Neural Development

Seminar: B1 Auditorium, Institute of Molecular Biology (IMB)
Poster Session & Reception & Lunch: 1F Lobby, Interdisciplinary Research for Sciences and Technology (IST)

DAY 1 (Friday, March 2nd, 2018)

11:30-13:00 Registration
13:00-13:20 Opening Remarks

Session I: Fate speciation from cell to system
Chair: Shen-Ju Chou, Francois Guillement
13:20-13:45 Francois Guillement Stem cell heterogeneity in the adult brain
13:50-14:15 Stefan Thor Mechanisms underlying the anterior expansion of the central nervous system
14:20-14:45 Fu-Chin Liu Neural development of the cortico-basal ganglia circuits
14:50-15:15 Alessandra Pleoart Transient moving organizers: life and death in cortical development, evolution and pathology
15:20-15:35 Jimy Peng Epigenetic mechanism balances human stem cell self-renewal and differentiation
15:40-16:10 Coffee Break
16:10-16:35 Guo-Ui Ming Modeling neural development and diseases using human iPSCs
16:40-17:05 Alain Prochiantz Homeoprotein signaling from early development to adulthood
17:10-17:25 Shen-Ju Chou Transcription factors in cortical patterning

Key Note I
Chair: Cheng-Chang Lien
17:30-18:20 Mu-Ming Poo Neural plasticity from synapse to cognition
18:45-21:00 Welcome Reception @ IST

DAY 2 (Saturday, March 3rd, 2018)

Session II: Neuron-glia interaction
Chair: Yi-Jiang Chern, Cagla Ergolu
09:00-09:25 Cagla Ergolu How do glia sculpt synaptic connectivity?
09:30-09:55 Cheng-Ting Chien Glia-derived micro-RNA in synapse and trachea development and hypoxia response behavior
10:00-10:15 Chi-Kuang Yao Activity-dependent propagation of oxidative stress promotes motor neuron hyperexcitation and alters neuromuscular junction architecture upon depletion of Drosophila Eaat1
10:20-10:40 Coffee Break
10:40-11:05 Angela Giangrande Transcriptional and epigenetic regulation of glial differentiation in Drosophila
11:10-11:35 Shun-Fen Tzeng Molecular regulation of oligodendrocyte differentiation and its application on myelination
11:40-12:05 Yi-Jiang Chern Abnormal control of GABAergic signaling by astrocytes in Huntington’s disease
12:10-12:40 Group Photo & Lunch @ IST
12:40-14:00 Poster Session I (Odd numbers) @IST

Session III: Neural differentiation
Chair: Yi-Ping Hsueh, Stephan Sigrist
14:00-14:25 Stephan Sigrist Active zone scaffold proteins tune functional diversity across brain synapses
14:30-14:55 Thomas Blanpied Control of vesicle release position near receptors in single synapses
15:00-15:25 Volker Haucke From god’s kitchen: How the pre synapse is made
15:30-15:50 Coffee Break
15:50-16:15 Fengwei Yu Dendrite pruning of nociceptive sensory neurons in Drosophila
16:20-16:35 Chun-Liang Pan An intimate liaison: fasculation with axon shapes dendritic development
16:40-16:55 Gaia Novarino Haploinsufficiency of the intellectual disability-gene SETDS disturbs developmental gene expression and cognition
17:00-17:25 Yi-Ping Hsueh Using mouse models to assess developmental deficits in neurological disorder
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DAY 3 (Sunday, March 4th, 2018)

Session IV: Synaptic plasticity
Chair: Yi-Shiuan Huang, Daniel Choquet

09:00-09:25 Daniel Choquet  Constructing excitatory synapses at the nanoscale
09:30-09:55 Valentin Nagerl  Super-resolution imaging of brain extracellular space
10:00-10:15 Pel-Lin Cheng  Paxillin-associated endocytic activity enables timely neurite initiation on a soft substrate environment
10:20-10:35 Shu-Ling Chiu  GRASP1 regulates synaptic plasticity and learning through endosomal recycling of AMPA receptors
10:40-11:00 Coffee Break
11:00-11:25 Dmitri Rusakov  Activity-dependent remodelling of synaptic microenvironment
11:30-11:55 Yongqing Zhang  Modeling SHANK3-related autism in non-human primates
12:00-12:25 Adrian Moore  Defining and diversifying dendrite arbor topology
12:30-13:00 Lunch @ IST
13:00-14:30 Poster Session II (All numbers) @IST

DAY 4 (Monday, March 5th, 2018)

Session V: Circuit formation and function
Chair: Cheng-Chang Lien, Cyril Herr

09:00-09:25 Cyril Herr  Cooperation among prefrontal-amygdala circuits to control fear behavior
09:30-09:55 David Dupret  Neural dynamics of a memory trace in the hippocampal circuit
10:00-10:15 Shih-Kuo Chen  Neuronal circuitry of retinal input to the central clock suprachiasmatic nucleus
10:20-10:35 Chia-Lin Wu  Water reward memory in Drosophila
10:40-11:00 Coffee Break
11:00-11:15 Suewei Lin  Neural mechanics of a hunger circuit in Drosophila
11:20-11:45 Bo Li  The amygdala circuits in the regulation of divergent behaviors
11:50-12:15 Ann-Shyn Chiang  Memory allocations in the Drosophila brain
12:20-12:50 Lunch @ IST
12:50-14:00 Poster Session III (Even numbers) @IST

Session VI: Stem cell
Chair: Hung-Chih Kuo, Pierre Vanderhaeghen

14:00-14:25 Pierre Vanderhaeghen  Deciphering species-specific properties of human corticogenesis
14:30-14:55 Johan Ericson  A Shh/Gli-driven three-node timer motif regulates temporal identity and fate of neural stem cells
15:00-15:25 Bassem Hassan  Transcriptional regulation of neurogenesis
15:30-15:45 Jun-An Chen  LncRNA Meg3 choreographs the epigenetic landscape of postmitotic motor neuron cell fate and subtype identity
15:50-16:10 Coffee Break
16:10-16:35 Hongyan Wang  An intrinsic mechanism controls reactivation of neural stem cells by spindle matrix proteins
16:40-16:55 Hung-Chih Kuo  Reprogramming neural fates

Key Note II
Chair: Angela Giangrande

17:00-17:50 Magdalena Götz  Novel mechanisms of neurogenesis and neural repair
18:00-18:10 Closing Remark