

Study program: PAEDIATRICS

ANNOTATION

The study programme of Paediatrics focuses on the pathogenesis, diagnosis, clinical course and treatment of childhood and adolescent diseases in all sub-disciplines, with emphasis on the development of scientific thinking of postgraduate students for the purpose of deepening their theoretical knowledge and practical skills.

ADMISSION PROCEDURE 2017/18

Dissertation topics of the training department:

Department of Pediatrics, Faculty of Medicine and Dentistry and University Hospital Olomouc, Palacký University Olomouc, I. P. Pavlova 6, Olomouc, tel.: +420 588 444 403

Laboratory of Experimental Medicine, Faculty of Medicine and Dentistry and University Hospital Olomouc, Palacký University Olomouc, Hněvotínská 5, Olomouc, tel.: +420 585 632 111

Institute of Molecular and Translational Medicine, Faculty of Medicine and Dentistry and University Hospital Olomouc, Palacký University Olomouc, Hněvotínská 5, Olomouc, tel.: +420 585 632 082

1. Novel prognostic and predictive biomarkers in solid cancers

2 positions in the full-time or distance form of study

Supervisors: MUDr. Josef Srovnal, Ph.D., doc. MUDr. Marián Hajdúch, Ph.D.

2. Cytogenetic alterations in solid tumours

1 position in the full-time form of study

Supervisor: RNDr. Radek Trojanec, Ph.D.

3. Small animal imaging of selected bioactive molecules

1 position in the full-time form of study

Supervisor: PharmDr. Miloš Petřík, Ph.D.

4. Genetic biomarkers in cancer

1 position in the full-time form of study

Supervisor: doc. Mgr. Jiří Drábek, Ph.D.

5. Epigenetic biomarkers in cancer

1 position in the full-time form of study

Supervisor: doc. Mgr. Jiří Drábek, Ph.D.

6. Radiolabeled monoclonal antibodies for *in vivo* imaging using positron emission tomography

1 position in the full-time form of study

Supervisor: PharmDr. Zbyněk Nový, Ph.D.

7. ***In vitro* screening methods for the assessment of factors influencing bioavailability of new drug candidates in pre-clinical development**
1 position in the full-time form of study
Supervisors: doc. MUDr. Marián Hajdúch, Ph.D., Mgr. Barbora Lišková, Ph.D.
8. **Identification of novel proteomic cancer biomarkers**
2 positions in the full-time form of study
Supervisors: Lakshman Varanashi, MSc., Ph.D., doc. MUDr. Marián Hajdúch, Ph.D.
9. **Identification of molecular targets of anticancer therapy applying cell biology and proteomics tools**
2 positions in the full-time form of study
Supervisors: MUDr. Petr Džubák, Ph.D., doc. MUDr. Marián Hajdúch, Ph.D.
10. **Exhaled breath condensate as a source of lung disease biomarkers**
2 positions in the full-time form of study
Supervisors: MUDr. Petr Džubák, Ph.D., doc. MUDr. Marián Hajdúch, Ph.D.
11. **Drug resistance mechanisms in cancer**
2 positions in the full-time form of study
Supervisors: doc. MUDr. Marián Hajdúch, Ph.D., MUDr. Petr Džubák, Ph.D.
12. **Novel therapeutic targets and therapeutics in neurodegenerative diseases**
2 positions in the full-time form of study
Supervisors: Ing. Soňa Gurská, Ph.D., Viswanath Das, MSc., Ph.D.
13. **Kinase inhibitors in treatment of neurodegenerative diseases**
1 position in the full-time form of study
Supervisor: Viswanath Das, MSc., Ph.D.
14. **HTS/HCA in the anticancer drug discovery**
1 position in the full-time form of study
Supervisor: Pawel Znojek, MSc., Ph.D.
15. **HTS/HCA and animal models in discovery and development of anti-leishmanial therapeutics**
1 position in the full-time form of study
Supervisor: Ermin Schadich, MSc., Ph.D.
16. **Biology of aging and DNA damage**
1 position in the full-time form of study
Supervisor: doc. MUDr. Marián Hajdúch, Ph.D.
17. **Bio- and cheminformatics in biology of aging**
1 position in the full-time form of study
Supervisor: Mgr. Jiří Voller, Ph.D.

18. Development of methods and tools for analysis of proteomics data

1 position in the full-time form of study

Supervisor: Mgr. Jiří Voller, Ph.D.

19. Chemoinformatics for high-throughput drug screening

1 position in the full-time form of study

Supervisor: Mgr. Jiří Voller, Ph.D.

Note:

Applicants choose from the offered topics and in the application form, besides the chosen study programme, also confirm the selected dissertation topic.

Application deadline:

15 May 2017

Date and location of the entrance examination:

14 June 2017 at the Institute of Molecular and Translational Medicine, Faculty of Medicine and Dentistry and University Hospital Olomouc, Palacký University Olomouc, Hněvotínská 5, Olomouc

Anticipated maximum number of admitted students:

Full-time form: 25 students

Distance form: 2 students

Examination format: oral

Contents of entrance examination:

- Medical faculty graduates (M.D. or equivalent degrees): basic knowledge of general paediatrics with emphasis on paediatric oncology, haematology and autoimmune diseases in children, basic knowledge of medical genetics and molecular biology.
- Non-medical faculty graduates (MSc or equivalent degrees): basic knowledge of molecular and cellular biology, basics of laboratory medicine, and principles of heredity with particular respect to medical genetics.

Evaluation criteria:

- results of the entrance examination, laboratory and/or clinical skills, previous experience in science (publications, bachelor/master thesis, conference presentations, etc.), motivation of the applicant, extracurricular activities and language skills

The annual tuition fee for the post-graduate study program conducted in English is set at EUR 3,000.