



# Centre de Neurosciences Psychiatriques

## CNP SEMINARS

### ANNOUNCEMENT

Friday, February 12, 2021, 14:00 – 15:30

## Sex-Specific Brain Transcriptional Signatures in Human MDD and Their Correlates in Mouse Models of Depression

**Professeur Benoit Labonté, PhD**

Professeur associé dép. de Neurosciences et Psychiatrie. Faculté de Médecine, Université Laval  
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Major depressive disorder (MDD) is a sexually dimorphic disease. This sexual dimorphism is believed to result from sex-specific molecular alterations affecting functional pathways regulating the capacity of men and women to cope with daily life stress differently. Transcriptional changes associated with epigenetic alterations have been observed in the brain of men and women with depression and similar changes have been reported in different animal models of stress-induced depressive-like behaviors. In fact, most of our knowledge of the biological basis of MDD is derived from studies of chronic stress models in rodents. However, while these models capture certain aspects of the features of MDD, the extent to which they reproduce the molecular pathology of the human syndrome remains unknown and the functional consequences of these changes on the neuronal networks controlling stress responses are poorly understood.

During this presentation, we will first address the extent by which transcriptional signatures associated with MDD compares in men and women. We will then transition to the capacity of different mouse models of chronic stress to recapitulate some of the transcriptional alterations associated with the expression of MDD in both sexes. Finally, we will briefly elaborate on the functional consequences of these changes at the neuronal level and conclude with an integrative perspective on the contribution of sex-specific transcriptional profiles on the expression of stress responses and MDD in men and women.

Invited by Pierre Marquet  
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#### *Related publications*

*Labonté et al., 2017, Nature Medicine*  
*Scarpa et al., 2020, Biological Psychiatry*  
*Labonté et al., 2020, Molecular Psychiatry*  
*Fatma and Labonté, 2019, Brain Research*

This event will take place on a virtual space on **Friday, February 12th 2021 at 14:00** through the link:

<https://chuv.webex.com/chuv/j.php?MTID=mc8fe4e767e36e69c4b50886a6cf18eb2>

Meeting number (access code): 174 070 5089

Meeting password: igPyagX8J77