

PhD student position to investigate the strategic positioning of synapses in motor circuits

We are looking for a highly motivated student with a strong interest in neural circuits. We offer a fully funded PhD student position focused on investigating the positioning of chemical and electrical synapses in a pattern generator generating social communication. Goal of the project is to identify the location of synaptic sites and synapse type (electrical/chemical) as well as to measure their strength, to generate a mathematical model of this motor network. The model will be used to change synapse strength, modality and location to investigate the importance of these parameters in motor pattern generation.

The successful candidate will take advantage of a variety of methods including intracellular (in vivo and slice patch clamp) recordings, whole brain immunohistochemistry, tract tracing, light sheet imaging and modelling to investigate the importance of synapse positioning and their effect on generating social behavior. This is a collaborative project between mathematicians and biologists, which is funded by the COLIBRI network (<https://colibri.uni-graz.at/de/>) at the University of Graz.

For information on the job advertisement please contact Boris Chagnaud (<https://homepage.uni-graz.at/de/boris.chagnaud/>). Please apply via the University of Graz job application website (<https://jobs.uni-graz.at/de/jobs/f411a343-99d6-cecb-bb97-66bb462861c5>). Deadline for application is the 08.10.2024