Psychobiologisches Kolloquium Prof. Dr. Markus Heinrichs



Herzliche Einladung zum Vortrag:

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Oxytocin: The power of a fine-tuned system

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ABSTRACT

Oxytocin is a neuropeptide capable of affecting both behaviour and physiology. Large individual differences exist in the levels of our endogenous oxytocin, both at baseline and in response to social stimuli. This raises interesting questions about the way oxytocin can help each of us to manage social situations and how for example intranasal oxytocin can improve any deficiencies. Do we have the same "hardware" to target?

Oxytocin neurons and oxytocin can impact on a range of other physiological systems in a bi-directional manner which helps regulate stress, reward and decision making among others. Are some of the individual differences that we see in behaviour and physiology a result of oxytocins ability to impact on these? And how does early life impact on the developing oxytocin system? Does it affect receptor levels or how systems interact? Our understanding of the oxytocin system is growing rapidity, as is our understanding of the nuanced effect that oxytocin has. It is now important to investigate what causes individual differences in oxytocin systems, as the potential positive impact of further fine tuning this system are wide spread. A hypothesis is presented of the impact of early experiences on oxytocin and how this affects vulnerability to stress and addiction later in life.

VITA

Femke is a Behavioural Neuroscientist with a strong interest in the neurobiological basis of individual differences in behaviour and mental health. She works on the intersection between psychology, physiology and behaviour using a translational social neuroscience approach. She has proposed a new theory about the effects of early life experiences on the developing oxytocin system and the impact this has on later drug use. Her research group at the University of Adelaide, Australia, is using a range of techniques to test the impact on infants and kids of observed or recorded early life environment. She also studies the role of primed immune system in vulnerability to stress and addiction.

Femke is also a leader in education in addition studies, specialised in online learning. She is the program leader for the International Programme in Addiction Studies in Adelaide, which she teaches with King's College London (UK) and Virginia Commonwealth University (USA). She is also the convener for the new Major in Addiction and Mental Health of the Bachelor of Health and Medical Sciences and team leader of a free open online course on managing addiction (EDx).

Femke studies at Utrecht University (The Netherlands) and gained a Bachelor in Biology, Master of Science in Biology (Ethology and Medical Sciences majors), a PhD in Medicine (Psycholpharmacology). Her PhD at the Rudolf Magnus Institute for Neuroscience demonstrated the different behavioural and neurobiological impact of mild repeated physical and non-physical stressors in rats. After working in the addiction field outside of academia for several years, she worked as a postdoc investigating the influence of genes and parenting environment on child behaviour and physiology at the Child & Family Studies and Data Theory Department (Social Sciences) at Leiden University. She has since gained a Postgraduate degree in Education (Online Learning) and a certificate in Infant Mental Health. Her career has been devoted to understanding how stress and adversity can impact on someone's vulnerability to develop addiction and mental health issues and which factors can improve resilience.