Project title: Targeted glucocorticoid treatment for HPA-axis dysfunction in post-traumatic stress disorder (PTSD)

Study name: "Cortisol voor PTSS" (CovoS)

On-site supervisor: Laura de Nooij

Principal Investigator: Erno Hermans

Research centre: Dept of Cognitive Neuroscience (from Radboudumc) and Donders Centre for Cognitive NeuroImaging (DCCN)

Project description: For this interdisciplinary project you will be involved in the multicentre patient study "Cortisol voor PTSS" (CovoS), which spans several years. The study is fundamental in nature, but also has the potential to directly translate to clinical practice. A parallel rodent study (led by Benno Roozendaal) applies similar paradigms within animal models. Being involved in the patient study, you will collaborate with others to tackle the challenges of project planning, initial (pilot) data collection, and preliminary data analysis. The main aim of the study is to provide a proof-of-concept that glucocorticoid administration improves safety learning within a subgroup of PTSD patients, which is investigated with randomized controlled trial that includes MRI assessments. Other factors of interest in this study are HPA-axis sensitivity, early life adversity, and (epi)genetic factors. Overall, the project provides a great learning opportunity, offering experience interacting with a patient population and across different research methods (including neuroimaging).

Relevant literature: Yehuda et al., Nat. Rev. Dis. Primers 2015; De Quervain, Schwabe & Roozendaal, Nat Rev. Neurosci. 2017; De Quervain, Wolf & Roozendaal, Psychopharmacol. 2019.

Requirements: Dutch-speaking and motivated student; start date around September 2021 (or February 2022) and for a minimum of one semester.

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