

# Program - Thursday 17 March

08:45 - 09:15 Registration & welcome coffee

## Session 1: Data Integration and Modeling Chair: Jeroen Raes

- 09:15 - 10:15 Microbiome analysis of the human gut and the ocean  
**Peer Bork**, European Molecular Biology Laboratory, DE
- 10:15 - 10:50 Unraveling cancer diversity through the geometry of its data  
**Monica Nicolau**, Molecular and Cellular Biology, University of California, Davis, US
- 10:50 - 10:55 Sponsor talk: Applied Maths: Bringing the informatics to the biologist  
**Katleen Vranckx**, Bioinformatics Product Specialist

10:55 - 11:20 Coffee break

## Session 1: Data Integration and Modeling Chair: Jeroen Raes

- 11:20 - 11:55 Multiscale Modeling of Angiogenesis  
**Roeland Merks**, CWI - Life Sciences, Amsterdam, NL and Mathematical Institute, Universiteit Leiden, NL
- 11:55 - 12:30 Modeling the regulation of bidirectional synaptic plasticity by allosteric calcium sensors  
**Nicolas Le Novère**, Babraham Institute, Cambridge, UK
- 12:30 - 13:05 Cancer drivers and their therapeutic opportunities  
**Nuria Lopez-Bigas**, University Pompeu Fabra, ES

13:05 - 13:50 Lunch

13:50 - 15:00 Poster session 1

## Session 2: Next Generation Sequencing Chair: Geert Van Minnebruggen

- 15:00 - 15:35 Single-cell genomics to study the biology of cellular heterogeneity in health and disease  
**Thierry Voet**, KU Leuven, BE
- 15:35 - 16:10 Genome-wide patterns and properties of human germ-line and cancer somatic mutations  
**Shamil Sunyaev**, Harvard, US
- 16:10 - 16:25 Short talk: Integration of pharmacogenomic datasets enables identification of tumorspecific isoforms as expression based biomarkers predictive of drug response  
**Benjamin Haibe-Kains**, University Health Network, CA
- 16:25 - 16:30 Sponsor talk: eLife: Publishing with eLife  
**Naomi Penfold**, Events Coordinator

16:30 - 16:55 Coffee break

## Session 2: Next Generation Sequencing Chair: Geert Van Minnebruggen

- 16:55 - 17:30 Towards population-level microbiome monitoring: the Flemish Gut Flora Project  
**Jeroen Raes**, VIB - KU Leuven, BE
- 17:30 - 18:05 The Costs of Genes  
**Michael Lynch**, Indiana University, US
- 18:05 - 18:25 Integrative inference of transcriptional networks in plants  
**Klaas Vandepoele**, VIB Department of Plant Systems Biology, UGent

18:30 - 19:30 Reception

20:00 - 22:30 Conference dinner

# Program - Friday 18 March

08:45 - 09:15 Welcome coffee

## Session 3: Protein Bioinformatics Chair: Lennart Martens

- 09:15 - 10:15 Proteomics enters the age of big data  
**Matthias Mann**, Max Planck Institute of Biochemistry, DE
- 10:15 - 10:50 Data integration and whole cell modeling of a minimal cell  
**Luis Serrano**, Centre for Genomic Regulation, ES
- 10:50 - 10:55 Sponsor talk: Qiagen Bioinformatics: From NGS Data to Biological Insights  
**Anne Arens**, Sr. Scientist

10:55 - 11:20 Coffee break

## Session 3: Protein Bioinformatics Chair: Wim Vranken

- 11:20 - 11:55 A Structural Perspective on the Evolution of Protein Function  
**Christine Orengo**, University College London, UK
- 11:55 - 12:15 Hunting for mythical beasts - an exploration of the hidden (or hard to get) proteome  
**Lennart Martens**, VIB - UGent, BE
- 12:15 - 12:30 Short talk: PepTracker®: Tools for Transforming Biologists to Proteomics Data Ninjas  
**Rob Kent**, School of Life Sciences (Centre for Gene Regulation and Expression), University of Dundee, UK
- 12:30 - 12:45 Short talk: Spatiotemporal variation of mammalian protein complex stoichiometries  
**Alessandro Ori**, Leibniz Institute on Aging – Fritz Lipmann Institute (FLI), DE

12:45 - 13:45 Lunch

13:45 - 14:45 Poster session 2

## Session 4: Systems Biology Chair: Steven Maere

- 14:45 - 15:20 Computational Approaches to Identify Functional Genetic Variants in Cancer  
**Gary Bader**, University of Toronto, CA
- 15:20 - 15:55 Modeling pharmacogenomic interactions in cancer  
**Lodewyk Wessels**, The Netherlands Cancer Institute, NL
- 15:55 - 16:10 Short talk: Predicting compound activity from chemical, image and transcriptional fingerprints across 1001 targets at industrial scale  
**Hugo Ceulemans**, Associate Scientific Director Computational Biology, Janssen, BE
- 16:10 - 16:15 Sponsor talk: Pathomation: Bioinformatics through the microscope  
**Yves Sucaet**, Chief Technology Officer

16:15- 16:40 Coffee break

## Session 4: Systems Biology Chair: Steven Maere

- 16:40 - 17:15 Mapping and modeling to liven up biological information: the human metabolome, drug detoxification and innate immunity  
**Hans Westerhoff**, Vrije Universiteit Amsterdam, NL
- 17:15 - 17:50 Personalized nutrition using gut microbiome and clinical data  
**Eran Segal**, Weizmann Institute, IL

17:50 - 18:00 Closing remarks + poster prize