



LECTURE SERIES & WORKSHOPS

INFECTION & IMMUNITY

16

MAY 2019

Thursday

LECTURE

Lycée Guillaume Kroll
d'Esch/Alzette
Salle de Projection*

11.30 - 12.30 pm

MEET & EAT*

light lunch provided
House of BioHealth,
Room Françoise
Barré-Sinoussi

12.30 - 1.30 pm



*Please register by sending a mail to florence.henry@lih.lu



SPEAKER

Prof Marco PRINZ

Director of the Institute of Neuropathology
at the University Hospital Freiburg,
Germany

HOST:

Department of Infection
and Immunity (LIH)

RESPONSIBLE LIH SCIENTIST:

Dr Tatiana Michel
(tatiana.michel@lih.lu)

HETEROGENEITY OF MYELOID CELLS IN THE BRAIN

ABSTRACT

The diseased brain hosts a heterogeneous population of myeloid cells, including parenchymal microglia, perivascular cells, meningeal macrophages and blood-borne monocytes. To date, the different types of brain myeloid cells have been discriminated solely on the basis of their localization, morphology and surface epitope expression. However, recent data suggest that resident microglia may be functionally distinct from bone marrow- or blood-derived phagocytes, which invade the CNS under pathological conditions. During the last few years, research on brain myeloid cells has been markedly changed by the advent of new tools in imaging, genetics and immunology. These methodologies have yielded unexpected results, which challenge the traditional view of brain macrophages. On the basis of these

new studies brain myeloid subtypes can be differentiated with regard to their origin, function and fate in the brain (1,2).

References:

- 1) Prinz M, Priller J: Microglia and brain macrophages in the molecular age: from origin to neuropsychiatric disease. *Nat Rev Neurosci.* 2014 May;15(5):300-12.
- 2) Goldmann T, Wieghofer P, Jordão MJ, Prutek F, Hagemeyer N, Frenzel K, Amann L, Staszewski O, Kierdorf K, Krueger M, Locatelli G, Hochgerner H, Zeiser R, Eelman S, Geissmann F, Priller J, Rossi FM, Bechmann I, Kerschensteiner M, Linnarsson S, Jung S, Prinz M. Origin, fate and dynamics of macrophages at central nervous system interfaces. *Nat Immunol.* 2016 Jul;17(7):797-805.

www.lih.lu

Supported by:



* Opposite Luxembourg Institute of Health, House of BioHealth,
29, rue Henri Koch, L-4354 Esch/Alzette