LECTURE SERIES 2022

INFECTION & IMMUNITY

LUXEMBOURG INSTITUTE OF HEALTH

14 Dec 2022

Wednesday

LECTURE

11.00 - 12.15 pm

MEET & EAT *

Light lunch provided

12.45 - 2 pm

7 8 9 10 11 12 1 2

The role of macrophage in health and disease

ABSTRACT

Macrophages belong to the innate immune system and form a 3D network in all our tissues where they phagocytose bacteria, cells debris, and other waste products. At the same time, they produce growth factors and signalling molecules - not only a protection mechanism against invaders but a crucial process for organ development and homeostasis. Previously, it was thought that all macrophages develop from monocytes that act as primary contributors to inflammatory pathologies including metabolic diseases and chronic inflammation. However, since a few years we know that most tissue-resident macrophages originate from yolk-sac progenitors. Thus, especially during inflammatory conditions, tissue-resident macrophages and monocyte-derived macrophages co-exist within a tissue. But how can we follow these cells and study their distinct functions? And what does it mean if one long-lived macrophage develops together with an organ and remains there throughout life, while the other macrophage dies within a short time frame and is replaced by a new macrophage from a circulating monocyte? Here, I show examples of how these different macrophage populations can be fate-mapped and what their distinct origin means for organ development and function. Further, I show that yolk-sac derived macrophages can undergo developmental programming during embryogenesis and, thereby, serve as intergenerational transmitters of the maternal environment.

SPEAKER

Prof Dr Elvira Mass

LIMES Institute, University of Bonn, Germany

HOST:

Department of Infection and Immunity (LIH)

RESPONSIBLE SCIENTIST:

Dirk Brenner/ (dirk.brenner@lih.lu)

*** Please note that registration is mandatory by sending an email to carole.weis@lih.lu or michelle.roderes@lih.lu**

Locations:

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

Meet & eat:
House of BioHealth
Salle Françoise Barré Sinoussi
29, rue Henri Koch,
L-4354 Esch-sur-Alzette
Registration mandatory

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

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