Research Scholarship Offer

CHU Sainte-Justine Research Center

Project title	**Pre-requisites to the clinical use of oscillometry in children**		
Study level(s)	☐ MSc	☐ PhD	☒ Postdoctorate
Principal investigator(s)	Francine M. Ducharme		
Project duration	2-3 years		
Start date	Fall 2020		

Date of posting: 2020-03-11

Student position

Funded postdoctoral fellowship in clinical epidemiology applied to oscillometry and pediatric asthma.

Research laboratory presentation

Dr. Ducharme's clinical laboratory tests several instruments and oscillometric techniques applicable to children aged 1 to 17 years old. Indeed, asthma guidelines recommend periodically assessing not only symptoms, but also lung function (i.e., spirometry) in children to properly adjust the treatment. For the vast majority of children with asthma, doctors do not use spirometry, because of insufficient cooperation in young children and/or lack of access. An interesting alternative is the use of oscillometry performed in spontaneous breathing, which is effortlessly for the child, using portable devices newly (or in the process of being marketed) in Canada. An entire research program aims to provide reliable, valid and accessible measurement of lung function in children.

Research project description

Using the ongoing cohort studies and the development of new prospective studies, the objectives of this postdoctoral training are:

- To gain experience in the management and coordination of clinical studies
- Determine the feasibility and reproducibility of oscillometry and associated techniques in different age groups.
- Propose threshold values to distinguish between mild, moderate and severe obstruction and to identify clinically significant improvement or deterioration;
- Propose a simple interpretation algorithm and develop a training module for health professionals
- Develop skills for grant applications

Required training and profile

- Completed PhD in epidemiology, physiology, biomedical sciences, or related field or an MD with advanced training in clinical research and expertise in pediatrics or pulmonology.
- Excellent academic record
- Excellent statistical analysis skills

- Excellent knowledge of computers and softwares (Office Suite, SPSS, SAS, R, 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 scholarship for the first 2 years; the candidate will be also 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 receives 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 and annie.theoret@recherche-ste-justine.qc.ca

Please provide:

√ *Curriculum vitæ*
√ Most recent transcripts
√ Cover letter
√ 2 References on request

Francine M. Ducharme, MD, MSc, FRCP(c), CAHS
Professor, Departments of Pediatrics and of Social and Preventive Medicine
Tel : (514) 345-4931 ext. : 7171
CHU Sainte-Justine, Room 17.B.000
1375 Côte Ste-Catherine
Montréal, Qc, H3T1C5, Canada

Research Centre
CHU Sainte-Justine
Mother and Child University Hospital Centre
Université de Montréal

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