



Project title	<b>Impact of Vitamin D supplementation in young children with repeated asthma flare-ups</b>		
Study level(s)	<input type="checkbox"/> MSc	<input type="checkbox"/> PhD	<input checked="" type="checkbox"/> Postdoctorate
Principal investigator(s)	<a href="#">Francine M. Ducharme</a>		
Project duration	2- 3 years		
Start date	Fall 2020		

Date of posting: 2020-03-11

### Student position

Funded Postdoctoral fellowship in clinical epidemiology, pediatric asthma and nutrition.

### Research laboratory presentation

Dr. Ducharme's clinical laboratory focuses on various clinical studies testing the efficacy and safety profile of various interventions in childhood asthma. She is the principal investigator for a large multicentre randomised controlled trial testing the impact of vitamin D supplementation in young children with repeated asthma flare-ups triggered by viral respiratory infections (DIVA CCT: NCT03365687). With recruitment having started in the fall of 2018, and ongoing for the next 3 years (ad 2022), substantial amount of data have already been collected and enable various ancillary studies.

### Research project description

Preschoolers have the highest morbidity among children, due to asthma attacks, most of which are triggered by upper respiratory tract infections (URTIs). Vitamin D deficiency is prevalent among Canadian preschoolers with recurrent asthma flare-ups, especially in the fall and winter and has been associated with more URTIs and more moderate to severe asthma flare-ups. Our ongoing randomized controlled trial aims to ascertain the impact of vitamin D3 supplementation on moderate and severe flare-ups in preschool aged children with recurrent asthma flare-ups.

### Main objectives

- To gain experience in the management and coordination of a large multicentre clinical trial
- Explore the impact of vitamin D on: colonisation, distribution and viral load of viruses documented in the nasopharynx; peripheral blood (hemoglobin, differential cell counts, including eosinophilia and lymphocyte count); lung function measured by oscillometry; bone metabolism; gene expression measured on mononuclear cells (PBMCs), etc.
- Develop and test a clinical score to identify children at risk for vitamin D deficiency.
- Develop skills for writing grant applications



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### Required training and profile

- Have a completed PhD in epidemiology, nutrition, biomedical sciences and / or an MD with advanced training in clinical research and expertise in pediatrics or pulmonology.
- Excellent academic record
- Good statistical analysis skills
- Excellent knowledge of computer science and the use of softwares (Office suite, SPSS, SAS, etc.)
- Excellent ability to review scientific literature
- Excellent competence in written and oral English. Linguistic competence in French is an asset.

### Conditions

A research grant, reserved for this project, will cover the first two years; the candidate will also be invited to apply for training awards and operational funds at various competitions and programs.

The candidate must register at the Université de Montréal as a postdoctoral fellow and must meet the eligibility requirements of the program. Postdoctoral fellows receive a stipend at the CHU Sainte-Justine, and not a salary. They are therefore not eligible to receive marginal benefits, employment insurance or retirement pension benefits. Taxes will be deducted at the source when the stipend is paid from the director's research funds.

The CHU Sainte-Justine has a minimum remuneration policy for all its students and postdoctoral fellows. Remuneration may come from the researcher's funds or from an external nominal award. The candidate will have to apply for external scholarships to obtain a nominative award.

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 to Dr Francine M. Ducharme and Mme Annie Théorêt by email to [francine.m.ducharme@umontreal.ca](mailto:francine.m.ducharme@umontreal.ca) and [annie.theoret@recherche-ste-justine.qc.ca](mailto:annie.theoret@recherche-ste-justine.qc.ca)

Please provide:

- ✓ *Curriculum vitae*
- ✓ Most recent transcripts
- ✓ Cover letter
- ✓ 2 References on request



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#### **Equity, diversity and inclusion**

The masculine gender is used without discrimination and for the sole purpose to facilitate reading. 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 CHU Sainte-Justine Research Center**

Pursue your [graduate or postdoctoral studies](#) at the **CHU Sainte-Justine Research Center**, and be one of the 500 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 CHU Sainte-Justine Research Center**

**CHU Sainte-Justine Research Center** is a leading mother-child research institution affiliated with Université de Montréal. It brings together more than 200 research investigators, including over 90 clinician-scientists, as well as 500 graduate and postgraduate students 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)

