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seminar series

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Signal Transduction Pathways Controlling B and T Cell Development, Survival and Function

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Thursday, 16:00

Seminar room 132, pavilion A11
University campus Bohunice

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B and T lymphocytes develop in the bone marrow and thymus respectively, in both cases progressing through a series of precursor populations where the immunoglobulin or T cell antigen receptor (TCR) genes undergo ordered rearrangements. Signals from surface-bound immunoglobulin, the B cell antigen receptor (BCR) or the TCR control the development of B and T cells allowing progression only to cells that express functional non-autoreactive antigen receptors. Once mature lymphocytes have been generated, signalling pathways control the activation, survival, and function of the cells. I will discuss the use of mouse genetic and biochemical approaches to understand how signals control these diverse cellular processes in the animal. Most recently we have uncovered a completely novel pathway that controls the adhesion and migration of B and T cells and contributes significantly to the adaptive immune response.