

PENS/Hertie WINTER SCHOOL 2010

10th to 17th January

Multiple facets of GABA in brain development

Financed by PENS and the Hertie Foundation

Scientific Program Schedule

Sunday

Day1

16:00–18:00 Registration

18:00–20:00 Welcome reception and dinner

Welcome address:

Alois Saria (FENS Treasurer and Chairman of the local Organizing Committee)

Michael Madeja (Managing Director Hertie Foundation)

Yehezkel Ben-Ari (Scientific Organizer)

20:00–21:00 **Yehezkel Ben-Ari** (Marseille, France)

An introduction to GABA and the developing brain

21:00–21:30 Discussion

21:30–22:30 Students self-presentation and organization of working groups

Monday

Day2 GABA and migrating cells

08:15–09:15 **Arnold R Kriegstein** (San Francisco, CA, USA)

Depolarizing GABA regulates a critical developmental window for circuit formation

09:15–10:15 **John L R Rubenstein** (San Francisco, CA, USA)

Transcriptional regulation of interneuron development

10:15–10:45 Discussion

17:00–18:00 **Gordon J Fishell** (New York, USA)

The interactions between intrinsic genetic programs and nascent activity in the determination of cortical interneuron subtype.

18:00–19:00 **John G Parnavelas** (London, UK)

Slit-Robo interactions in cortical interneuron migration

19:00–19:30 Discussion

20:30–21:00 **Roberto Caminiti** (Roma, IT)

Overview on the new EU Directive on the use of animals in scientific procedures

21:00–22:30 **After dinner poster session I**

Tuesday

Day3 GABA and immature neuronal populations

08:15–09:15 **Nicholas C Spitzer** (La Jolla, CA, USA)

GABA specification in the embryonic nervous system: Genes, activity and target-derived factors

9:15–10:15 **Angelique F Bordey** (New Haven, CT, USA) and

Jean-Marc Fritschy (Zurich, CH)

Function of GABAR on neurogenesis from the SVZ

10h15–10h45 Discussion

17:00–18:00 **Zoltan Molnar (Oxford, UK)**

The earliest cortical circuits

18:00–18:30 **Oscar Marin (San Juan, Spain)**

Cellular and molecular mechanisms controlling the migration of cortical interneurons

18:30–19:00 Discussion

20:45–22:30 **After dinner poster session II**

Wednesday

Day4 GABA and early networks

08:15–9:15 **Rosa Cossart (Marseille, France)**

Sequential maturation of network patterns

09:15–10:15 **Rustem Khazipov (Marseille, France)**

GABA signaling and its roles in patterning cortical network activity in the neonatal rat in vivo

10:15–10:45 Discussion

16:0–17:00 **Z Josh Huang (Cold Spring Harbor, NY, USA)**

GABA in activity-dependent development of inhibitory synapses and circuits

17:00–18:00 **Michael Hausser (London, GB)**

Traveling waves mediated by asymmetric GABAergic synaptic connections in the developing cerebellar cortex

18:00–18:30 Discussion

20:30–21:30 **Liset M de la Prida (Madrid, Spain)**

Cellular and synaptic mechanisms of hippocampal population bursts

21:30–22:00 Discussion

Thursday

Day5 The GABA/chloride couple

08:15–09:15 **Alain Marty (Paris, France)**

Excitatory effects of axonal GABA receptors in developing cerebellar neurons

09:15–10:15 **Atsuo Fukuda (Hamamatsu, Japan)**

Chloride homeodynamics and GABA modal-shifts during development or pathogenesis

10:15–10:45 Discussion

16:00–17:00 **Enrico Cherubini (Trieste, Italy)**

GABAergic signaling at mossy fibers-CA3 synapses

17:00–18:00 **Christian Hubner (Jena, Germany)**

NKCC1 and early network activity

18:00–18:30 Discussion

20:30–21:30 **Giorgio Innocenti (Stockholm, Sweden)**

Dynamic interactions between the cerebral hemispheres in ontogenetic and evolutionary time scales

21:30–22:00 Discussion

Friday

Day6 GABA and seizures

08:15–09:15 **Gabor Tamas (Szeged, Hungary)**

Interneurons at the two ends of the functional spectrum

- 09:15–10:15 **Heiko J Luhmann (Mainz, Germany)**
The dual actions of GABA in migration and excitability
10:15–10:45 Discussion
- 16:00–17:00 **Kevin J Staley (Charlestown, MA, USA)**
Neuronal ion transport and neonatal seizures
17:00–18:00 **Richard Miles (Paris, France)**
Inhibitory and excitatory signaling in seizure initiation
18:00–18:30 Discussion
- 20:30–21:30 **Orly Reiner (Rehovot, Israel)**
Tangential and radial neuronal migration disorders
21:30–22:00 Discussion

Saturday
Day 7

- 08:15–09:15 **Pasko Rakic (Yale, USA)**
*Evolutionarily expansion and elaboration of cortical GABAergic neurons:
Prospective from the studies in human, non-human primates and rodents*
09:15–09:45 Discussion
10:00–16:00 **Working groups**
16:00–17:30 **Reports from working groups I**
17:30–19:00 **Reports from working groups II**
- 21:00 **Farewell party**

Sunday
Breakfast and departure