

**THE 2014 INTERNATIONAL WORKSHOP ON  
STATISTICAL GENETIC METHODS FOR HUMAN COMPLEX TRAITS**  
(formerly the 'Methodology of Twin and Family Studies Introductory Workshop'):  
MARCH 3rd - MARCH 7th, 2014

The next workshop will be held in Boulder, Colorado, March 3rd-7th, 2014. Much of the application programming will be based on OpenMx, developed by Drs. Boker, Neale & colleagues for the flexible analysis of genetically informative data. Michael Neale serves as the Academic Director for the workshop and Sarah Medland as Associate Director. They are joined by an outstanding faculty from universities around the world.

The course will include: causes of variation; introduction to R programming; likelihood; matrix algebra; path analysis; univariate twin analysis; biometrical genetics; categorical data; between group heterogeneity; continuous heterogeneity and G x E; multivariate phenotypic factor and genetic analysis; developmental models; multiple raters and contrast effects; extended twin designs; power analysis; GCTA; direction of causation and Mendelian randomization; genetic epidemiology in the genomic age; new advances in genetics epidemiology and responsible conduct of research.

Hands-on analysis will be emphasized employing networked notebook computers, and using OpenMx based on R programming. The website for OpenMx is at: <http://openmx.psyc.virginia.edu> A beginner's guide to OpenMx is at <http://www.vipbg.vcu.edu/~hmaes/OpenMx/html/NewBeginnersGuide.html>

Participants are strongly advised to have some familiarity with R programming before attending the workshop.

Introductory material is available at <http://psych.colorado.edu/wiki/doku.php?id=labs:learnr:home> For those not familiar with R, you should work through at least the first four lectures and scripts.

The registration fee is \$600, payable by January 24th, 2014. Thereafter, the fee will be \$700. Non-payment by February 14<sup>th</sup>, 2014, will result in your registration being dropped, and cancellations after that date will be non-refundable. Details of local arrangements, registration, and accommodation are available from the workshop secretary, Melissa Dunivant, and at: <http://ibg.colorado.edu/workshop2014>

An outstanding international faculty roster includes:

Michael Neale (Academic Director), Lindon Eaves, Nathan Gillespie, Hermine Maes, Brad Verhulst, Elizabeth Prom-Wormley. Virginia Institute for Psychiatric and Behavioral Genetics, VA

Ben Neale. Broad Institute and MGH

Stacey Cherny. Genome Research Centre, University of Hong Kong, Hong Kong

Meike Bartels, Dorret Boomsma, Danielle Posthuma. Amsterdam Vrije Universiteit, Netherlands

John Hewitt (Local Host), Jeff Lessem, Matt Keller. Institute for Behavioral Genetics, Boulder, CO

Nick Martin, Sarah Medland (Associate Director). QIMR Berghofer Medical Research Institute, Australia

David Evans. University of Queensland Diamantina Institute, Australia

Fruhling Rijdsdijk. King's College London, Institute of Psychiatry, United Kingdom

Further information may be obtained from John Hewitt, or the workshop coordinator, Melissa Dunivant, IBG, University of Colorado, Boulder, CO 80309-0447, USA; Telephone: 303-492-3405; FAX: 303-492-8063; E-mail: [John.Hewitt@Colorado.edu](mailto:John.Hewitt@Colorado.edu) or [Melissa.Dunivant@Colorado.edu](mailto:Melissa.Dunivant@Colorado.edu).

Individuals from underrepresented racial and ethnic groups, individuals with disabilities, and individuals from socially, culturally, economically, or educationally disadvantaged backgrounds are especially encouraged to attend. Partial financial support for US participants from these groups is available by application to the local host, John Hewitt.

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