Program - Thursday September 22

09:00 - 09:25 Registration & Welcome Coffee

09:25 - 09:30 Welcome
Matthew Holt, VIB Center for the Biology of Disease, KU Leuven, BE

09:30 - 10:30 KEYNOTE: Molecular anatomy of the brain by large-scale single-cell RNA-seq
Sten Linnarsson, Karolinska Institute, SE

10:30 - 11:00 Single Cell Analysis of Brain Somatic Mosaicism
Michael J. McConnell, University of Virginia, US

10:30 - 11:00 Coffee Break

11:30 - 12:00 Dissecting heterogeneity of neuronal injury responses via Single Cell Genomics
Guoping Fan, University of California US

12:00 - 12:30 DiX-Seq: Single nucleus RNA-Seq reveals dynamics of rare adult newborn neurons
Naomi Habib, Broad Institute, MIT, US

12:30 - 13:00 Genome-wide changes in lncRNA, alternative splicing and cortical patterning and shifts in the expression of marker genes, in autism
Grant Belgard, Verge Genomics, US

13:00 - 13:15 Selected abstract: A molecular taxonomy of the mouse retina using single cell transcriptomics
Karthik Shekhar, Broad Institute, US

13:15 - 13:20 Sponsored Talk: Merck - Taking Science Further, Faster
Irina Van der Vlies, Scientific Liaison Specialist Merck, BE

11:00 - 11:30 Coffee Break

13:20 - 15:00 Lunch & Poster Session (Odd numbers)

15:00 - 15:30 Single cell approaches to understanding human neocortical cell types and local circuit connectivity
Ed Lein, Allen Institute for Brain Science, US

15:30 - 16:00 Positional information of gene expression in the brain cancer and development
Je Hyuk Lee, Cold Spring Harbor Laboratory, US

16:00 - 16:30 Spatially resolved gene expression heterogeneity in tissue sections
Joakim Lundeberg, SciLifeLab, SE

16:30 - 17:00 Coffee Break

16:30 - 17:00 Meet the Expert: Amita Sehgal @N31

17:00 - 17:15 Selected abstract: By any other name: quantifying neuronal subtype identity through functional meta-analysis
Megan Crow, Cold Spring Harbor Laboratory, US

17:15 - 17:30 Selected abstract: Gene regulatory network inference from single-cell RNA-seq reveals high-resolution cellular states
Sara Aibar, KU Leuven, BE

17:30 - 18:00 Computational challenges in single-cell RNA-seq
John Marioni, EMBL-EBI, UK

18:00 - 19:00 Reception in the Antichambre

20:00 - 23:00 Conference Dinner @ Faculty Club
Program - Friday September 23

08:30 - 09:00 Welcome coffee

S4 | CNS disease: can we explain it through sequencing? Chair: Chris Ponting

09:00 - 10:00 KEYNOTE: Somatic mutation and genomic diversity in the human cerebral cortex
Christopher Walsh, Harvard Medical School, US

10:00 - 10:30 Cellular variation in brain development and disease
Bassem Hassan, ICM Institute, FR & VIB Center for the Biology of Disease, KU Leuven, BE

10:30 - 11:00 Coffee Break

11:00 - 11:30 Understanding gene regulation via chromatin structure in developing human brain
Luis De La Torre-Ubieta, University of California, School of Medicine, US

11:30 - 12:00 Genetics of Function and Dysfunction of the Brain
Hrein Stefánsson, deCODE, IS

12:00 - 12:15 Selected Abstract: Defining the neurovascular niche through single cell sequencing
Michael Vanlandewyck, Uppsala University / Karolinska Institute, SE

12:15 - 14:00 Lunch & Poster Session (Even numbers)

S5 | CNS functionality: probing activity at the single cell level Chair: Matthew Holt

14:00 - 14:30 Genetic Dissection of Neuron and Glia Genesis using Mosaic Analysis with Double Markers (MADM)
Simon Hippenmeyer, Institute of Science and Technology, AT

14:30 - 15:00 Neural Circuits for Adaptive Behaviors
Vanessa Ruta, Laboratory of Neurophysiology and Behavior, The Rockefeller University, US

15:00 - 15:30 Optogenetics: Lighting Up the Brain
Gero Miesenböck, University of Oxford, UK

15:30 - 16:00 Coffee Break

16:00 - 16:30 Circuits underlying rhythmic rest:activity behavior
Amita Sehgal, University of Pennsylvania, US

16:30 - 16:45 Selected Abstract: SIFamide orchestrates multiple peptidergic signals into appetitive and feeding behavior in Drosophila
Thomas Riemensperger, Department of Molecular Neurobiology of Behavior, Georg-August-Universität Göttingen, DE

16:45 - 17:15 All-optical interrogation of neural circuits
Michael Häusser, University College London, UK

17:15 - 17:30 Closing Remarks
Jo Bury, Managing director VIB, BE