

Department of Medicine

Division of Clinical and Translational Research

MSc & PhD Thesis Programs



Overview

The **Division of Clinical and Translational Research** offers world-class translational research opportunities for graduate students in interdisciplinary settings at McGill University and its affiliated Research Institutes.



Graduate Students pursue cutting-edge medical research in a unique setting in which PhD and MD researchers collaborate on **fundamental, translational and clinical research** into the pathogenesis and treatment of disease.

Graduate Programs (Thesis)



Experimental Medicine Graduate Programs

MSc (Thesis) Experimental Medicine

Number of credits: 9 course credits; 36 thesis credits

Estimated time to completion: full-time 1.5 to 3 years

Admission terms: Fall (September) and Winter (January)

PhD Experimental Medicine

Number of credits: 12-18 course credits

Estimated time to completion: full-time 4 to 6 years

Admission terms: Fall (September) and Winter (January)

MSc (Thesis) Option in Digital Health Innovation

Number of credits: 21 course credits; 24 thesis credits

Estimated time to completion: full-time 2 to 3 years

Admission term: Fall (September)

Research Sites



McGill University Health Centre



Lady Davis Institute



McGill Main Campus (Goodman Cancer Institute)



Institut de Recherches Cliniques de Montréal (IRCM)

Research Areas



Thesis projects in the Division of Clinical and Translational Research are diverse and **include fundamental, translational and clinical health themes.**

Topics include, but are not limited to:

- cell biophysics
- respiratory and cardiac disease
- gastric and renal disease
- neuroscience
- molecular endocrinology
- molecular oncology
- cellular immunology
- molecular virology
- pharmacology
- bioethics
- health policy
- clinical epidemiology
- digital health innovation



A list of researchers can be found on our website: [Profiles List | Division of Clinical and Translational Research - McGill University](#)

Courses



Experimental Medicine offers over **45 courses** for students to choose from including topics on regenerative medicine, endocrinology, cancer, cardiovascular physiology, respiratory physiology, single cell analytics, molecular genetics, molecular biology, glycobiology, virology, digital health innovation, clinical research, and quantitative research methods.

Courses may also be taken outside the department, including graduate and upper-level (500-level) undergraduate courses in medical and allied sciences. **Courses are offered in-person only.**

Full List of courses available on the website: [Courses | Division of Clinical and Translational Research - McGill University](#)

Program Progression

Program	1 - 2 months prior to start	Term 1	Term 2 (7 - 10 months into program)	Term 3	Term 4	Term 5 onwards	Time limitation
MSc	<ul style="list-style-type: none"> Register for courses 	<ul style="list-style-type: none"> Coursework Attend orientation Have initial meeting with supervisor (first two months) 	<ul style="list-style-type: none"> Coursework Research First thesis committee meeting 	<ul style="list-style-type: none"> Coursework Research continues 	<ul style="list-style-type: none"> Second thesis committee meeting (approval to write) 	<ul style="list-style-type: none"> Write up! Submit initial thesis 	End of MSc 3
PhD	<ul style="list-style-type: none"> Register for courses 	<ul style="list-style-type: none"> Coursework Attend orientation Have initial meeting with supervisor (first two months) 	<ul style="list-style-type: none"> Coursework Research First thesis committee meeting 	<ul style="list-style-type: none"> Coursework Research continues 	<ul style="list-style-type: none"> Take Oral Comprehensive Exam 	<ul style="list-style-type: none"> Research continues Hold annual thesis committee meeting Approval to write Write up! Submit initial thesis 	End of PhD 7
Fast Track	<ul style="list-style-type: none"> Register for courses as MSc 1 	<ul style="list-style-type: none"> Coursework Attend orientation Have initial meeting with supervisor (first two months) 	<ul style="list-style-type: none"> Coursework Research First thesis committee meeting (approval to Fast-Track) 	<ul style="list-style-type: none"> Coursework Research continues 	<ul style="list-style-type: none"> Take Oral Comprehensive Exam 	<ul style="list-style-type: none"> Pass the Oral Comprehensive Exam – switch to PhD 2 next term 	Students who do not pass the Oral Comprehensive Exam finish with MSc

Detailed timelines can be found on the website: [Programs | Division of Clinical and Translational Research - McGill University](#)

Student Funding

Stipend Policy- MSc and PhD students receive funding to support their living expenses, tuition and fees.

