

NSI guest lecture

Wednesday, January 23, Auditorium 3 (Grønt), Rikshospitalet

14.00-14.15: Refreshments are served outside the auditorium

14:15-15:00: Jyothi Rengarajan: Targeting Immunomodulatory Pathways in Tuberculosis for Improving Vaccines

A major challenge for designing vaccines against tuberculosis (TB) is overcoming *Mycobacterium tuberculosis* (Mtb) immune evasion mechanisms, which promote suboptimal and poorly-protective antigen-specific T cell immunity. While CD4 T cells and IFN- γ responses are critical for controlling Mtb infection, they are not sufficient for conferring protective immunity. Moreover, Mtb impairs dendritic cell (DC) functions, leading to antigen-specific CD4 T cells that are ineffective in controlling infection. Mucosal T-helper 17 (Th₁₇) cells have emerged as important for protecting against Mtb infection, but the mechanisms involved in generating antigen-specific Th₁₇ responses during Mtb infection are not well defined. We have identified a novel Mtb immune evasion mechanism involving an Mtb serine protease that restricts Th₁₇ responses and impairs crosstalk between DCs and T cells by modulating CD40-dependent costimulatory pathways. We show that targeting the CD40-CD40L pathway represents a novel strategy to enhance early Th₁₇ responses and improve vaccine-induced protective immunity to TB. We will also discuss ongoing studies in humans and nonhuman primates aimed at identifying protective Mtb-specific antigen-specific responses in latent and active TB that will inform new vaccine strategies for TB.

Jyothi Rengarajan is at the Emory Vaccine Center and Department of Medicine, Emory University School of Medicine, Atlanta GA

http://vaccines.emory.edu/faculty-evc/primary-faculty/rengarajan_jyothi.html

Welcome!

The guest lecture is organized in collaboration with the Institute of Basal Medical Sciences.

Anyone wishing to meet with Jyothi Rengarajan before or after the lecture can contact Anne Spurkland (annesp@uio.no)

The Norwegian Society for Immunology

