

**Postdoc Position Available:
Identification of Novel Stress Regulators Using Zebrafish**

We are seeking a highly motivated individual to join our team at the University Medical Center of the Johannes Gutenberg University Mainz in Germany. The Ryu lab has a long-standing interest in understanding the effects of stress on brain and behaviour (www.ryulab.org). In particular we are interested in the effects of the stress hormones produced by the hypothalamo-pituitary-adrenal (HPA) axis on behaviour. Although the HPA axis is the key regulatory center for the stress response regulation, the molecular mechanisms by which it can rapidly modulate behavior is currently unknown. Using an optogenetic manipulation, we recently showed hitherto unrecognized modulatory roles of the pituitary corticotroph cells on a variety of behavior directly after the onset of stress (De Marco et al., Nat. Comm. 2016, 7:12620). This work, in turn, provides a unique basis for an assay for molecules that mediate the rapid effects of the HPA axis hormones. Building upon the knowledge and tools that we developed in this work, the goal of the current project is to 1) develop a high-throughput optogenetics-assisted behavioural assay to detect the rapid effects of the HPA axis on behavior and 2) use this assay to perform a genetic screen to identify novel stress response regulators. Given the striking conservation of the HPA axis among vertebrates, the molecules identified in this project will represent novel therapeutic targets for stress-induced dysfunctions in humans such as depression and anxiety disorders.

A successful candidate should possess a PhD in Neurobiology or related fields. A high-quality first author paper is a prerequisite as well as a proven record of excellence. A strong background in neurobiology, genetics and molecular biology is required. Candidates with experiences in zebrafish are preferred.

We offer a highly attractive research environment. Mainz together with nearby Frankfurt offers an exciting environment for Neuroscience with a number of excellent institutes that interact closely (www.rmn2.de). The Ryu lab is a part of a recently funded collaborative research center funded by the German Research Foundation on “Neurobiology of resilience to stress-induced dysfunctions.” The position is available starting September 2017 and is funded at the TV-L level E13 initially for two years but with a possibility for extension for up to 4 years. University Medical School of the Johannes Gutenberg University Mainz is an equal opportunity employer and female and minority candidates are strongly encouraged to apply. To apply, please send a CV, statement of research interests, and name and contact details of three referees to soojin.ryu@uni-mainz.de.