



LUXEMBOURG
INSTITUTE
OF HEALTH
RESEARCH DEDICATED TO LIFE

LECTURE SERIES & WORKSHOPS

INFECTION & IMMUNITY

30

MAR. 2017

Thursday



LECTURE

*Lycée Technique
d'Esch/Alzette*
Salle de Projection *

11.30 am - 12.30 pm

MEET & EAT *

light lunch provided

*House of BioHealth,
Room Françoise
Barré-Sinoussi*

1.00 - 2.30 pm

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



SPEAKER

Prof. Gérard EBERL

Microenvironment & Immunity Unit,
Director, Department of Immunology
Institut Pasteur, Paris

HOST:

Department of Infection
and Immunity

RESPONSIBLE LIH SCIENTIST:

Dr. Mahesh Desai
(mahesh.desai@lih.lu)

www.lih.lu

REGULATION OF INFLAMMATION BY INTESTINAL MICROBIOTA

ABSTRACT

The symbiotic microbiota represses the development of allergic inflammation, but the mechanisms involved are unclear. We have shown that intestinal bacteria induce the generation of type 3 T cells (Th17 cells and associated Tregs) that directly regulate pro-allergic type 2 T cells. In the absence of type 3 T cells, anti-helminth, but also pro-allergic responses, are exacerbated. Furthermore, the absence of microbiota during weaning has similar consequences on the de-regulation of the immune system that

last until adulthood, a phenomenon we name "imprinting". We propose a model of the immune system where different types of competing and mutually suppressive responses establish a healthy equilibrium. When this equilibrium is lost, because of an absence of one type of microbe in the environment, inflammatory pathology develops. Therapeutic strategies can be designed with the aim to restore immune equilibrium to counter immunopathology.

Supported by:



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