

Program: Biomedicínské vědy / Biomedical Sciences
Specializace: Biochemie a molekulární biologie / Biochemistry and Molecular Biology
Forma studia: prezenční
Školitel: Dr. Michaela Kunová Bosáková

Research topic: Regulation of primary cilia by cellular kinases (Regulace primárního cília buněčnými kinázami)

Summary: Dr. Bosáková is one of the members of Pavel Krejčí Research Group. The major focus of the Laboratory research for over 15 years has been to dissect the mechanisms of fibroblast growth factor (FGF) signalling. We are interested in pathological FGF-receptor (FGFR) signaling in disease, namely the skeletal disorders caused by activating mutations in FGFR3 (hypochondroplasia, achondroplasia, thanatophoric dysplasia, SADDAN). Our studies encompass many different areas of the FGF field including expression of FGF ligands *in vivo*, mechanisms of FGF/FGFR-mediated regulation of cell function, molecular mechanisms of FGFR signal transduction, biochemistry of FGFR kinase activation, development of FGFR inhibitors, and others. In our research, we actively collaborate with other scientists worldwide, including those from Norway (Dr. A. Wiedlocha, Oslo University), USA (Dr. D. Krakow, University of California Los Angeles; Dr. K. Hristova, John Hopkins University, Baltimore) and the Czech Republic (Dr. L. Trantirek, Masaryk University CEITEC, Brno; Dr. P. Konik, University of South Bohemia, Ceske Budejovice; Dr. M. Buchtova, Masaryk University).

Requirements on applicants:

- MSc degree in cellular and molecular biology, biochemistry or similar field
- Basic training in modern molecular biology techniques
- Well-organized, motivated and passionate about research
- English on a good communicative level is an advantage

Short info on the supervisor: Dr. Michaela Bosáková is currently developing her line of research as a pos-doc in the group of Dr. Pavel Krejčí <https://biology.med.muni.cz/research/research-teams/cell-signalling>

Publications:

All research outcomes may be seen at <https://www.muni.cz/lide/106056-michaela-bosakova/publikace?type=Article>

[General information on the PhD programme and a guide How to Apply](#)