

# Conway Institute University College Dublin, Ireland

Tuesday 8 February

**Chair: Peter Hamilton**

Centre for Cancer Research and Cell Biology, Queen's University Belfast

9.15 - 9.45

*"Signalling Ballet in Four Dimensions"*

**Boris Kholodenko, Systems Biology Ireland,  
University College Dublin, Ireland**

9.45 - 10.15

*"A Connectivity Mapping Approach to the Identification of  
Small-Molecule Inhibitors of Particular Genes "*

**Shu-Dong Zhang, Centre for Cancer Research and Cell Biology,  
Queen's University Belfast, UK**

10.15 - 10.45

*"Enhancing the Power of Qtl Mapping based on Microarray  
Data: Mrna Expression and Dna Methylation "*

**Liming Liang, Department of Epidemiology & Department  
of Biostatistics, Harvard School of Public Health, USA**

10.45 - 11.00

**Break: Coffee**

**Chair: Dean Fennell**

Centre for Cancer Research and Cell Biology, Queen's University Belfast

11.00 - 11.30

*"Biological Network and Disease Risk Factor Discovery by Regularized  
Analysis of Genome-Wide Data"*

**Jason G. Mezey, Department of Biological Statistics and  
Computational Biology (BSCB) Cornell University, USA**

11.30 - 12.00

*"Modeling and Analysis of DNA Sequence Data from Heterogeneous Tumors"*

**Carsten Wiuf, Bioinformatics Research Centre (BiRC)  
Aarhus University, Denmark**

12.00 - 12.30

*"Large-scale Inference of Regulatory Networks: Peripheral  
Regions of B Cells"*

**Frank Emmert-Streib, Centre for Cancer Research and  
Cell Biology, Queen's University Belfast, UK**

12.30

**Close of Meeting and Lunch**

This event is sponsored by the Department for Employment and Learning through its "Strengthening the all-Island Research Base" Initiative, Roche and the Centre for Cancer Research & Cell Biology (CCRCB), Queen's University Belfast.



**CCRCB**  
Centre for  
Cancer Research  
& Cell Biology



Queen's University  
Belfast

International Conference 7-8 February 2011

## Quantitative Biology and Bioinformatics in Modern Medicine



**Conway Institute**  
**University College Dublin, Ireland**  
Monday 7 February

8.55 - 9.05

**Welcome**

**Chair: Des Higgins**

Conway Institute, University College Dublin

9.05 - 9.50

**Keynote:**

*"Understanding Dysregulated Cell Signaling via Logic-Based Modeling: From Qualitative Pathway Topology to Quantitative Network Dynamics"*

**Douglas Lauffenburger, Department of Biological Engineering, MIT, USA**

9.50 - 10.20

*"Mapping Quantitative Trait Loci in Mice"*

**Karl Broman, Dept of Biostatistics & Medical Informatics  
University of Wisconsin-Madison, USA**

10.20 - 10.50

*"Integrative Analysis of Leukaemia "Omics" Data Sets – New Avenues for Improved Disease Classification and Patient Management"*

**Lars Bullinger, University of Ulm, Germany**

10.50 - 11.10

**Break: Coffee**

**Chair: Frank Emmert-Streib**

Centre for Cancer Research and Cell Biology, Queen's University Belfast

11.10 - 11.40

*"Breaking the Glass Slide Habit: How Digital Pathology is Revolutionizing Tissue Biomarker Research and Diagnostic Pathology"*

**Peter Hamilton, Centre for Cancer Research and Cell Biology,  
Queen's University Belfast, UK**

11.40 - 12.10

*"Tissue-Based Imaging: Automated Image Analysis in Histopathology"*

**Liam Gallagher, University College Dublin, Ireland**

12.10 - 13.35

**Break: Lunch**

**Chair: Ken Mills**

Centre for Cancer Research and Cell Biology, Queen's University Belfast

13.35 - 14.05

*"RNA Switches and Nanostructure"*

**Herve Isambert, UMR168 Institut Curie, France**

14.05 - 14.35

*"Ranking of MicroRNA Target Predictions by Pareto Front Analysis"*

**Andreas Albrecht, Centre for Cancer Research and Cell Biology,  
Queen's University Belfast, UK**

14.35 - 15.05

*"Visualization and Complexity Analysis of Multidimensional Energy Landscapes for Protein Folding"*

**Roy Johnston, University of Birmingham, UK**

15.05 - 15.20

**Break: Coffee**

**Chair: Andreas Albrecht**

Centre for Cancer Research and Cell Biology, Queen's University Belfast

15.20 - 16.05

**Keynote:**

*"Modelling Protein Structure, Function and Interactions"*

**Michael Sternberg, Centre for Bioinformatics, Centre for Integrative Systems, Biology, Imperial College London, UK**

16.05 - 16.35

*"Functional Analysis of MicroRNA: Are Computational Approaches Useful?"*

**Artemis Hatzigeorgiou, Alexander-Fleming-Institute,  
University of Pennsylvania, USA**

**Oral Poster Presentations:**

**Chair: Shu-Dong Zhang**

Centre for Cancer Research and Cell Biology, Queen's University Belfast

16.35 - 16.45

*"A Proteomics and Bioinformatics Approach towards Biomarker Panel Identification in Prostate Cancer: from Discovery to Targeted Validation"*

**Yue Fan, UCD School of Medicine and Medical Science,  
Conway Institute, University College Dublin**

16.45 - 16.55

*"ChIP-seq Identifies p63 Target Genes Involved in Non-Syndromic Cleft Palate"*

**Simon McDade, Centre for Cancer Research and Cell Biology,  
Queen's University Belfast**

16.55 - 17.05

*"Defining the Role of Novel Genes and Pathways in The Transformation of MDS to AML"*

**Fabio Liberante, Centre for Cancer Research and Cell Biology,  
Queen's University Belfast**

17.05 - 17.15

*"Combined Gene Expression Analysis Identifies Signature Associated with Brca1-Deficient Non-Small-Cell Lung Cancer"*

**Jaime Blayney, Centre for Cancer Research and Cell Biology,  
Queen's University Belfast**

17.15 - 19.45

**Poster Session to include Wine Reception and Canapes**