

## **CLINICAL GENETICIST**

According to the Sections 3 and 4 of the Article 4 of Law of the Republic of Lithuania on the Medical Practice (1996, No. [102-2313](#); 2004, No. [68-2365](#)), and the Order No. V-469 of 28 June 2004 of the Minister of Health of the Republic of Lithuania „On the Approval of the List of Medical Practice Professional Qualification type“ („Dėl medicinos praktikos profesinių kvalifikacijų rūšių sąrašo patvirtinimo“), the clinical geneticist qualification is approved on the list of medical practices professional qualification and is acquired after finishing the residency of clinical genetics training programme. Medical student with professional qualification of medical doctor may enter this programme.

The residency programme of clinical genetics is prepared according to the practical experience in training clinical geneticists of the Department of Human and Medical Genetics of Vilnius University and regulations establishing requisitions for specialist training in the Republic of Lithuania. The programme fulfils protection of Mother and Child health, priority of the Lithuanian Health programme and World Health Organization. The programme is closely connected with major aims and strategical ideas of Vilnius University and Faculty of Medicine.

Training programme of clinical genetics is constantly being corrected depending on work functions of clinical geneticists in both the Republic of Lithuania and European Union countries.

During the training programme resident works under the supervision of senior and more experienced specialists (counsellors and chiefs of the department) under the order of the laws of the Republic of Lithuania

## **ASPECTS OF TRAINING PROGRAMME**

The duration of training programme of clinical genetics is four years and consists of 184 credits. Each year of training programme consists of genetics cycles and short educational cycles from 2 to 4 credits. The principal of study sequence is to start with basic subjects (non-genetic related disciplines) in the first study year and to continue training process in specific areas of genetics the following years.

The laboratory medicine, human development, internal diseases, child and adolescent psychiatry, dermatology, pathology, neurology and maxillofacial abnormalities are studied during the first year of training programme. The knowledge in these fields is important for further studies of clinical genetics.

The clinical cytogenetics, molecular genetics, cancer genetics, pharmacogenetics, inheritable metabolic disorders, chromosomal disorders, inheritable developmental disorders, prenatal investigation and genetic counselling are closely related with the specialty and are studied during the following three years of clinical genetics studies.

Both theoretical and practical parts are involved in the training programme of every circle. Twenty percent of all training programme duration is committed to theoretical studies. It guarantees practical abilities, necessary for the future work. Seminars, lectures, discussions about clinical cases, conferences for clinical geneticists (one hour per week), clinical and patho-anatomical conferences, meetings of medical societies, scientific conferences, and personal studies (seminars, genetic counselling meetings and scientific reports) are involved in the theoretical studies.

## **WORK FIELD**

Clinical geneticist:

- provides genetic counselling for patients and their families,
- informs patient's family about the diagnostic possibilities of prenatal inheritable diseases and congenital developmental disorders and provides reproductive recommendations,
- constructs pedigree and its legend, analyses pedigree and evaluates type of the disease inheritance,
- collects history of pregnancy, family, social life and the disease,
- evaluates individual's phenotype: body proportions, micro- and macroanomalies or other congenital malformations,
- performs patient's general physical and anthropometrical examination, woman's small pelvis and foetus ultrasound examination,
- is able to perform cytogenetic and molecular genetic testing, biochemical tests for inherited metabolic disorders, evaluates and interprets these results; estimates laboratory and instrumental test results,
- is able to diagnose chromosomal disorders, monogenic diseases, multifactorial diseases, congenital malformations due to harmful factors during pregnancy, mitochondrial disorders, and somatic cells diseases. If possible, treats the diseases (mentioned above) and applies first, second and third preventive measures,
- provides first aid.