

Medical Surveillance

University of Toronto

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**Office of Environmental Health
and Safety**



**GREAT SPACES
FOR GREAT MINDS**

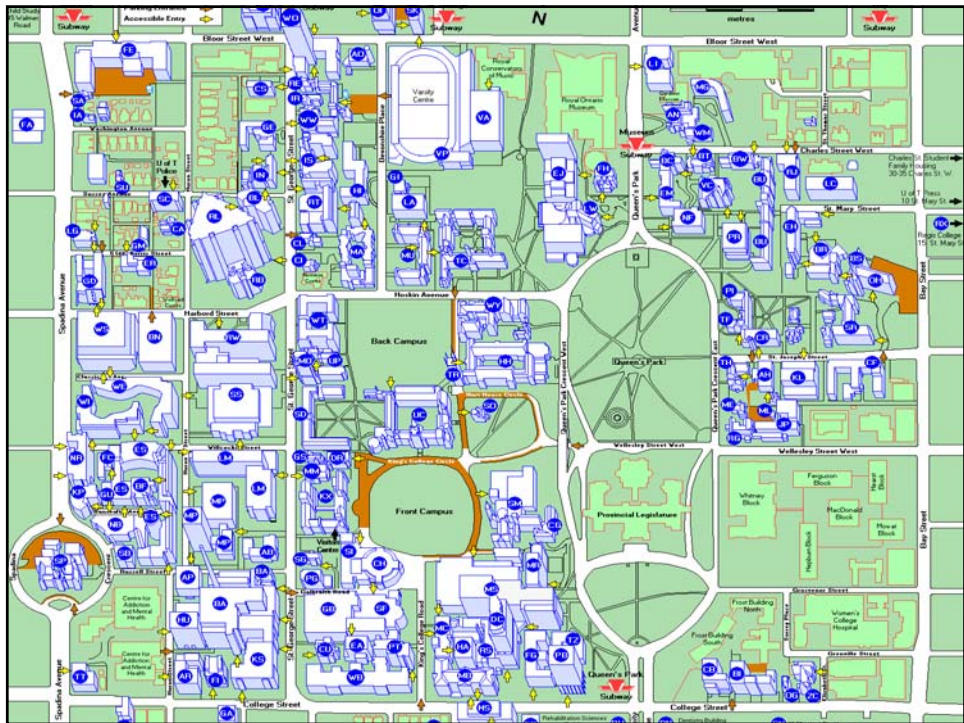


- Three main campuses in three different cities
- 11 Fully Affiliated Health Care Institutions
- 14 Community Hospitals/Health Care Institutions
- 9800 full time staff excluding cross appointed
- 20880 part time and seasonal staff
- 75000 student

St. George Campus

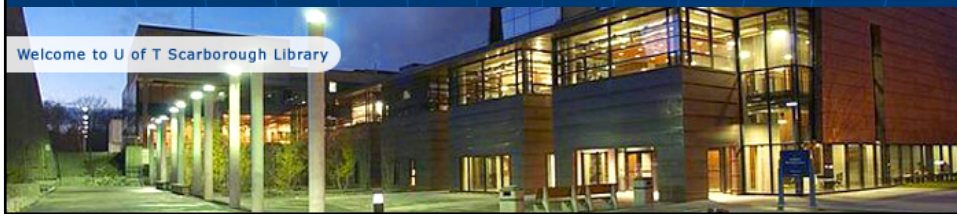


- In the heart of Toronto, our historic 65-hectare (160-acre) campus is home to:
- 14 professional faculties
- 86 doctoral programs



Scarborough Campus

- 200 faculty, 700 courses, 300-acre campus.



Mississauga Campus

- Founded in 1967,
- 700 faculty and staff
- 14 distinct academic departments
- 125 programs





Health services at U of T

Health Service office:

- Provides wide range of services for University of Toronto students. The health team includes Family Physicians, Registered Nurses, a Community Health Coordinator, a Health Promotion Coordinator, a Dietician, a Lab Technician, Support Staff, and Peer Health Educators. Each campus has independently run student health service.

