



Katedry Genetiky, Biochémie a Ústav Bunkovej Biológie  
Prírodovedeckej fakulty Univerzity Komenského

Vás pozývajú na 46. prednášku v rámci Kuželových seminárov:

**Dr. Milan ŠKORVAGA**

*Ústav experimentálnej onkológie  
Slovenská akadémia vied, Bratislava*

**Rozpoznávanie DNA poškodenia  
bakteriálnou nukleotidovou  
excíznou opravou**

ktorá sa uskutoční v piatok 4. marca 2005 o 14:00  
v miestnosti **B1-512** PriF UK (knihnica Katedry genetiky PriF UK)

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

## Dr. Milan Škorvaga

1980-1985: Prírodovedecká fakulta UK, Bratislava - odbor: všeobecná biológia; špecializácia: molekulárna biológia a genetika (RNDr.)

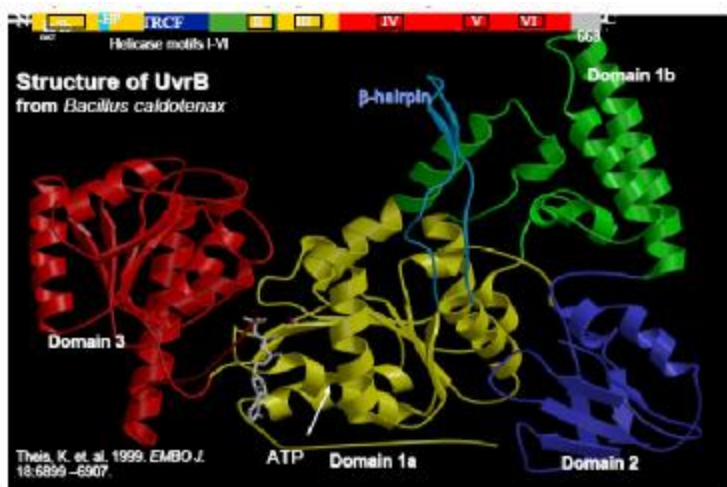
1992: obhajoba kandidátskej práce (CSc): "Increase of the cell resistance to genotoxic agents by the repair gene cloning"

### Štúdijné pobyty:

1987, 1993, 1996 : Paterson Institute for Cancer Research, Department of Carcinogenesis, Manchester, U.K., laboratórium Dr. G.P. Margisona (štúdium reparačných procesov alkylačných poškodení v DNA)

1997-1999: University of Texas Medical Branch, Sealy Center for Molecular Sciences, Galveston, Texas laboratórium Prof. B. van Houtena (Cloning, expression and characterization of uvr genes from a thermophilic eubacterium *Bacillus caldolenax*)

1999-2003: NIEHS, Laboratory of Molecular Genetics, Research Triangle Park, North Carolina laboratórium Prof. Ben Van Houtena (Crystal structure of *Bacillus caldolenax* Uvr proteins - expression and characterization of Uvr mutant proteins, study of molecular mechanisms of bacterial nucleotide excision repair)



### **Výber z najnovších publikácií:**

Škorvaga, M., DellaVecchia, M.J., Croteau, D.L., Theis, K., Truglio, J.J., Mandavilli, B.S., Kisker,

C., Van Houten, B. (2004) Identification of residues within UvrB that are important for efficient DNA binding and damage processing. *J. Biol. Chem.* **279**: 51574-51580.

DellaVecchia, M.J., Croteau, D.L., Škorvaga, M., Dezhurov, S.V., Lavrik, O.I., Van Houten, B.

(2004) Analyzing the handoff of DNA from UvrA to UvrB utilizing DNA-protein photoaffinity labelling. *J. Biol. Chem.* **279**: 45245-45256.

Truglio, J.J., Croteau, D.L., Škorvaga, M., DellaVecchia, M.J., Theis, K., Mandavilli, B.S., Van Houten, B., Kisker, C. (2004) Interactions between UvrA and UvrB: the role of UvrB's domain 2 in nucleotide excision repair. *EMBO J.* **23**: 2498-2509

Bienstock, R.J., Škorvaga, M., Mandavilli, B.S., Van Houten, B. (2003) Structural and functional characterization of the human DNA repair helicase XPD by comparative molecular modeling and site-directed mutagenesis of the bacterial repair protein UvrB. *J. Biol. Chem.* **278**: 5309-5316.

Škorvaga, M., Theis, K., Mandavilli, B.S., Kisker, C., Van Houten, B. (2002) The beta -hairpin motif of UvrB is essential for DNA binding, damage processing, and UvrC-mediated incisions. *J. Biol. Chem.* **277**: 1553-1559.

Hoare, S., Zou, Y., Purohit, V., Krishnasamy, R., Škorvaga, M., Van Houten, B., Geacintov, N.E., Basu, A.K. (2000) Differential incision of bulky carcinogen-DNA adducts by the UvrABC nuclease: comparison of incision rates and the interactions of Uvr subunits with lesions of different structures. *Biochemistry* **39**: 12252-12261.

Theis, K., Škorvaga, M., Machius, M., Nakagawa, N., Van Houten, B., Kisker, C. (2000) The nucleotide excision repair protein UvrB, a helicase-like enzyme with a catch. *Mutat. Res.* **460**: 277-300.

Theis, K., Chen, P.J., Škorvaga, M., Van Houten, B., Kisker, C. (1999) Crystal structure of UvrB, a DNA helicase adapted for nucleotide excision repair. *EMBO J.* **18**: 6899-6907.