



IS LABORATORY GENETICS FOR YOU?

Information about the Canadian College of Medical Geneticists Laboratory Fellowship Programs

What is Laboratory Genetics?

Laboratory Genetics transforms cutting-edge genomics research and technology into the practice of medicine to aid in the diagnosis and management of patients and families with both rare and common genetic conditions.

What is a Laboratory Geneticist?

Laboratory geneticists are doctoral-trained scientists that integrate technical, analytical and genetics expertise with clinical knowledge to develop and interpret genetic tests used to aid in the diagnosis and management of patients and families with genetic disorders.

Who do Laboratory Geneticists work with?

Laboratory geneticists are part of an interdisciplinary team that include medical laboratory technologists, computer scientists, and other laboratory scientists. Laboratory geneticists also liaise closely with clinical colleagues including clinical geneticists, genetic counsellors, and a number of other medical specialists who utilize genetic services in the diagnosis and/or prognostication of their patients.

Laboratory Genetics Subspecialties

Biochemical Genetics is a laboratory-based specialty involved in the analysis, assessment and interpretation of biochemical analytes associated with inherited metabolic disorders.

Cytogenetics is a laboratory-based specialty involved in detecting and interpreting chromosomal and other genomic abnormalities leading to human disease.

Molecular Genetics is a laboratory-based specialty that uses molecular genetic analysis to identify genetic changes that affect genes and genomic regions involved in human disease.

Are there opportunities?

Yes. As genetic technology is rapidly integrated into the care of individuals with common, as well as rare, conditions, there is an increasing need for laboratory geneticists.

How do I become a Laboratory Geneticist?

Individuals interested in laboratory genetics, will typically apply for training at one of the accredited training sites found across the country. Funding for training, the number of available positions, and the application process will vary from province-to-province. It is recommended that you contact each centre for more information. Each program requires 2 years of training at a CCMG centre accredited for training. Training is available on a competitive basis for those with a PhD and/or MD. Most fellows have completed 2 or more years of post-doctoral research training or postgraduate medical education in a RCPCSC- and/or CMQ-accredited residency program prior to commencing the CCMG laboratory fellowship.

Individuals that have successfully completed their training write a certification exam. Individuals who pass the exam become certified in their subspecialty and become fellows of the Canadian College of Medical Geneticists.

ACCREDITED TRAINING SITES

Université de Montréal (B/C/M)

McGill University (B/C/M)

University of Ottawa (B/C/M)

University of Toronto (B/C/M)

McMaster University (B/C/M)

University of Manitoba (C/M)

University of Calgary (B/C/M)

University of Alberta (C/M)

University of British Columbia (B/C/M)

B=Biochemical, C=Cytogenetics, M = Molecular

APPLICATION INFORMATION

Contact the training centre of choice for application requirements and procedures, available funding, and application deadlines.

A CURRENT LIST OF PROGRAM DIRECTORS CAN BE FOUND AT:

www.ccmg-ccgm.org/training/training-sites-main.html

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