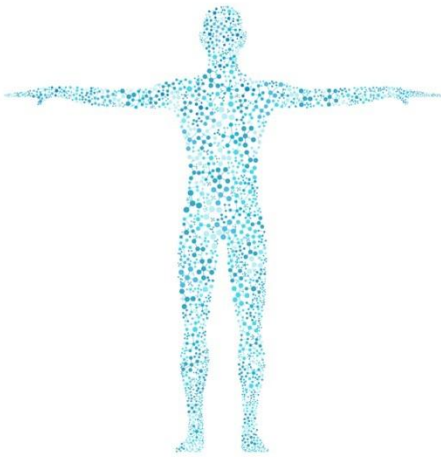


IMS Graduate Student Recruitment: September 2026



The Institute of Medical Science (IMS) is one of the largest graduate units at the University of Toronto. With over 600 active graduate faculty members, the IMS takes a leading role in translational research training that links fundamental discovery with patient-based research and clinical applications in health promotion and disease prevention with the intention of improving health outcomes for individuals and populations.

We are dedicated to training medical researchers and dissemination of new knowledge relevant to human biology and pathobiology within our Doctoral Stream Programs. The program includes both a Master of Science (MSc) and a Doctor of

Philosophy (PhD) degree.

All applicants must identify an appropriate IMS faculty member as their research supervisor before initial registration in the IMS graduate program.

Within this document, you will find:

- available MSc and PhD positions
- research summaries, keywords
- supervisor's contact information

This is **not** an exhaustive list of faculty members taking students. We recommend you browse our full faculty list from our [Faculty Directory](#).

Principal Investigator: *Dr. Andras Nagy*

Currently Accepting	MSc; PhD
Ideal Candidate	Strong interest in stem cell research, regenerative medicine, and translational therapies.
Research Summary	Nagy Lab research focuses on developmental genetics and pluripotent stem cell biology, with particular emphasis on embryonic stem cells and induced pluripotent stem (iPS) cells. The work is highly translational, addressing two critical barriers to effective cell-based therapies: ensuring long-term safety and achieving allogeneic cell acceptance without the need for immune suppression. By overcoming these challenges, the research aims to advance novel regenerative treatments for a wide range of currently incurable degenerative diseases, including blindness, diabetes mellitus, arthritis, spinal cord injury, haemophilia, chronic pain, aging-related conditions, and neurological disorders such as multiple sclerosis, depression, and bipolar disorder.
Keywords	Developmental Genetics; induced-Pluripotent Stem (iPS) Cells; Regenerative Medicine; Allogeneic Cell Acceptance; Cloaked Stem Cells.
Lab location	Sinai Health System, Lunenfeld-Tanenbaum Research Institute
Relevant Links	https://www.research.lunenfeld.ca/nagy/ https://scholar.google.ca/citations?view_op=search_authors&mauthors=andras+nagy&hl=en&oi=ao

Contact Information | nagy@lunenfeld.ca 416-414-0912

Principal Investigator: *Dr. Andrew Sage*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	Our lab develops advanced biomedical assays, artificial-intelligence tools, and organ-centric models to improve transplant outcomes and drug discovery.
Keywords	transplantation, drug discovery, machine learning, biomedical engineering, respiratory disease
Lab location	TGH
Relevant Links	https://sagelabuhn.ca/
Contact Information	andrew.sage@uhn.ca 289-339-3741

Principal Investigator: *Dr. Behdin Nowrouzi-Kia*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	The mission of the ReSTORE lab is to identify and assess risk and develop occupation-based interventions for preventing high-risk behaviours, optimizing functioning and improving mental and physical health in the workplace.
Keywords	Occupational Therapy; Rehabilitation; Occupational Health and Safety; Return to Work; Work Disability Prevention; Workplace Mental Health
Lab location	University of Toronto
Relevant Links	https://www.restore.rehab/
Contact Information	behdin.nowrouzi.kia@utoronto.ca 416-946-3249

Principal Investigator: *Dr. Christoph Licht*

Currently Accepting	MSc; PhD
Ideal Candidate	Tissue culture
Research Summary	Elucidate the role of complement proteins in the pathogenesis of aHUS and C3G to develop targeted therapies for complement mediated glomerulopathies.
Keywords	Complement, Kidney, C3 glomerulopathy (C3G), atypical haemolytic-uremic syndrome (aHUS), polymorphonuclear neutrophil
Lab location	Sickkids PGCRL
Relevant Links	https://www.sickkids.ca/en/staff/l/christoph-licht/
Contact Information	christoph.licht@sickkids.ca William (Lab manager): william.liu@sickkids.ca Christoph: 416-813-7654 X402058 William: 604-780-2982

