



Centre de Neurosciences Psychiatriques

CNP SEMINARS

ANNOUNCEMENT

Friday, May 21, 2021, 14:00 – 15:30

Innate immune response in brain pathologies: Lost in translation?

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Inflammation is a key component of the innate immune response. Primarily designed to remove noxious agents and limit their detrimental effects, the prolonged and/or inappropriately scaled innate immune response may be detrimental to the host and lead to a chronic disease. Indeed, there is increasing evidence suggesting that a chronic deregulation of immunity may represent one of the key elements in the pathobiology of many brain disorders. Microglia are the principal immune cells of the brain. The consensus today is that once activated microglia/macrophages can acquire a wide repertoire of profiles ranging from the classical pro-inflammatory to alternative and protective phenotypes. Recently, we described a novel ribosome-based regulatory mechanism/checkpoint that controls innate immune gene translation and microglial activation involving RNA binding protein SRSF3. Here we will discuss the implications of SRSF3 and other endogenous immune regulators in deregulation of immunity observed in different models of brain pathologies. Furthermore, we will discuss whether targeting SRSF3 and mRNA translation may open novel avenues for therapeutic modulation of immune response in the brain.

Invited by Pierre Marquet
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Related publications

1. Boutej H, Rahimian R, Thammisetty SS, Béland LC, Lalancette-Hébert M, Kriz J. (2017) *Diverging mRNA and Protein Networks in Activated Microglia Reveal SRSF3 Suppresses Translation of Highly Upregulated Innate Immune Transcripts*. *Cell Rep.* 2017 Dec 12;21(11):3220-3233. doi: 10.1016/j.celrep.2017.11.058
2. *Rahimian R, Lalancette-Hébert M, Weng YC, Sato S, Kriz J. Glucosamine –mediated immunomodulation after stroke is sexually dimorphic. Brain. Behav. Immunity-Health* 3 (2020) <https://doi.org/10.1016/j.bbih.2020.100041>
3. Thammisetty SS, Renaud L, Picher-Martel V, Weng YC, Calon F, Saikali S, Julien JP, Kriz J. *Targeting TDP-43 pathology alleviates cognitive and motor deficits caused by chronic cerebral hypoperfusion, Neurotherapeutics* (2021) <https://doi.org/10.1007/s13311-021-01015-8>

This event will take place on a virtual space on **Friday, May 21, 2021 at 14:00** through the link:

<https://chuv.webex.com/chuv/j.php?MTID=mf7f49aa65d1f58e610ef5043018211a7>

Meeting number (access code): 137 768 2352

Meeting password: UPKXNPYv246