



Student needed for Master or Doctorate degree in Biomedical Sciences (1652)

Discipline: Cognitive ethology and behavioral neurosciences

Research program: Blindness effects on behaviors and brain plasticity.

Four possible master/PhD projects *:

Project 1: Effects of blindness on olfactory function in developing mice : Behavioral study and imaging study (Douglas Institute, Montréal).

Project 2: Effects of blindness on olfactory function and brain plasticity in adult mice: Behavioral study and Immunohistochemistry study.

Project 3: Effects of blindness on emotional and social functions in developing mice : Behavioral study.

Project 4: Effects of blindness on mother-infant interactions: Behavioral study.

* **student scholarships offered**



Skills to acquire

Measurement:

- ✓ Behavioral
- ✓ Immunohistochemistry
- ✓ Structural and functional imaging.

Devices and materials:

- ✓ Automated olfactometer
- ✓ Video tracking software that tracks and analyzes the behavior, movement, and activity of any animal (Ethovision, Noldus)
- ✓ Laboratory materials for Immunohistochemistry studies (Nissl coloration, C-fos protein expression)
- ✓ Access to a MRI for small animals at Douglas Mental Health University Institute.

Profil of the candidate

- Student graduated with a BAC and/or a Master in the field of biology, ethology and/or behavioral neurosciences.
- Good level in French and English, good skills in writing and communication, independence, experimental rigor, interest for pluridisciplinary approaches.