



OFFER: Postdoctoral Research Fellow in Affective (neuro)science for 3 years (with potential extension) at UCLouvain (supervised by Prof. A. Heeren) on Stress Resilience and Biobehavioral Synchrony

For our interdisciplinary and multi-university project **TRIAD** (“**Biobehavioural dynamics of triadic stress resilience transmission in families**”), funded by the Excellence of Science (EOS) framework of the FWO and FNRS, **the Stress and Anxiety research lab (Prof; A. Heeren) of the Psychological Science Research Institute is seeking** an excellent and enthusiastic postdoctoral researcher who has a solid passion for undertaking innovative research on stress resilience, resilience transmission, and biobehavioral dynamics (see summary below).

The successful candidate is expected to combine research on stress resilience, eye-gaze contingency and synchrony, ecological sampling methods, and experimental research on laboratory stress induction. They will also have the opportunity to design, implement and coordinate studies with Prof. Alexandre Heeren and other researchers of the TRIAD project on stress resilience and biobehavioral synchrony and analyze multimodal high-dimensional time-series data (stress physiology, eye-tracking, intensive time-series data from ecological sampling methods).

TRIAD is a collaboration between the following Belgian PIs:

Ghent University: Prof. Rudi DE RAEDT

UCLouvain: Prof. Alexandre Heeren

UMons: Prof. Mandy Rossignol; Prof. Sarah GALDIOLO

KULeuven: Prof. Guy BOSMANS; Prof. Eva CEULEMANS ; Prof. Rudi D’HOOGE

University of Antwerp: Prof. Frank KOOY

Summary of the project:

Resistance to stress and adversity is crucial because daily family life requires constant adaptation to changing, challenging situations. This refers to resilience, which protects parents and children against the development of psychopathology. In light of this, there is an urge for research to underpin programs strengthening resilience. We will study the transmission of stress resilience between mother, father, and child to identify biobehavioral dynamics and factors contributing to resilience transmission in 500 families with children aged between 10 and 12

years. We start from the assumption that resilience transmission is a dynamic process whereby family members mutually affect each other's capacity to recover from stressful events. We predict that resilience transmission is related to biobehavioral family factors such as matching versus discordant family (epi-)genetic and endocrinological profiles and family climate. We will also investigate whether the transmission is linked to biobehavioral synchrony between family members. This latter refers to spontaneous synchronization between parent and child social behavior (e.g., support seeking & provision; eye tracking, eye-gaze contingency, and synchrony), their physiology (e.g., EEG hyperscanning), and between physiology (e.g., hormonal, HRV) of one and behavior of the other when confronted with stressors. Studying biobehavioral synchrony in the context of resilience transmission is highly innovative and a particularly scorching topic in today's world.

The successful candidate holds a Ph.D. in Psychological Sciences, Neuroscience, Biomedical Sciences, or any related field and has a solid track record (first-author publications in Q1 journals are required) in the abovementioned fields. Research experience in stress resilience (broadly defined) is a good bonus, and a visible commitment to research transparency and open science is also an asset.

Most importantly, **the successful candidate should demonstrate (1) solid methodological skill sets (experimental programming, experience with eye-tracking, statistical analysis using R) that allow them to conduct research with independence and (2) substantive experience with interdisciplinary research as well as a strong motivation and open-mindedness for building multi-university interdisciplinary project.** We especially give priority to researchers having expertise working with data from humans, eye-tracking analysis, experimental programming, and/or physiological data. Excellent written and spoken English language skills are expected. While beneficial, proficiency in French or Dutch is not necessary for this position.

The primary supervisor of the successful candidate is Professor Alexandre Heeren, the PI of the Stress and Anxiety Research lab at the Psychological Sciences Research Institute, UCLouvain, Louvain-la-Neuve, Belgium.

Applications include a cover letter detailing (1) your expertise, past project(s), and methodological skills, and (2) how your experience and skills can make a unique contribution to the research on the TRIAD project, as well as a CV, degree and other certificates with transcripts should be sent via email **in one single pdf-file** stating "UCLouvain Postdoc TRIAD" in the subject line to alexandre.heeren@uclouvain.be. The application deadline is **October 15, 2022**. Shortlisted candidates will be invited for an in-depth interview. Employment will be officially organized by the central university administration.

We offer a full-time position, initially offered for one year and then automatically renewed for two additional years (with potential extension) upon positive evaluations at the end of the first year. Salary is competitive and follows university standards. The starting date is as soon as possible, but we understand that it may depend upon the candidate's availability. Nonetheless, it cannot be after March 2023.

