UNIVERSITÄT BERN

Medical Faculty
Department of Physiology

Postdoc position in Systems Neuroscience

Neural circuits for context-specific emotional memories

The cerebral cortex endows us with the ability to perform complex cognitive and emotional processes supporting adaptive behavior. The hippocampus is a high-order cortical area instrumental for cognition and emotions. We have recently identified selective neuronal signatures for reward processing and spatial exploration in the ventral CA1 hippocampus (Ciocchi et al., 2015, Science). The project will address the neural basis of context-specific emotional memories by recording from- and interfering with- identified neuronal cell-types of the ventral CA1 hippocampus.

The project rely on an innovative cross-level approach combining recordings and imaging of identified neuronal classes, selective optogenetic strategies, cell-type specific viral tracing and behavioral paradigms in rodents.

We are seeking for a highly motivated candidate with a strong interest in neural circuits of emotional memories. Candidates with experience in calcium imaging in freely-behaving rodents or juxtacellular recordings and labelling method are strongly encouraged to apply.

The Post-doc position will be hosted in the Systems Neuroscience group of Prof. Dr. Ciocchi at the Department of Physiology of the University of Bern. The position is supported by a Swiss National Science Foundation grant.

How to apply:
Please send a CV, a cover letter with a brief statement of career goals and the name of 2-3 referees to: ciocchi@pyl.unibe.ch. Candidates will be evaluated starting in fall 2017 and until the position is filled. Only short-listed candidates will be further contacted. The Post-doc position is expected to start in March 2018 but not later than June 2018. For further information, please contact Stéphane Ciocchi.

References:

Ciocchi, S., Passecker, J., Malagon-Vina, H., Mikus, N., Klausberger, T.
Selective information routing by ventral hippocampal CA1 projection neurons. Science 348, 560 (2015).

Ciocchi, S., Herry, C., Grenier, F., Wolff, S. B., Letzkus, J. J., Vlachos, I., Ehrlich, I., Sprengel, R., Deisseroth, K., Stadler, M. B., Muller, C., Luthi, A. Encoding of conditioned fear in central amygdala inhibitory circuits. Nature 468, 277 (2010).

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