

The Brain, beyond neurons

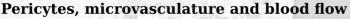
Paris, May 11th - 12th 2015

Microglia and synaptic transmission

Cornelius Gross (Monterotondo)
Beth Stevens (Boston)
Etienne Audinat (Paris)
Wenbiao Gan (New York)
Yves De Koninck (Quebec)

Neuron-glia and glia-glia interactions in myelination and myelin repair

Frank Kirchhoff (Homburg)
Eva-Maria Krämer-Albers (Mainz)
María Cecilia Angulo (Paris)
Vittorio Gallo (Washington)
Charles ffrench-Constant (Edinburgh)
Catherine Lubetzki (Paris)
Pierre Gressens (Paris)



David Attwell (London)
Franck Lebrin (Paris)
Elizabeth Hillmann (New York)

New roles of astrocytes

Maiken Nedergaard (New York) Serge Charpak (Paris) Cendra Agulhon (Paris) Nathalie Rouach (Paris) Dwight Bergles (Baltimore)

Deadline for registration with abstract: April 13th 2015 Deadline for registration without abstract: April 30th 2015 http://www.biomedicale.parisdescartes.fr/bbn2015/

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Organizers: María Cecilia Angulo, Etienne Audinat, Serge Charpak Neurophysiology and New Microscopies Laboratory INSERM U1128 - University Paris Descartes, Paris, France









PROGRAM

Monday, May 11

8.15 – 9.10:	Welcome	
9.10 – 9.15:	Introduction	
SESSION I. Microglia and synaptic transmission (Chair: Alain Bessis)		
9.15 - 9.45:	Cornelius Gross (EMBL Monterotondo, Italy): Getting rid of unwanted synapses: microglia in synaptic pruning	
9.45 – 10.15:	Beth Stevens (Children's Hospital Boston, USA): Novel Molecular Breaks that Inhibit Microglia-Mediated Pruning in Health & Disease	
10.15 – 10.45:	Etienne Audinat (INSERM U1128, Univ. Paris Descartes, France): Microglia and development of cortical synapses	
10.45 – 11.00:	Young speaker to be selected among submitted abstracts	
11.00 – 11.30:	Coffee break	
11.30 – 12.00	Wenbiao Gan (Skirball Institute of Biomolecular Medicine, USA): Microglial functions in synaptic plasticity	
12.00 – 12.30:	Yves De Koninck (Institut universitaire en santé mentale de Québec, Canada): Microglia, gate keepers of pain transmission at the spinal level	
12.30 – 14.00:	Lunch	
SESSION II. Neuron-glia and glia-glia interactions in myelination and myelin repair (Chair: Brahim Nait Oumesmar)		
14.00 – 14.30:	Frank Kirchhoff (Molecular Physiology, University of Saarland, Germany): Interactions of microglia, NG2 glia and oligodendrocytes in vivo	
14.30 – 15.00:	Eva-Maria Krämer-Albers (Johannes Gutenberg Universität, Germany): Exosomes and their role in mutual neuron-glia communication	
15.00 – 15.30:	Maria Cecilia Angulo (INSERM U1128, Univ. Paris Descartes, France): Structured synaptic connectivity between GABAergic interneurons and NG2 cells in the developing neocortex	
15.30 – 15.45:	Young speaker to be selected among submitted abstracts	
15.45 – 16.15:	Coffee break	
16.15 – 16.45:	Vittorio Gallo (Children's National Medical Center, USA): Cellular interactions that regulate oligodendrocyte regeneration in the developing and adult brain	
16.45 – 17.15:	Charles ffrench-Constant (Center of Regenerative Medicine, UK): Intrinsic and extrinsic regulation of myelin sheath formation	

17.15 – 17.45: Catherine Lubetzki (ICM, France): Early events of node of Ranvier formation in the central nervous system

17.45 – 18.15: Pierre Gressens (INSERM U676, Université Paris Diderot, France): Mechanisms of microglia-mediated blockade of oligodendrocyte maturation in

perinatal brain damage

18.00 - 20.00: Cocktail / Poster session

Tuesday, May 12

SESSION III. Pericytes, microvasculature and blood flow (Chair: Serge Charpak)

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9.00 – 9.30:	David Attwell (University College London, UK): The role of pericytes in cerebral vascular disease
9.30 – 10.00:	Franck Lebrin (Collège de France, France): Pericyte plasticity as a potential drug target to prevent CNS toxicity
10.00 – 10.30:	Elizabeth Hillmann (Columbia University, USA): The role of endothelial propagation in neurovascular coupling
10.30 – 10.45:	Young speaker to be selected among submitted abstracts
10.45 – 11.15:	Coffee break
SESSION IV	New roles of astrocytes (Chair: Etienne Audinat)
11.15 – 11.45:	Maiken Nedergaard (University of Rochester Medical Center, USA): Emerging role of astrocytes
11.45 – 12.15:	Serge Charpak (INSERM U1128, Univ. Paris Descartes, France): Timing of astrocytes responses to neuronal activation
12.15 – 12.45:	Cendra Agulhon (FRN, Univ. Paris Descartes, France): What can we learn from precise control of astrocyte signaling?
12.45 – 13.00:	Young speaker to be selected among submitted abstracts
13.00 – 15.00:	Lunch and poster session
15.00 – 15.30:	Nathalie Rouach (College de France, France): Unraveling the role of astroglial connexins in synaptic strength and memory
15.30 – 16.00:	Dwight Bergles (Johns Hopkins University, USA) In vivo engagement of astrocyte networks during locomotion

16.00 – 16.15: Poster Prizes and Concluding Remarks