

Affiliation: Masaryk University, Faculty of Medicine
Study program: PhD program Biomedical Sciences
Specialization: Cell and Tissue Morphology
Workplace: Department of Anatomy, Faculty of Medicine, MU
Form of study: Full-time

Supervisor: Alemeh Zamani, Ph.D.; zamani@med.muni.cz

Title: Reaction of the Blood-cerebrospinal fluid barrier to chemotherapy induced neuropathy

Brief annotation (max 200 words):

Breakdown of blood-cerebrospinal fluid (B-CSF) barrier localized in choroid plexus is associated with many neurological disorders. However, relatively little is known about the underlying molecular mechanisms. Alteration of the barrier integrity and its involvement in the initiation and progression of neurological disorders need to be determined to get insights into treatment approaches. Our team focuses on studying the B-CSF barrier in pathophysiological conditions using in-vivo and in-vitro models and a combination of different techniques. The dissertation thesis aims to investigate the molecular and cellular mechanisms underlying the spread of inflammatory responses through the B-CSF barrier, following chemotherapy, and subsequent neuropathic pain.

Funding:

The PhD position is supported by InGA projects.

Requirements:

- Graduate student of Medical School, Molecular Biology, Biochemistry, or relevant disciplines
- Hands-on experiences with WB, PCR, and cell culture
- Active knowledge of English (min. B2)

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://anatomy.med.muni.cz/>

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