



The Norwegian Society for Immunology hereby announces the June Guest Lecture:

Lymphocyte Homeostasis: 'Tis Death That Makes Life Live'

Professor Tak Mak

*Campbell Family Institute for Cancer Research,
Toronto, Ontario, Canada*

Time: Monday 28th of June

Venue: Green Auditorium , Rikshospitalet

When: 15.00-16.00

Program

15.00-15.15: Refreshments

15.15-16.00: Guest Lecture and discussion



The B and T lymphocytes of the specific immune response use complex gene rearrangement machinery to generate a wide diversity of antigen receptors capable of recognizing any pathogen in the universe. Binding to receptors on both innate and specific immune system cells triggers intricate intracellular signaling pathways that lead to new gene transcription and effector cell activation. And yet, regulation is imposed on these responses so that paradise is not lost to the turning of the immune system onto self-tissues, the spectre of autoimmunity.

Lymphocyte activation requires multiple signals and intercellular interactions. Mechanisms exist to establish tolerance to self by the selection and elimination of cells recognizing self-antigens. Immune system cell populations are reduced by programmed cell death and/or necrosis once the pathogen threat is resolved. Once good health is reestablished, memory cells remain in the body to sharply reduce the impact of a second exposure to a pathogen. Over the last two decades, our laboratory had been engaged in studying the molecular signaling pathways that confer cell survival or cell death in these lymphocytes.

The special role of fas in germinal centre B cells survival, the function of the CARMA1/Bcl-10/Malt1 complex in the differentiation and survival of the various subsets of lymphocytes, the intriguing task of IL-7 in maintaining T cell effector functions, and the importance of nf13 the development of NK cells will be presented.

Reference

Hao Z, Duncan GS, Seagal J, Su YW, Hong C, Haight J, Chen NJ, Elia A, Wakeham A, Li WY, Liepa J, Wood GA, Casola S, Rajewsky K, Mak TW. Fas receptor expression in germinal-center B cells is essential for T and B lymphocyte homeostasis. *Immunity*. 2008 Oct 17;29(4):615-27.