



Career Options after

Molecular Biology, Immunology and Disease

the study of immunity and disease

www.utsc.utoronto.ca/biosci

Major

What is Molecular Biology & Immunology?

Biology is a Life Science focused on understanding life and living organisms. **Molecular Biology** is the branch of biology that deals with the macromolecules essential to life. **Immunology** is the branch of science dealing with the components of the immune system, immunity from disease, the immune response, and immunologic techniques of analysis. (Source: Oxford Dictionary; Dictionary.com)

Skills of Biology Grads

- Collect, analyze and interpret data to make projections
- Conduct and design experiments
- Explore how organisms interact with the environment
- Observe and make measurements on organisms
- Research and analyze biological questions
- Utilize statistical tests to predict outcomes
- Write literature reviews and scientific reports
- Chart the development of complex organisms

Immunology Skills:

- Understand how the immune systems functions
- Application of cell biology tools such as advanced microscopy and immunocytochemistry
- Identification of immune cell proteins

Molecular Biology Skills:

- Prepare and dispense precisely formulated solutions, even in Microliter quantities
- Understand the application of electrophoresis, western blotting, chromatography and fluorescent protein technologies

What makes Immunology & Disease at UTSC unique? With a focus on immunology, students in this program will have the opportunity to complete courses related to immunology, biochemistry, microbiology, and pathophysiology.

Entry-Level Jobs for Bachelor Grads

Common employment destinations include:

- Clinical Research Assistant in Hospitals
- Laboratory Technician in Government Agencies
- Sales in Pharmaceuticals and Medical Supplies
- Assistant Biologist in Food Inspection Agencies
- Volunteer Coordinator in Non-profits
- Teaching Assistant or Tutor in Private Schools
- Quality Control in Biopharmaceutical Industry
- Laboratory Assistant in Genetic Testing Services
- Marketing Associate for Medical Devices
- Underwriting Assistant in Insurance

The Career Directory: www.canadastop100.com/tcd

Graduate & Professional Studies

Popular further education opportunities include:

- Biology – Master, PhD
- Sustainability or Environment - Master, PhD
- Biotechnology - Master or Diploma
- Medical or Dentistry School - MD or DDS
- Nursing - Bachelor
- Medical Laboratory Science - Diploma
- Radiation Therapy or Radiological Technology - Bachelor and Advanced Diploma
- Clinical Research - Post-Graduate Certificate
- Regulatory Affairs - Post-Graduate Certificate

Use LinkedIn!

UTSC Biology graduates are working in Education, Healthcare and Business.

Attend our LinkedIn workshop to learn about the *Find Alumni* tool for networking!

Molecular Biology Grads from UTSC have gone on to:

- Apotex (Manufacturing Compliance)
- Ozmosis Research (Clinical Trials Coordinator)
- SQI Diagnostics (Process Development)

Examples of Fields that 'Fit' the Skills of Biology Grads

- Healthcare
- Federal, provincial, municipal governments
- Education
- Pharmaceutical
- Research (hospitals, non-profit organizations)
- Biotechnology
- Colleges and universities
- Quality control (food, pharmaceutical, medial)

Your 4-Year Career Exploration Action Plan

1 Do Your Research

The databases below provide you with details about job prospects, nature of work, educational requirements, working conditions, pay and related career paths:

Career Cruising: Log into cln.utoronto.ca, click on Resources, and click on Career Cruising to be logged in automatically

O*Net: online.onetcenter.org (U.S. site)

Attend our workshop **Discover Your Skills and Career Options**, meet with a Career Counsellor, and use our resources to get to know your skills, values, personality and interests:

www.utsc.utoronto.ca/aacc/get-know-yourself

Use the advice on our tip sheets for gathering info: www.utsc.utoronto.ca/aacc/tipsheets

- Information Interviews
- Working On-Campus
- Internships
- Volunteering

3 Build Your Network

Explore Professional Associations and get involved: volunteer for their events and conferences, and get to know people in your industry of interest. These are your future mentors, supervisors and colleagues!

Biology Student Association at UTSC - www.thebiosa.org

Association of Clinical Research Professionals - www.acrpnet.org/certificationprograms

Canadian Council of Technicians and Technologists (CCTT) - www.cctt.ca

Canadian Institutes of Health Research - www.cihr-irsc.gc.ca

BioTalent Canada - biotalent.ca

The Canadian Society of Microbiology - www.csm-scm.org

About Bioscience - www.aboutbioscience.org

The Student Doctor Network - www.studentdoctor.net

Canadian Society of Biochemistry, Molecular and Cellular Biology - www.csbmcb.ca

The Society for Biomolecular Sciences - www.slas.org Ontario Public Health Association - www.opha.on.ca

Hamilton Health Sciences - www.hamiltonhealthsciences.ca/careers/CareerTreeEnglish.pdf

Health Force Ontario - www.healthforceontario.ca/en/Home/Students

2 Explore Career Options & Get Experience

Gain exposure to your options in the world of work and make connections while you're a student via campus events and programs listed on cln.utoronto.ca and ccr.utoronto.ca:

- [Extern Job Shadowing](#)
- [In the Field](#)
- [Explore It!](#) (course-based)
- [Partners in Leadership](#) (4th year students)
- [iLead, uLead, weLead](#) (Dep't of Student Life)
- Employer Information Sessions
- Career & Volunteer Fairs
- [Departmental Student Association](#) Events

Apply for [Work Study](#) jobs in CLN in Fall and Spring! You might also find work via www.scsu.ca/jobs.

Find networking opportunities, internship programs and entry-level jobs via websites like www.talentegg.ca and www.charityvillage.ca.

As an upper year student (14+ credits), attend UTSC's [Get Hired Conference](#) and participate in [Jobs for Grads](#).

As a graduate, explore internships and other trainee programs like www.careeredge.ca