



PhD student position/post doc position

Laboratory of Biological Rhythms
Institute of Physiology of the Czech Academy of Sciences

Website: <https://www.fgu.cas.cz/en/departments/laboratory-of-biological-rhythms>
Address: Videnska 1083, 14220 Prague 4, Czech Republic

PhD project title: *Development of circadian system in mammals*
Supervisor: Prof. PharmDr. Alena Sumova, DSc.

The project aims to **characterize the communication pathways between the maternal circadian system and the fetal and neonatal clocks** using animal models (laboratory rats and mice, including transgenic mouse models). To achieve this goal, a wide range of molecular and behavioral techniques used in the field of circadian research will be employed.

Applicant Profile (Requirements):

Applicants should have a Master's degree or equivalent in one of the following fields: Physiology, Neuroscience, Molecular Biology, Biochemistry, Medicine or related fields, or they should expect to graduate this year. Applicants should be fluent in English and have good writing skills. Previous experience with biostatistics, in vivo models (mouse, rat), and molecular biology techniques is considered an asset.

Duration

The 4-year PhD study program administered at the Charles University in Prague will start in October 2023, the application must be submitted by the end of April.
The post-doctoral position with a duration of up to 3 years will start depending on the agreement between the applicant and the supervisor.

Work environment

Our laboratory routinely employs all necessary methods, namely immunohistochemical methods for the detection of one or more antigens in a tissue section, confocal microscopy, Western blot analysis, in situ hybridization technique using 35S-labeled rRNA probes, RT qPCR, real-time recording to detect bioluminescence from organotypic tissue explants of mPer2Luc mice using a circadian luminometer (LumiCycle, Actimetrics, Inc., USA) and the Luminoview LV200 luminescence microscope (Olympus), AAV transfection, analyses of large data sets obtained with omics techniques, etc. The laboratory offers a friendly and collaborative environment.

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