

## **Study programme: MEDICAL IMMUNOLOGY**

### **ANNOTATION**

Ph.D. students are profiled for orientation in the principles of basic and clinical immunology, well trained in performing various methodological approaches allowing determining the parameters of cell-mediated and humoral immunity, and the underlying genetic background of various immunologically determined states. The dissertation topics proposed by the Department of Immunology, Faculty of Medicine and Dentistry and University Hospital Olomouc, reflect the experimental focus of individual research groups, and their collaboration with other academic, research, and commercial subjects.

### **ADMISSION PROCEDURE 2017/18**

Dissertation topics of the training department:

Department of Immunology, Faculty of Medicine and Dentistry and University Hospital Olomouc, Palacký University Olomouc, Hněvotínská 3, Olomouc, tel.: +420 585 632 752

1. **The mechanisms of mucosal defense and immunoglobulin A**  
1 position in the full-time form of study  
Supervisor: prof. Mgr. MUDr. Milan Raška, Ph.D.
2. **The pathogenesis of immune complex-based autoimmune diseases**  
1 position in the full-time form of study  
Supervisor: prof. Mgr. MUDr. Milan Raška, Ph.D.
3. **The study of HIV-1 envelope glycoprotein Env as the approach for effective design of vaccine antigen**  
1 position in the full-time form of study  
Supervisor: prof. Mgr. MUDr. Milan Raška, Ph.D.
4. **Expression of recombinant proteins modified for proteoliposomal vaccine preparation and testing**  
1 position in the full-time form of study  
Supervisor: Dr. Ing. Eva Kriegová
5. **Expression profiling of candidate immune molecules in systemic autoimmune diseases**  
1 position in the full-time form of study  
Supervisor: Dr. Ing. Eva Kriegová
6. **Genetic variability of immune genes in complications of total joint replacements**  
1 position in the full-time form of study  
Supervisor: Dr. Ing. Eva Kriegová
7. **Study of chemokine receptors in the pathogenesis of B-cell malignancies**  
1 position in the full-time form of study  
Supervisor: Dr. Ing. Eva Kriegová

**8. The importance of selected immunogenetic and immunological factors for the haematopoietic stem cell transplantation outcome.**

1 position in the full-time form of study

Supervisor: doc. MUDr. František Mrázek, 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:

**15 June 2017** at 10:00 in the library of the Department of Immunology, Faculty of Medicine and Dentistry and University Hospital Olomouc, Palacký University Olomouc, Hněvotínská 3, Olomouc

Anticipated maximum number of admitted students:

**Full-time form: 8 students**

**Distance form: -**

Examination format: oral

Contents of the entrance examination:

- basic immunology, principles of the immune system, specific and adaptive immunity, cell mediated and humoral factors of immune protection
- basics of clinical immunology – allergy, autoimmunity, immune deficiencies, immune control of tumour development
- immunotherapy

Graduates of General Medicine or Dentistry programmes or biologically, alternatively biochemically, oriented study programmes are welcome.

Based on the submitted CV evaluation, candidates will be invited for an interview.

Evaluation criteria:

- The interview will focus on assessing the candidate's orientation in immunology and general biology, inclusive of evaluating laboratory skills. The following part will be focused on determining the candidate's ability to propose an experimental solution for simple biological and immunological tasks.

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