



NSI Meeting Announcement

Date: Friday, Oct 12th , 12:15 – 13:00

Venue: Green Auditorium, Rikshospitalet

Guest lecture
by
Professor William W. Agace

Winner of Anders Jahre's award for medical research to younger
medical researchers

“CD103+ DCs and the generation of gut tropic T cells”

Abstract

Lymphocyte migration to non-lymphoid organs including the skin, lung and intestinal tract is of central importance in mounting an effective immune response to many bacterial, fungal and viral pathogens. However deregulated lymphocyte accumulation and function at these sites also contributes in a central way to the development and maintenance of chronic inflammatory disease. Our laboratory has been focusing on the mechanisms regulating the generation and localization of gut tropic lymphocytes. We have identified the chemokine receptor CCR9 and its ligand CCL25 as playing an important role in effector T lymphocyte localization to the small intestinal mucosa and shown that CCR9 and the gut associated integrin $\alpha 4\beta 7$ are specifically induced on T cells following their activation in intestinal draining lymph nodes. Intestinal, but not splenic or peripheral lymph node, dendritic cells (DCs) were capable of inducing gut homing receptors on responding T cells. Moreover only a subset of intestinal lymph node DCs expressing the integrin $\alpha E(CD103)\beta 7$ efficiently generated gut homing T cells *in vitro*. Thus not all intestinal DCs are imprinted with the ability to induce gut homing receptors. I will present recent findings from our laboratory regarding the underlying molecular mechanisms regulating intestinal DC generation of gut tropic effector T cells. Collectively this line of studies may help lead to the development of novel therapies for regulating intestinal immune responses, for example in the setting of Inflammatory Bowel Disease and mucosal vaccination.

Refreshments will be served from 12:00

Welcome all!



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