

**Course by Prof. Dr. Dan Sorescu, Emory University, Atlanta
June 7 – 28 2006
Department of Pharmacognosy, University of Vienna**

**Redox signaling and NADPH oxidases
in cardiovascular disease: theory and practice**

	9:00 – 12:00 (2G 445) laboratory practice	17:00 – 18:30 (2D 404) fomal lectures
Wed June 7		Reactive oxygen species-basic facts (sources, mechanisms of generation and inactivation) and antioxidant defenses
Thu June 8	How to measure reactive oxygen species by <ul style="list-style-type: none"> ▪ flow cytometry (FACS), ▪ immunocytochemistry and ▪ microscopy 	
Tue June 13		NADPH oxidases in phagocytic and non-phagocytic cells (mechanism of activation, inactivation).
Wed June 14		Redox signaling in cellular growth (mitogenic and hypertrophic response to Ang II, PDGF).
Tue June 20	How to measure reactive oxygen species by <ul style="list-style-type: none"> ▪ flow cytometry (FACS), ▪ immunocytochemistry and ▪ microscopy 	
Wed June 21		Redox signaling in angiogenesis (VEGF and angiogenesis).
Thu June 22	Introduction into real-time PCR	Redox signaling in cellular differentiation.
Tue June 27		Redox signaling in cellular senescence and apoptosis.
Wed June 28	10:00 – 11:30 (2D 404) Oxidative stress and cardiac hypertrophy and fibrosis (in vivo)	Oxidative stress and vascular hypertrophy and dysfunction (in vivo)

Please note: Lectures on Thu June 29 has been cancelled and rescheduled!