Principal Investigator: *Dr. Chung-Wai Chow*

Currently Accepting	PhD
Ideal Candidate	We are recruitment PhD students who have background and strong interest in statistics and lung physiology.
Research Summary	Our research group is focused on investigating different methods to evaluate lung physiology with a focus on respiratory oscillometry, a novel pulmonary function test (PFT). There are several areas of research: 1. comparison of oscillometry with current standard PFT in evaluation of clinical outcomes in different patient populations. 2. correlation of oscillometry and standards PFTs in understanding the physiological changes in the respiratory systems 3. development novel methods to analyze the raw signals of flow, pressure and volume during pulmonary function testing using different signal processing and machine learning techniques 4. assessment of novel devices and technologies for evaluation of lung function
Keywords	respiratory oscillometry pulmonary function testing lung physiology data sciences biostatistics machine learning

Lab location	TGH and UofT
Relevant Links	https://chowlab.wordpress.com/about/
Contact Information	cw.chow@utoronto.ca or joyce.wu@uhn.ca (research program manager)

Principal Investigator: *Dr. Corinne Fischer*

Currently Accepting	MSc; PhD
Ideal Candidate	Experience with advanced statistics and imaging analyses preferred.
Research Summary	My lab focusses on examining the imaging, pathological and clinical correlates of psychosis and associated neuropsychiatric symptoms in patients with dementia. The primary purpose is to use this data to inform possible mechanisms.
Keywords	Alzheimer's disease, psychosis, delusions, hallucinations, neuropsychiatric symptoms
Lab location	St. Michaels Hospital
Relevant Links	https://research.unityhealth.to/profiles/corinne-fischer
Contact Information	corinne.fischer@unityhealth.to 416-864-5320

Principal Investigator: *Dr. Dallas Seitz*

Currently Accepting	MSc
Ideal Candidate	
Research Summary	Dr. Seitz's research program examines epidemiology, quality of care, health service and knowledge translation related to dementia and older adult mental health.
Keywords	dementia, quality of care, mental health, older adults, health services research, epidemiology
Lab location	CAMH
Relevant Links	https://www.camh.ca/en/science-and-research/science-and-research-staff-directory/dallasseitz
Contact Information	dallas.seitz@camh.ca 416-535-8501 x 31987

Principal Investigator: *Dr. David Lebel*

Currently Accepting	MSc
Ideal Candidate	
Research Summary	Clinical outcomes and quality improvement with an emphasis on enhanced recovery after surgery (ERAS).
Keywords	Scoliosis, spine deformity, Enhanced recovery after surgery
Lab location	SickKids
Relevant Links	
Contact Information	david.lebel@sickkids.ca 416-813-7981

Principal Investigator: *Dr. Don Redelmeier*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	Medical decision science
Keywords	cognitive psychology; heuristics and biases; judgment and decision making; motor vehicle crashes
Lab location	Sunnybrook
Relevant Links	
Contact Information	dar@ices.on.ca 416-480-6999

Principal Investigator: *Dr. Enoch Ng*

Currently Accepting	MSc
Ideal Candidate	The successful candidate will be self-motivated, organized, and an excellent in team work, as well as comfortable working with youth with mental illness and their families. Experience in clinical research, coding for statistical analysis, and neuroimaging are assets.
Research Summary	Our lab focuses on clinical research in neuromodulation treatments for youth with mental illness. The SYNERGY lab (synergizing neuroplastic interventions for youth), will: 1) personalize circuit-based treatments for youth, 2) synergize across treatment modalities to promote resilience, and 3) build new models of care and system capacity to support them.
Keywords	transcranial magnetic stimulation, youth, depression, clinical research, neuromodulation, brain stimulation
Lab location	Sunnybrook
Relevant Links	https://research.sunnybrook.ca/researchers/dr-enoch-ng/ ; https://scholar.google.com/citations?user=6chMK-UAAAAJ&hl=en
Contact Information	crystal.caswell@sunnybrook.ca

Principal Investigator: *Dr. Fa-Hsuan Lin*

Currently Accepting	MSc; PhD
Ideal Candidate	We are looking for students with strong background and interest in physics and engineering of neuroimaging and neuromodulation.
Research Summary	The Lin Brain Lab develops neuroimaging and neuromodulation tools to improve the diagnosis and treatment of brain disorders.
Keywords	MRI, EEG, TMS, brain stimulation, neurovascular coupling.
Lab location	Sunnybrook
Relevant Links	
Contact Information	fahsuan.lin@utoronto.ca 647-862-8152

Principal Investigator: *Dr. Francois Mathieu*

Currently Accepting	MSc
Ideal Candidate	
Research Summary	My main areas of interest include traumatic brain injury, neurotrauma, neuroimaging, machine learning and multimodal physiological monitoring. The overarching goal of my research work is to develop a more nuanced approach at prognostication and management in acute brain injury by applying computer vision techniques to large imaging datasets and by using multimodal neuromonitoring to individualize physiological targets at the bedside.
Keywords	traumatic brain injury, neurophysiological monitoring, neuroimaging, computer vision, machine learning
Lab location	St. Michael's Hospital
Relevant Links	https://pubmed.ncbi.nlm.nih.gov/?term=francois+mathieu&sort=date&size=50
Contact Information	francois.mathieu@unityhealth.to 416-360-4000 ext. 78191

