

A TOP-END COURSE IN HUMAN GENETICS IN OULU SOON! APPLICATIONS OPEN!

LOGICAL REASONING IN HUMAN GENETICS 2015

WHEN: August 10-14, 2015.

WHERE: University of Oulu (<http://www.oulu.fi/yliopisto>), Kontinkangas campus, Oulu, Finland.

WHO: Professor **Joseph D. Terwilliger**, Professor **Kenneth Weiss**, Dr. **Anne Buchanan**, Professor **Markus Perola**, Dr. **Tero Hiekkalinna** and local guest lecturers

WHY: This course is designed to examine the conceptual, empirical, and theoretical approaches to understanding the complex cause and effect relationships underlying human variation. Despite a century of quantitative research on evolutionary biology and genetics, our hypotheses about the phenogenetic (genotype + environment + culture -> phenotype) relationships underlying human variation seem poorly focused and often based on unnecessarily naïve models. In this course we will review the basics of evolutionary biology, genetic epidemiology, gene mapping, and how to integrate these three disciplines to address questions of causality in human genetics.

It is hoped that through this course, students will develop critical thinking and logical reasoning skills to try and learn from what negative experimental results tell us about the architecture of disease and to question the assumptions underlying their experimental approaches to develop better study designs based on better hypotheses for future studies. The reason experiments are said to "fail" is usually because the question was poorly posed or the hypotheses being tested were incompletely thought out and justified, not because of technical or analytical errors. In fact, the results have been a major success in showing that the causal landscape is more complex than had been widely expected, but is in fact consistent with biological and evolutionary theory.

TO WHOM: The course is meant primarily for graduate students and post-docs interested and/or working in human genetics, but applies also to evolutionary and experimental genetics of wild or model species as well. More senior scientists are welcome, however, in the case there are too many applicants, the priority will be given to below-PI level people.

HOW: Registration is open through HERE: <http://www.helsinki.fi/~tsjuntun/LR2015>

A more detailed schedule is posted on the same site.

HOW MUCH: The course is FREE. However participants have to cover their own travel and accommodation costs and meals.

QUESTIONS: Mirja Peltola, MRC Oulu-DP coordinator, e-mail: mirja.peltola@oulu.fi, Phone: +358407309429



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