

# 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

1 year

## Start Date

As soon as possible

## Location

Centre de recherche Azrieli du CHU Sainte-Justine

## Date of posting

October 22, 2025

## Efficacy and safety of episodic inhaled corticosteroids in preschool-aged children with asthma: Individual patient data meta-analysis

### Research laboratory presentation

The clinical laboratory of Dre 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. In preschool children, the most effective and safest approach to prevent asthma exacerbations at the onset of a trigger (viral illness or allergen) is unclear. Different intervention strategies (episodic pre-emptive administration of high doses of inhaled corticosteroids (ICS) at the onset of the trigger, administration of ICS at the onset of symptoms, or titration of the ICS dose with each dose of rescue medication) have been tested in children with recurrent wheezing (with/without asthma) and have collectively been shown to be effective. However, none of these approaches is formally recommended by guidelines due to concerns about the safety profile and uncertain efficacy in asthma. However, the efficacy and safety profile probably vary depending on the treatment protocol (dose, molecule, and duration of ICS treatment) as well as the degree of certainty of the asthma diagnosis.

**The primary objective** of the research program is to systematically review the scientific literature and conduct an individual patient data (IPD) meta-analysis to assess the efficacy and safety of episodic inhaled corticosteroids (ICS) compared to placebo or daily ICS to better position and identify the optimal approach in the therapeutic arsenal of preschool children with or suspected of having asthma.

**The two primary objectives** are to examine, in children with asthma or suspected asthma, (1) the efficacy of episodic ICS compared with placebo or daily ICS in reducing exacerbations requiring rescue oral corticosteroids (ROS), and (2) the safety profile of episodic ICS compared with placebo or daily ICS with respect to child growth.

## Expertise and skills required

- Hold a PhD in biostatistics, epidemiology, or a PhD in medicine, pharmacy (or health sciences) with training in biostatistics, epidemiology, or related sciences;
- Excellent academic record and research skills;
- Proficiency in R and/or SAS software;
- Experience in data analysis (database manipulation, statistical models, results presentation);
- Prior knowledge of asthma diagnosis and management is an asset;
- Prior experience in systematic reviews and individual patient meta-analysis is an asset;
- 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 the Université de Montréal, as a postdoctoral fellow in the Department of Pediatrics.

## Funding

Funding of CA\$47,500 per year will be awarded to the applicant, until they obtain independent financial support from granting agencies or foundations.

## Note on the status of postdoctoral fellow at CHU Sainte-Justine

The candidate must meet the eligibility requirements of the program. In Canada, postdoctoral fellowship status is permitted up to 5 years after obtaining a Ph.D. degree or equivalent (on a regular basis).

Postdoctoral fellows at the CHUSJ are considered as researchers in training and are not employees of the CHUSJ. They are paid in the form of a scholarship (stipend), not salary. For this reason, CHUSJ postdoctoral fellows are not eligible for employment insurance, parental insurance, pension plans and other benefits exclusive to employees. Taxes will be deducted at the source.

The duration of the research project is conditional to:

- The availability of research funds;
- The progress of the project;
- The candidate's eligibility to maintain a postdoctoral fellowship status at the university.

## Submit your application

Candidates must send the required documents before **16/11/2025** to Dre. Francine M. Ducharme at [francine.m.ducharme@umontreal.ca](mailto:francine.m.ducharme@umontreal.ca) (CC: Anna Smyrnova at [anna.smyrnova@umontreal.ca](mailto:anna.smyrnova@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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