



Internship proposition  
**One page max**  
M2 OHNU 2025-26



Lab: Dr Julie Lessard

Team: Dr Julie Lessard

Name and position of the supervisor: Principal investigator, IRIC and Full professor,  
Department of Pathology and Cellular Biology, University of Montreal

Email of the supervisor: j.lessard.1@umontreal.ca

Candidate:

Title of the internship: The Role of SWI/SNF Subunits in Hematopoietic Development

Summary of the internship proposal:

The combinatorial assembly of alternative subunits confers functional specificity to SWI/SNF chromatin remodeling complexes, enabling the recognition of distinct gene targets during cellular differentiation. Recent studies from our laboratory have shown that certain SWI/SNF subunits are essential for hematopoietic stem cell (HSC) function, while others are required for the development of specific hematopoietic lineages (e.g., lymphoid, erythroid, or granulocytic). The aim of this project is to investigate the function and mechanism of action of a newly identified SWI/SNF subunit in both fetal and adult hematopoiesis.

Lab technique used :

Molecular Biology

Cell Biology

Biochemistry

Mouse Models

Bone Marrow Transplantation

Lentivirus Production and Cell Transduction

RNA-seq analysis

CUT&tag analysis



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Option(s) linked to the project:

- ☒ Hematology
- ☒ Immunology-Cancerology

- ☒ Oncology
- ☐ Nuclear Medicine

Option(s) linked to the profile:

- ☐ Clinical Research Profile
- ☒ Experimental Biology Profile

- ☐ Data Analyst Profile