DRA symposium
25/1/2018 9:30 – 12:30

Translational approaches in neuropsychiatric research: circuits, behaviours and biomarkers

University of Copenhagen, Faculty of Health and Medical Sciences, PharmaSchool, Universitetsparken 2, 2100 Copenhagen Ø, Benzon Auditorium

Programme

9:30-9:40 Introduction: Jesper Andreasen, Department of Drug Design and Pharmacology, UCPH.

9:40-10:30 “Corticolimbic mechanisms of control over behavior”
Louk Vanderschuren, Professor of Behavioural Neuroscience, Dept. of Animals in Science and Society, Division of Behavioural Neuroscience, Utrecht University, The Netherlands

Adaptive behaviour involves the ability to weigh costs and benefits of different courses of action and inhibit inappropriate behaviours. Impaired control over behaviour has a prominent role in many mental disorders, including addiction, ADHD, and mania. This talk will present recent work on mechanisms underlying control over behaviour, such as inhibition under threat of punishment and behavioural flexibility, and its cortical, striatal, and limbic substrates.

10:30-11:10 “How to capture your audience’s attention when they are mice - a translational approach to study attention and impulsivity in mice and humans”
Maitane Caballero-Puntiverio, PhD student, Department of Drug Design and Pharmacology.

This talk will focus on our efforts towards establishing a multidisciplinary platform for the study of attention and impulsivity in mice, with an emphasis on translatability between preclinical and clinical tasks. The methods used will be discussed, as well as the result of several pharmacological studies.

11:10-11:30 Coffee, tea and pastries

11:30-12:15 “Translational neurophysiological biomarkers in mouse models of psychiatric disease”
Jesper Bastlund, Director, Translational biology, H. Lundbeck A/S.

The talk will focus on current efforts to back-translate electrophysiological phenotypes such as event-related potentials (ERPs) and auditory steady-state responses (ASSR) into rodent assays. Rodent validation of such back-translational electrophysiology phenotypes require careful attention to difference in behavioural states between species. Characterisation of pharmacological sensitivity and genetic models such as 22q11 microdeletion mice reveal that EEG and ERP processing deficits in the auditory domain can be captured in rodents. The results demonstrate that these electrophysiological based markers hold promise for future translational biological psychiatry research.

12:15-12:30 Wrap-up and discussion

The symposium is organized on behalf of the graduate programme in pharmaceutical sciences, Drug Research Academy, by Jesper Andreasen, Assoc. Prof., Department of Drug Design and Pharmacology, Faculty of Health and Medical Sciences, University of Copenhagen. The symposium is free of charge and open for attendance by all interested parties. It is not necessary to pre-register.