

Postgraduate Medical Education in the speciality Clinical Genetics in Denmark

The medical speciality "Clinical Genetics" was launched as a regulated and certified speciality in Denmark in 1996. Clinical Genetics is a clinical, diagnostic and laboratory speciality, dealing with clinical and laboratory investigation of chromosomal disorders, chromosomal aberrations, monogenic and multifactor hereditary diseases and congenital defects and dystrophies. The diagnostic laboratory part of the speciality comprises classical cytogenetic work, molecular cytogenetic investigations, metabolic and molecular genetic analyses and DNA analyses. These investigations are carried out on prenatal specimens (foetal diagnostic procedures) and on postnatal specimen as well.

The speciality acts in close collaboration to all other clinical specialities, takes care of specific patient groups and acts as advisory specialist in health counselling for patients, relatives, other physicians and the public and by interpretation of laboratory results, prophylactic measures i.e. to other specialists including GP.

The speciality is a fast developing speciality, caused by the recent mapping and interpretation of the human genome, forecasting new diagnostic and gene-therapeutic possibilities.

Training duration and content

Duration of traineeship after full registration as a doctor is 5 years.

Theoretical education

General professional skills: Course in medical pedagogic (supervision, feedback, assessment) and course in organization, administration and collaboration in health care systems.

The speciality-specific course program has duration of approx. 210 hours. The education is research based. The course topics are as follows:

- Basic clinical genetics
- Genetic counselling
- Cytogenetics
- Diagnostic molecular genetic methods
- Genetic epidemiology
- Oncogenetics
- Prenatal diagnostic methods
- Dysmorphologies and neuropaediatrics
- Communication

The courses will comprise lectures; case-based learning, problem based learning and practical sessions: Estimations, use of IT-technology, databases and communicative simulation training.

Research training

Two courses in scientific methods and fulfilment of a minor project, presented as lecture, poster or paper. Ph.D-degree or doctorate thesis substitutes this part of program.

Practical education

12 month introduction program

48 month main program

Both parts involves employment and work in depts. of clinical genetics as resident / senior resident and on other relevant clinical departments.

The traineeship is structured by an extensive description of the program, with listing of objectives and goals, learning strategies and assessment methods. This list of goals is divided in goals which must be obtained in the introduction period and goals which must be obtained in the main education program. For further details, see the attached full curriculum.

The trainee will obtain competences in order to gain the professional level as a specialist in clinical genetics in 7 different roles, as:

Medical expert
Communicator
Collaborator
Health promoter
Academic scholar
Administrator
Professional

Clinical competences needed for the specialist in clinical genetics should be obtained during employment as resident and senior resident in departments of gynaecology and obstetrics and departments of paediatrics and diagnostic ultrasound labs or similar with close collaboration with genetic laboratories.

In the main training program employments will include optional focused clinical stays up to 4 weeks duration at one or more of following departments.

- Section of obstetrical ultrasound
- Centre for rare disorders and disabilities
- Neurology
- Foetal pathology
- Oncology
- Endocrinology
- Clinical biochemistry
- Alzheimer clinics, clinic for congenital eye-diseases, audiological dept.
- Cancercytogenetic Laboratory
- Dermatology

Denmark will without limitations be able to include the Danish speciality “clinical genetics” under the heading of “Medical Genetics” or similar in Annex V in Directive 2005/36/EC. Denmark will without limitation be able to recognize specialist from other EU member states with a postgraduate education of similar duration or as a minimum of 4 years. In Denmark, the specialization is sanctioned by a certification diploma issued by the government (National Board of Health).

September 8, 2009

National Board of Health
Education and certification
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