TWIST Session 19:
Neurosciences of Addiction
Wednesday 25th October, 14:30h – 16:00h (Auditorium I)

This TWIST Session is open to all Lisbon Addictions Conference participants

Fernando Rodríguez de Fonseca *MD PhD. Coordinator of the Spanish Network on Addiction Research. Professor, Department of Psychobiology, Faculty of Psychology, Complutense University of Madrid. Research Head, Laboratory of Neuropharmacology, IBIMA Institute of Malaga. Member of the Scientific Committee of the EMCDDA.*
Dr Rodríguez de Fonseca is a Neuropharmacologist with more than 25 years of experience on research of the neurobiology of addiction. His initial interest focuses on the actions of cannabis and the cannabinoids along development, identifying the ontogeny of brain cannabinoid receptors. Subsequently he studied the brain mechanisms of cannabinoid addiction and the contribution of the endogenous cannabinoid system to addition. In the last ten years he has centered his activity on medicinal chemistry programmes for treating addiction, as well as in biomarkers discovery in humans for a better diagnosis and treatment of Cocaine / alcohol use disorders patients affected by psychiatric comorbidity. Since 2003 he leads the Spanish Network on Addiction Research (Red de Trastornos Adictivos) that gathers more than 80 Spanish scientists interested in the study not only of the neural basis of addiction but on its clinical implications.

Olga Vallverde, *MD PhD. Professor of Psychobiology and Head of the Neurobiology of Behavior Research Group (GReNeC-NeuroBio), Department of the Experimental and Health Sciences at the University Pompeu Fabra. Barcelona, ES.*
Dr Valverde is Neurobiologist with a broad experience in experimental research on drug addiction. Her research is focussed in the understanding of the neurobiological processes underlying addictive behaviours using a variety of methodological approaches. The aim of her research is oriented to provide biological biomarkers to improve diagnosis and therapeutic management and to develop preventives strategies for drug addiction. She is the PI of different funded research projects and has been involved in several international research projects related to substances use disorders from an experimental approach. Since 2007, she leads the Neurobiology of Behaviour Research Group at the UPF, and from 2012 she is attached to the Neuroscience Programme IMIM (Hospital del Mar Medical Research Institute). The team is integrated in the "Red de Trastornos Adictivos" (ISCIII-RTA).

Session Description:

Learning objective(s):
- Understand the history and nature of the different biological theories of drug addiction
- Identify the main acute actions of drugs of abuse, the neuroadaptions imposed by its chronic abuse and the behavioural consequences of these neuroadaptions
- Understand the mechanisms underlying the pharmacological treatment of addiction

Scope/main topics covered:
- Drugs and their targets
- Functional Neuroanatomy
- Biochemical neuroadaptions: from genes to circuits
- Advanced view of Neuropharmacology

Training/Learning formats:
- Presentation and Discussion

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Session Description (cont.):

Learning outcome(s) (what should the trainee be able to do following the session?):
- To know the biological basis of each stage of the addiction cycle
- To understand the functional neuroanatomy of the behavioural responses associated with each stage of the addiction cycle
- Identify targets and products useful for treating addiction from the biological prospective

Related LxAddictions 2017 sessions:
SS10 (politics/ethics), PS23 (new findings) SS17 (biomarkers) & Rainer Spanagel in Plenary III