



KATEDRY BIOCHÉMIE A GENETIKY

Prírodovedeckej fakulty Univerzity Komenského

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Vás pozývajú na **30.** prednášku v rámci Kuželových seminárov:

Dr. Roger Schneiter
Institute of Biochemistry
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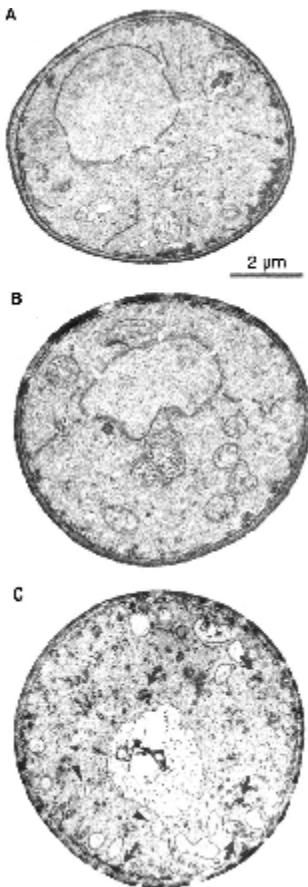
YEAST AS A MODEL TO CHARACTERIZE THE ROLE OF ACYL CHAINS IN MEMBRANE BIOGENESIS

ktorá sa uskutoční

14. 12. 2001 (piatok) o **14:00** v miestnosti **B1-501** PriF UK

Dr. Roger Schneiter – Aim of his work is to characterize the molecular mechanisms that control membrane homeostasis, using yeast as model organism. The homeostatic control of the lipid composition of cellular membranes ensures membrane function despite variations in extracellular and intracellular conditions. Membrane function covers more

than its role as a permeability barrier but includes less well-defined functions in maintaining compartmental identity, protein sorting, and signal transduction. These processes are modulated by the lipid composition of the membrane. Despite the increasingly important role of lipids in these cellular processes, our understanding of how the lipid composition of a membrane is regulated and how this regulation is integrated with other cellular processes is still very limited.



Obr. Odstránenie Acyl-Coenzyme A-väzbového proteínu spôsobuje akumuláciu vezikúl a membránové defekty v *Saccharomyces cerevisiae* (Gaigg *et al.* (2001). *Mol. Biol. Cell.* **12**: 1147-1160).

Vybrané publikácie R. Scheitera z posledného obdobia:

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- Birner, R., Burgermeister, M., Schneiter, R., and Daum, G. (2001). Roles of phosphatidylethanolamine and of its several biosynthetic pathways in *Saccharomyces cerevisiae*. *Mol. Biol. Cell* **12**: 997-1007.
- Niessen, M., Schneiter, R., and Nothiger, R. (2001). Molecular identification of virilizer, a gene required for the expression of the sex-determining gene Sex-lethal in *Drosophila melanogaster*. *Genetics* **157**: 679-688.
- Schneiter, R., Carter, A.T., Hernando, Y., Zellnig, G., Schweizer, L.M., and Schweizer, M. (2000). The importance of the five phosphoribosyl-pyrophosphate synthetase (Prs) gene products of *Saccharomyces cerevisiae* in the maintenance of cell integrity and the subcellular localization of Prs1p. *Microbiology* **146**: 3269-3278.
- Schneiter, R., Guerra, C.E., Lampl, M., Tatzer, V., Zellnig, G., Klein, H.L., Kohlwein, S.D. (2000). A novel cold-sensitive allele of the rate-limiting enzyme of fatty acid synthesis, acetyl coenzyme A carboxylase, affects the morphology of the yeast vacuole through acylation of Vac8p. *Mol. Cell. Biol.* **20**: 2984-2995.
- Schneiter, R. (1999). Brave little yeast, please guide us to thebes: sphingolipid function in *S. cerevisiae*. *Bioessays* **21**: 1004-1010.