

# Research Project Offer

Centre de recherche Azrieli  
CHU Sainte-Justine



## Level

☐ Undergrad (internship) ☒ Masters ☐ Doctorate ☐ Postdoctorate

## Team

**Francine M. Ducharme, MD, MSc, FRCP(c)**  
Professor, Department of Pediatrics and Social  
and Preventive Medicine  
Université de Montréal

Recherch Axis Infectious Diseases and Acute Care

Duration 2-3 years

Start Date As soon as possible

Location Centre de recherche Azrieli du CHU Sainte-Justine

Date of posting November 20, 2025

## Effects of vitamin D3 supplementation on severity, functional and economic burden of asthma attacks of young children

### Research laboratory presentation

The clinical laboratory of Dr. Ducharme, clinician-researcher and clinical epidemiologist, focuses on various clinical studies testing the efficacy and safety profile of various interventions in pediatric asthma.

### Research project description

Asthma is the most common chronic disease in children and viral infections are the main triggers for asthma attacks in young children. Despite standard treatment, young children continue to have asthma attacks triggered by colds. The proposed thesis project derives from a large multicenter clinical trial testing the efficacy of high-dose vitamin D versus placebo in addition to standard treatment to reduce the severity of asthma attacks in young preschool children who have required rescue oral corticosteroids in the past year. During the study, parents documented for each asthma attack their child's symptoms and functional status (validated questionnaire), their personal quality of life (validated questionnaire), as well as the direct and indirect costs. With over 320 children recruited, this study is a unique opportunity to establish the real burden of an asthma attack on the child and parents.

## Expertise and skills required

- Hold a Bachelors or Master's Degree in biostatistics, pharmacoepidemiology, epidemiology, biomedical sciences or related discipline;
- Excellent academic record;
- Expertise in statistical analysis and/or mathematics
- Proficiency in R, Python, PLINK, and/or SAS software are assets;
- Research experience
- Excellent scientific presentation and writing skills;
- Proficiency in English, both spoken and written (bilingualism is an asset).
  - *Please note that Sainte-Justine University Hospital is a French-language institution and workplace. While applications from non-French speakers are welcome, learning French is strongly encouraged to facilitate integration and collaboration.*

## Study Program

The selected candidate must apply for admission to, and be accepted for, a MSc degree in the in the Department of Social and Preventive Medicine of the School of Public Health, or biomedical sciences, option epidemiology at the Université de Montréal.

## Funding

Funding of CA\$25,000 per year will be awarded to the applicant, until they obtain independent financial support from granting agencies or foundations.

## Submit your application

Candidates must send the required documents to Dr. Francine M. Ducharme at [francine.m.ducharme@umontreal.ca](mailto:francine.m.ducharme@umontreal.ca)

Please provide :

- Curriculum vitæ
- Most recent transcripts
- Cover letter
- References

## Address

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## Equity, diversity and inclusion

The CHU Sainte-Justine subscribes to the principle of equal access to opportunities and invites women, members of visible and ethnic minorities, persons with disabilities and Indigenous people to apply. We would appreciate it if you could inform us of any disabilities that would require technical and physical accommodation adapted to your situation during the selection process. Please be assured that we will treat this information as confidential.

## Studies at the Centre de recherche Azrieli

Pursue your graduate or postdoctoral studies at the **Centre de recherche Azrieli du CHU Sainte-Justine**, and be one of the 700 students, fellows and interns involved in accelerating the development of knowledge in the field of maternal, child and adolescent health, whether in basic or clinical research. 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.

## About the Centre de recherche Azrieli

The **Centre de recherche Azrieli du CHU Sainte-Justine** is a leading mother-child research institution affiliated with Université de Montréal. It brings together more than 300 research investigators, including over 160 clinician-scientists, focused on finding innovative prevention means, faster and less invasive treatments, as well as personalized approaches to medicine. The Center is part of CHU Sainte-Justine, which is the largest mother-child center in Canada and the second most important pediatric center in North America. More on [research.chusj.org](https://research.chusj.org)

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