Principal Investigator: *Dr. Gordon Moe*

Currently Accepting	MSc
Ideal Candidate	Clinical trials
Research Summary	Clinical trial in heart failure
Keywords	heart failure, biomarkers, ethnicity
Lab location	
Relevant Links	
Contact Information	gordon.moe@unityhealth.to 416 864 5319

Principal Investigator: *Dr. Haibo Zhang*

Currently Accepting	MSc; PhD
Ideal Candidate	Seeking highly motivated MSc/PhD trainee in translational ARDS/sepsis. Background in bio/physiology/engineering or data science preferred.
Research Summary	Our research program bridges basic science and acute care medicine, with a focus on elucidating mechanisms of lung injury and sepsis, and developing novel therapies including cell-based treatments, molecular therapy and precision mechanical ventilation strategies.
Keywords	Sepsis, Acute Lung Injury (ARDS), Mechanical ventilation, Cell therapy, Machine Learning.
Lab location	S. Michael's Hospital, UHT
Relevant Links	
Contact Information	haibo.zhang@unityhealth.to 416-566-1731

Principal Investigator: *Dr. Hance Clarke*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	Our research unit conducts studies which include identifying novel acute pain treatments following major surgery, identifying the factors involved in the transition of acute postsurgical pain to chronic pain, the effect of cannabis based medicines on the Canadian population, and identifying risk factors associated with continued opioid use and poor health related quality of life after major surgery. In addition to Ehlers Danlos Syndrome studies which are being collected in the GoodHope Clinic and a plethora of digital health related clinic work.
Keywords	acute pain, chronic pain, cannabis based medicines, Ehlers Danlos Syndrom, digital health technology
Lab location	UHN - TGH
Relevant Links	https://www.transitionalpainservice.ca/ and https://www.edsgoodhope.ca/
Contact Information	hance.clarke@uhn.ca 416-340-5164

Principal Investigator: *Dr. Isabella Caniggia*

Currently Accepting	PhD
Ideal Candidate	good thinker, independent, enthusiastic outstanding work ethics, free spirit
Research Summary	I study how pregnancy disorders like preeclampsia and GDM alter placental small extracellular vesicle cargo, disrupting target organ homeostasis and enabling early biomarker discovery.
Keywords	pregnancy, preeclampsia, GDM, mitochondria, lipid homeostasis, heart
Lab location	Lunenfeld-Tanenbaum Research Institute, Sinai Health System
Relevant Links	
Contact Information	caniggia@lunenfeld.ca 647-618-5561

Principal Investigator: *Dr. Jacobo Moreno Garijo*

Currently Accepting	MSc
Ideal Candidate	MSc students with interest in perioperative imaging/POCUS. Background in medicine, engineering, or health sciences; research experience preferred.
Research Summary	Perioperative ultrasound and echocardiography to improve diagnostic accuracy, clinical decisions, and patient outcomes.
Keywords	erioperative echocardiography Point-of-care ultrasound (POCUS) Lung ultrasound Cardiac surgery Diagnostic accuracy Clinical implementation
Lab location	Sunnybrook Health Science Center M3200
Relevant Links	https://www.3d-tee-course.com/ https://pubmed.ncbi.nlm.nih.gov/?term=Moreno+Garijo+J&cauthor_id=31688085
Contact Information	jacobo.morenogarijo@sunnybrook.ca 416-480-4864 Research Manager: Lilia Kaustov Email: lilia.kaustov@sunnybrook.ca

Principal Investigator: *Dr. Jacob Vorstman*

Currently Accepting	
Ideal Candidate	
Research Summary	Neurodevelopmental and psychiatric phenotypes related to rare genetic variants; genetic architecture and mechanisms that underlie variable expressivity, prediction of future outcomes; impact on patients and families.
Keywords	Rare genetic conditions, neurodevelopmental and psychiatric conditions
Lab location	SickKids
Relevant Links	https://www.sickkids.ca/en/staff/v/jacob-vorstman/
Contact Information	jacob.vorstman@sickkids.ca ; elainec.chang@sickkids.ca

Principal Investigator: *Dr. James Kennedy*

Currently Accepting	MSc; PhD
Ideal Candidate	Student backgrounds include neuroscience, psychology, genomics, computational biology
Research Summary	Genomic analyses of neuropsychiatric disorders, and genetics of treatment response (pharmacogenetics).
Keywords	Schizophrenia, Depression, Alzheimer's, genomics, epigenetics
Lab location	
Relevant Links	https://www.camh.ca/en/science-and-research/institutes-and-centres/tanenbaum-centre-for-pharmacogenetics
Contact Information	Jim.Kennedy@camh.ca 416-979-4987 office

