

From Molecules to Cognition: a tribute to Jean-Pierre Changeux

Institut Pasteur, Paris, France • September 17-19, 2007

S C I E N T I F I C P R O G R A M

Monday September 17th, 2007

8.00 am-9.00am Registration of participants

SESSION 1: ALLOSTERIC MECHANISMS

9.00am-12.20	9.00: AChBP: a model system for nicotinic acetylcholine receptor ligand binding Titia Sixma , The Netherlands Cancer Institute, Amsterdam, NL
	9.30: Structure of bacterial receptors Pierre-Jean Corringer , Institut Pasteur, Paris, France
	9.50: Glycine receptors Heinrich Betz , MPI for Brain Research, Frankfurt, Germany
	10.20am-10.50am Coffee break
	10.50: Structure/function relationship of ionotropic receptors Jonathan Cohen , Harvard Medical School, Boston, USA
	11.20: Allosteric Modulation of GABA-A Receptors Richard W. Olsen , University of California Los Angeles, USA
11.50: Genetic alterations in hippocampal glutamate receptors and spatial learning Peter Seeburg , MPI for Medical Research, Heidelberg, Germany	
12.20-2.00pm Lunch	

SESSION 2 : NEUROMUSCULAR JUNCTION SYNAPTOGENESIS

2.00pm-5.50pm	2.00: Motor neurons Pico Caroni , FMI for Biomedical Research, Basel, Switzerland
	2.30: Acetylcholine esterase Jean Massoulié , Ecole Normale Supérieure, Paris, France
	3.00: On the footmarks of Claude Bernard, Daniel Bovet and Jean-Pierre Changeux: the mechanisms of action of presynaptic enzymatic neurotoxins Cesare Montecucco , University of Padova, Italy
	3.30: Nicotinic Receptors from basic function to neurological diseases Daniel Bertrand , University of Geneva, Switzerland
	4.00pm-4.30pm Coffee break
	4.30: Nicotinic receptor: from the structure to a gating mechanism Antoine Taly , Université de Strasbourg, France
	4.50: Lipid rafts, intracellular transport and clustering of acetylcholine receptors Jean Cartaud , Université Pierre et Marie Curie, Paris, France
	5.20: Dynamics in cholinergic ligand design: from static structure and conformational fluctuations to molecular recognition Palmer Taylor , University of California San Diego, La Jolla, USA



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Tuesday September 18th, 2007

8.00am-8.30am Registration of participants

SESSION 3: GENETIC SPECIFICATION OF NEURONS AND AXONAL PATHWAYS

8.30am-12.00

8.30: C. elegans genetics

Cori L. Bargmann, The Rockefeller University., New York, USA

9.00: Molecules and mechanisms that wire the brain

Marc Tessier-Lavigne, Stanford University, USA

9.30: Genetic specification of circuit assembly in the spinal cord

Silvia Arber, University of Basel, Switzerland

10.00am-10.30am Coffee break

10.30: Motor neuron development and survival

Christopher Henderson, Columbia University, New York, USA

11.00: The nicotinic synapse: a worm perspective

Jean-Louis Bessereau, Ecole Normale Supérieure, Paris, France

11.30: Transcriptional control of neurogenesis

François Guillemot, NIMR, London, UK

12.00-1.30pm Lunch

SESSION 4: NEURONAL NETWORKS

1.30pm-6.40pm

1.30: Pattern generation

Sten Grillner, Karolinska Institute, Stockholm, Sweden

2.00: Intracellular signaling pathways involved in behaviors related to nicotine addiction

Marina Picciotto, Yale University, New Haven, USA

2.30: IP3 receptor

Katsuhiko Mikoshiba, University of Tokyo, Japan

3.00: In vivo electrophysiology

Philippe Faure, Institut Pasteur, Paris, France

3.20: Animal models of cholinergic function

Uwe Maskos, Institut Pasteur, Paris, France

3.40: The pyramidal neuron in cognition

Javier De Felipe, Cajal Institute, Madrid, Spain

4.10pm-4.40pm Coffee break

4.40: Molecular and cellular mechanisms of neuronal migration in the cerebellar system

Constantino Sotelo, Neuroscience Institute, Alicante, Spain

5.10: Epigenetic programming of gene expression and function

Michael Meaney, Mc Gill University, Montreal, Canada

5.40: Characterization of identified GABAergic interneurons at the cellular and network level

Hannah Monyer, University of Heidelberg, Germany

6.10: Studying neural networks with invasive functional magnetic resonance imaging

Nikos Logothetis, MPI, Tuebingen, Germany

17-19 SEPTEMBER 2007

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Wednesday September 19th, 2007

8.00am-8.30am Registration of participants

SESSION 5: SENSORY PROCESSING, LEARNING AND COGNITION

8.30am-10.30am	8.30: Olfactory receptors Richard Axel , Columbia University, New York, USA
	9.00: Hereditary deafness and molecular physiology of hearing Christine Petit , Institut Pasteur, Paris, France
	9.30: Molecular Biology of pheromone signals in mammals: from genes to behaviors Catherine Dulac , Harvard University, Cambridge, USA
	10.00: Integrating newborn neurons into adult circuits Pierre-Marie Lledo , Institut Pasteur, Paris, France
	<i>10.30am-11.00am Coffee break</i>
	11.00: Imaging cognitive function Stanislas Dehaene , Collège de France, Paris, France
	11.30: The subjectivity of objective truths Semir Zeki , University of London, UK
12.00: Memory traces in cortex: the cognitive strength of their molecular weakness Yadin Dudai , Weizmann Institute of Science, Rehovot, Israel	
<i>12.30-2.00pm Lunch</i>	

SESSION 5: SENSORY PROCESSING, LEARNING AND COGNITION (CONTINUATION)

2.00pm-3.20pm	2.00: Modeling prefrontal cortex: ringing the changes on the challenges of Changeux Michael Arbib , University of Southern California, Los Angeles, USA
	2.30: Susumu Tonegawa , MIT, Cambridge, USA
	3.00: Nicotinic receptors and behaviour Sylvie Granon , Institut Pasteur, Paris, France

SESSION 6: EVOLUTION AND DISEASE

3.20pm-7.10pm	3.20: Human genetics Jean-Louis Mandel , IGBMC, Illkirch, France
	3.50: Keeping track of time, synapses and autism Thomas Bourgeron , Institut Pasteur, Paris, France
	<i>4.10pm-4.40pm Coffee break</i>
	4.40: Channelopathies of muscle and nerve Bertrand Fontaine , AP-HP Pitié-Salpêtrière, Paris, France
	5.10: Roles of receptors in nicotine addiction and in neuroprotection Henry Lester , California Institute of Technology, Pasadena, USA
	5.40: Structure/function relationship of receptors Vivian Teichberg , Weizmann Institut of Science, Rehovot, Israel
	6.10: Altered dopamine signaling and MPTP resistance in mice lacking the Parkinson's disease-associated GPR37/parkin-associated endothelin-like receptor. Glauco Tocchini-Valentini , Istituto di Biologia Cellulare-CNR, Roma, Italy
6.40: Neurodegeneration Jacques Mallet , AP-HP Pitié-Salpêtrière, Paris, France	

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