

Département de psychiatrie Centre de neurosciences psychiatriques Site de Cery CH-1008 Prilly - Lausanne

Centre de Neurosciences Psychiatriques CNP SEMINAR

ANNOUNCEMENT

Friday, July 14, 2017, 11:00

"Macrophage migration inhibitory factor and neuroinflammation in Alzheimer's disease"

Dr Julius Popp, PD, MER

Médecin associé Service universitaire de psychiatrie de l'âge avancé (SUPAA) Département de psychiatrie Site de Cery - 1008 Prilly

Invited by Kim Do Cuénod and Beat Riederer (<u>Kim.Do@chuv.ch</u> & <u>Beat.Riederer@unil.ch</u>)

Salle Hirondelle Hôpital Psychiatrique de Cery Site de Cery, CH-1008 Prilly-Lausanne

Localized low-level inflammation is also commonly observed in the Alzheimer's disease (AD) brain and it was recently identified as a potentially important driving force in the pathogenesis of AD. The macrophage migration inhibitory factor (MIF) is a pleiotropic, pro-inflammatory cytokine expressed in different tissues and cells, including in the CNS, and plays a central regulatory role in the immune response. Increased MIF expression was found in microglia around cerebral amyloid plaques, and MIF has been linked to the toxicity of aggregated amyloid β , and to tau hyperphosphorylation, the hallmarks of AD pathology. Combining in vitro and animal studies with clinical research in patients with AD, we aimed at better understanding the possible role of neuroinflammation in general and MIF as a potential key player in particular, on the pathogenesis and clinical manifestation of AD.

Selected publications:

- **1. Popp J,** Bacher M, Kölsch H, Noelker C, Deuster O, Dodel R, Jessen F. *Macrophage migration inhibitory factor in mild cognitive impairment and Alzheimer's disease.* J Psychiatr Res. 2009 May;43(8):749-53.
- 2. Popp J, Oikonomidi A, Tautvydaitė D, Dayon L, Bacher M, Migliavacca E, Henry H, Severin I, Kirkland R, Wojcik J, Bowman GM. *Markers of neuroinflammation associated with Alzheimer's disease pathology in older adults.* Brain, Behavior, and Immunity. 2017 May;62:203-211
- **3.** Oikonomidi A, Tautvydaitė D, Gholamrezaee MM, Henry H, Bacher M, **Popp J.** *Macrophage migration inhibitory factor is associated with biomarkers of Alzheimer's disease pathology and predicts cognitive decline in MCI and mild dementia.* J Alzheimers Dis. 2017 in press

