

PhD in Microbiology and Immunology

FACULTY OF MEDICINE | DEPARTMENT OF MICROBIOLOGY, INFECTIOUS DISEASES AND IMMUNOLOGY

Overview and specifics


NUMBER 3-500-1-0


LEVEL Graduate


TYPE Philosophiae Doctor (Ph. D.)

CREDITS 90 credits

PROGRAM TYPE Dissertation or thesis track

 **Admission in fall, winter and summer**

 **Day course**

 **Offered at the Montréal**

 **Full-time**

Resource persons

PROGRAM INFORMATION

George Szatmari 514-343-5767

Graduate Secretary 514-343-6111, poste 3129

Description

This program provides students with the opportunity to study and perform research in a wide variety of fields including bacteriology, virology, mycology and immunology.

Objectives

The general goal of the program is to train independent researchers in this discipline. Students must conduct an original research project, learn to present their research findings at scientific conferences and publish them in peer-reviewed journals, be able to develop an original research hypothesis, and explain the methods used to experimentally validate the hypothesis. Students must have the required technical skills for a career as a researcher and must develop excellent critical thinking skills to interpret their results. At the end of the program and their subsequent postdoctoral training, students should be able to compete for research grants in the field of microbiology and immunology.

Strengths

- Research laboratories equipped with state-of-the art technology
- The possibility of performing your research on campus at the Department of Microbiology, Infectious Diseases and Immunology, or at an affiliated research center:
 - Centre de recherche du CHU Sainte-Justine Institut de recherches cliniques de Montréal (IRCM)
 - Laboratoire de Santé Publique du Québec (LSPQ)
 - Institut de cardiologie de Montréal
 - Centre hospitalier de l'Université de Montréal (CHUM) and its Centre de recherche Institut de recherche en immunologie et oncologie (IRIC)
 - Centre de recherche Guy-Bernier de l'Hôpital Maisonneuve-Rosemont (HMR)
 - Hôpital du Sacré-Cœur de Montréal
 - Institut de recherche en biotechnologie (IRB)

Regulations

Studies in this program are governed by the educational regulations of the Faculty of Graduate and Postdoctoral Studies, and the following provisions:

1. Admission requirements

To be admitted as a regular student in the PhD (Microbiology and Immunology) program, candidates must:

- Meet the general admission requirements (section XI) of the “Règlement pédagogique de la Faculté des études supérieures et postdoctorales” (educational regulations of the Faculty of Graduate and Postdoctoral Studies).
- Have an MSc (Microbiology and Immunology) or show proof of equivalent education.
- Have obtained a grade-point average at the graduate level of at least 3.3 out of 4.3 or the equivalent.
- Demonstrate good knowledge of French (learn more).
- Have satisfactory knowledge of English and show proof of proficiency before being accepted into the second year of the program.
- Demonstrate sufficient knowledge of any other language deemed necessary for their research.

Additional documents required for admission:

- Official transcripts and two letters of recommendation are required for admission.
- Prospective applicants are strongly encouraged to find a research director prior to submitting their application.

Program structure (3-500-1-0)

The doctorate program consists of 90 credits.

It also includes additional courses depending on candidates' needs. Students are required to take seminar courses throughout the program.

Research must be done as a residency at Université de Montréal, at a research laboratory of an affiliated institute or hospital approved by the Advisory Board of the Faculty of Medicine, or at a laboratory of the Faculty of Veterinary Medicine.

Legend: CR: Credit, SC: Schedule, D: Day, E: Evening

SEGMENT 70

All credits in this doctorate program are mandatory. Out of the 90 credits, 87 are for research and a thesis.

Block 70A

Mandatory - 3 credits

MCB 70521 and MCB 70522 are equivalent to MCB 7052. MCB 70531 and MCB 70532 are equivalent to MCB 7053.

COURSE	TITLE	CRSC	COURSE	TITLE	CRSC
MCB 7001	Directed Readings in Microbiology	1	MCB 70531	Research Seminar 3.1	0 D
MCB 70521	Research Seminar 2.1	0 D	MCB 70532	Research Seminar 3.2	1 D
MCB 70522	Research Seminar 2.2	1 D			

Block 70B Thesis

Mandatory - 87 credits

COURSE	TITLE	CRSC
MCB 7000	PhD Comprehensive Examination	0
MCB 7902	Thesis	87

Programs to explore

Applicants interested in this program also applied to the following programs:

PROGRAMS	TYPE	CREDITS	NUMBER	PERIOD
Biomedical Sciences	Doctorate	90 credits	3-484-1-0	Jour
Molecular Biology	Doctorate	90 credits	3-466-1-0	Jour
Molecular Biology	Master's Degree	45 credits	2-466-1-0	Jour
Virology and Immunology	Doctorate	90 credits	3-503-1-1	Jour

Research expertise at a glance

Research areas

- Immunology
- Bacteriology
- Cytometry
- Mycology

Research centres

- Institut de Recherches Cliniques de Montréal (IRCM) : <http://www.ircm.qc.ca/Pages/IRCMDefault.aspx?PFLG=1033&lan=1033>
- Centre Hospitalier de l'Université de Montréal (CHUM) : <http://www.chumontreal.qc.ca/>
- CHU Sainte-Justine : <http://www.chusj.org/en/Home>
- Centre de recherche Maisonneuve Rosemont : <https://crhmr.ciuss-estmtl.gouv.qc.ca/fr>
- Centre de recherche Guy-Bernier
- Institute for Research in Immunology and Cancer (IRIC) : <http://www.irc.ca/en/>
- Groupe de Recherche sur les Maladies Infectieuses du Porc (GREMIP) : <https://www.medvet.umontreal.ca/gremip/index.php/en/>
- Réseau canadien pour l'élaboration de vaccins et d'immunothérapie (Réseaux CANVAC)
- Canada's Research Network in Aquaculture (AQUANET)

Find out more : <http://microbiologie.umontreal.ca/>

Professors

Consult the list of the department's faculty members and their specializations.

Directory of theses and dissertations

Research news