

From stem cells to behaviour in the normal and diseased
nervous system

ISDN2016

11-14 May 2016
Antibes - Juan les Pins
France



Wednesday 11 May 2016		
09:00-19:00	Registration <i>Room: Foyer Méditerranée</i>	
10:30-10:45	Welcome and general announcements	
10:45-11:45	[PLN01] – New insights into the diversity of neural stem and progenitor cells in human cortical development A.R. Kriegstein*, A.A. Pollen, T.J. Nowakowski, <i>University of California, San Francisco, USA</i> <i>Chair: Stefano Stifani</i>	
11:45-12:30	Special Workshop - EU-AIMS - an overview of key deliverables Will Spooren , <i>Roche Section Head Behavioural Pharmacology and preclinical imaging & Coordinator EU-AIMS</i> <i>Room: Amphithéâtre Antipolis</i>	
12:30-13:30	Buffet Lunch <i>Room: Gould Space</i>	
13:30-16:45	Symposium 1 – Autophagy in neurodegenerative diseases <i>Chair: E. Holzbaur</i> <i>Room: Ella Fitzgerald</i>	Symposium 2 – Control of neuronal morphology, from genes to activity <i>Chair: B. Rico</i> <i>Amphithéâtre Antipolis</i>
13:30-14:00	[Sym1.1] Autophagy and Mitophagy in neuronal Homeostasis and Neurodegeneration E. Holzbaur, <i>University of Pennsylvania, USA</i>	[Sym2.1] Experience-dependent dendritic spine plasticity in the cortex W-B. Gan, <i>NYU School of Medicine, USA</i>
14:00-14:30	[Sym1.2] The Parkinson's disease-related proteins PINK1 and Parkin inhibit mitochondrial antigen presentation D. Matheoud ¹ , A. Sugiura ² , M. Desjardins ¹ , H.M. McBride ² ¹ <i>Université de Montréal, Canada</i> , ² <i>McGill University, Canada</i>	[Sym2.2] Thalamic calcium waves regulate cross-modal plasticity of cortical maps prior to sensory experience V. Moreno-Juan ¹ , A. Filipchuk ¹ , N. Antón-Bolaños ¹ , C. Mezzer ^{1,5} , H. Gezelius ¹ , B. Andrés ¹ , L. Rodríguez-Malmierca ¹ , R. Susin ¹ , O. Schaad ² , M. Rutlin ^{3,6} , S. Nelson ³ , S. Ducret ⁴ , M. Valdeolmillos ¹ , F.M. Rijli ⁴ , G. López-Bendito ¹ ¹ <i>Instituto de Neurociencias de Alicante, Spain</i> , ² <i>University of Geneva, Switzerland</i> , ³ <i>Brandeis University, USA</i> , ⁴ <i>Friedrich Miescher Institute for Biomedical Research, Switzerland</i> , ⁵ <i>Champalimaud Centre for the Unknown, Portugal</i> , ⁶ <i>Columbia University Medical Center, USA</i>
14:30-15:00	[Sym1.3] Autophagy and other pathways that protect against neurodegeneration D. Rubinsztein, <i>Cambridge Institute for Medical Research, UK</i>	[Sym2.3] Brevican regulates the inhibitory/excitatory balance gating the drive of the parvalbumin cells E. Favuzzi, R. Deogracias, A. Marques-Smith, C. Winterflood, B. Rico* <i>King's College London, UK</i>
15:00-15:30	Refreshments <i>Room: Gould Space</i>	
15:30-16:00	[Sym1.4] Autophagy kinases in neurons and neurodegeneration Z. Yue, <i>Icahn School of Medicine at Mount Sinai, USA, USA</i>	[Sym2.4] Novel pathways controlling patterning and specificity of axonal branching D. Schmucker, <i>VIB, Belgium</i>

