

# ***Colloquia in Membrane Transport***

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

**"Big Lecture Hall Pharmacology"**.

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Monday 16.03.2015 14:00 s.t. **Marcus Hacker** (host: O. Langer)  
Universitätsklinik für Radiologie  
und Nuklearmedizin  
Währinger Gürtel 18-20  
1090 Vienna

## ***"In-vivo tissue characterization: a Nuclear Medicine approach"***

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**Marcus Hacker** ([marcus.hacker@meduniwien.ac.at](mailto:marcus.hacker@meduniwien.ac.at))

Abstract:

Noncoding variants in the human genome facilitate adaptation in a changing environment, but the vast majority of noncoding variants remains unknown. With widely diverse effects, only a small fraction of variants is likely to affect clinically relevant phenotypes. This is a critical challenge to understanding the genetics of complex disorders and treatments. We have developed an integrated computational and experimental approach to characterize and prioritize causal variants, with a focus on variants having clinical relevance. Such variants affect key genes in network hubs, tend to be under evolutionary constraints, and participate in epistatic interactions. I will present examples of noncoding variants in drug transporters, enzymes, and receptors with clinical relevance.