Students must be financially supported by either a) their supervisor, b) through studentships or fellowships, or c) a foreign government who awards a scholarship to study abroad.

The Division does not accept self-funded students.

Faculty of Medicine & Health Sciences Stipend Amounts for the 2025-2026 Academic Year

FMHS MSc-Thesis Student Minimum Funding for 2025-2026						
	MSc1 QC	MSc2 QC	MSc1 OOP	MSc2 OOP	MSc1 INTL	MSc2 INTL
Living Allowance	\$22,686	\$22,686	\$22,686	\$22,686	\$22,686	\$22,686
Tuition/Fees /Insurance*	\$5,545	\$5,751	\$12,028	\$8,993	\$24,033	\$15,303
Minimum total funding	\$28,231	\$28,438	\$34,715	\$31,679	\$46,720	\$37,989

FMHS PhD Student Minimum Funding for 2025-2026				
	PhD 1-4 CDN	PhD CD5-7N	PhD 1-4 INTL	PhD 5-7 INTL
Living Allowance	\$24,186	\$24,186	\$24,186	\$24,186
Tuition/Fees /Insurance*	\$5,545	\$4,734	\$21,891	\$5,349
Minimum total funding	\$29,731	\$28,920	\$46,077	\$29,535

[Funding/Awards | Division of Clinical and Translational Research - McGill University](#)

Funding Opportunities

Most MSc and PhD students enter the program with funding only from their supervisors' research grants.

Students are encouraged to apply for external and internal awards to maximize funding. GPS requires that all PhD students apply for at least one federal and one provincial award per year.

Students who receive external awards receive a 10% top up payment from their supervisor.

Admission Awards:

Graduate Excellence Fellowships – awarded to top applicants, application not required
Tomlinson Fellowship – new PhD students – application required

In-Program Awards:

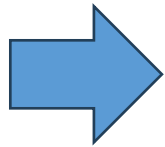
Faculty of Medicine and Health Sciences Internal Studentships
Research Institute Studentships
MedStar Award
GREAT Travel Awards
Graduate Mobility Awards

External Fellowships:

Tri-Agency (CIHR, NSERC, SSHRC) (*Canadian and Permanent Residents only*)
Vanier
FRQ
Other agency-specific awards, for example, Canadian Cancer Society, Heart and Stroke Foundation, Cole Foundation

[Funding/Awards | Division of Clinical and Translational Research - McGill University](#)

Admission Requirements



Admission to the MSc or PhD program is contingent upon finding a **thesis supervisor**.

[Profiles List | Division of Clinical and Translational Research - McGill University](#)

MSc in Experimental Medicine

- ✓ Hold a Bachelor's degree in Science or an MD degree or equivalent
- ✓ Minimum cGPA of 3.2 on a 4.0 scale

PhD in Experimental Medicine

- ✓ Hold a Master's degree in Science or equivalent
- ✓ Minimum cGPA of 3.4 on a 4.0 scale in their MSc degree
- ✓ Minimum cGPA of 3.2 on a 4.0 scale in their BSc degree
- ✓ Research experience
- ✓ Candidates who only have a BSc but who have a cGPA of 3.7 out of 4.0 AND research experience may be considered for direct entry to the PhD program

All Students

- ✓ English Proficiency (if needed)
- <https://www.mcgill.ca/gradapplicants/international/apply/proficiency>

Application Procedures

Deadlines for Fall 2025:

- International Students – **January 15th**
- Canadian/Permanent Resident Students – **June 15th**

Deadlines for Winter 2026:

- International Students – **August 1st**
- Canadian/Permanent Resident Students – **November 1st**

Required Application Documents

- ✓ Slate Application and Fee (online)
- ✓ All Post-Secondary Transcripts
- ✓ Curriculum Vitae
- ✓ Personal Statement
- ✓ Two Letters of Reference
- ✓ Proof of English Proficiency (if needed)



Students can submit their application and have it reviewed by our Admissions Committee before securing a supervisor.

However, to be formally admitted to the MSc or PhD program, students must secure a supervisor and submit the following forms to the Division via email:

- ✓ Confirmation of Supervision Form
- ✓ Research Project Proposal Form

[Application Procedures | Division of Clinical and Translational Research - McGill University](#)
[Forms and Documents | Division of Clinical and Translational Research - McGill University](#)

Tips on Finding a Supervisor!

