### Univerzita Karlova v Praze, Přírodovědecká fakulta

Katedra organické a jaderné chemie zve všechny zájemce na přednášku z cyklu

## **Quo Vadis Chemie**

# Towards the First Total Syntheses of Euphosalicin, Pl-3, and Pl-4 -

Jatrophane Diterpenes with Remarkable MDR Reversal Effect



kterou přednese

### **Prof. Uwe Rinner**

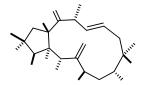
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dne 8.11. 2010 v 14:00 hod. v posluchárně CH2, v budově chemických kateder PřF UK Hlavova 8, Praha 2

#### Abstrakt:

Drug efflux from cancer cells effected by transporter proteins resulting in the development of resistance to medication is a serious problem in cancer chemotherapy. A large number of compounds has been identified as capable of blocking the activity of transporter proteins. However, multi-drug resistance (mdr) reversal agents are clinically not available.

Structurally diverse diterpenes of the jatrophane skeleton were identified as highly active mdr-reversal candidates. Despite the large number of isolated jatrophane diterpenes, the synthetic challenge, and the promising biological properties, total syntheses of natural jatrophane diterpenes have not been reported and only simplified models or fragments have been prepared. Progress in the syntheses of Euphorbiaceae diterpenes euphosalicin (1), Pl-3 (2) and Pl-4 (3), shown in Figure 1, is discussed.



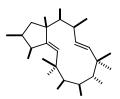


Figure 1.