## COLLOQUIA IN PHYSIOLOGY AND VASCULAR BIOLOGY

Venue: Medical University Vienna, Center for Physiology and Pharmacology, Institute of Pharmacology, Waehringerstrasse 13a, 1090 Vienna, "Leseraum"

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Friday 24.4.2015 10:00 c.t. **Ralf Jockers** (host: M. Hohenegger)

Functional Pharmacology and Pathophysiology of Membrane Receptors INSTITUT COCHIN; INSERM U1016, CNRS 8104, Université Paris Descartes, 22 rue Méchain, 75014 PARIS

"Extending the functional network of G protein-coupled receptors towards TGFB receptors and neurotransmitter transporters"

## Ralf Jockers (ralf.jockers@inserm.fr)

Abstract: G protein-coupled receptors (GPCRs) constitute a large family of seven transmembrane proteins that regulate major cellular functions and are major pharmacologic targets. GPCRs can also be organized in oligomeric structures composed of either homo- or heteromers. GPCR heteromerization may play an important role in modulating and fine-tuning GPCR function and signaling. More recent studies suggest that this GPCR-associated complexes can be further extended towards other membrane receptor families and neurotransmitter transporters to establish new roads of cross-talk. This aspect will be developed with the example of melatonin receptors that are involved in the regulation of circadian and seasonal rhythms, retinal light sensitivity and type 2 diabetes risk.