on the use of the electronic records system and EPIC will be provided.

### Funding

As per Edmonton Zone Department fellowship allocation form University of Alberta and Alberta Health Services. Salary scale: at the PGY 6 level.

International medical graduates must submit proof of funding from their university/government agency per the U of A's Post Graduate Medical Education rules and regulations.

### Breast Fellowship supervisors

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