Principal Investigator: *Dr. Jennie Pouget*

Currently Accepting	MSc; PhD
Ideal Candidate	Our team brings together people who are curious, kind, and highly motivated to advance our understanding of psychiatric disorders. Experience in genomics, programming, computational biology, and/or biostatistics research are assets but above all we value creativity and a passion for learning and discovery
Research Summary	Our lab is focused on understanding the molecular mechanisms of psychiatric disorders, using statistical genetic and computational biology approaches. Ultimately, we aim to translate these biological discoveries into improved outcomes for youth and families by helping to enable earlier detection, more precise diagnosis, and personalized treatment. Major ongoing projects include: -Mapping the regulatory architecture of gene expression in the brain across species using multimodal single-nucleus sequencing data -Developing models to predict trajectories of psychotic-like experiences in large longitudinal youth cohort studies
Keywords	genetics, epigenetics, molecular, psychosis, schizophrenia, bipolar disorder
Lab location	CAMH
Relevant Links	https://jpouget.github.io/
Contact Information	jennie.pouget@camh.ca 416-535-8501 x 30041

Principal Investigator: *Dr. Jennifer Jones*

Currently Accepting	MSc
Ideal Candidate	We are looking for a MSc student who has a kinesiology/exercise physiology background and is interested in exercise based rehabilitation for cancer patients and clinical trials.
Research Summary	We are an integrated clinical-research program (Cancer Rehabilitation and Survivorship) at Princess Margaret. Our team is focused on addressing cancer related impairments and related disability. We are conducting several trials of rehabilitation interventions for cancer patients.
Keywords	cancer rehabilitation, clinical trial
Lab location	UHN/TGH
Relevant Links	
Contact Information	jennifer.jones@uhn.ca 416-786-4583

Principal Investigator: *Dr. Julie Ottoy*

Currently Accepting	MSc; PhD
Ideal Candidate	Experience with statistical analysis and Python/R or equivalent software. Basic programming skills (Linux, Bash). Prior course(s) related to neuroscience and/or imaging.
Research Summary	Dr. Ottoy's research focuses on elucidating Alzheimer's disease pathophysiology through the application of structural, functional, and molecular neuroimaging techniques, as well as fluid biomarkers. She also studies novel targets for small vessel disease and their interactions with Alzheimer's pathology and inflammation in the brain. Her research interests combine translational and clinical research in living humans. She is currently recruiting MSc and PhD students to work on projects that involve vascular-inflammatory contributions to dementia. This research applies multi-modal imaging (structural MRI, functional MRI, and Positron Emission Tomography) and blood-based biomarkers in large dementia cohorts. Her work is carried out in close collaboration with other scientists at Sunnybrook, e.g., Drs. Goubran (artificial intelligence –MBP), Black (vascular dementia –IMS), and Rabin (women's health –IMS). If you have a computational neuroscience focus with a special interest in neuroimaging, please contact Dr. Ottoy at julie.ottoy@sri.utoronto.ca with your CV and transcript.
Keywords	Neuroimaging; Neurodegeneration; Biomarkers; Dementia; Computational neuroscience; Vascular brain disease
Lab location	Sunnybrook

Relevant Links

<https://research.sunnybrook.ca/researchers/julie-ottoy/> ;
<https://health.sunnybrook.ca/understanding-the-causes-and-progression-of-alzheimers-disease-scientist-spotlight-on-dr-julie-ottoy/> ;
<https://scholar.google.com/citations?user=SEal3W0AAAAJ&hl=en>

Contact Information

julie.ottoy@sri.utoronto.ca

Principal Investigator: *Dr. Lorenzo Del Sorbo*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	Lorenzo Del Sorbo's main academic interests focus on the application of innovative strategies to prevent the injury induced by invasive mechanical ventilation. These include investigations on extra-corporeal life support strategies in patients with acute respiratory failure and lung transplantation. His work also extends into the translational research defining the mechanisms of organ injury and developing novel therapeutic approaches.
Keywords	critical illness, acute respiratory failure, mechanical ventilation, ventilator-induced lung injury, extracorporeal life support, biomarkers
Lab location	TGH
Relevant Links	
Contact Information	lorenzo.delsorbo@uhn.ca 647-963-1723

Principal Investigator: *Dr. Matthew Lincoln*

Currently Accepting	MSc; PhD
Ideal Candidate	We are looking for passionate students interested in quantitative methods. Experience with statistical methods and programming skills would be assets.
Research Summary	We use quantitative genetic, transcriptomic and epigenetic techniques to identify molecular mechanisms that cause multiple sclerosis and autoimmunity.
Keywords	Genetics, Autoimmunity, Genomics, Epigenetics, Transcriptional regulation, Multiple sclerosis
Lab location	St. Michael's Hospital
Relevant Links	https://orcid.org/0000-0003-2962-6253
Contact Information	matthew.lincoln@utoronto.ca

