

## **Study programme: PHYSIOLOGY AND PATHOLOGICAL PHYSIOLOGY**

### **ANNOTATION**

Up-dating the present knowledge on recent transcutaneous sensors and on microdialysis aiming to the assessment of concentration of glucose and various drugs in plasma or interstitial tissue. Evaluation and of microdialysis as possible method for research and/or practical use.

Topics for pathophysiology doctoral studies are linked to ongoing research which evolves around inflammation and its regulation on cellular & molecular level with translation to cardiopulmonary disorders.

### **ADMISSION PROCEDURE 2020/21**

Contact details of the training department:

Department of Physiology, Faculty of Medicine and Dentistry, Palacký University Olomouc, Hněvotínská 3, phone: +420 585 632 351.

Dissertation topics of the training department:

1. **Continuous glucose monitoring using new transcutaneous sensors and microdialysis**  
Supervisor: doc. MUDr. Rudolf Chlup, CSc.  
2 positions in the full- time form of study
2. **Incretin and insulin analogues and gliflozins in the treatment of type 1 and 2 diabetes mellitus**  
Supervisor: doc. MUDr. Rudolf Chlup, CSc.  
2 positions in the full-time form of study

Department of Pathological Physiology, Faculty of Medicine and Dentistry, Palacký University Olomouc, Hněvotínská 3, phone: +420585 632 502.

1. **Molecular pathophysiology of pulmonary inflammatory disease**  
Supervisor: prof. MUDr. Martin Petřek, CSc.  
1 position in the full-time form of study
2. **Association of genetic population structure with disease origin and development**  
Supervisor: prof. MUDr. Martin Petřek, CSc.  
1 position in the full-time form of study
3. **Genetic factors in pathomechanisms of sudden cardiac death**  
Supervisor: MUDr. Jana Petřková, Ph.D.  
1 position in the full-time form of study

#### **4. The selected regulatory factors of inflammation**

Supervisor: Mgr. Zdenka Navrátilová, Ph.D.

1 position in the full-time form of study

Application deadline:

**12 May 2020**

Date and location of the entrance examination:

**18 June 2020 at 10:00**

Department of Pathological Physiology,  
Faculty of Medicine and Dentistry, Palacký  
University Olomouc, Hněvotínská 3

Anticipated maximum number of admitted students:

**Full-time form: 8 students**

**Distance form: 0 students**

Examination format: oral

Contents of entrance examination:

Colloquium on various aspects of applicant's motivation, knowledge, skills and attitudes related to the topic of the study.

Evaluation criteria:

Problem – oriented knowledge and skills of the applicant. Knowledge of Czech language and communication abilities.

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