



## **Mathilde Henry**

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Postdoctoral fellow, CDD 2 years

Nutrineuro lab, Team 1 : Psychoneuroimmunology and Nutrition

**Research topic :** Maternal diabetes and neuropsychiatric vulnerability in offspring in a non-obese type 2 diabetic rat model (ANR PRCI Madam, PI : M Darnaudery).

**Key-words :** depression, anxiety disorders, type 2 diabetes, HPA axis, neuroinflammation, epigenetics.

### **Diplomas :**

- PhD in Neurobiology, Université Laval, Quebec City, Canada. In the Centre de Recherche du CHU de Québec (Axes Neurosciences) under Guy Drolet and Marie-Eve Tremblay's supervisions. Title : « Role of Delta opioid receptor signaling in the resilience to chronic stress in mice ».
- Master's Degree in Cellular Biology, Physiology and Pathology with a specialty in Neurobiology at Université Diderot and Descartes (Paris VII, Paris V), Paris, France.
- Bachelor's Degree in Cellular Biology and Physiology, at Université Diderot (Paris VII), Paris, France.
- Brevet de Technicien Supérieur in BioAnalyses et Contrôles (Biochemistry), at Ecole Nationale de Chimie, Physique et Biologie, Paris, France.

For my master's degree, I developed a research project regarding the acetylation of Heat shock factor 2 during cortical brain development in normal and stress condition, supervised by Valérie Mezger in Epigenetic and Cell Fate Laboratory at Université Diderot. I did my PhD in cosupervision with Guy Drolet and Marie-Eve Tremblay at Université Laval in Quebec city (Canada) between 2013 and 2018. I studied the role of Delta opioid receptor signaling in the resilience to chronic stress in mice using a combination of behavioral tests, histochemistry, stereotaxic injection and transmission electron microscopy analyses. I joined Nutrineuro lab in July 2018 to work with Muriel Darnaudery as a postdoctoral fellow with the aim of exploring mechanisms underlying the link between maternal diabetes and neuropsychiatric vulnerability in rats.

### **Technical expertise :**

Behavior : Chronic social defeat stress in mice, Forced swim test. Microscopy: transmission electron, confocal, epifluorescence and light microscopy. Histology: immunohistochemistry, *in situ* hybridization, cryostat, microtome, vibratome, ultramicrotome. Stereotaxic surgery (rat and mice). Cell culture : primary neurons and numerous cell lines, lentivirus production, transfection. Biochemistry: ELISA, Western Blot, RT-qPCR.

## Memberships :

- Canadian Association for Neuroscience (CAN), Member 2017
- Society For Neurosciences (SFN), Member 2014 and 2016
- International stress and behavior society (ISBS), Member 2016

## Publications :

**Mathilde S. Henry**, Louis Gendron, Marie-Eve Tremblay\* and Guy Drolet\*. Enkephalins: endogenous analgesics with an emerging role in stress resilience. *Neural Plasticity*. DOI:10.1155/2017/1546125.\*Equal contribution.

**Mathilde S. Henry**, Kanchan Bisht, Nathalie Vernoux, Louis Gendron, Guy Drolet and Marie-Eve Tremblay. Delta opioid receptor promotes stress resilience under the repeated social defeat paradigm in mice. *Frontiers in Molecular Neuroscience*. DOI: 10.3389/fnmol.2018.00100.

Luana Tenorio-Lopes, **Mathilde S. Henry**, Danuzia Marques, Marie-Ève Tremblay, Guy Drolet, Frederic Bretzner and Richard Kinkead. Neonatal maternal separation attenuates the effect of castration on the amygdalar and hypothalamic networks regulating CO<sub>2</sub>-induced hyperventilation in adult male rats. *Journal of Neuroendocrinology*. DOI: 10.1111/jne.12550.

Tuan Leng Tay, Catherine Béchade, Ivana D. Andrea, Marie-Kim St-Pierre, **Mathilde S. Henry**, Anne Roumier, and Marie-Eve Tremblay. Call in the electricians: microglial implication in psychiatric disorders. *Frontiers in Molecular Neuroscience*, DOI: 10.3389/fnmol.2017.00421.