Principal Investigator: *Dr. Mingyao Liu*

Currently Accepting	MSc; PhD
Ideal Candidate	Previous knowledge on bioinformatics is preferred. Highly motivated self-learning is required.
Research Summary	Signal cell RNA sequence studies on human lung transplants to determine the cellular and molecular mechanisms of ischemia-reperfusion injury.
Keywords	scRNA-seq, bioinformatics, cell biology, inflammation
Lab location	Toronto General Hospital, MaRS
Relevant Links	https://www.uhnresearch.ca/researcher/mingyao-liu
Contact Information	Mingyao.liu@utoronto.ca 416-634-7501

Principal Investigator: *Dr. Miranda Witheford*

Currently Accepting	MSc
Ideal Candidate	I am looking to recruit one graduate student. The project will carry on the work of a graduating student who established a model of aortic deformation (movement) after stent grafting. The goal is to explore a risk-prediction algorithm to use machine learning to understand graft failure prior to graft implantation. Prior coding experience is very helpful, while a background in anatomy, physiology or health sciences would be assets.
Research Summary	My lab works on understanding and predicting the mechanisms by which repairing aortic aneurysms with stent grafts fails. We utilize multimodality approaches that included biologic and mechanical factors and integrate these within a sociodemographic healthcare framework.
Keywords	aortic aneurysm, endovascular repair, machine learning, risk prediction models, healthcare inequity
Lab location	Toronto General Hospital
Relevant Links	
Contact Information	miranda.witheford@uhn.ca 416-340-3868

Principal Investigator: *Dr. Mohamad Khazaei*

Currently Accepting	MSc
Ideal Candidate	biology, neuroscience, or related fields. Motivation and interest in brain research preferred.
Research Summary	My research studies human neural circuits in brain injury and cancer using stem cell–derived models and brain organoids to guide regenerative therapies.
Keywords	neural stem cell, organoids, Brain, Glioblastoma, neurodegenerative disorders, traumatic brain injury
Lab location	Medical Sciences Building, University of Toronto
Relevant Links	https://pubmed.ncbi.nlm.nih.gov/?term=khazaei+mohamad+stem+cells
Contact Information	mohamad.khazaei@utoronto.ca 416-603-5229

Principal Investigator: *Dr. Mojgan Hodaie*

Currently Accepting	PhD
Ideal Candidate	exciting projects for students, with background course work in neuroscience. Familiarity with brain imaging is an important asset
Research Summary	Investigating pain using neuroimaging
Keywords	trigeminal neuralgia, structural brain imaging, diffusion tensor imaging, prediction of outcomes, machine learning
Lab location	Toronto Western Hospital
Relevant Links	hodaielab.com; https://pubmed.ncbi.nlm.nih.gov/?term=hodaie&sort=pubdate
Contact Information	mojgan.hodaie@uhn.ca 416-603-6441

Principal Investigator: *Dr. Moumita Barua*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	Dr. Moumita Barua is a Clinician Scientist at the University Health Network (UHN), Senior Scientist at the Toronto General Hospital Research Institute, and Associate Professor of Medicine at the University of Toronto. Her research program aims to improve diagnostics and clinical outcomes for individuals living with kidney disease. The Barua Lab integrates human genetics, molecular biology, and preclinical modeling to elucidate disease mechanisms and identify therapeutic targets. Genetic discoveries from patient and population cohorts guide the development of clinically relevant models in the lab. Major ongoing projects include: 1. Genome-wide association studies of kidney traits 2. PAX2-mediated kidney repair and regeneration — enthusiasm for working with mouse models is an asset 3. Mechanistic studies in genetic kidney disease models including for Alport syndrome, CAKUT and Joubert syndrome — enthusiasm for working with mouse models is an asset The Barua Lab welcomes highly motivated trainees to join a collaborative and supportive research team. Successful candidates will have the opportunity to contribute to one of several ongoing

	projects, selected based on their interests and strengths. The supervisor is deeply committed to trainee career development and provides individualized mentorship to help each team member reach their goals. Alumni from the lab have pursued diverse and successful paths, including medical school, highly competitive IMG residency programs, and research careers in academia, industry, and national organizations such as CIHI. All applicants are thanked for their interest; however, only those selected for an interview will be contacted.
Keywords	Digital Health, Smoking Cessation, Gender-Responsive Care, Artificial Intelligence, Health Equity, and Addiction Medicine.
Lab location	Toronto General Hospital
Relevant Links	
Contact Information	moumita.barua@uhn.ca 416-340-4800 ext 8007

Principal Investigator: *Natasha Spassiani*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	
Keywords	intellectual/developmental disabilities inclusion health systems equitable healthcare
Lab location	CAMH
Relevant Links	
Contact Information	natasha.spassiani@camh.ca

