

Joint Symposium 20

Neuroimaging Committee / European College of Neuropsychopharmacology (ECNP)

Thursday, October 29, 16:35-18:05

Session Title

Simultaneous PET/MR Imaging of Neuroreceptor Systems

Chairperson

Elsmarieke van de Giessen (Amsterdam, Netherlands)

Programme

- 16:35 - 17:04 Hanne D. Hansen (Boston, United States of America / ECNP): Functional Characterization of Drugs Targeting the 5-HT 1B Receptors
- 17:04 - 17:33 Lauri Nummenmaa (Turku, Finland): PET and MR Studies of the μ -Opioid and Dopamine Receptor Systems
- 17:33 - 18:02 Luc Zimmer (Lyon, France): Demonstrating Biased Agonism of Neuroreceptors with Simultaneous PET/MRI

Educational Objectives

1. Learn how simultaneous PET/MR imaging has contributed to new insights in the field of neuroreceptor systems
2. Gain insight in how simultaneous PET/MR contributes to functional characterization of drugs
3. Understand the phenomenon of biased agonism of neuroreceptors

Summary

Simultaneous PET/MR systems provide the unique opportunity to acquire two different types of functional measures in the human brain at the same time. The aim of this symposium is to show how this unique feature has contributed to new insights in the field of neuroreceptor systems. For example, it is useful for better functional characterization of drugs targeting neuroreceptors, but also a new phenomenon as biased agonism of neuroreceptors can be studied. The applications will be discussed for different neurotransmitter systems, including serotonergic, dopaminergic and opioid.

Key Words

PET/MRI, neuroreceptor imaging, serotonin, opioid, dopamine