

## PhD position

- Study program:** Biomedical Sciences
- Specialization:** Cell and Tissue Morphology
- Supervisor:** Tomáš Bárta, Ph.D. (Department of Histology and Embryology, Faculty of Medicine, Masaryk University, Brno, Czech Republic)
- Research topic:** Human retinal organoids as a tool for investigating molecular mechanisms of retinal ciliopathies.

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 (<https://histology.med.muni.cz/bartalab>).

The successful candidate will have the opportunity to perform research in the area of molecular mechanisms of **human ciliopathies** with a special focus on **retinal inherited diseases** using **human retinal organoids** as a model. The major research focus is on the mutations in genes coding for regulators of the retinal and primary cilia maintenance. 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 generate patient-specific human induced pluripotent stem cells and CRISPR/Cas technology
- to learn new methods
- friendly environment of young enthusiastic group with international collaborations
- to gain experience in grant proposal and manuscript writing
- partial salary + stipend

### We require:

- MSc in molecular or cell biology
- familiar with basic molecular, cell, and biochemical methods
- interest to learn new methods
- able to work independently
- critical thinking
- experience with pluripotent stem cells and organoids is an advantage

### How to apply?

Send a cv and a brief letter of interest to Tomáš Bárta ([tbarta@med.muni.cz](mailto:tbarta@med.muni.cz)) **until 23. October 2022**. After the first round of the selection process, the selected applicants will be invited to submit their PhD application to university system.