

Project 1.4 Central amygdala neuronal circuits mediating social and food rewards – functional analysis

Supervisor: Ewelina Knapska, PhD Dsc.

Laboratory: Neurobiology of Emotions

www: <https://braincity.nencki.edu.pl/laboratory-of-emotions-neurobiology/>

Background:

The role of the neuronal circuits in the central amygdala (CeA), a vital player in the motivational system, in social interaction is largely unknown. Our recent results implicate the neuronal circuits in the CeA that are defined by their long-range projections in social interaction. Earlier results from our lab and others have implicated the CeA in food motivation. Here, we plan to differentiate the neuronal circuits involved in processing social and food rewards in order to identify circuits specifically dedicated to processing social stimuli. Identifying such circuits opens up a new avenue for developing rescue strategies to address impaired social behaviors by manipulating the activity of these circuits. The project involves behavioral testing of mice and assessing the function of neuronal circuits in the CeA in response to food and social rewards.

Aim:

We aim to differentiate the neuronal circuits involved in processing social and food rewards in order to identify circuits specifically dedicated to processing social stimuli.

Requirements:

- A person who will be recruited for this position is expected to hold a Master's degree in biology, neuroscience, psychology, or similar,
- moreover, she/he should be strongly motivated to learn and to make scientific discoveries,
- fluency in English is an important requirement, due to a need for effective science communication and an international character of the scientific environment, where the research will be conducted,
- previous experience with laboratory work i.a. as a volunteering student and a track record of professional development in areas related to systems neuroscience will be significant assets