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Project title	Mapping the cognitive genome. Ph.D. or Post-Doc in psychiatric genomics		
Study level(s)	<input type="checkbox"/> MSc	<input checked="" type="checkbox"/> PhD	<input checked="" type="checkbox"/> Postdoctorate
Principal investigator(s)	<a href="#">Dr Sébastien Jacquemont</a>		
Project duration	2 years		
Start date	3 February 2020		

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Date of posting: 2020-01-16

### Research laboratory presentation

The laboratory of Sébastien Jacquemont is working with several international consortia on projects mapping the relationship between genomic variants, cognition, behavior and brain structure.

We are recruiting a talented Ph.D. student and a postdoctoral researcher with a background in genomics and bioinformatics.

The lab and the research center offer a stimulating and international environment. The close collaboration with other labs will allow students to gain expertise in several disciplines such as genomics, neuroimaging and psychiatry.

### Research project description

We aim at building statistical models to identify relationships between rare genomic variations cognition and behavior.

To this mean, the student will use general population and psychiatric cohorts with genomic and cognitive data. This mega-dataset includes between 200000 and 800000 individuals depending on the available genetic data. Depending on interest and background, the student will analyse single nucleotide variants or structural variants on exome, whole genome sequencing and genotyping data. Collaborations with other students in the lab will allow to perform analyses across modalities.

### Required training and profile

The ideal candidate holds a Ph.D. in either computational biology, genomics, statistics or machine learning. They should have knowledge in coding using either R, Python, Matlab, etc.

### Conditions

Students will attend summer schools on specific topics as well as train in collaborating laboratories abroad to gain additional expertise. They are expected to present their research at international conferences.



Positions are available now and will remain open during the next year. They are funded by the National Institute of Mental Health (NIMH) and the Canadian Institutes for Health Research (CIHR).

Postdoctoral fellows must register at the Université de Montréal 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 status at the university.

### Submit your application

Candidates must send the required documents before **6 April 2020** to **Dr Sébastien Jacquemont** at [sebastien.jacquemont@gmail.com](mailto:sebastien.jacquemont@gmail.com)

Please provide:

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

Centre de recherche du CHU Sainte-Justine  
3175 Chemin de la Côte-Sainte-Catherine,  
Montréal, QC,  
H3T 1C5

### 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](http://research.chusj.org)

