

Poster Programme

Poster Session 1

Tuesday, 22nd May 2018 – 16:45-18:15

Room – Reception Hall 1 and Gallery

- [P1.001] Ghrelin promotes the phosphorylation of the GluN1 and GluN2B subunits of the N-methyl-D-aspartate receptor in the immature hippocampus**
B. Muniz, J. Cuellar, L. Berrout, M. Isokawa*, University of Texas Rio grande Valley, USA
- [P1.002] Role of Cx35 containing gap junctions in recruiting chemical synapses**
S. Jabeen*^{1,2}, G. Yadav², V. Thirumalai^{2,1} Manipal Academy of Higher Education, India, ²National Centre for Biological Sciences, India
- [P1.003] Kit ligand-cKit signaling negatively regulates activity-dependent thalamocortical axon branching**
Y. Hayano¹, T. Araki¹, K. Sasaki¹, Y. Miyasaka¹, T. Nakasone², Y. Hata², N. Yamamoto*¹, ¹Osaka University, Japan, ²Tottori University, Japan
- [P1.004] A translational repression complex in developing mammalian neural stem cells that regulates neuronal specification**
S. Zahr*^{1,5}, G. Yang², H. Kazan³, M. Borrett^{1,5}, S. Yuzwa¹, A. Voronova⁴, D. Kaplan^{1,5}, F. Miller^{1,5}, ¹Hospital for Sick Children, Canada, ²University of Calgary, Canada, ³Antalya Bilim University, Turkey, ⁴University of Alberta, Canada, ⁵University of Toronto, Canada
- [P1.006] Role of T-type calcium channels in axonal arborization of cortical chandelier cells**
A. Steinecke, H. Taniguchi*, Max Planck Florida Institute for Neuroscience, USA
- [P1.007] Gene regulatory networks underlying cell fate specification of a C. elegans sensory/inter/motor neuron-type**
W. Heo*, H. Hwang, K. Kim, DGIST, Republic of Korea
- [P1.008] Embryonic development of the murine cerebello-thalamic tract**
D.B. Dumas*¹, S.V. Gornati¹, Y. Adolfs², R.J. Pasterkamp², F.E. Hoebeek^{1,2}, ¹Erasmus MC Rotterdam, The Netherlands, ²UMC Utrecht, The Netherlands
- [P1.009] Maternal obesity during pregnancy increases the population of orexigenic neurons in the lateral hypothalamic area**
H.R. Twigg*, C.L. Jasoni, University of Otago, New Zealand
- [P1.010] Regulation of apical dendritic patterning of neocortical pyramidal neurons**
Y. Gonda*^{1,2}, T. Seki¹, C. Hanashima^{2,3}, ¹Tokyo Medical University, Japan, ²RIKEN CDB, Japan, ³Waseda University, Japan
- [P1.011] Olfactory sensory neurons regulate maturation of olfactory bulb neurons independently of neuronal activity**
S. Aihara*, T. Imai, Kyushu University, Japan
- [P1.012] Effect of long-term transcutaneous electrical stimulation of spinal cord on postural stability of young individuals**
E. Mukhametova*, A. Militsova, T. Baltina, Kazan Federal University, Russia
- [P1.013] Assessment of functional rescue of MeCP2 dysfunction-induced defects by MEA**
D-L. Ma*¹, E. Chin¹, X-Y. Zhang¹, J. Cook², A. Van Dongen¹, E. Goh^{1,3}, ¹Duke-NUS Medical School, Singapore, ²University of Wisconsin-Milwaukee, USA, ³National Neuroscience Institute, Singapore
- [P1.014] Activity of Cajal-Retzius cells regulates their distribution and survival: impact on cortical wiring**
I. Genescu*¹, M. Keita¹, F. Rijli², G. Lopez-Bendito³, A. Pierani⁴, S. Garell¹, ¹PSL Research University, France, ²Friedrich Miescher Institute for Biomedical Research, Switzerland, ³Universidad Miguel Hernández-Consejo Superior de Investigaciones Científicas (UMH-CSIC), Spain, ⁴Université Paris Diderot, Sorbonne Paris Cité, France
- [P1.015] The different pattern of mtDNA copy number change by brain region at the trimethyltin treatment in the primary mouse neuron**
S. Kim*, E-H. Jang, Eulji University, Republic of Korea