16:00-16:15	[O1.1] Contributions of amyloid plaque-associated axonal lysosome transport and maturation defects to Alzheimer's disease pathology S.M. Ferguson*, S. Gowrishankar, <i>Yale University, USA</i>	[Sym2.5] Signaling mechanisms that underlie axon terminal development J.H. Kim, T. Yang, H. Liu, G. Sterne, B. Ye* <i>University of Michigan, USA</i>
16:15-16:30	[O1.2] Autophagy in Alzheimer's disease: what besides Abeta? F. Checler, I. Lauritzen*, <i>IPMC, France</i>	
16:30-16:45		[O2.1] Shaping dendritic arbors: a new role for spontaneous neurotransmitter release in developing neurons L.C. Andreae*, J. Burrone, <i>King's College London, UK</i>
16:45-18:30	Poster Session 1 with Drinks Room: Gould Space	
18:30-19:30	Author mentorship Workshop	
Thursday 12 May 2016		
08:00-20:00	Registration Room: Foyer Méditerranée	
08:30-12:00	Symposium 3 – Stem cell approaches in the normal and diseased brain <i>Chair: P. Vanderhaegen</i>	Symposium 4 – Hypothalamic cell fate specification and function <i>Chair: L. Puelles</i>
Room	Amphithéâtre Antipolis	Ella Fitzgerald
08:30-09:00	[Sym3.1] Modeling human brain development in cerebral organoids M. Lancaster, <i>MRC Laboratory of Molecular Biology, UK</i>	[Sym4.1] The regional specification of the hypothalamus: the Sonic Hedgehog lineage and the Gli-code R. Haddad-Tovolli ¹ , F.A. Paul ² , Y. Zhang ¹ , X. Zhou ¹ , G. Alvarez-Bolado ¹ , S. Blaess* ² ¹ University of Heidelberg, Germany, ² University of Bonn, Germany
09:00-09:30	[Sym3.2] TBC L. Studer, <i>Memorial Sloan Kettering, USA</i>	[Sym4.2] Circadian pacemaker development F.C. Davis, <i>Northeastern University, USA</i>
09:30-09:45	[O3.1] Witnessing pericyte-to-neuron conversion within 3D-braincubators R. Menon ^{1,2} , S. Falk ³ , B. Winner ⁴ , B. Berninger ^{1,2} , M. Karow* ^{1,2} ¹ Ludwig Maximilians University, Germany, ² Johannes Gutenberg University, Germany, ³ Helmholtz Center Munich, Germany, ⁴ Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany	[Sym4.3] LIM homeobox protein 5 (Lhx5) is essential for mamillary body development A. Miquelajáuregui* ^{1,5} , T. Sandoval-Schaefer ¹ , M. Martínez-Armenta ² , L. Pérez-Martínez ² , A. Cárabez ¹ , Y. Zhao ³ , M. Heide ⁴ , G. Alvarez-Bolado ⁴ , A. Varela-Echavarría ¹ ¹ Universidad Nacional Autónoma de México Querétaro, Mexico, ² Universidad Nacional Autónoma de México Cuernavaca, Mexico, ³ National Institutes of Health Bethesda, USA, ⁴ University of Heidelberg Heidelberg, Germany, ⁵ UCLA Center for Autism Research and Treatment, USA
09:45-10:00	[O3.2] Huwe1 promotes the quiescence of adult neural stem cells via targeted elimination of Ascl1 N. Urbán*, D. van den Berg, J. Andersen, F. Guillemot <i>The Francis Crick Institute - Mill Hill Lab, UK</i>	
10:00-10:30	Refreshments Room: Gould Space	
10:30-11:00	[Sym3.3] Inhibitory neuron overproduction in autism spectrum disorders: role of FOXP1 F.M. Vaccarino*, J. Mariani, G. Coppola, P. Zhang, L. Provini, L. Tomasini, M. Amenduni, A. Szekely, E. Grigorenko, K. Chawarska, K. Pelphrey, J. Howe <i>Yale University, USA</i>	[Sym4.4] The new prosomeric model of the hypothalamus in vertebrates. L. Puelles <i>University of Murcia, Spain</i>
11:00-11:30	[Sym3.4] From pluripotent stem cells to cortical circuits. P. Vanderhaeghen, <i>University of Brussels, Belgium</i>	[Sym4.5] Genetic and neuronal control of social behaviors N. Shah <i>University of California San Francisco, USA</i>

