



Careers in **LABORATORY MEDICINE**

Memorial University of Newfoundland offers a five-year residency training program in anatomical pathology accredited by the Royal College of Physicians and Surgeons of Canada.

**MEMORIAL
UNIVERSITY**

Faculty of Medicine

FACULTY OF MEDICINE

Memorial University's Faculty of Medicine is the only medical school in Newfoundland and Labrador and is the academic core of health research in the province. It includes the medical school, postgraduate residency training programs and graduate programs. The Faculty of Medicine is accredited by the Committee on Accreditation of Canadian Medical Schools of the Association of Canadian Medical Colleges and the Liaison Committee on Medical Education of the Association of American Medical Colleges.



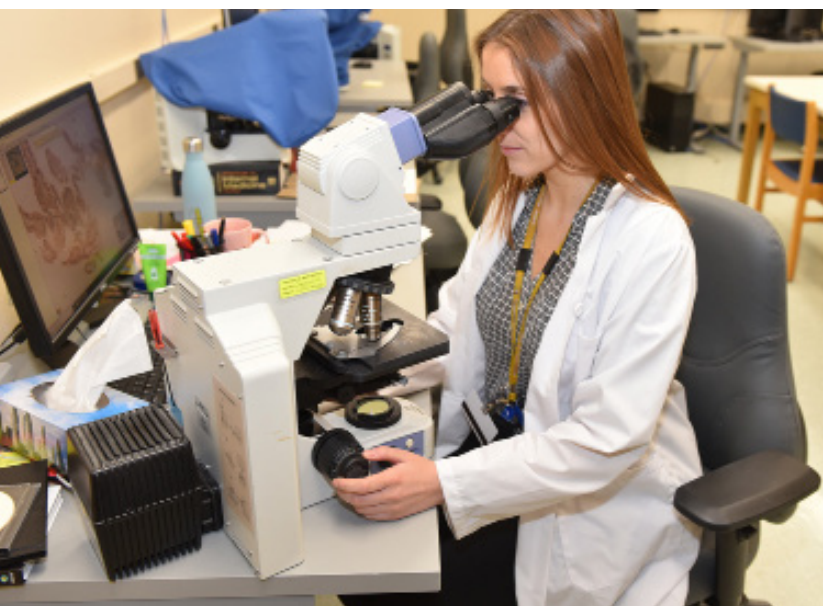
The doctor of medicine curriculum emphasizes community and rural medicine. We excel in clinical teaching and have research expertise in clinical specialties, community health, epidemiology, applied health and services research and basic medical science, including neurosciences, immunology, cardiovascular and renal physiology, and human genetic research.

The Faculty of Medicine is located in St. John's, which MacLean's magazine ranked as one of the *Top 10 Friendliest Cultures in the World!* St. John's has no shortage of live music, theatre, bars and festivals, particularly along the famous George Street! Scenic walking and hiking trails can be found in the St. John's area as well, such as Bowering Park, Signal Hill and the East Coast Trail.

Laboratory physicians examine body tissues, fluids and cells, working closely with other laboratory professionals, such as medical laboratory technologists and other physicians to contribute to the health care of patients. Laboratory physicians can also be educators in a college or university.

PATHOLOGY

When a tissue is removed from the body it is examined by a pathologist. A pathologist can also be a teacher or a researcher.



SPECIALITIES:

A **neuropathologist** examines tissue from the brain and spinal cord.

An **anatomical pathologist** examines tissue from head and neck, gastrointestinal tract, lung or breast and conducts complete body examinations when a person dies to determine the cause of death.

A **hematopathologist** examines blood and bone marrow.

A **forensic pathologist** is involved in the investigation of suspicious death.

A **cytopathologist** examines cells and fluids from the body.

CLINICAL BIOCHEMISTRY

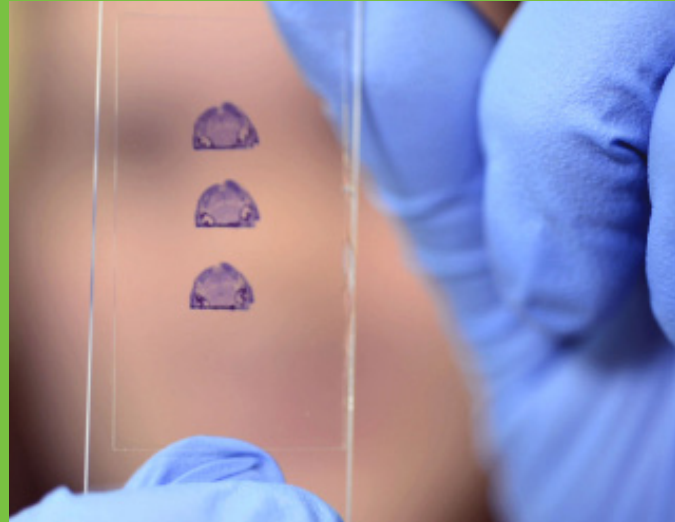
Blood glucose, cholesterol, newborn screening, drug abuse, blood gas and tests to assess liver, kidney, or heart disease are done in clinical biochemistry laboratories. These specialists are either medical doctors specializing in clinical biochemistry (medical biochemists) or doctoral scientists who specialize in clinical biochemistry (clinical biochemists), working together to oversee selection, implementation and interpretation of clinical laboratory tests.

SUB-SPECIALTIES:

- Immunology
- Specialized endocrine testing
- Pediatric clinical biochemistry
- Biochemical genetics
- Clinical toxicology and therapeutic drug monitoring
- Technology-related areas such as point of care testing, automation or mass spectrometry.

MICROBIOLOGY AND INFECTIOUS DISEASES

Medical microbiology involves the diagnosis, treatment and prevention of infectious diseases. Medical microbiologists examine bodily fluids for microorganisms and analyze fluid samples to determine how patients are responding to treatment.



GENETICS

Genetics in medicine is an exciting, fast-paced and continually evolving field of study with a variety of career opportunities.

SPECIALTIES:

Cytogenetics is the study of chromosomes.

Molecular genetics is the study of DNA and genes.

Currently, genetic testing is used in the diagnosis, prognosis and treatment of prenatal care, reproduction/fertility, hereditary disorders and cancer. Although there is no formal residency program for laboratory genetics, upon completion of a pathology residency, a resident can enroll in a two year clinical fellowship through the Canadian College of Medical Geneticists for certification as a clinical laboratory geneticist in cytogenetics or molecular genetics (soon to be combined into a single fellowship). For more information visit:

<https://ccmg-ccgm.org/>.

A clinical laboratory geneticist reviews and interprets genetic data to provide a genetic diagnosis, prognosis or treatment recommendation on a variety of medical diseases. There are also opportunities for research and teaching.





Vision: Through excellence, we will integrate education, research and social accountability to advance the health of the people and communities we serve.

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