

Université de Montréal

MOTHER-CHILD RESEARCH EDUCATION AND TRAINING

A UNIQUE MULTIDISCIPLINARY, INTERNATIONAL ENVIRONMENT

CHU SAINTE-JUSTINE RESEARCH CENTER A LEADER IN PEDIATRIC AND MATERNAL HEALTH

The **CHU Sainte-Justine Research Center** (Research Center) nurtures the vision of a Quebec where mother, child and adolescent health ranks among the best in the world. With this in mind, its intent is to fulfill its mission of advancing knowledge and applying new findings with faster and less invasive methods and devices for disease prevention, diagnosis, treatment, and long-term follow-up from conception through pregnancy and adulthood.

The **Research Center** gathers over 1,200 individuals, including over 200 research investigators (including over 90 clinician-scientists), as well as more than 500 graduate and postgraduate students. Working closely with **CHU Sainte-Justine Mother and Child University Hospital Center's** (CHU Sainte-Justine) healthcare teams, the research laboratories are engaged in fundamental, clinical, and translational research aimed at improving the health and well-being of mothers and children.





THE DIVERSITY OF A CLINICAL SETTING

The **Research Center** offers a clinical, fundamental and translational research environment for students from various fields:

- Anthropology
- Audiology
- Biochemistry
- Biocomputing
- Bioethics
- · Biomedical engineering
- Biomedical sciences
- Community health
- Computer engineering
- Dentistry
- Epidemiology
- Ergonomics
- Genetics
- Gynecology-obstetrics
- Kinanthropology
- Kinesiology
- Linguistics
- Mechanical engineering

- Microbiology, infectious diseases and immunology
- Neuropsychology
- Neuroscience
- Nursing
- Nutrition
- Occupational therapy
- Orthopedics
- Pathology and cell biology
- Pediatrics
- Pharmaceutical sciences
- Pharmacology
- Physiotherapy
- Psychiatry
- Psychoeducation
- Psychology
- Public health
- Speech therapy

INDISPUTABLE BENEFITS

- Graduate and postdoctoral scholarship programs
- Summer internships
- **Annual Research Congress** of Graduate and Postdoctoral Students with poster and oral presentation competition
- Some 100 scientific lectures recognized in your training
- Active involvement in student life activities through the **student** association
- Minimum financial support policy for all graduate students
- A great cultural diversity: over 40% of students come from abroad
- Possibility of **cosupervision** with foreign universities
- Support and advice from the **student affairs office** regarding financial, administrative and peer-related issues
- A completely **new and state-of-the-art Research Center** inaugurated in November 2016.

COMMON PLATFORMS AND SERVICES

The **Research Center** provides to research teams with a set of technology platforms, biobanks and advanced services. With highly qualified staff, research teams have access to high-level, personalized scientific expertise to meet their research needs.

- Microscopic imaging
- Flow cytometry
- Integrated Centre for Pediatric Clinical Genomics
- Cells reprogramming and gene editing (iPSC)
- Pediatric Formulations Center
- Applied Clinical Research Unit (URCA)
- Canadian Neonatal Brain Platform

- Molecular screening
- Common equipments
- Level 3 laboratory (BSL-3)
- Humanized mice
- Imaging for small animals
- Biobanks (MIREC, QcALL, RaPiD)
- CARTaGENE



PURSUE YOUR GRADUATE STUDIES AND POSTGRADUATE FELLOWSHIPS At the Chu sainte-justine research center

Join some 500 students, fellows and interns who are helping to fast track the development of knowledge in the field of mother, child and adolescent health. Under the supervision of prominent scientists, especially in leukemia, rare pediatric diseases, genetics, perinatology, obesity, neuropsychology and cognition, scoliosis and rehabilitation, you will have the opportunity to work with multidisciplinary scientific teams and collaborators from all over the world.

Visit the Training and Recruitment of Students section on our website

to explore all the opportunities, or contact the researchers conducting research projects that are of interest to you.



SCHOLARSHIPS

The CHU Sainte-Justine Foundation offers scholarships to graduate and postgraduate students of the Research Center through an annual competition. These scholarships are eligible for Canadian and international students:

- \$17,000 \$ at the MSc level;
- \$20,000 \$ at the PhD level and
- \$37,500 \$ at the PDF level.

