



EXCELLENCE IN GENETICS & IMMUNOLOGY SEMINAR SERIES



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Title: "Respect Thy Self: Maintaining self-tolerance during thymocyte selection"

Wednesday, November 18, 2015

Room 1034, 12:00 PM

McIntyre Medical Sciences Building

T cells that are able to recognize and eliminate pathogen infected or malignant cells, but largely ignore normal self-cells and tissues are an essential component of a healthy immune system. This fundamental property of self:non-self discrimination displayed by T cells is initially established during their development in the thymus. Within the thymus, developing thymocytes test the specificity of their clonally expressed T cell receptor (TCR). Thymocytes that recognize self-peptide presented in the context of self-major histocompatibility complex (MHC) with a low to moderate affinity undergo positive selection and enter the mature T cell pool. In contrast, thymocytes that bear a TCR that interacts strongly with self-peptide:MHC (pMHC) are largely eliminated, either physically or functionally, prior to their entry into the mature T cell pool. Recently, it has become clear that the development of physiologically important T cell subsets require strong TCR:self-pMHC interactions for positive selection. The molecular details underpinning these complex fate decisions are incompletely understood. I will discuss our recent work examining the role of two proteins, the pro-apoptotic Bcl-2 family member, Bim, and the orphan nuclear receptor, Nur77, in the generation of a self-tolerant T cell repertoire. Specifically, I will focus on the consequences of strong TCR signaling during T cell development.

This seminar is mandatory for Biochemistry Graduate students

LOCATION: McIntyre Medical Sciences Building, Room #1034, 12:00 PM

HOSTED BY: DRS JUDITH MANDL & SILVIA VIDAL