Principal Investigator: *Dr. Osnat Melamed*

Currently Accepting	MSc
Ideal Candidate	The MSc student will take part in the development and testing of digital health tools, contributing to literature reviews, research protocols, and ethic board submissions. The student will be actively involved in qualitative data collection, including conducting interviews or focus groups with users of digital tools, and assisting in the quantitative analysis of digital tool effectiveness data. Additionally, the student will collaborate with our interdisciplinary team of clinicians and technical developers to refine AI-driven conversational agents. Beyond data collection, the student will have opportunities to lead or co-author peer-reviewed manuscripts, present findings at national conferences, and support the preparation of future grant applications. The student will have the opportunity to observe clinical encounters with patients seeking addiction care; this clinical exposure provides a unique perspective on the patient experience, making the position particularly suitable for students with an interest in research within psychiatry and family medicine.
Research Summary	Dr. Melamed's research program sits at the intersection of digital health, addiction medicine, and health equity. As a physician-scientist, her work focuses on developing and evaluating AI-driven interventions, such as chatbots, specifically designed to improve smoking and vaping cessation outcomes. A core pillar of the work is addressing the "gender gap" in addiction treatment by integrating women-specific supports into digital tools. Dr. Melamed is part of the INTREPID Lab at CAMH, home to a large team of scientists and staff with complementary expertise. Our research often uses a mixed-methods approach, combining qualitative user-centered design with quantitative clinical evaluation. The INTREPID Lab offers a robust environment for trainees. Students will gain experience in behavioural science, digital health, and the

	translation of AI innovations into clinical practice. We are seeking a motivated MSc student to support the development and testing of emerging digital interventions for tobacco and other addictions.
Keywords	Digital Health, Smoking Cessation, Gender-Responsive Care, Artificial Intelligence, Health Equity, and Addiction Medicine.
Lab location	CAMH
Relevant Links	https://www.camh.ca/en/science-and-research/science-and-research-staff-directory/osnatmelamed
Contact Information	Osnat.Melamed@camh.ca 416 535 8501 ext 77441

Principal Investigator: *Dr. Peter Gross*

Currently Accepting	MSc; PhD
Ideal Candidate	biochemistry background
Research Summary	Novel substrates for proteases involved in thrombotic disease.
Keywords	FRET, thrombin, plasmin, thrombin generation, complex coagulopathy
Lab location	Toronto General
Relevant Links	
Contact Information	peter.gross@uhn.ca 437-873-0973

Principal Investigator: *Dr. Rachel Mitchell*

Currently Accepting	MSc
Ideal Candidate	I am looking for a student who is comfortable working with youth with mental health problems including suicidal ideation and self-harm. Specific experience with this patient population or working with youth is a huge asset. Research experience in qualitative and quantitative methods is essential. Publications/citations and presentation skills/experience is also important as is capacity to think critically and work autonomously.
Research Summary	My research focuses on sex and gender differences in mood disorders in adolescence. It encompasses several disciplines, including epidemiology, qualitative and quantitative methods, as well as psychosocial treatment. Recently, a main focus of my work is self-harm and suicide trends among youth, including the role of social media.
Keywords	adolescence, youth, suicide, self-harm, sex and gender differences, mood disorders
Lab location	Sunnybrook
Relevant Links	https://research.sunnybrook.ca/facilities-and-research-groups/suicide-prevention-research-collaborative-sprc/ ; https://pubmed.ncbi.nlm.nih.gov/38874927/ ; https://www.cmaj.ca/content/195/36/E1210 ; https://pmc.ncbi.nlm.nih.gov/articles/PMC12491888/

Contact Information | rachel.mitchell@sunnybrook.ca and caroline.milligan@sri.utoronto.ca
416-480-5328

Principal Investigator: *Dr. Robert Hamilton*

Currently Accepting	MSc; PhD
Ideal Candidate	We typically employ 1 MSc and 1 PhD student on an ongoing basis, although funding is limited and students are expected to apply for all potential sources of supplemental funding.
Research Summary	I investigate inherited, congenital and acquired heart rhythm conditions in children and young adults, with a particular focus on inherited arrhythmias and congenital heart block, and autoimmune biomarkers and pathophysiologic antibodies. We use many molecular techniques, and mouse and rabbit models. We investigate Autoimmune congenital heart block, Arrhythmogenic Cardiomyopathy, Brugada syndrome, Chagas Disease, Lyme Disease and Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT)
Keywords	Cardiac autoantibodies, biomarkers, Autoimmune congenital heart block, Arrhythmogenic Cardiomyopathy, Brugada syndrome, Chagas Disease, Lyme Disease, Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT)
Lab location	SickKids
Relevant Links	https://scholar.google.ca/citations?user=otXdel8AAAAJ&hl=en&oi=ao
Contact Information	robert.hamilton@sickkids.ca 416-813-6142

Principal Investigator: *Dr. Rodrigo Mansur*

Currently Accepting	MSc
Ideal Candidate	
Research Summary	My research has focused primarily on the investigation of etiological processes of mood disorders, using a combination of clinical and neurobiological methods, and the development and evaluation of mechanistically novel and innovative interventions for these conditions.
Keywords	mood disorders, major depressive disorder, bipolar disorder, metabolism, insulin, GLP-1, clinical trials
Lab location	UHN - TWH
Relevant Links	
Contact Information	rodrigo.mansur@uhn.ca 416 503 5106