- ✓ Start Early!
- ✓ Go to our website for the list of researchers: [Profiles List | Division of Clinical and Translational Research - McGill University](#). You can filter by research area.
- ✓ Contact the researcher directly to inquire if they are taking on new students – be sure to include your CV and a brief statement to introduce yourself.
- ✓ Contact the Division for list of supervisors looking for students. This list is updated 2-3 times per year and is by no means exhaustive, so we encourage you to contact researchers of interest even if they are not on this list.
- ✓ Students who have applied and have been deemed admissible but who do not yet have a supervisor – their application files will be circulated amongst our researchers following each admissions committee meeting (monthly).
- ✓ It is important to talk to the students and staff in the lab to get an understanding of the lab dynamics.

Advantages of the MSc and PhD program in Experimental Medicine

- ✓ Flexible course curriculum
- ✓ **Wide variety of research fields**
- ✓ MD and PhD researchers collaborating together
- ✓ State-of-the-art research facilities
- ✓ Prepares you for many career paths



Careers

Graduates of the **Division of Clinical and Translational Research** have found research careers in industry, government, academia and more.



Medicine

Biotechnology

Industry

(Patent) Law

Scientific Writing

Teaching

Clinical Research

Academia

Policy (Government)



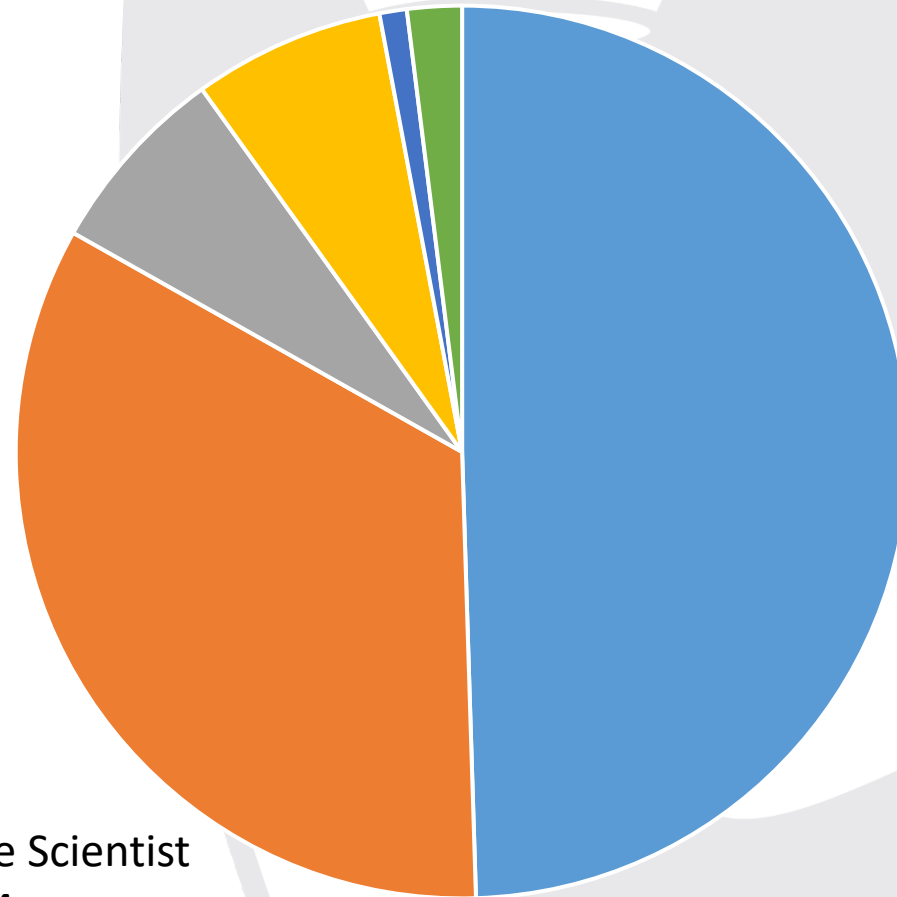
Career Advice

[Career Planning Service - McGill University](#)

[Career Development - Lady Davis Institute](#)

[Career Development - Research Institute of the McGill University Health Centre - RI-MUHC](#)

Our Graduates (2008-2018)



