Katedry genetiky a biochémie PriF UK
a občianske združenie *NATURA*

Vás pozývajú na 106. prednášku v rámci Kuželových seminárov:

Dominik Filipp

Ústav molekulární genetiky AV ČR, Praha

THE FIRST 30 YEARS OF T-CELL RECEPTOR SIGNALING: STILL SEARCHING FOR A TRIGGER

ktorá sa uskutoční **31. marca 2017** (piatok) o **13:00**

v miestnosti CH1-222 Prírodovedeckej fakulty UK

http://www.naturaoz.org/seminare.html
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Dominik Filipp

Professional experience:

1992–1993 Post-Doctoral Fellow, Lab of Genome Structure and Immunological Functions, CIML, Marseille, France
1993– 1994 Assistant Professor, Department of Genetics, Comenius University, Bratislava
1994 – 1998 Post-Doctoral Fellow, Department of Immunology, University of Toronto,
1998 – 2001 Senior Research Scientist, Gemma Biotechnology Inc., Toronto, Canada
2001 – 2007 Senior Research Associate, Sunnybrook Research Institute, Toronto, Canada
2007 – present Head of the Laboratory of Immunobiology, Institute of Molecular Genetics ASCR, Prague, Czech Republic

Our research and activities: an overarching theme of our research is cellular, molecular and signaling processes underpinning immune homeostasis. That mainly concerns (i) the mechanisms guiding the process of central and peripheral T cell tolerance and autoimmunity; (ii) initiation of T cell activation; and (iii) embryonic hematopoiesis. We maintain a close collaboration with several clinical laboratories in the Czech Republic and leading research groups with related research projects in the world. I supervise undergraduate and graduate students and teach immunology to biology students in Charles University in Prague.

Abstract of the lecture: in this lecture I will give an overview of the last 30 years of research revolving around the characterization of the earliest biochemical events that lead to the activation of T cells. This mainly concerns the process associated with the regulation of the proximal T cell signaling where two Src-family tyrosine kinases Lck and Fyn, provide critical functions. Towards this end we have previously identified important parameters guiding the initiation of TCR signaling as well as subcellular compartments where preactivated pool of Lck resides. We have also critically re-evaluated the current, so called Lck-stand-by model of TCR signaling and identified several candidate proteins involved in regulation of translocation of Lck to lipid rafts via linking this process to microtubular cytoskeletal network.

Selected papers (those related to the lecture are underlined): Filipp, D., et al. Proc. Natl. Acad. Sci. USA 98:603-608, 2001; Filipp, D. et. al., J. Exp. Medicine 197: 1221, 2003; Filipp, D. et al., J. Biol. Chemistry 283:26409- 26422, 2008; Ballek O. et al., Immunol Lett. 142(1-2):64-74, 2012; Filipp D. et al., Front Immunol. 3(155):1-14, 2012; Balounová, J., et al. Eur J Immunol, 44(5): 1491-502, 2015; Ballek, O., et. al., Immunol Cell Biol., 93: 384-395. 2015; Dobeš, J., et al. Gastroenterology, 149(1):139–150, 2015; Ballek, O., et al., *Front. Immunol. 7:449, 2016; Vavrova, K., et al. Medical Oncology, 33:153, 2016; K. Stechova, et al., J. Diabetes Res. 2017 (in press).*