

**Affiliation:** Masaryk University, Faculty of Medicine  
**Study program:** PhD program Biomedical Sciences  
**Specialization:** Biochemistry and Molecular Biology  
**Workplace:** Department of Biology, Faculty of Medicine, MU  
**Form of study:** Full-time

**Supervisor:** RNDr. Pavel Krejčí, Ph.D. (krejcip@med.muni.cz)

**Title:** Non-canonical signaling of human receptor tyrosine kinases

**Brief annotation (max 200 words):**

The major focus of dr. Krejčí 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).

**Funding:**

The PhD position has a grant support.

**Requirements:**

Requirements to successfully obtain a PhD degree in the Biomedical Sciences PhD program:

- Have at least one first author publication in an international research journal with an impact factor above the median IF in the field or have two first author publications with the IF in Q3. Importantly, the affiliation to the Faculty of Medicine, Masaryk University must be listed.
- Gain a set of minimum credits (240 ECTS in 4-year study period), pass 4 faculty-wide courses + an English language course and 4 field-specific courses.
- Pass the doctoral state exam.
- Take an active part in teaching.
- Participate in the annual PhD conference.
- Present research outcomes at least once at an international conference (poster, presentation).
- Spend at least one month abroad on an internship.

**Additional information on the supervisor:** <https://biology.med.muni.cz/en/phd-program/degree-requirements>

**Masaryk University, Faculty of Medicine**

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