11:30-11:45		[O4.1] <i>Neurog2</i> and <i>Ascl1</i> play a key role in cell fate decision of VMH specific neurons S. Aslan Pour Kal Bolandi*, G. Wilkinson, C. Schuurmans, D.M. Kurrasch et al <i>University of Calgary, Canada</i>
11:45-12:00	[Sym3.5] Becoming a new neuron in the cerebral cortex. D.Jabaudon, University of Geneva, Switzerland	[O4.2] Developmental evolution of the preoptic and hypothalamic region in blind cavefish L. Devos*, A. Alié, S. Rétaux <i>Neuroscience Paris-Saclay Institute, University Paris-Sud and University Paris-Saclay, France</i>
12:00-12:30	ISDN Business meeting	
12:30-14:00	Buffet Lunch Room: Gould Space	
14:00-15:00	[PLN02] – Sleep evolution in childhood and brain development R. Huber ^{1,2} ¹ University Children’s Hospital Zurich, Switzerland, ² University of Zurich, Switzerland <i>Chair: Pierre Leprince</i>	
Rooms	<i>Amphithéâtre Antipolis</i>	
15:00-18:00	Symposium 5 – Generation of cell diversity in the developing brain <i>Chair: M. Götz</i>	
15:00-15:30	[Sym5.1] Building the pallium from regulated neural stem cell activity: a zebrafish perspective I. Foucher, G. Furlan, L. Dirian, S. Galant, V. Cuccioli, L. Bally-Cuif* <i>University of Paris Sud, France</i>	
15:30-16:00	[Sym5.2] Novel mechanisms of neurogenesis M. Götz, <i>Munich Center for Neuroscience, Germany</i>	
16:00-16:30	Refreshments Room: Gould Space	
16:30-17:00	[Sym5.3] Temporal identity of mammalian neural progenitor cells M. Okamoto ¹ , T. Miyata ¹ , D. Konno ² , H.R. Ueda ³ , T. Kasukawa ⁴ , M. Hashimoto ⁵ , F. Matsuzaki* ² , A. Kawaguchi ¹ ¹ Nagoya University Graduate School of Medicine, Japan, ² RIKEN Center for Developmental Biology, Japan, ³ RIKEN Center for Systems Biology, Japan, ⁴ RIKEN Center for Life Science Technologies, Japan, ⁵ Fukushima Medical University, Japan	
17:00-17:30	[Sym5.4] Production and organization of interneurons in the mouse cortex S-H. Shi, <i>Memorial Sloan Kettering Cancer Center, USA</i>	
17:30-17:45	[O5.1] A restricted period for formation of the outer subventricular zone defined by Cdh1 and Trnp1 levels M-A. Martinez-Martinez ¹ , C. De Juan Romero* ¹ , V. Fernández ¹ , M. Götz ^{2,3} , V. Borrell ¹ ¹ Consejo Superior de Investigaciones Científicas & Universidad Miguel Hernández, Spain, ² Helmholtz Center Munich, Germany, ³ University of Munich, Germany	
17:45-18:00	[O5.2] A dynamic unfolded protein response contributes to the control of cortical neurogenesis S. Laguesse ¹ , C. Creppe* ¹ , D. Nedialkova ² , P.P. Prevot ¹ , L. Borgs ¹ , S. Huyseune ¹ , B. Franco ¹ , G. Duysens ¹ , N. Kruzy ¹ , L. Nguyen ¹ et al ¹ University of Liege, Germany, ² Univeristy of Muenster, Germany, ³ John Hopkins University, USA	
18:00-20:00	Poster Session 2 with Drinks Room: Gould Space	
Friday 13 May 2016		
08:00-13:00	Registration <i>Room: Foyer Méditerranée</i>	
08:30-12:00	Symposium 6 – From circuits to behaviour <i>Chair: C. Wyart</i>	Symposium 7 – The role of microRNAs in neurogenesis <i>Chair: H. Cremer</i>
Rooms	<i>Amphithéâtre Antipolis</i>	<i>Ella Fitzgerald</i>

