



European Society of Human Genetics



VU University
Medical Center
Amsterdam



CENTRE FOR
Medical Systems Biology



Public Health Genomics and Community Genetics

Teaching staff: Pascal Borry, PhD. Hilary Burton, MD, FFPHM. Prof. Martina Cornel, MD, PhD. Alison Hall, MA. Lidewij Henneman, PhD. Cecile Janssens, PhD. Prof. em. Leo P. ten Kate. Luis Nacul, MD, PhD. Gurdeep Sagoo, PhD.

Schedule

Date: 26 and 27 May 2011
Place: Amsterdam
Cost: € 645
Specifics: Pre-conference course (before ESHG conference)

Introduction

Advances in genetic and genomic science are leading to a new understanding of genetic contribution to human disease and the development of strategies for minimising disease phenotypes or ultimately preventing them altogether. However, the translation of this knowledge into practice appears to lag behind. This course is specifically aimed to address these challenges in a multidisciplinary setting, bringing together professionals and students from a range of scientific disciplines and health care practices. It presents an overview of current and future applications of medical genetics/genomics in health care. The students analyse current debates on the pros and cons of these applications, as well as scientific developments in genetics/genomics and technology assessment related to these potential applications. Existing care in clinical genetic centres, genetic screening and prenatal diagnosis are studied. Future scenarios are debated, including the development of tailored prevention programs. By combining expertise and sharing professional viewpoints, a better understanding of the challenges for translation of genomics into health care may be achieved. Core staff members will be present during the whole course to respond to questions and support assignments in small working groups.

Contents

- Monogenic conditions, multifactorial disorders, complex disease, monogenic subtypes
- The impact of genetic conditions on individuals and society
- Genetic health care (clinical genetics, genetic screening, direct-to-consumer tests)
- Different approaches to public health and clinical genetics
- Tailoring prevention, risk stratification
- Criteria for screening, clinical utility
- Introduction to genetic variation and its measurement (Karyotype, DNA test, array, SNP, CNV)
- Whole genome technology, blurring boundaries of research and health care
- Ethical, legal, historical and social
- Translation: from knowledge to implementation

Teaching objectives

The participants will be able to:

- Describe how genetics and genomics contribute to current health care
- Discuss pros and cons of genetic testing and screening, referring to relevant quantitative and qualitative assessment criteria
- Discuss the differences between monogenic conditions and complex diseases, especially monogenic subtypes, and the relevance of these concepts in health care
- Develop own opinion on potential future applications of genetics and genomics in health care, integrating ethical, legal and social aspects
- Explain the challenges of high throughput technologies and whole genome sequencing.

Required knowledge

A (bio)medical degree or master level or recent experience in ethical, legal or social aspects of genomics or genetics.

Language

English

Target audience

A multidisciplinary audience including: clinical geneticists, researchers, health care professionals, public health experts, ethicists, social scientists, and teachers (e.g. biology or public health).

Course material

A reading pack will be provided (lunches & dinner on the first day are also included).

Fellowships

Several scholarships are available to cover the course fee. Eligibility criteria include: appropriate professional background and/or training, having a junior position or modest income and inability to acquire other funding.

To apply for a scholarship, we request **preferably before March 25, 2011**:

- a CV (with date of birth, relevant training, professional activities, and full address)
- a motivation letter

For information on scholarships or budget accommodation, please contact:

cq.vanel@vumc.nl

Registration/Application form

(Course R04) [Application form in English](#)