



8th Meeting of the School in Regenerative Medicine Karolinska Institute, Stockholm, Sweden, 2010



Friday, 3rd of September

Registration 8.30-9.15

Welcome 9.15-9.30

NEURAL STEM CELLS. Session chair: Urban Lendahl

9.30-10.15 Neural stem cells and neurogenesis in the adult CNS

Jonas Frisen (KI)

10.15-11.00 Neural stem cells and human disease

Oliver Brustle (Bonn)

11-11.30 Coffee

CELL SIGNALING IN STEM CELLS AND CANCER. Session chair: Oliver Brustle

11.30-12.15 Notch and hypoxia cross-talk in stem cells and cancer

Urban Lendahl (KI)

12.15-13.00 Histone H2AX-dependent GABAA receptor regulation of stem cell self-renewal. Patrik Ernfors (KI)

13.00-14.30 Lunch

14.30-15.15 Reversible suppression of neurogenesis in normally quiescent brain stem cell niches. Andras Simon (KI)

CONTROLLING STEM CELL FATE. Session chair: Per Uhlén

15.15-16.00 A Chemical Approach to Controlling Cell Fate

Sheng Ding (Scripps)

16.00 Coffee

16.30-17.15 Transcriptional and epigenetic regulation of stem cell state and fate

Ola Hermanson (KI)

17.15-18.00 Towards de novo cell type discovery by large-scale single-cell transcriptome analysis. Sten Linnarsson (KI)

18.00-19.30 Poster session 1

19.30 Welcome reception/dinner at the Karolinska Institute

Saturday, 4th of September

CORTICAL NEURON DEVELOPMENT AND STEM CELLS.

Session chair: Ola Hermanson

- 9.00-9.45** **Calcium Signaling Networks in Neural Progenitor Cells Critically Control Cell Division.** Per Uhlén (KI)
- 9.45- 10.30** **Stem and progenitor cells in the developing human cortex**
Arnold Kriegstein (UCSF)
- 10.30-11.00 Coffee
- 11.00-11.45** **Molecular logic of cortical projection neuron development and repair**
Jeffrey Macklis (Harvard)
- 11.45-12.30** **From Stem cells to Cortical neurons**
Pierre Vanderhaegen (Brussels)

CHALLENGES IN STEM CELL TRANSPLANTATION.

Session chair: Jens Zimmer

- 12.30-13.15** **The development of neuropathology in clinical neural transplants**
Patrik Brundin (Lund)
- 13.15-15.00 Lunch
- 15.00-15.45** **Immune cells control neuronal rescue, axonal regeneration and renewal of endogenous stem cells in the central nervous system"** Michal Schwartz (Weizzman Inst)

MIDBRAIN DOPAMINE NEURON DEVELOPMENT AND STEM CELLS.

Session chair: Ernest Arenas

- 15.45-16.30** **RA dependent and independent Pitx3 driven mdDA neuronal differentiation** Marten Smidt (Utrecht)
- 16.30 Coffee
- 17.00-17.45** **Genetic codes underlying midbrain dopaminergic neuron specification in vivo.** Wolfgang Wurst (Munich)
- 17.45-18.30 **Wnt/b-catenin and Shh Signals in the Neurogenic Niche of Midbrain Dopamine Neurons.** Eric Huang (UCSF)
- 18.30-19.30** **Poster session 2**
- 19.30** **Bus transportation.**
- 20.00** **Short visit to the Vasa Museum**
- 20.30** **Conference Dinner at the Vasa Museum.**

Sunday, 5th of September

MIDBRAIN DOPAMINE NEURON DEVELOPMENT AND STEM CELLS (CONT).

Session chair: Wolfgang Wurst

9.00-9.45 **Transcription factors important in neuronal specification and in stem cell engineering.** Thomas Perlmann (KI)

9.45-10.30 **Wnt biology in differentiating neural progenitor cells**
Arndt Rolfs (Rostock)

10.30-11.00 Coffee

STEM CELL TRANSPLANTATION

Session chair: Arndt Rolfs

11.00-11.45 **Integrating new neurons in the cerebellar cortical circuits**
Ferdinando Rossi (Torino)

11.45-12.30 **Stem cell and regenerative strategies for Parkinson's disease.**
Ernest Arenas (KI)

12.30-13.15 **Universal Stem Cell donor Based therapy for Stroke?**
Catherine Verfaillie (Leuven)

13.15 **Concluding remarks**

13.30 **Lunch and Farewell**