



Katedry genetiky a biochémie
Prírodovedeckej fakulty Univerzity Komenského,
a občianske združenie *NATURA*
v spolupráci so
Slovenskou spoločnosťou pre biochémiu a molekulárnu biológiu

Vás pozývajú na 68. prednášku v rámci Kuželových seminárov:

Dr. Jiří Neuzil

**Apoptosis Research Group, School of Medical Science, Griffith University,
Southport, Qld, Australia &
Molecular Therapy Group, Institute of Biotechnology, AV ČR, Praha**

**Mitochondrial electron redox chain as a
new target for anti-cancer drugs**

ktorá sa uskutoční **17. apríla 2008** (štvrtok) o **16:00**

v miestnosti **CH1-222** Prírodovedeckej fakulty UK

<http://www.fns.uniba.sk/~kbi/kuzela>

Dr. Jiří Neuzil

Profesionálna kariéra:

1983: MSc in Biochemistry and Biochemical Engineering, Institute of Chemical Technology, Praha

1989: PhD in Microbiology, Institute of Microbiology, Czech Academy of Sciences, Praha

1991-1994: Post-doctoral scientist, Heart Research Institute, Sydney, NSW, Australia

1994-1998: Senior post-doctoral scientist, Heart Research Institute, Sydney, NSW, Australia

1998: Group Leader, German Institute for Human Nutrition, Potsdam, Germany

1998-2001: Scientist, Institute for Prevention of Cardiovascular Diseases, University of Munich, Germany

2001-2002: Senior Visiting Researcher, Department of Pathology II, University of Linköping, Sweden

2002-2005: Senior Lecturer (Cell and Molecular Biology) and Group Leader, School of Medical Science, Griffith University, Southport, Qld, Australia

2006-till present: Associate Professor (Molecular Medicine) and Group Leader of Apoptosis Research Group, School of Medical Science, Griffith University, Southport, Qld, Australia

2005-2006: Senior Researcher, 50% position with the Laboratory of Cell Signalling and Apoptosis, Institute of Molecular Genetics, AS CR, Prague, commenced February 2005. The applicant will hold a conjoint position of Associate Professor at the Griffith University and of a Senior Researcher at the Institute of Molecular Genetics.

2007 till present: Head of Molecular Therapy Group of the Institute of Biotechnology, AS CR, Prague.



Vedecké zameranie: Signálne dráhy zúčastnené v apoptóze indukovanej farmakologickými (nové analogy vitamínu E) a imunologickými induktormi a ich aplikácia v terapii onkologických ochorení.

Vybrané novšie publikácie:

1. Weber T, Lu M, Andera L, Lahm H, Gellert N, Fariss MW, Korinek V, Sattler W, Ucker DS, Terman A, Schröder A, Erl W, Brunk U, Coffey RJ, Weber C, **Neuzil J** (2002) Vitamin E succinate is a potent novel anti-neoplastic agent with high tumor selectivity and cooperativity with tumor necrosis factor-related apoptosis-inducing ligand (TRAIL, Apo2L) in vivo. *Clin Cancer Res* 8, 863-869.
2. Weber T, Dalen H, Andera L, Nègre-Salvayre A, Augé N, Sticha M, Loret A, Terman A, Witting PK, Higuchi M, Plasilova M, Zivny J, Gellert N, Weber C, **Neuzil J** (2003) Mitochondria play a central role in apoptosis induced by α -tocopheryl succinate, an agent with anticancer activity. Comparison with receptor-mediated pro-apoptotic signaling. *Biochemistry* 42, 4277-4291.
3. Jostarndt K, Rubic T, Kühn H, Anthonsen MW, Gellert N, Andera L, Trottmann M, Weber C, Johansen B, Hrboticky N, **Neuzil J** (2004) Enzymatically modified LDL upregulates CD36 expression in non-differentiated monocytic cells in a PPAR- γ -dependent mode. *Biochem Pharmacol* 67, 841-854.
4. Stapelberg M, Gellert N, Swettenham E, Tomasetti M, Witting PK, Procopio A, **Neuzil J** (2005) α -Tocopheryl succinate inhibits malignant mesothelioma by disrupting the FGF autocrine loop: The role of oxidative stress. *J Biol Chem* 280, 25369-25376.
5. Wang XF, Birringer M, Dong LF, Veprek P, Low P, Swettenham E, Stantic M, Yuan LH, Zobalova R, Wu K, Ralph SJ, Ledvina M, **Neuzil J** (2007) A peptide adduct of vitamin E succinate targets breast cancer cells with high erbB2 expression. *Cancer Res* 67, 3337-3344.
6. Dong LF, Swettenham E, Eliasson J, Wang XF, Gold M, Medunic Y, Stantic M, Low P, Prochazka L, Witting PK, Turanek J, Akporiaye ET, Ralph SJ, **Neuzil J** (2007) Vitamin E analogs inhibit angiogenesis by selective apoptosis induction in proliferating endothelial cells: The role of oxidative stress. *Cancer Res* 67, 11906-11913.
7. Dong LF, Low P, Dyason J, Wang XF, Prochazka L, Witting PK, Freeman R, Swettenham E, Valis K, Liu J, Zobalova R, Turanek J, Spitz DR, Domann FE, Scheffler IE, Ralph SJ, **Neuzil J** (2008) α -Tocopheryl succinate induces apoptosis by targeting ubiquinone-binding sites in mitochondrial respiratory complex II. *Oncogene* (in press).