- [P1.016] Long associational projections of *Plxd1*-expressing cortical neurons are formed by interstitial collaterals from the callosally-projecting primary axonal shaft**
Y. Oka*, Y. Lin, S.Y.X. Tiong, T. Sasaki, M. Doi, T. Iguchi, M. Sato, *Osaka University, Japan*
- [P1.018] Single-cell molecular connectomics of somatosensory cortex circuit assembly**
E.K. Klingler¹, J.P. Prados¹, J.K. Kebschull², A.Z. Zador², A.D. Dayer¹, D.J. Jabaudon^{1,3}, ¹Geneva University, Switzerland, ²Cold Spring Harbor Laboratory, USA, ³Geneva University Hospital, Switzerland
- [P1.019] Hyaluronate-binding proteins in the rat brain during development and under immobilization stress**
Y.V. Babets*, O.O. Dovban, G.O. Ushakova, *Oles Honchar Dnipro National University, Ukraine*
- [P1.020] Blockage of transient receptor potential channels, in particular TRPC3 and V3, has proven to have an effect on neural plasticity in the passive avoidance task learning model in 1 day old chicks**
A. Krolik*, A. Ziembowicz, J. Lenart, E. Salinska, *Polish Academy of Sciences, Poland*
- [P1.021] Thalamic contributions to the developmental acquisition of state-dependent cortical activity**
Y. Murata*, M.T. Colonnese, *George Washington University, USA*
- [P1.022] An in vitro assay to study the interactions between thalamocortical axons and the neocortex**
M. Bose*, S. Pal, S. Tole, *Tata Institute of Fundamental Research, India*
- [P1.023] Thalamocortical-dependent cortical neuron identity in mouse barrel cortex**
T.R. Young*, A. Matsui, S.S. Kikuchi, M. Ogawa, T. Shimogori, *RIKEN Center for Brain Science, Japan*
- [P1.024] Onecut transcription factors control the development of sensory neurons in the dorsal root ganglia**
G. Masgutova*, A. Harris, F. Clotman, *Université Catholique de Louvain, Belgium*
- [P1.025] Neuromodulator induced bidirectional changes in ocular dominance in the mouse primary visual cortex**
S.Z. Hong¹, S. Huang², A. Kirkwood¹, ¹Johns Hopkins University, USA, ²Hussman Institute for Autism, USA
- [P1.026] Behavioral assessment of USH2A KO mice**
P.A. Perrino¹, A.R. Rendall¹, D.F. Newbury², J.J. LoTurco¹, A.N. Buscarello¹, R.H. Fitch¹, ¹University of Connecticut, USA, ²University of Oxford, UK
- [P1.027] Arousal-dependent tuning in Rett syndrome**
P. Artoni*, A. Piffer¹, G. Ewall², T.K. Hensch^{1,2}, M. Fagiolini¹, ¹Harvard Medical School, USA, ²Harvard University, USA
- [P1.028] Nogo-B is the major form of Nogo at the midline and likely mediates crossing of commissural axons via NgR upregulation in the mouse spinal cord**
L. Wang¹, C. Yu¹, S.O. Chan², ¹Sun Yat-sen University, China, ²The Chinese University of Hong Kong, China
- [P1.029] Ontogeny and connectivity of thalamic inhibitory interneurons**
P. Jager*, O. Brock¹, G. Moore², J. Partanen³, S. Brickley², A. Delogu¹, ¹King's College London, UK, ²Imperial College London, UK, ³University of Helsinki, Finland
- [P1.030] Exposure to a maternal n-3 fatty acid-deficient diet during brain development decreases the gene expression of enzymes involved in DHA incorporation into neuronal phospholipids in rat offspring**
G.J. Chen*, S.C. Cheng, H.M. Su, *National Taiwan University, Taiwan*
- [P1.031] Exposure to a maternal n-3 fatty acid-deficient diet during development decreases the DHA levels and neuronal plasticity related gene expression in rat offspring brain**
H.R. Cai*, H.M. Su, *National Taiwan University, Taiwan*
- [P1.032] Changes in laterality of spinofugal projections caused by spinal cord deletion of DCC during development**
F.B.B. Bourojeni^{1,2}, R.V.S. da Silva^{1,2}, I.A.O. Orfi¹, H.U.Z. Zeilhofer³, A.K. Kania^{1,2}, ¹Institut de Recherches Cliniques de Montréal (IRCM), Canada, ²McGill University, Canada, ³Swiss Federal Institute of Technology (ETH), Switzerland

