

## WHAT ARE THE JOB OPPORTUNITIES FOR MEDICAL BIOCHEMISTS?

At present, the practice of medical biochemists in Canada (aside from Quebec) is generally limited to large urban centers. With the change to dual certification (internal medicine and medical biochemistry) in recent years, there is an expectation that future program graduates will find roles split between laboratory supervision and clinical practice.



# UBC MEDICAL BIOCHEMISTRY

## RESIDENCY TRAINING PROGRAM

### WHERE CAN I FIND MORE INFORMATION?

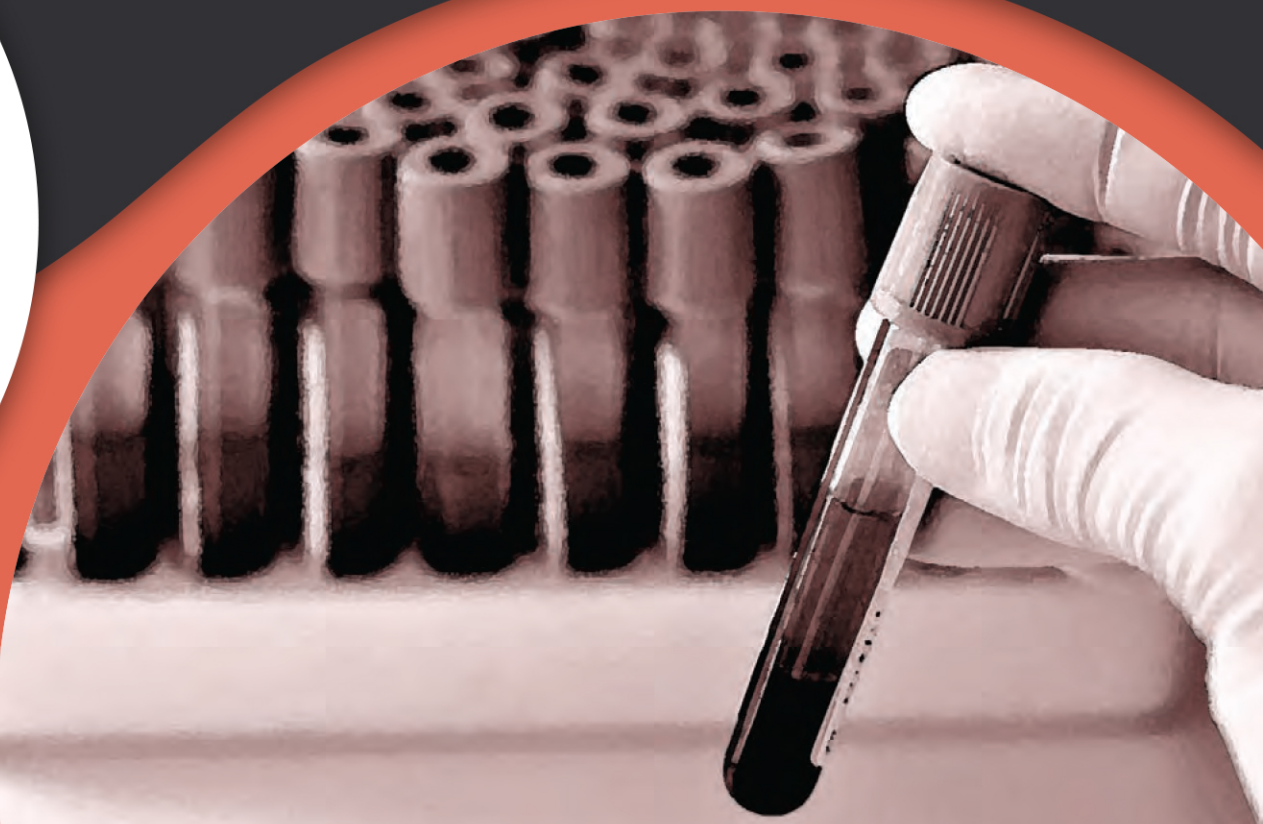
If you are interested in learning more about the specialty, and/or would like to set up an elective, please contact the UBC medical biochemistry residency program director:

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You can also visit our website at:  
<http://pathology.ubc.ca/path-residents/>

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## WHAT IS MEDICAL BIOCHEMISTRY?