Health & Well-being Services & Programs:

- Was created to integrate resources and services for University employees and managers involved in sick leave, long term disability, occupational health issues, workplace injuries, and workplace accommodation for employees with disabilities. This is a central unit.

Components of our Biosafety program

- Legal agreement and terms of reference
- Training
- Risk assessment and hazard identification
- Facilities, procedures evaluation/certification
- Medical Surveillance
- Monitoring
- Decommissioning

Legal agreement and terms of reference

- Establish terms of reference
- Communicate terms of reference to stakeholders
- Sign MOU with researchers and department chairs
- Sign MOU with service providers
- Communicate the consequence of none compliances with MOU

Memorandum of Understanding

I have read, understand, and will comply with the University of Toronto's Biosafety Policies and Procedures Manual, Biosafety training course, PHAC Laboratory Biosafety Guidelines, CFIA regulations and any other applicable regulations or standards (eg. OHSA)

I know that if I have a medical condition, including a suppressed immune system, or if I have a medical concern, I must seek advice from the University's Occupational Health medical doctor by calling XXXXXXXX

I recognize my responsibility to observe these practices and precautions while present in the laboratory and understand their importance for the safety and welfare of myself, all others in the laboratory, and the environment

NOTE: A *certificate amendment* is required for any significant changes in biohazard usage, research projects, personnel, research location, as well as inclusion of any organism(s), previously stored, into any of the aforementioned projects.

Researchers are responsible for removing and properly disposing of all their biological agents prior to submitting a formal request for decommissioning.

M- Declarations. All researchers and their respective departmental Chair/Dean or designate must sign below.

As the Principal Investigator on this project, I declare that I am familiar with the contents of the University of Toronto Biosafety Manual, and that the above describes my research program, insofar as this includes the use of hazardous biological agents and materials, in its entirety. As the legally responsible individual I will ensure that all research/and or teaching conducted under my direction in the above laboratories and by the personnel listed, conforms to the standards set out in the Biosafety Guidelines at the University of Toronto, 2007, as well as provincial, federal and international policies and regulations that govern research involving biological agents. Any major deviation from the project, as originally approved, will be submitted to the Biosafety Chair for approval prior to its implementation.

Name of Principal Investigator

Signature

Date

As the Departmental Chair/Dean, I am aware of the proposed activity. My administrative unit will follow guidelines and procedures which ensure compliance with all relevant University, provincial, national or international policies and regulations that govern research utilizing Biological agents.

Name of Chair/Dean (or designate)

Signature

Date

For Biosafety Office Use Only

Mandatory Trainings

- The Workplace Hazardous Materials Information System (WHMIS)
- General Biosafety course for staff / students since 2006
- Blood Born Pathogen (July 2009)
- Transportation of Dangerous Goods TDG (currently taken outside, Internal starts August 2009)
- Viral vectors (next year)

Risk assessment and hazard identification

- Identify Hazards associated with research organisms
- Identify susceptible individuals associated with research activity
- Assess the risks associated with each practices and protocols
- Implement measures to control these risks

Risk assessment and hazard identification process

All applications including peer reviewed research are reviewed by:

- Chair of department for the PI
- Another faculty member (Local Biosafety Coordinator)
- Faculty member (Chair of Biosafety committee)
- Occupational health physician
- If needed:
 - Senior Radiation Safety officer, Hygienist or Chemist
- Senior Biosafety Officer

Facilities, procedures evaluation/ certification

- Physical status of facility/containment is reviewed based on standards set by:
 - PHAC
 - CFIA
- Administrative compliances are evaluated
- Condition, location and certification of equipments are verified

Medical surveillance

Process of evaluating the health of personnel as it relates to their potential occupational / educational exposures to Biohazardous agents, monitoring exposure results and arranging / monitoring post exposure prophylaxis.

Hallmarks of a successful Medical Surveillance program

- Engagement of Stakeholders
- Pre assessing implications
- Resource provisions
- Well-built administrative support
- Sound implementation strategies
- Effective coordination of program components

How does medical surveillance works?

