

VIIIth IEA Eastern Mediterranean Regional Scientific Meeting

Genetic Epidemiology Workshop

Nov. 25th, 2010

Introduction to Human Genome Epidemiology

An epidemiologic foundation for using genetic information to improve health and prevent disease

Advances in genomics are ushering in a new era of personalized healthcare and disease prevention in the 21st century. This introductory workshop will expose participants to a range of topics that illustrate the systematic applications of epidemiologic methods to studies of human genetic variation in relation to health and disease. Presentations will focus on epidemiologic perspectives on gene discovery, gene-disease association and gene-environment interaction, the evaluation of genetic tests and services, and the policy and practice implications of genomic discoveries. The workshop is designed for epidemiologic and other biomedical researchers and practitioners interested in the intersection of epidemiology, genetics, preventive medicine, and public health.

Learning objectives: At the end of the workshop participants will be able to

1. Assess the potential value of human genome discoveries for population health.
2. Identify types of data needed to translate genetic discoveries into preventive medicine and public health interventions.
3. Describe criteria for reviewing and evaluating such data in the scientific literature.

Readings and Resources

Khoury MJ, Bedrosian S, Gwinn M, Higgins, J, Ioannidis J, Little J. Human Genome Epidemiology (second edition): Building the Evidence for Using Genetic Information to Improve Health and prevent Disease. Oxford University Press, New York, 2010.

CDC Office of Public Health Genomics

<http://www.cdc.gov/genomics/>

The Human Genome Epidemiology Network (HuGE Net)

<http://www.cdc.gov/genomics/hugenet/default.htm>

HuGE Navigator: An online integrated knowledge base in human genome epidemiology

<http://hugenavigator.net/>

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