

Research project for a master's or a PhD student in biology of reproduction

Project title: *Cellular interactions during mammary gland development*

Institution: [Armand-Frappier Santé Biotechnologie Research Center](#), 531 boul. des Prairies, Laval (Québec) CANADA H7V 1B7

Project description: The development of the mammary glands is a multiphasic process that begins during embryogenesis, but takes place mainly during puberty and pregnancy. A fine hormonal orchestration leading to the proliferation and differentiation of cells is necessary in order to allow normal development of the mammary gland. This process also requires a bidirectional crosstalk between the stroma and the epithelium, but also between the different cells composing the mammary epithelium. Our studies aim to understand the mechanisms regulating this communication during the different phases of development of the mammary gland. To do this, we use *in vivo* models and *in vitro* models, but also unique 3D *in vitro* models, mimicking the composition of the mammary epithelium. The analyzes are carried out by molecular biology techniques at the proteomic and transcriptomic level.

Research area: Developmental biology, Cellular and molecular biology, Reproduction

Starting date: Fall 2020, Winter 2021

Research advisor: Isabelle Plante

Financial support:

Our Research University offers many [scholarship programs](#). Every student-researcher benefits from a grant during their higher education studies. The project is funded by NSERC.

Program: MSc in Experimental Health Sciences or PhD in Biology

Profile:

- BSc or MSc in Biology, Molecular Biology, Reproduction, Medical Biology or similar
- Good academic record

Questions? Isabelle Plante, isabelle.plante@iaf.inrs.ca, <http://www.inrs.ca/isabelle-plante>

How to apply:

Interested candidates must gather their curriculum, an official transcript, a motivation letter and a name as well as contact information for further reference. Address all information to isabelle.plante@iaf.inrs.ca.