Principal Investigator: *Dr. Rupert Kaul*

Currently Accepting	PhD
Ideal Candidate	Student project will be focused on clinical studies of the vaginal microbiome and reproductive health in black women from Toronto, in collaboration with the community at Women's Health in Women's Hands Community Health Clinic.
Research Summary	Translational human studies (human studies, clinical trials) to define how genital immunology and the penile/vaginal microbiome affect reproductive health and HIV susceptibility
Keywords	Genital immunology; microbiome; HIV; global health
Lab location	Medical Sciences Building
Relevant Links	
Contact Information	rupert.kaul@utoronto.ca 416-946-7054

Principal Investigator: *Dr. Samantha Anthony*

Currently Accepting	MSc; PhD
Ideal Candidate	Students with coursework or experience in qualitative methods, as well as clinical settings or working with children and families, are preferred. Writing skills are an asset.
Research Summary	Dr Anthony's program of research in pediatric solid organ transplantation examines the biopsychosocial impact of transplantation and strives to improve health outcomes for patients and their families. Primary areas of research include: (i) systematic integration of patient-reported outcome measures into clinical practice to improve patient care, and (ii) developing and evaluating digital health interventions to deliver innovative self-management, peer mentoring and transitional care programs. Building capacity in patient-oriented research, patient engagement, psychometric evaluation, health system innovation and adoption are key elements of Dr. Anthony's research portfolio.
Keywords	Pediatrics, eHealth Interventions, Implementation Science, Patient Engagement, Patient-Reported Outcome Measures, Qualitative Methodology
Lab location	SickKids
Relevant Links	https://lab.research.sickkids.ca/anthony/
Contact Information	samantha.anthony@sickkids.ca deana.derangoaquino@sickkids.ca 416.813.7654 ext 303126

Principal Investigator: *Dr. Sanjeev Kumar*

Currently Accepting	MSc; PhD
Ideal Candidate	Previous experience with data analyses, processing physiological data such as EEG data, hard working, collaborative, previous experience with publications is an asset.
Research Summary	Neurophysiological biomarkers for Alzheimer's disease, using Transcranial Magnetic Stimulation and Electroencephalography, Brain Stimulation treatment interventions. Use of standardized algorithms to treat neuropsychiatric symptoms of dementia. Peripheral physiological markers of agitation in dementia using wearable devices.
Keywords	Alzheimer's disease, dementia, neurophysiology, biomarkers, technology
Lab location	CAMH
Relevant Links	https://scholar.google.com/citations?user=m_kVV5gAAAAJ&hl=en
Contact Information	Sanjeev.kumar@camh.ca 416-535-8501

Principal Investigator: *Dr. Sanjeev Kumar*

Currently Accepting	MSc; PhD
Ideal Candidate	Background and experience in neurophysiological techniques such as electroencephalography, experience with coding and data analyses, writing skills as demonstrated by previous publications/thesis writing.
Research Summary	Dr. Sanjeev Kumar is a geriatric psychiatrist. His research focuses on developing novel biomarkers and treatment interventions for patients with Alzheimer's disease (AD) using brain stimulation interventions such as Transcranial Magnetic Stimulation and Transcranial electrical stimulation, electroencephalography (EEG) and brain imaging. He also studies the role of pharmacological and behavioral interventions to manage neuropsychiatric symptoms of AD.
Keywords	Alzheimer's disease, dementia, neurophysiology, brain stimulation
Lab location	CAMH
Relevant Links	https://scholar.google.com/citations?user=m_kVV5gAAAAJ&hl=en
Contact Information	Sanjeev.kumar@camh.ca 416-535-8501

Principal Investigator: *Dr. Sergio Rueda*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	We conduct cohort and randomized controlled studies to better understand the effects of cannabis use on mental health to promote safer cannabis use.
Keywords	Cannabis, mental health, HIV, cohort studies, randomized controlled trials
Lab location	CAMH
Relevant Links	
Contact Information	sergio.rueda@utoronto.ca 647-280-5002

