

Affiliation: Masaryk University, Faculty of Medicine
Study program: PhD program Biomedical Sciences
Specialization: Biochemistry and Molecular Biology
Workplace: Department of Biology
Form: Full-time, starting in spring 2025

Supervisor: **Michaela Bosakova, Ph.D.**
Funding: Czech Health Research Council

Title: **Primary Cilia Signaling in Glioblastoma**

Annotation:

Glioblastoma is the most prevalent primary malignant brain cancer in adults. Despite aggressive treatment, recurrent glioblastoma occurs in nearly all patients and results in a median survival of less than 15 months. This outcome has not improved in the last decade, leaving glioblastoma one of the deadliest cancers.

This project aims to study selected signaling pathways associated with primary cilia, and their role in glioblastoma pathogenesis. The selected candidate will use gene editing and rescue experiments to target cilia signaling in the glioblastoma stem cells, and study their invasiveness using in vitro assays, organoids and RNAseq. Beyond the research tools and technology available in the lab and the hosting department, they will have access to the state-of-the-art instrumentation and services at the MUNI University campus core facilities.

Requirements: Master's degree in biological sciences or similar
Motivated, curiosity-driven and committed
Well-organized and communicative
Experience with cilia or stem cell research is advantageous

On-line application: <https://biology.med.muni.cz/phd-program/application-process>
(September 1st, 2024 - October 31st, 2024)

General information on funding PGS positions: The program ensures that the PhD student obtains a financial support of min. 25,000 CZK per month. This is often a combination of various sources (grants, scholarship etc.).

Informal inquiries about the PhD topic are welcome at bosakovam@med.muni.cz.

Bosakova Lab: <https://www.researchgate.net/profile/Michaela-Bosakova>

Publications in: *Science Translational Medicine, EMBO Molecular Medicine, PNAS, Human Molecular Genetics...*