

Joint EMBL-EBI-Wellcome Trust Course: *In Silico* Systems Biology

23–27 April 2012



Systems biology can now be considered an established and fundamental field in life sciences. It has facilitated the move from the identification of molecular ‘parts lists’ for living organisms towards synthesising information from different ‘omics’-based approaches to generate and test new hypotheses about how biological systems work.

This joint EMBL-EBI-Wellcome Trust Advanced Course will combine lectures and led discussions to identify the key challenges, opportunities and bottlenecks, with practical sessions on network analysis and network-based modelling. The course is aimed at advanced PhD students and post-doctoral researchers who are using or planning to use a systems-based approach to understanding biomedical problems.

Sessions

- Overview of the field of Systems Biology: past, present and future
- Network Analysis
- Qualitative Modelling: modelling and simulation of interesting networks and pathways, as well as analysis of dynamical systems
- Quantitative Modelling, in particular discrete modelling and stochastic simulations
- Network and Pathway Enrichment
- Importance of semantics in systems biology: how to annotate models, and how to use those annotations to understand, merge and reason on models
- Programmatic approaches (e.g. LiSBML)

Scientific Programme Committee

Nicolas Le Novère EMBL-EBI, UK
Julio Saez-Rodriguez EMBL-EBI, UK
Vicky Schneider EMBL-EBI, UK

Trainers

Dr. Thomas Schlitt Kings College London, UK
Dr. Anna Bauer-Mehren Stanford School of Medicine, USA
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Dr. Vijilashkimi Chelliah EMBL-EBI, UK
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Dr. Nick Juty EMBL-EBI, UK
Dr. Aidan MacNamara EMBL-EBI, UK
Dr. Martijn van Iersel EMBL-EBI, UK

Deadlines

Application deadline: 3 February 2012

Full details at:

www.wellcome.ac.uk/advancedcourses

Advanced Courses are part of the Wellcome Trust Advanced Courses and Scientific Conferences Programme and are held at the Wellcome Trust Genome Campus, Hinxton, Cambridge.

For full details, please visit,
www.wellcome.ac.uk/hinxton

