



NSI Meeting Announcement

Date: Wednesday, June 11th, 15:15 – 16:00

Venue: Seminar room A3.3067, Rikshospitalet

Guest lecture

Prof. Leslie Berg

University of Massachusetts, Department of pathology.

“Tec kinases regulate conventional versus innate T cell development”

Abstract

The Tec-family tyrosine kinases, Itk and Rlk, are expressed in thymocytes and peripheral T cells and regulate thresholds of T cell receptor signaling. Recent studies have shown that these kinases also regulate T cell lineage development, and have a profound impact on several innate lineages of T cells. Specifically, we find that Itk is required for the maturation of conventional naïve CD8⁺ T cells; in its absence, CD8⁺ T cells develop into innate lymphocytes that constitutively express the T-box transcription factor Eomesodermin, rapidly produce effector cytokines, and are dependent on IL-15. Similarly, gamma-delta T cells are increased in number in Itk^{-/-} mice, and show a striking bias towards production of Th2 cytokines. In contrast, the development of invariant NKT cells is impaired in the absence of Itk and Rlk, leading to a diminished population of NKT cells with a predominantly immature phenotype. These data indicate that the Tec kinases Itk and Rlk provide important signals that regulate lineage commitment, maturation, and effector cytokine production in a wide range of T cell lineages.

Refreshments will be served from 15:00

Welcome all!



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