

## Sunday 26.04.15

8:30 *Registration and coffee*

9:00 Welcome comments by the President of the Weizmann Institute of Science, Prof. Daniel Zajfman

### 9:15-12:35 Plenary session 1 Neural stem cells

Chair: Shubha Tole

9:15 **Arnold Kreigstein**  
Molecular motors and gene networks in human cortical radial glia

10:00 **Madeline Lancaster**  
Examining human brain development and disease in cerebral organoids

10:30 **Yechiel Elkabetz**  
Consecutive building blocks of human cortical development derived from pluripotent stem cells: fundamentals and implications

11:00 *Coffee break*

11:20 **Wieland Huttner**  
Neural stem and progenitor cells in neocortex development and evolution

12:05 **Denis Jabaudon**  
Becoming a new neuron in the cerebral cortex

12:35 *Lunch combined with poster session 1*

### 14:30-17:00 Plenary session 2 Early cortical development

Chair: Wieland Huttner

14:30 **Shubha Tole**  
Towards a blueprint for building the brain

15:00 **Simon Hippenmeyer**  
Programmed Deterministic Genesis of Neurons and Glia in the Neocortex

15:30 **François Guillemot**  
A transcriptional pathway coupling generic neuronal differentiation with the specification of laminar identity

16:00 **Grey Wilkinson**  
Proneural genes mediate multilineage priming in the neocortex

16:20 **Ruth Ashery-Padan**  
Regulatory interaction between PAX6 and Mitf controls the pigmentation program within the RPE lineage

16:40 **Shovan Naskar**  
Sequential Development of Glutamatergic and GABAergic Synapses on Principal Neurons in the Rat Neocortex

17:00 *Coffee break*

### 17:20-18:20 Plenary session 3 Fetal alcohol syndrome

Chair: Fiona Francis

17:20 **Abraham Fainsod**  
Novel roles for retinoic acid in forebrain induction and head formation during embryogenesis

17:50 **Valerie Lallemand-Mezger**  
Heat Shock Factors, fetal alcohol syndrome, and epigenetic regulations in the normal and diseased developing brain

19:00 *Cocktail reception and dinner at The David Lopatie Conference Centre*

## Monday 27.04.15

8:30 *Registration and coffee*

### 9:00-13:00 Plenary session 4 Cortical development and Disease

Chair: Yehezkel Ben-Ari

9:00 **Gregor Kaprian**  
Diagnostics of Cortical Diseases by MRI

9:45 **Fiona Francis**  
Abnormally distributed progenitors and cortical malformations

10:15 **Ephrat Levi-Lahad**  
VRK1 - how is a cancer-associated kinase related to neuronal migration?

10:45 *Coffee break*

11:05 **Orly Reiner**  
Unorthodox activities of components of the complement pathway in regulation of radial neuronal migration

11:35 **Sonia Garel**  
Neuronal and immune orchestrators of embryonic forebrain wiring

12:05 **Haim Belinson**  
Prenatal  $\beta$ -catenin/Brn2 transcriptional cascade regulates adult social behavior

12:35 **Berta Terre**  
CEP63 deficiency leads to p53 dependent microcephaly

13:00 *Half day tour to Jerusalem*

## Tuesday 28.04.15

8:30 *Registration and coffee*

### 9:00-13:00 Plenary session 5 Epilepsy and Autism

Chair: Nancy Y. Ip

9:00 **Ingrid Scheffer**  
Solving the genetics of epilepsy: the route to personalised medicine

9:45 **Yehezkel Ben-Ari**  
Treating autism with a diuretic: challenging the genocentric approach

10:30 **Mikio Hoshino**  
Physiological and pathological analyses of an autism-related gene

11:00 *Coffee break*

11:20 **Sagiv Shifman**  
Chromatin regulators and neurodevelopmental disorders

11:50 **Annette Gärtner**  
The Fragile X Mental Retardation Protein regulates cortical development and affects cortical circuitry in the developing cortex.

12:10 **Francesco Bedogni**  
Defects during Mecp2 null embryonic cortex development precede the onset of overt neurological symptoms

12:30 **Joanna Szczurkowska**  
Autism-related proteins Negr1 and FGFR2 together regulate cell migration and autism-related behaviors in mice.

12:50 *Lunch combined with poster session 2*

### 14:30-18:00 Plenary session 6 Neuronal polarity and migration

Chair: Oscar Marin

14:30 **Nancy Y. Ip**  
Phosphorylation-dependent regulation of neocortex development

15:00 **Kozo Kaibuchi**  
Neuronal polarization in vivo: Growing in a complex environment.

15:30 **Linda VanAelst**  
Rho Regulators in Neurodevelopment and Disease

16:00 *Coffee break*

16:20 **Takaki Miyata**  
Collective interkinetic nuclear migration and mechanical factors in the neocortical ventricular zone

16:50 **Alessandra Pierani**  
Migrating transient neurons and pre-patterning of higher order cortical areas

17:20 **Patricia Garcez**  
Cenpj regulates progenitor divisions and neuronal migration in the cerebral cortex downstream of Ascl1

17:40 **Soraia Barão**  
A proteolytic processing cycle by BACE1 and  $\gamma$ -secretase regulates Semaphorin 3A mediated axonal guidance

19:00 *Gala Dinner*

## Wednesday 29.04.15

8:30 *Registration and coffee*

### 9:00-11:35 Plenary session 7 Neuronal Migration

Chair: Takaki Miyata

9:00 **Oscar Marin**  
Molecular regulation of cortical interneuron diversity and plasticity

9:45 **Kazu Nakajima**  
Cell migration in the developing cerebral cortex

10:15 **Michael Frotscher**  
Reelin-cofilin interaction in cortical development

10:45 **Laurent Nguyen**  
Migrating transient neurons and pre-patterning of higher order cortical areas

11:15 *Coffee break*

### 11:35-13:30 Plenary session 8 Circuitry development

Chair: Sonia Garel

11:35 **Tomomi Shimogori**  
Thalamic input controls species specific circuit development in cortex

12:05 **Giovanni Morelli**  
Disruption of cortical circuitry development in glycine receptor alpha 2 knockout mice

12:25 **Pietro Fazzari**  
Cell autonomous regulation of excitatory circuitry via Aph1B- $\gamma$ -secretase/Neuregulin 1 signalling

12:45 **Magdalena Götz**  
Learning from cortex development for repair

13:15 **Kozo Kaibuchi and Orly Reiner**  
Concluding remarks

13:30 *Lunch*