■ Academic Sector - 50%

■ For-profit organization - 34%

■ Government - 7%

■ Health care system - 7%

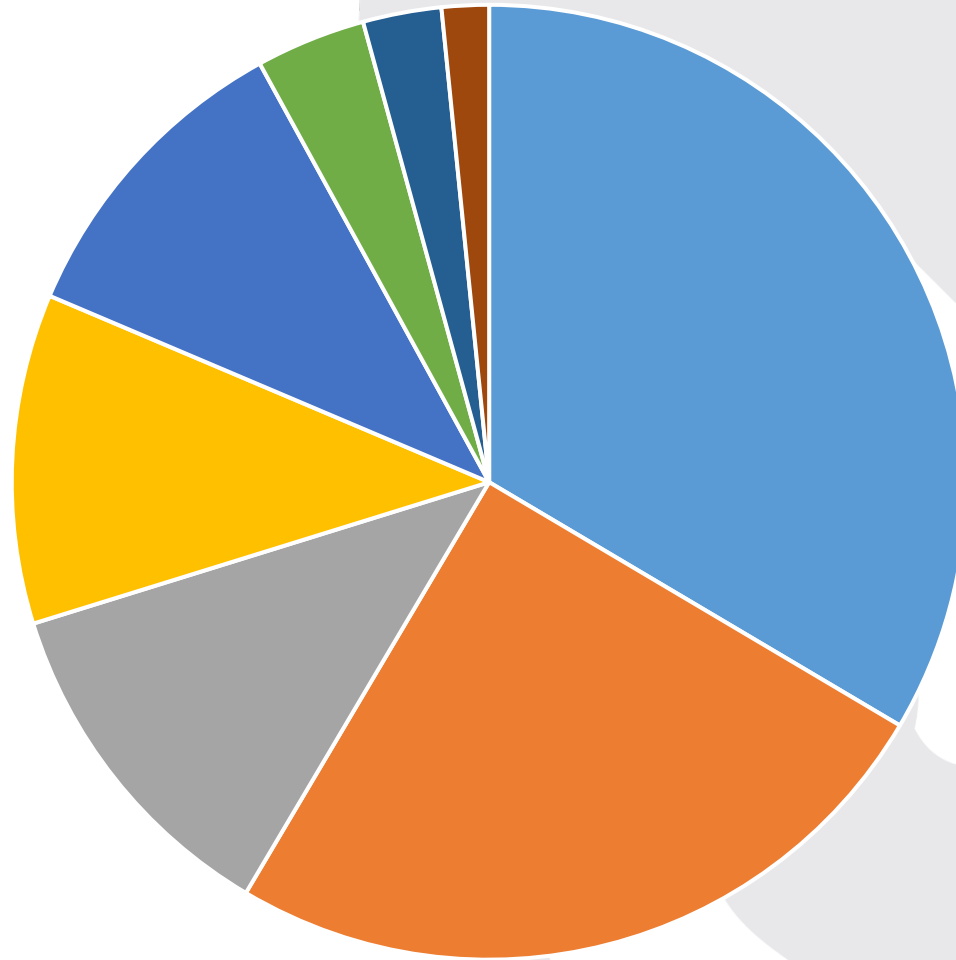
■ Non-for-profit organization - 2%

■ Self-employed/Entrepreneur/Freelancing
1%

Alumni Testimonials:

- [Gabriel Kaufman](#), Associate Scientist
- [Michel Ntemgwa](#), Acting Manager
- [Kaitlin Soye](#), Lawyer

Job Function (2008-2018)



- Research/teaching: Non-Tenure-Track - 34%
- Non-academic research - 25%
- Management, policy, and leadership - 12%
- Expert practice - 11%
- Research/teaching: Tenure-Track - 11%
- Administration - 11%
- Sales and Marketing - 3%
- Information, Communications, Media - 2%

Living in Montréal

1. **Affordable** - Montréal has some of the most affordable housing in Canada! Montréal was named the best city in North America for students, and [number 6 in the world.](#)

[Housing | Future Graduate Students - McGill University](#)



2. **Diverse** - Montréal is an international city welcoming people from all over the world. The city is rich in multi-cultural food, languages, activities and people, where students can find home within our valued communities.



3. **Commutable** - Navigating a new city can be daunting. However, with Montréal's quick and accessible transit, you can easily and safely explore the city by metro, bus and train.



Experimental Medicine Graduate Student Society (EMGSS)

The Experimental Medicine Graduate Students' Society (EMGSS):

Who we are: Elected Student Council

Why we exist: To promote and defend the rights, welfare and interests of its members, as well as to enhance their educational, social, cultural and environmental conditions.