Principal Investigator: *Dr. Sun-Ho Lee*

Currently Accepting	MSc; PhD
Ideal Candidate	Student with biostatistics/bioinformatics skills and multi-omics experience (proteomics, metabolomics, microbiome, GWAS) to study IBD onset and recurrence.
Research Summary	Dr. Lee was appointed Assistant Professor and Clinician Scientist at the Inflammatory Bowel Disease Centre at Mount Sinai Hospital in 2023. He previously completed his GI Fellowship at Asan Medical Center, Seoul, Korea. He further trained as an Advanced Inflammatory Bowel Disease Fellow (2018-2022) at Mount Sinai Hospital in Toronto. He also completed his Ph.D. degree at the Institute of Medical Science at the University of Toronto in May 2022. Dr. Lee's research focuses on IBD translational research. He has been leading research projects as part of the CCC-GEM Project Research Team, where he contributed in understanding the pre-clinical phase of Crohn's disease. Using his biostatistics and bioinformatics skill set, he has explored the interaction of host genetics, gut microbiome, anti-microbial immune response, and the gut barrier function and how it relates to future development of IBD. He is interested in exploring the role of novel -omics in IBD precision medicine (e.g., microbiome, metagenomics, metabolomics, PhIP-Seq, immunophenotyping, polygenic risk scores), using advanced bioinformatics, causal mediation, and machine learning models. He aims to determine the key triggering microbial, metabolomic, and host immune response-related factors that contribute to IBD pathogenesis. He also aims to develop integrative machine-learning models to risk stratify individuals at higher or lower risk of developing IBD, disease complications and poor treatment responses.
Keywords	Crohn's disease

	Preclinical disease (early detection) Postoperative recurrence Multi-omics biomarkers Microbiome–host interactions Precision prevention
Lab location	Mount Sinai Hospital, Lunenfeld Taunenbaum Research Institute
Relevant Links	https://www.ncbi.nlm.nih.gov/myncbi/sun-ho.lee.1/bibliography/public/
Contact Information	Tharsika.Suntharalingam@sinaihealth.ca

Principal Investigator: *Dr. Uri Tabori*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	The Tabori Laboratory is a highly translational group, fusing clinical expertise with laboratory and bioinformatics-based projects to drive discoveries in paediatric oncology.
Keywords	Replication repair deficiency Immune microenvironment Immune vulnerabilities Cancer vaccines Tumor Biology - Cancer Initiation and Evolution Pediatric Oncology
Lab location	SickKids - PGCRL
Relevant Links	
Contact Information	uri.tabori@sickkids.ca ; nick.roselli@sickkids.ca ; cindy.zhang@sickkids.ca

Principal Investigator: *Dr. Victor Ferreira*

Currently Accepting	MSc; PhD
Ideal Candidate	
Research Summary	We study viral and vaccine immunity in immunocompromised patients and develop targeted therapies to prevent and treat chronic viral infections.
Keywords	Transplantation, viruses, systems vaccinology, translational research
Lab location	PMCRT (MaRS)
Relevant Links	
Contact Information	victor.ferreira@uhn.ca 416-581-7512

Principal Investigator: *Dr. Vijay Chauhan*

Currently Accepting	PhD
Ideal Candidate	Experience in cardiac physiology, in particular hemodynamics and electrophysiology Experience in cardiac signal processing and imaging Computer programming is an asset
Research Summary	Atrial fibrillation and heart failure commonly co-exist and worsen prognosis. We are studying the impact of early heart failure in patients undergoing atrial fibrillation ablation, a procedure to improve rhythm control. We will evaluating the prevalence of early heart failure, how it affects the atrial muscle and the success of ablation therapy. These studies will prompt interventions to reduce the progression of heart failure.
Keywords	atrial fibrillation, heart failure, atrial myopathy, epicardial adipose tissue, profibrotic biomarkers, ablation therapy
Lab location	Toronto General Hospital
Relevant Links	
Contact Information	vijay.chauhan@uhn.ca

Principal Investigator: *Dr. Vincenzo De Luca*

Currently Accepting	MSc
Ideal Candidate	wet lab skill human participant research experience scripting/coding skills is an asset
Research Summary	Our lab is exploring biomarkers of schizophrenia treatment and outcomes .
Keywords	schizophrenia, MRI, epigenetics, EEG
Lab location	CAMH
Relevant Links	
Contact Information	vincenzo.deluca@camh.ca 416 538501

Principal Investigator: *Dr. Vincenzo De Luca*

Currently Accepting	MSc
Ideal Candidate	with wet lab, and human subject research experience; coding skill is an asset
Research Summary	our lab focus is about biomarkers in schizophrenia and psychosis
Keywords	epigenetics, EEG, MRI
Lab location	CAMH
Relevant Links	https://loop.frontiersin.org/people/181318/overview
Contact Information	vincenzo.deluca@camh.ca 416-535-8501

Principal Investigator: *Dr. Ying Meng*

Currently Accepting	PhD
Ideal Candidate	A successful student is someone who is passionate about translational research and willing to gain a range of research skills to address clinically relevant questions.
Research Summary	My lab conducts translational research in focused ultrasound and neuro-oncology. We use different approaches including neuroimaging, CSF/blood biomarker, and spatial histological analysis to elucidate the biological effects of focused ultrasound in clinical populations.
Keywords	focused ultrasound, glymphatics, brain tumour, liquid biopsy, spatial histology, drug delivery
Lab location	Sunnybrook
Relevant Links	
Contact Information	ying.meng@sunnybrook.ca Vanessa – 416-480-4738