GOALS AND OBJECTIVES
HEMATOLOGICAL PATHOLOGY ELECTIVE IN PERIPHERAL BLOOD AND BONE MARROW MORPHOLOGY AND FLOW CYTOMETRY IMMUNOPHENOTYPING

SPECIFIC OBJECTIVES
At the completion of this elective, the resident will have acquired the following competencies and will function effectively as:

MEDICAL EXPERT/CLINICAL DECISION MAKER

GENERAL REQUIREMENTS

• Recognize normal morphology and counts in peripheral blood and bone marrow.

• Develop an approach to the morphologic interpretation of peripheral blood and bone marrow aspirates and biopsies.

• Develop an approach to the interpretation of flow cytometry immunophenotyping reports, including the basic interpretation of flow histograms.

SPECIFIC REQUIREMENTS

• Demonstrate knowledge of the light microscopic appearance of normal peripheral blood and bone marrow.

• Be familiar with the principles of tissue processing of bone marrow aspirate and biopsy tissue processing including fixation, Romanowsky based stains, and decalcification.

• Demonstrate an understanding of the application of immunohistochemical stains as applied to bone marrow pathology.

• Be familiar with the principles of tissue processing for samples for flow cytometry immunophenotyping.
• Understand knowledge of the flow cytometry immunophenotype of normal peripheral blood, bone marrow, lymph nodes, and CSF.

• Demonstrate knowledge of the CD classification of leukocyte antigens as applied to the immunophenotyping of leukemias and lymphomas.

• Understand the principles of nucleic acid-based molecular biology techniques and be familiar with their application to diagnosis in leukemia and lymphoma diagnosis, especially the role of PCR in gene rearrangement, lineage and specific translocation studies, and cytogenetic karyotyping and FISH.

COMMUNICATOR

GENERAL REQUIREMENTS

• Discuss cases with other members of the health care team in terms of diagnosis and prognosis.

SPECIFIC REQUIREMENTS

• Attend and participate in leukemia/lymphoma rounds.

• With the guidance of the staff hematopathologist, write short diagnostic comments on peripheral blood films.

COLLABORATOR

GENERAL REQUIREMENTS

• Consult effectively with other physicians and health care professionals.

SPECIFIC REQUIREMENTS

• Utilize experience in clinical medicine and surgery to achieve a sound understanding of the effects of disease and the role of pathology in its management.

• Demonstrate the ability to advise on the appropriateness of obtaining bone marrow specimens and following examination of these, to advise on further appropriate investigations.
MANAGER

GENERAL REQUIREMENTS

- Utilize resources of the pathology laboratory effectively to achieve an accurate diagnosis.
- Allocate finite health care resources wisely.
- Work effectively and efficiently in a health care organization.
- Utilize information technology to optimize patient care, life-long learning and other activities.

SPECIFIC REQUIREMENTS

- Demonstrate knowledge of the methods of quality control in the laboratory as it relates to flow cytometry and immunohistochemistry of leukemias and lymphomas.

HEALTH ADVOCATE

GENERAL REQUIREMENTS

- Identify the important determinants of leukemia lymphoma pathogenesis and diagnosis.

SPECIFIC REQUIREMENTS

- As members of an interdisciplinary team of professionals responsible for individual and population health care, the anatomical pathologist will endeavour to help in informing the public about issues surrounding the diagnosis of leukemias and lymphomas and risk factors for their development.

SCHOLAR

GENERAL REQUIREMENTS

- Develop, implement and monitor a personal continuing education strategy with respect to continuing education in leukemia and lymphoma pathology.
- Critically appraise sources of medical information and recognize the current best sources for leukemia and lymphoma research reporting.
Facilitate learning of patients, residents/students and other health professionals at rounds.

Contribute to development of new knowledge.

SPECIFIC REQUIREMENTS

The resident should prepare a short presentation on a leukemia or lymphoma topic.

PROFESSIONAL

GENERAL REQUIREMENTS

Deliver highest quality care with integrity, honesty and compassion.

Exhibit appropriate personal and interpersonal professional behaviours.

Practice medicine ethically consistent with obligations of a physician.

Demonstrate the knowledge, skills and attitudes relating to gender, culture, and ethnicity pertinent to anatomical pathology.

SPECIFIC REQUIREMENTS

Act as an appropriate role model for students and others.

Demonstrate a professional attitude to colleagues, as well as to other laboratory staff.

Have an appreciation of the crucial role of the anatomical pathologist in providing quality patient care. This will include knowledge of individual professional limitations and the necessity of seeking appropriate second opinions.

Revised April 2016