



Project title	Postdoctoral fellowship in pediatric leukemia functional genomics		
Study level(s)	<input type="checkbox"/> MSc	<input type="checkbox"/> PhD	<input checked="" type="checkbox"/> Postdoctorate
Principal investigator(s)	Sonia Cellot , M.D. , Ph.D.		
Project duration	3 years		
Start date	Fall 2022		

Date of posting: 2022-09-28

Research project description

The main responsibility of the candidate is to contribute to the development of large-scale drug and CRISPR screens to uncover genotype specific functional dependencies in high-fatality pediatric leukemia. This project is supported by several funding initiatives including two 3-year term CQDM grants involving drug discovery and immunotherapy of high fatality pediatric leukemia. The work will be performed at CHU Sainte-Justine research center and in collaboration with investigators at IRIC and CHUL research center in Quebec.

Responsibilities:

- Generation of synthetic human models and patient-derived-xenografts of distinct subgroups of pediatric leukemia;
- Contribute to the design, execution and analysis of large-scale drug screens involving primary leukemic cells in collaboration with HTS screening platform at IRIC;
- Contribute to the design, execution and analysis of in vitro and in vivo CRISPR screens involving primary leukemic cells;
- In vivo drug validation studies;
- Contribute to identify novel immunotherapy targets for leukemia treatment

Required training and profile

- PhD in a discipline deemed relevant (molecular biology, pharmacology, bioinformatics) or an MD with a M.Sc. or PhD;
- Expertise in cell biology including cell culture, cord blood cell isolation, human leukemia mouse models, flow cytometry and cell sorting;
- Expertise in molecular biology including CRISPR gene editing technology;
- Skills in bioinformatics

Skills:

- Interest to identify new treatments for high fatality pediatric leukemia
- Good oral and written communicator to work with clinicians and national and international teams;
- Excellent organizational skills, time management and priorities;
- Proactive, able to work and stay updated autonomously;



- The ability to work in a team;
- Strong sense of responsibility.

Conditions

The candidate must register at the Université de Montréal as a postdoctoral fellow and must meet the eligibility requirements of the program. Postdoctoral fellows at the CHUSJ are Scholarship recipient postdoctoral fellows (stagiaires postdoctoraux boursiers (SPB)). They are considered as researchers in training and are not employees of the CHUSJ. They are paid in the form of a scholarship (stipend), not a salary. For this reason, CR-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 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 **Sonia Cellot** at sonia.cellot@umontreal.ca

Please provide:

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

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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

