

Thursday June 29, 2022– 9h00

Conference room AI 1153 (*) - EPFL - Lausanne

Dr. Olaf PERDIJK

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“Harnessing the early-life gut microbiome to prevent atopic disease”

Host: Prof. Johan Auwerx, and Prof. Kristina Schoonjans, EPFL

Abstract:

The last decade of microbiome research has shed light on the crucial role for the gut microbiome in maintaining systemic immune and metabolic homeostasis. Particularly during early life, nutrition and gut microbes play a significant role in shaping immune development and tolerance induction to harmless food antigens and allergens. Environmental factors that disrupt or delay this natural succession (e.g. due to early-life antibiotics use) can dysregulate immune homeostasis, predisposing neonates to atopic disease and childhood asthma. We are just starting to appreciate the complex interplay between the gut microbiota, diet, and immune homeostasis at distal organs such as the lung. My recent findings reveal a novel pathway through which antibiotics use in early life can predispose the lung to allergic airway inflammation and highlight the therapeutic potential of microbial metabolites. This is an area with a plethora of challenges but huge opportunities to harness microbes, metabolites and the gut-lung axis could be key to the development of effective preventative and therapeutic strategies against respiratory diseases.

(*) **IMPORTANT NOTICE:** All external participants have to pass through SV Reception/Welcome Desk to be able to access to AI 1153.
Contact person to call at arrival at SV Reception Desk: Johan Auwerx: 30951/Administrative Assistant: 39522.