

Study programme: MEDICAL GENETICS

ANNOTATION

The study of hereditary patterns of occurrence of morphological and psychic characters on individuals and in the population, genetic counselling for syndromologic units, pre-and postnatal cytogenetics, assessment of fetal biochemical markers, DNA analysis of the congenital defects and hereditary diseases, prenatal diagnosis, oncocytodiagnostics.

ADMISSION PROCEDURE 2026/2027

Contact details of the training department:

Laboratory of Inherited Metabolic Disorders, University Hospital Olomouc, Zdravotníků 248/7, 779 00 Olomouc, tel.: 588 443 228, 588 444 231

Dissertation topic of the training department:

1. New LC/MS methods for diagnosis of inherited metabolic disorders

1 position in the full-time form of study

Supervisor: Mgr. Radana Brumarová, Ph.D., Consultant: Mgr. Eliška Ivanovová, Ph.D.

“New LC/MS methods for the diagnosis of inherited metabolic disorders” is focused on the development and optimization of modern analytical approaches based on liquid chromatography coupled to mass spectrometry (LC/MS). The aim of the project is to expand the possibilities of accurate and rapid diagnosis of inherited metabolic diseases through sensitive and specific methods for the determination of key metabolites in biological samples (e.g. plasma, urine, dried blood drop). The work will include the design of new methodological procedures, validation of selected protocols against clinical standards and their application in routine laboratory diagnostics. The results may contribute to improved early detection of disorders of amino acid, organic acid or fatty acid metabolism and thus to more effective treatment of patients.

Application deadline:

15 May 2026

Date and location of the entrance examination: **3 June 2026 at 10:30 a.m.**

seminar room, Department of Medical Genetics, University Hospital Olomouc, Zdravotníků 248/7, 779 00 Olomouc

Anticipated maximum number of admitted students:

Full-time form: 1 student

Examination format: oral

Contents of entrance examination: the issue of clinical genetics focused on applied subject matter.

Evaluation criteria: pass/fail

The annual tuition fee for the post-graduate study programme conducted in English is set at EUR 100.