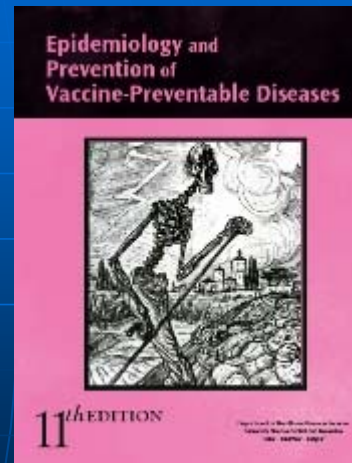
- Selection and need analysis
- Pre-placement evaluations
- Periodic medical evaluations
- Appropriate immunizations
- Zoonoses surveillance
- Incident/accident reporting
- Primates (special considerations)

What services are provided?

- Pre-employment/placement medical evaluation for staff and students
- Allergy program
- Respiratory protection program
- Non-human primate exposure program
- Immunizations
- Serum banking
- Post exposure prophylaxis arrangement
- Post exposure monitoring and accommodations

What immunizations or screening programs could be included?

- Tetanus
- Rabies
- Hepatitis B
- Other immunizations
- TB testing
- Serum banking



Epidemiology and Prevention of Vaccine-Preventable Diseases

Should serum banking be a part of Medical Surveillance program?

- Why are you collecting samples ?
 - Legal
 - Medical
- How you are going to store them?
 - Validation
 - Viability
- Where you will be storing them?
- When and how do you use them?
- When do you dispose them?

Adopting serum banking program

There has to be a policy addressing:

- Chain of custody
- Confidentiality
- Identification
- Handling
- Retention
- Storage
- Potential deterioration of sample quality over time
- Cost

Special precautions for primates

- Herpes B program
 - Serum banking
 - Pre-arrangement with health professionals
 - Bite/scratch kits
 - SOPs for sampling / testing
- TB testing
- **Exotic organism (exposure recognition and PEP)**

Implementing Post Exposure prophylaxis Programs

- Educate staff/student on the process in advance
 - Establish baseline
 - Immediate evaluation for HIV
- 24/7 arrangement with a hospital
- Provide contact for questions
- Financial provision for students
- Plan to protect employee confidentiality about exposure, treatment and test results

How is the need for medical surveillance determined?

The triggers for inclusion in the surveillance program are:

- Health status of the individual
 - Immune status
 - Compromised immune system
 - Concerned
 - Pregnant
 - Allergic
- Nature of biological agents used
 - Availability of vaccine
 - Availability of post exposure prophylaxis
 - Consequence of exposure

Monitoring and enforcing compliances

- All work with biological agents require a valid Biosafety permit
- Biological agents are listed and health status of the individual are verified in Biosafety applications
- IBC reviews, determine requirement and request compliances as prerequisite

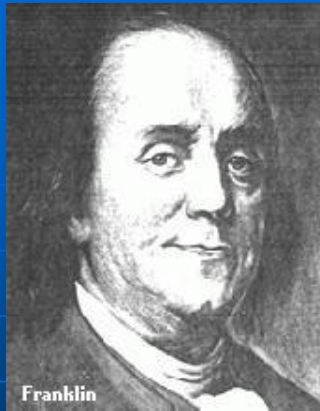
Questioner in Biosafety permit application

- Is medical surveillance, immunoprophylaxis and/or vaccine available/indicated?
- Do you work with HIV, Human T-lymphotropic virus (HTLV), Hep A, Hep B, Hep C, Listeria, Mycobacterium tuberculosis, Q-fever (Coxiella), Rubella, Toxoplasma, Vaccinia and/or Varicella?
- Do you work with human or non-human primate organs, tissues, whole blood, blood products and/or body fluids?

Questioner in Biosafety permit application (continued)

- Do you have a staff or student who is immunocompromised or pregnant?
- ****If you have answered yes to any of the above questions, please attach a Certificate of Clearance from Occupational Health for each individual involved.****

“An Ounce of Prevention...



... is worth a pound of cure.” -B. Franklin

You can't build a reputation on what you are going to do
(Henri Ford)