What we do: Organize the Annual McGill Biomedical Graduate Conference (AMBGC), as well as hosts a variety of academic, social and sporting events.

Examples: Paintball night, Ceramic café, LinkedIn headshots, Technical Seminar Series, Pub Crawl

Get involved and join our team for 2025-2026!



Student Testimonial



Jennifer Maxwell

email: jennifer.maxwell2@mail.mcgill.ca

Evaluating mechanisms of resistance to targeted therapies in BRAF mutant cancers



Dr. April Rose



May 2021

Fall 2021

Fall 2022

Fall 2023

Winter 2025

Bachelor of Science Granted:
Major Biochemistry
4th-Year Thesis Project in
Oncology Research

Master of Science
Experimental Medicine - Thesis

Fast-Track
Doctor of Philosophy
Experimental Medicine - Thesis

Doctor of Philosophy
Experimental Medicine - Thesis
EXMD 701 – Oral Comprehensive
Exam

Doctor of Philosophy
Experimental Medicine - Thesis
Year 4

Riaud, Maxwell, Soria-Bretones, et al., *Nature Reviews Cancer*, 2024



Rose, Maxwell, Rousselle, et al., *Nature Communications*, 2025 (under revision)



Highlights

- McGill Internal Award Sept 2022 (\$10,000)
- FRQS Great Sage Phil Gold Award May 2024 (\$140,000) 4-year duration
- LDI Scholarship June 2024 (\$20,000)
- 4 Travel Awards to attend conferences in: Edinburgh, Kyoto, San Diego, Maui
- Joined EMGSS as VP Social in Fall 2022, then President from Fall 2023-current

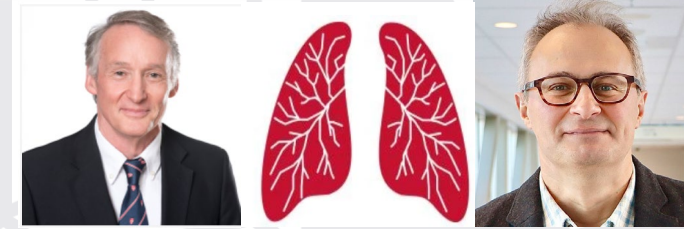
Student Testimonial



Julia Chronopoulos, PhD

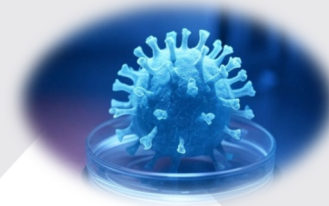
email: julia.chronopoulos@mail.mcgill.ca

Mechanisms of Maternal and Fetal Resistance to Influenza A Virus Infection



Dr. James G. Martin

Dr. Maziar Divangahi



Kaufmann, Landekic, Downey, **Chronopoulos** et al. *Nat Immunol.*, 2022

Chronopoulos, Martin, Divangahi, *Frontiers Immunology*, 2022

May 2017

Fall 2017

Fall 2018

Winter 2019

February 2024

Bachelor of Science Granted:
Major Anatomy and Cell Biology

Master of Science
Experimental Medicine - Thesis

Fast-Track
Doctor of Philosophy
Experimental Medicine - Thesis
Year 2

Doctor of Philosophy
Experimental Medicine - Thesis
Year 2
EXMD 701 - Comprehensive Oral Exam

Doctor of Philosophy Granted:
Experimental Medicine - Thesis
Year 7

18 credit course load

EXMD 507 Adv Respiratory Physiology
MIMM 509 Inflammatory Processes
PATH 607 Biochemical Pathology
EXMD 609 Cellular Meths in Med Research
EXMD 610 Molecular Meths in Medical Research
EXMD 632 Rec Adv in Virol&Antivir Therapies

Funding

H.W Thorp Graduate Award
Graduate Excellence Award
Meakins-Christie Studentship
RI-MUHC Studentship x3
Travel Award
CIHR