For more information about our scholarship/fellowship programs and supervision options, please contact at any times:

@ affaires_academiques@recherche-ste-justine.qc.ca €+1 514 345-2145

Brain and Child Development Axis 🧠

- Development of psychopathologies
- Neurodevelopmental diseases

Musculoskeletal Health, Rehabilitation and Medical Technologies Axis 🦸

- Development of diagnostic and prognostic technologies and new therapeutic approaches
- Pediatric rehabilitation and sports medicine
- Study and more efficient approaches for spinal deformities and musculoskeletal diseases

Immune Diseases and Cancer Axis 💥

- · Cancers: mechanisms, new therapeutic approaches and disease outcomes
- Immune diseases
- Severe hematologic diseases

Infectious Diseases and Acute Care Axis 🏹 🤊

- Clinical Pharmacology
- Critical care, trauma and transfusions
- Infection, immunity and inflammation
- Prevention of infections
- Respiratory health

Fetomaternal and Neonatal Pathologies Axis 🌗

- Bioethics and family study group
- Fetal development and prematurity
- High-risk pregnancies
- Mechanisms of congenital abnormalities

Metabolic and Cardiovascular Health Axis 🆓

- Cardiometabolic and vascular health
- Energy metabolism, stress and mitochondrial dysfunction
- Genetic and metabolic diseases in Quebec
- Pediatric gastro-intestinal and liver diseases

FULFILLING A TEACHING MISSION For the future

CHU Sainte Justine is affiliated with the Université de Montréal, the 3rd most dynamic Canadian university in terms of academic research, and fosters close collaborations with many other institutions of higher learning at the local, national, and international levels. The **Research Center** provides a privileged place for training graduate students and postdoctoral fellows who will make up tomorrow's workforce. The senior investigators who mentor our students seek to continually guide, inspire and stimulate their research teams to be at the forefront of their research domain.

The **CHU Sainte-Justine** is a pediatric and maternal research hospital. It ranks 2nd in North America, 2nd in Canada in terms of yearly surgeries performed, as well as external visits, and emergency visits. It is a leader in hemato-oncology, rare diseases, neonatalogy and scoliosis.

A HUB IN QUEBEC FOR... YEARLY NUMBER

Cancers +850 admissions in hemato-oncology

High-risk pregnancies +1,450 admissions in neonatal intensive care unit and specialty wards

Rare diseases +450 admissions in pediatric intensive care unit

Scoliosis and rehabilitation +4,000 visits for scoliosis and +80 surgeries



LIVING IN MONTRÉAL Great studies, great life

Greater Montréal is a premier destination for career advancement and quality of life. A safe, multilingual, cosmopolitan and green city with a rich multicultural fabric and a thriving arts, food and sports scene, Greater Montréal is definitely a great place to live.

While it is the second-largest French-speaking city in the world after Paris, Montréal is the most multilingual city in Canada: more than half of its residents are fluent in French and English, and 20% are fluent in three languages or more. This linguistic mosaic reflects Greater Montréal's openness to immigration: currently, close to one-third of Montrealers were born outside the country.

MONTRÉAL, BEST UNIVERSITY CITY

In 2017 Montréal was declared the best university city in the world according to a study by the Quacquarelli Symonds Institute. This study takes into account several factors, like the quality of life, the welcomeness, the employment opportunities, the cost of living, the tolerance, inclusion, diversity, friendliness, ease of accesses, nightlife, art and culture.

QUALITY OF LIFE 🎔

- In its cultural effervescence and the roughly 120 annual festivals;
- In its professional sports scene and crowd-pleasing events;
- In its extensive network of bicycle paths and conveniently accessible outdoor facilities;
- In its climate of safety, efficient public transit system, fine dining, museums and night life.



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CHU Sainte-Justine Research Center 3175 chemin de la Côte-Sainte-Catherine Montréal QC H3T 1C5 CANADA

ffaires_academiques@recherche-ste-justine.qc.ca research.chusj.org
