

PhD position

Study program: Biomedical Sciences

Specialization: Cell and Tissue Morphology

Supervisor: Tomáš Bárta, Ph.D. (Department of Histology and Embryology)

Research topic: Human retinal organoids as a tool for investigating mechanisms of

circadian clock control.

We are seeking a talented and motivated PhD student to join a research team headed by **Dr. Tomas Barta** at Masaryk University, Faculty of Medicine (med.muni.cz/histology/tomas-barta/).

The successful candidate will have the opportunity to perform research in the area of molecular mechanisms of circadian clock control and human retinal organoids derived from pluripotent stem cells. The major research focus is on the role of light in the regulation of circadian clock core machinery. However, contribution to other research projects that use human retinal organoids to address other aspects of human retinal physiology is also anticipated. The selected candidate will have access to state-of-the-art methodology and instrumentation (live imaging, lentiviral gene delivery, gene editing, high-resolution confocal microscopy, NGS, pluripotent stem cells, organoids).

We offer:

- to gain experience in tissue culture of human pluripotent stem cells and organoid generation
- to learn new methods
- friendly environment of young enthusiastic group with international collaborations
- to gain experience in grant proposal and manuscript writing
- 0.4 FTE salary + stipend

We require:

- MSc in molecular or cell biology/genetics/biochemistry or in another relevant field
- familiar with basic molecular, cell, and biochemical methods
- interest to learn new methods
- able to work independently
- critical thinking

How to apply?

Send a cv and a brief letter of interest to Tomáš Bárta (tbarta@med.muni.cz)