**70%** of medical treatment decisions rely on laboratory test results. Medical biochemistry is at the helm of this process and provides information invaluable to every other medical discipline. Changes in a wide range of analytes, in blood and other body fluids, are associated with various pathologies. It is our role to detect these deviations, and to oversee the use of biochemical tests for screening, diagnosis, prognosis, and management of diseases.

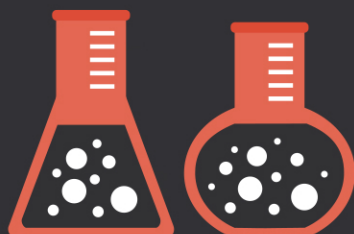


With the opportunity to oversee a large component of patient testing, the medical biochemist has the best view of important aspects of clinical practice, including trends in test utilization, expected test values, incipient errors in lab testing, extremely abnormal test results, and inter-test correlations. By utilizing these powerful resources to optimize the diagnostic testing process, the medical biochemist plays a vital role in shaping the practice of clinical colleagues.



### THE RESPONSIBILITIES OF A MEDICAL BIOCHEMIST INCLUDE:

- Advising clinicians on the appropriate laboratory tests for the workup of a particular clinical problem, and on the interpretation of test results, especially for complex, highly specialized tests
- Investigation of anomalous results incongruent with the clinical picture
- Directing the operation of a clinical laboratory, ensuring that tests are being performed accurately, reported correctly, and communicated to the ordering physicians effectively
- Evaluation of the latest technology and development of new lab tests
- Diagnosing and managing patients in specialized metabolic clinics (e.g. lipid clinics)
- Participating in clinical research and medical education



### WHO SHOULD CONSIDER MEDICAL BIOCHEMISTRY?

We are looking for applicants with:

- An interest and background in biochemistry/chemistry from undergraduate/postgraduate studies
- An aptitude for integrating laboratory and clinical medicine
- The ability to communicate effectively, both verbally and in writing
- The ability to work well with others
- Strong management skills and leadership potential

### WHAT IS THE UBC MEDICAL BIOCHEMISTRY RESIDENCY TRAINING PROGRAM LIKE?

The UBC division of medical biochemistry offers a strong and varied program leading to eligibility for Royal College certification in both medical biochemistry/pediatrics and internal medicine.

Much flexibility exists in the program, and rotations can be tailored to the trainee's career aspirations. Further expertise can be developed in such areas as endocrinology (lipidology, diabetes, metabolic bone disease), toxicology, nutrition, immunology, molecular diagnostics, inborn errors of metabolism, etc.

Residents will complete 3 years of internal medicine/pediatrics training, followed by 2 years of laboratory medicine training. The final 2 years of residency are designed to enable trainees to become experts in all aspects of biochemistry testing, and to become proficient in the operation and management of clinical laboratories. Rotations will be primarily based at the Vancouver teaching hospitals.

The last 2 years of training encompass:

- Biochemical test interpretation, and consideration of analytical and clinical reasons for anomalous test results
- Analytical techniques with regard to test principles and method design, evaluation, implementation, and quality control
- Involvement in a longitudinal basic science, clinical or epidemiologic research project
- Maintenance of clinical skills by taking part in lipid/diabetes/general endocrine clinics



Interpretation of abnormal results and the resultant diagnoses are based on a range of factors, including the patient's age, medical history, and symptoms. A result which may be simple to interpret in one patient may be challenging in another patient who is receiving multiple medications and has a number of co-morbidities...