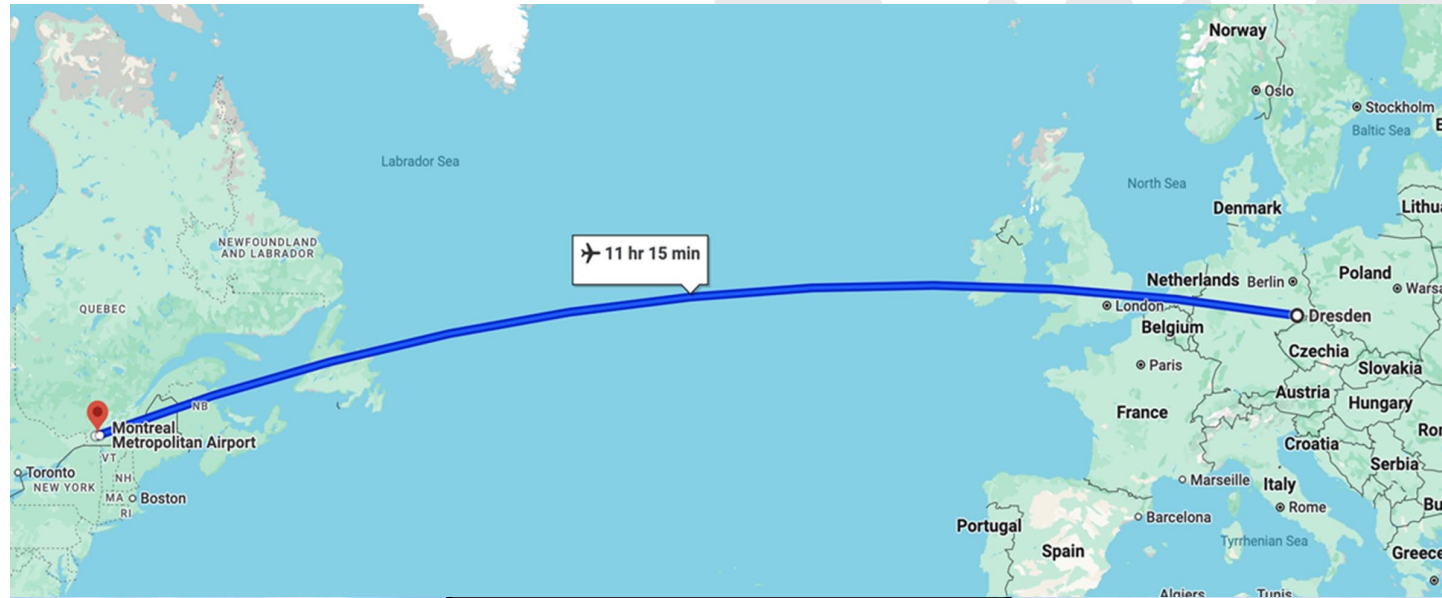
Farahnak, **Chronopoulos**, Martin,
*Internation Review of Cellular and
Molecular Biology*, 2019

Pernet, Gona, Sarden.....**Chronopoulos** et al.,
Nature, 2023

Tran, Pernet, Sadeghi, Downey, **Chronopoulos** et
al., *Nat Immunol.*, 2024

Chronopoulos et al., *Science
Advances*, 2024

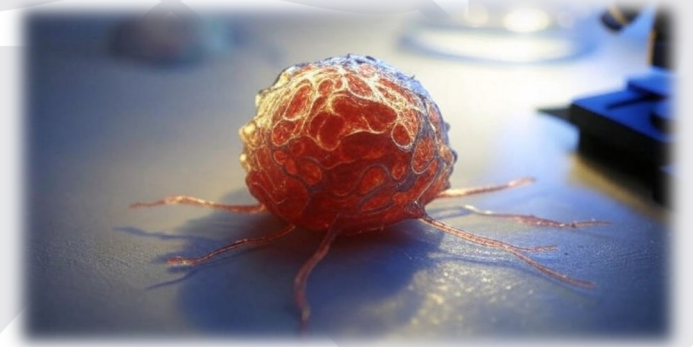
Student Testimonial



Dresden, Germany



Postdoctoral Fellow (2024-present)
Maladaptive trained immunity in cancer



**Universitätsklinikum
Carl Gustav Carus**
DIE DRESNER.



Institut für Klinische Chemie und
Laboratoriumsmedizin

Contact Us!



Directors:

Dr. Andrew Mouland, PhD (Director)

Dr. Elizabeth Fixman, PhD (Associate Director)

Administrative Team:

Sandra Morrison, Student Affairs Officer

Marylin Linhares, Student Affairs Coordinator

Chen Fan, Student Affairs Coordinator

Angelica Todireanu, Admin Student Affairs Coordinator

Please see our website for more information:

<https://mcgill.ca/expmed>

Email us at experimental.medicine@mcgill.ca

Thank you!



**The recording will be stopped for the
Question/Answer Period.**