

15 Feb
2024

Thursday
LECTURE

MEET & EAT *
Light lunch provided

11.00am - 12.00pm

12.30pm - 2pm



Metabolically co-opting tissue resident macrophages in cancer

ABSTRACT

Cancer, fundamentally a disease of deregulated tissue homeostasis, substantially alters the composition of the surrounding tumor microenvironment (TME). Resident immune cells are uniquely situated within the TME to respond to the shifting environment in a way that optimally supports client malignant epithelium. This talk will discuss the ways in which homeostatic metabolic macrophage programs can be co-opted during tumorigenesis to create an immunologically permissive and metabolically supportive TME. In a mouse model of lung adenocarcinoma we identified an accumulation of resident alveolar macrophages during tumorigenesis which was necessary for optimal tumor growth. These cells became increasingly tolerogenic, while also dramatically increasing their lipid metabolism. We found that, by engaging the pathways generally expressed in AMs for surfactant catabolism, tumors were able to re-wire macrophage metabolism, resulting in more suppressive cells, and creating a nutritionally supportive environment. This talk will discuss the pathways involved by which macrophage and epithelial cell cross talk in cancer mediates the immunological and metabolic tumor landscape.



SPEAKER

Prof. Dr Susan Kaech

NOMIS Center for Immunobiology and Microbial Pathogenesis
NOMIS Chair

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:
House of BioHealth
Conference Room
(ground floor 0)
29, rue Henri Koch,
L-4354 Esch-sur-Alzette

Meet & eat:
House of BioHealth
Salle Françoise Barré Sinoussi
Registration mandatory