08:30-09:00	[Sym6.1] A developmental backbone supporting adult hippocampal function? S. Reichinnek, A. Malvache, V. Villette, C. Haimerl, R.Cossart* <i>Institut de Neurobiologie de la Méditerranée, France</i>	[Sym7.1] miR-132 in Alzheimer's disease: a bridge between neurogenesis and neurodegeneration E. Salta*, A. Sierksma, E.V. Eynden, B.D. Strooper <i>Vlaams Instituut voor Biotechnologie, Belgium</i>
09:00-09:30	[Sym6.2] Neuronal circuits for defensive behavior A. Luthi, <i>Friedrich Miescher Institute for Biomedical Research, Switzerland</i>	[Sym7.2] MicroRNA-128 governs neuronal excitability and motor behavior in mice A. Schäfer, <i>Icahn School of Medicine at Mount Sinai, USA</i>
09:30-09:45	[Sym6.3] The gustatory basis of protein homeostasis K. Steck, S.J. Walker, P. M. Itskov, C. M. Baltazar, V.M. Corrales-Carvajal, C. Ribeiro* <i>Centre for the Unknown, Portugal</i>	[O7.1] Regulation of neuromuscular synaptogenesis and motoneuron survival by a single miRNA N. Amin^{*1,2}, G. Bai¹, J. Klug¹, W. Gifford^{1,2}, S. Driscoll¹, B. Dominguez¹, K-F. Lee¹, X. Jin¹, S. Pfaff¹ et al ¹<i>Salk Institute for Biological Studies, USA</i>, ²<i>University of California, San Diego, USA</i>
09:45-10:00		[O7.2] Identification of sox2ot as a synapse-associated lncRNA through coexpression-based mining of the allen brain atlas. G. Berto*, M. Falcone, R. Piro, D. Gavello, A. Chiotto, G. Pallavicini, E. Turco, E. Carbone, F. Di Cunto. <i>University of Torino, Italy</i>
10:00-10:30	Refreshments Room: Gould Space	
10:30-11:00	[Sym6.4] Phenotyping and drug screening in zebrafish mutants of autism risk genes E.J. Hoffman¹, K.J. Turner², J.M. Fernandez¹, D. Cifuentes¹, M. Ghosh², S.W. Wilson², J. Rihel^{*2}, M.W. State³, A.J. Giraldez¹ ¹<i>Yale School of Medicine, USA</i>, ²<i>University College London, USA</i>, ³<i>University of California San Francisco</i>	[Sym7.3] miRNA function in synapse development and plasticity J. Valluy, S. Bicker, R. Fiore, M. Lackinger, M. Rajman, A. Aksoy-Aksel, G. Schratt* <i>Phillips-University Marburg, Germany</i>
11:00-11:30	[Sym6.5] A Drosophila circuit mediating variable responses to conflicting visual stimuli and its stochastic development L.M. Fenk¹, E. Campione¹, K. Panser¹, B. Hassan², A.D. Straw^{*1,3} ¹<i>Research Institute of Molecular Pathology (IMP), Austria</i>, ²<i>VIB, Belgium</i>, ³<i>University of Freiburg, Germany</i>	[Sym7.4] MicroRNA-Mediated neuronal reprogramming and disease modeling A. Yoo, <i>Washington University in St. Louis, USA</i>
11:30-12:00	[Sym6.6] Investigation of a sensory interface relaying information from cerebrospinal fluid to motor circuits U Böhm, L. Djenoune, K. Fidelin, J. Hubbard,, A. Prendergast, J. Sternberg, C. Wyart* <i>École des Neurosciences Paris, France</i>	[Sym7.5] MicroRNA function in postnatal forebrain neurogenesis C. Beclin, P. Follert, A.D. Chevigny, N. Coré, H. Cremer* <i>Developmental Biology Institute of Marseille (IBDM), France</i>
12:00-13:00	[PLN03] – Evolution of the anterior neural border signaling centre and its impact on brain organisation C. Houart, <i>King's College London, UK</i> <i>Chair: M. Studer</i>	
13:00-14:30	Boxed Lunch Room: Gould Space	
14:30-19:30	Free time (On your own)	
19:30-22:30	Conference Gala Dinner	

Saturday 14 May 2016	
08:00-18:00	Registration Room: Foyer Méditerranée
08:30-10:30	Symposium 8 – Sensorimotor assembly and integration Chair: S. Pfaff
Rooms	Amphithéâtre Antipolis
08:30-09:00	[Sym8.1] Brainstem neurons with pre-motor activity L.R. Hernandez-Miranda ¹ , P-L. Ruffault ^{1,2} , A.J. Murray ³ , G. Fortin ² , J. Champagnat ² , C. Birchmeier* ¹ ¹ Max-Delbrück-Center for Molecular Medicine, Germany, ² Institut des Neurosciences, Gif-sur-Yvette, France, ³ Columbia University, USA, ⁴ Institut de Biologie de l'École Normale Supérieure, France
09:00-09:30	[Sym8.2] Anatomical and functional interrogation of the cortico-cerebellar system. J-Z. Guo, A. Graves, G. Blake, J. Chandrashekar, K. Ritola, K. Branson, A.W. Hantman* Janelia Research Campus, USA
09:30-10:00	[Sym8.3] Molecular specialization in the assembly of presynaptic inhibitory synapses M. Mende ¹ , E.V. Fletcher ² , J.L. Belluardo ^{1,3} , G. Z. Mentis ² , J. A. Kaltschmidt* ^{1,3} ¹ Sloan Kettering Institute, USA, ² Columbia University, USA, ³ Weill Cornell Graduate School of Medical Sciences, USA
10:00-10:30	[Sym8.4] Development of a spinal sensorimotor node that modulates limb position in response to painful stimuli S.L. Pfaff* ^{1,2} , K.L. Hilde ^{1,2} , A.J. Levine ^{1,2} , C.A. Hinckley ^{1,2} , M. Hayashi ^{1,2} ¹ Howard Hughes Medical Institute, USA, ² Salk Institute for Biological Studies, USA
10:30- 10:45	[08.1] – Transcriptional control of neuronal activity during areal and laminar organization of the mouse neocortex E. Magrinelli* ^{1,2} , C. Alfano ^{1,2} , M. Mantegazza ³ , M. Studer ^{1,2} . ¹ Univ. Nice Sophia Antipolis, France, ² Inserm, iBV, France, ³ IPMC, CNRS UMR, France
10:45-11:00	[08.2] - Development of the cortico-ponto-cerebellar sensorimotor circuit U. Maheshwari ^{1,2} , D. Kraus ^{1,2} , N. Maiorano ¹ , S. Ducret ¹ , F. Rijli ^{1,2} . ¹ Friedrich Miescher Institute for biomedical research, Switzerland, ² University of Basel, Switzerland
11:00- 11:30	Refreshments Room: Gould Space
11:30-01:00	Mini symposium – Neurobiology of stress Chair: F. Guillemot
Rooms	Amphithéâtre Antipolis
11:30-12:15	[MSym.1] Addiction as a stress surfeit disorder G.F. Koob, National Institute on Alcohol Abuse and Alcoholism, USA
12:15-01:00	[MSym.2] Synaptic mechanisms of stress-related disorders D.J. Christoffel, J.J. Walsh, S.A. Golden, L.A. Khibnik, M. Heshmati, A.K. Friedman, A. Dey, M. Smith, N. Rebusi, M. Pfau, J.L. Ables, GE. Hodes, K. Deisseroth, I. Ibanez-Tallon, P.A. Slesinger, E.J. Nestler, M.H. Han, S.J. Russo* Mount Sinai School of Medicine, USA
01:00-14:30	Lunch Room: Gould Space
14:30-17:30	Symposium 9 – Astrocyte development and function Chair: D. Rowitch
Rooms	Amphithéâtre Antipolis
14:30-15:00	[Sym9.1] Circuit-specific synaptic regulation by astrocytes A. Araque, University of Minnesota, USA
15:00-15:30	[Sym9.2] Oscillatory Control of Determination Factors for Multipotency versus Fate Choice in Neural Stem Cells I Imayoshi Institute for Virus Research, Kyoto University, Japan
15:30-15:45	[O9.1] A tripartite looping mechanism regulates NFIA expression in the developing spinal cord S.M. Glasgow*, J. Carlson, P. Kang, L. Chaboub, B. Deneen Baylor College of Medicine, USA
15:45-16:00	[O9.2] Astrocyte regulation of neuron circadian behavior

	O. Barca Mayo*, M. Pons-Espinal, P. Follert, L. Berdondini and D. de Pietri Tonelli <i>IIT, Italy</i>
16:00-16:30	Refreshments Room: Gould Space
16:30-17:00	[Sym9.3] New tools to explore astrocyte signaling in neural circuits X. Yu, T-i. Lu, J.C. Oceau, R. Srinivasan, B.S. Khakh* <i>University of California Los Angeles, USA</i>
17:00-17:30	[Sym9.4] Development of functionally heterogeneous astrocytes in mammalian CNS A.V. Molofsky ¹ , H.H. Tsai ¹ , K.W. Kelley ¹ , H. Li ² , L.C. Fuentealba ¹ , R.T. Marques ² , H. Zhuang ² , A. Alvarez-Buylla ¹ , E.M. Ullian ¹ , W.D. Richardson ² , D.H. Rowitch* ¹ <i>¹University of California, USA, ²University College, UK</i>
17:30-18:00	Poster Awards and Closing Remarks