- [P1.033] The effect of omega-3 fatty acids on visual function and plasticity in mice**
E. Centofante*¹, L. Anez-Bustillos¹, N. Hodgson^{1,2}, T.K. Hensch^{1,2}, M. Puder¹, M. Fagiolini¹,
¹Boston Children's Hospital, USA, ²Harvard University, USA
- [P1.034] Left-lateralized brain activity is necessary for vocal learning in zebra finches**
A.H. Pagliaro*, H.C. Piristine, J.S. Lord, S.M.H. Gobes, Wellesley College, USA
- [P1.035] Development of rat ultrasonic vocalizations: from infancy to adulthood**
R.A. Stark*, M.J. Lelekach, S.M. Pellis, R.L. Gibb, University of Lethbridge, Canada
- [P1.036] Clinical aspects of children with developmental stuttering**
T.H. Eom, The Catholic University of Korea, Republic of Korea
- [P1.037] Paternal aging affects developmental patterns of ultrasonic vocalization in C57BL6/J mice**
L. Mai*¹, R. Kimura¹, K. Kanno², H. Inada¹, N. Osumi¹, ¹Tohoku University, Japan, ²Kagoshima University, Japan
- [P1.038] Brain-on-a-chip: Altered neuronal network development in neural cells derived from patients with autism and intellectual disability**
M. Frega, K. Linda, B. Mossink, T. Klein Gunnewiek, D. Schubert, N. Nadif Kasri*, Donders Institute for Brain Cognition and Behaviour, The Netherlands
- [P1.039] Em11 is involved in primary cilium assembly at early stages of cortical development**
A. Uzquiano*^{1,2}, D. Romero^{1,2}, A. Houllier^{1,2}, F. Dingli³, G. Arras³, D. Loew³, N. Bahi-Buisson^{4,5}, F. Francis^{1,2}, ¹Institut du Fer à Moulin, INSERM UMRS 839, France, ²Sorbonne Universités, Université Pierre et Marie Curie, France, ³PSL Research University, Centre de Recherche, Laboratoire de Spectrométrie de Masse Protéomique, 26 rue d'Ulm, 75248 Cedex 05, Paris, France, ⁴Paris Descartes—Sorbonne Paris Cité University, France, ⁵INSERM UMR 1163, Embryology and Genetics of Congenital Malformations, France
- [P1.040] Perturbed interneuron development in a mouse model of maternal immune activation**
N.A. Vasistha*, M. Pardo-Navarro, J. Gasthaus, D.M. Weijers, K. Khodosevich, University of Copenhagen, Denmark
- [P1.041] Paternal aging affects gene expression of offspring's brain possibly via epigenetic mechanism involving a transcriptional repressor REST**
N. Osumi*¹, R. Kimura¹, T. Kikkawa¹, K. Yoshizaki², S. Oki³, K. Mochizuki¹, H. Inada¹, N. Aoki¹, Y. Matsui¹, ¹Tohoku University, Japan, ²Institute for Developmental Research, Aichi, Japan, ³Kyushu University, Japan
- [P1.042] Caudalised brain organoids for modelling human brain development and drugs activity**
M. Cherepkova¹, S. Molchanova¹, E. Pörsti¹, S. Abdurakhmanova¹, D. Balboa¹, R. Gainetdinov², P. Piepponen¹, T. Taira¹, T. Otonkoski¹, M.M. Bespalov*¹, ¹University of Helsinki, Finland, ²St. Petersburg State University, Russia
- [P1.043] Deregulated autophagy leads to changes in synaptic functioning in an iPSC-derived model for Koolen-de Vries syndrome**
K. Linda*, E.I. Lewerissa, A. Verboven, M. Frega, S.H.C. van Gestel, T. KleinGunnewiek, D.A. Koolen, B.B. de Vries, N. Nadif Kasri, Radboud University Medical Center, The Netherlands
- [P1.044] Memory impairment in astrocyte-specific Tsc1 knockout mice was recovered by Rheb inhibition**
T. Shimada*, H. Sugiura, K. Yamagata, Tokyo Metropolitan Institute of Medical Science, Japan
- [P1.045] TDP-43 in the pathogenesis of frontotemporal lobar degeneration**
K.J. Tsai, National Cheng Kung University, Taiwan
- [P1.046] Neuronal network damage in mouse model of extremely preterm infants with brain injury**
K. Deguchi*^{1,3}, K. Kubo³, K. Inoue², K. Nakajima³, ¹Deguchi Pediatric Clinic, Japan, ²National Institute of Neurology & Psychiatry, Japan, ³Keio University School of Medicine, Japan
- [P1.047] Hydrogen sulfide prevented the developmental impairments of rats with prenatal hyperhomocysteinemia**
O. Yakovleva, A. Ziganshina, A. Arslanova, N. Khaertdinov, G. Ziyatdinova, G. Sitdikova*, Kazan Federal University, Russia
- [P1.048] The conditional ko approach: cre/lox technology in human neurons**
C. Patzke*, T.C. Sudhof, Stanford, USA

- [P1.049] **KCTD13 promotes neural progenitor proliferation and neurogenesis**
D-L. Ma¹, E.W.M. Chin¹, M.K. Ramlee¹, L-F. Poon¹, S. Li¹, E.L.K. Goh^{*1,2}, ¹Duke-NUS Medical School, Singapore, ²National Neuroscience Institute, Singapore
- [P1.050] **The extracellular matrix protein LGALS3BP regulates basal radial glial cells generation and human cortical development**
C. Kyrousi^{*1}, A. O'Neill², L. Coquand³, I. Buchsbaum¹, R. Di Giaimo¹, A.D. Baffet³, S.P. Robertson⁴, S. Cappello¹, ¹Max-Planck Institute of Psychiatry, Germany, ²Institute of Stem Cell Research, German Research Center for Environmental Health, Helmholtz Center, Germany, ³Institut Curie, PSL Research University, France, ⁴Dunedin School of Medicine, New Zealand
- [P1.051] **A neurophysiologic model of MELAS disease carrying m3243A>G heteroplasmy, using human inducible pluripotent stem cell derived excitatory cortical neurons**
T.M. Klein Gunnewiek^{*1,2}, D. Cassiman³, E. Morava³, N. Nadif Kasri^{1,2}, L.T. Kozicz^{1,2}, ¹Radboud University Medical Centre, The Netherlands, ²Donders Institute for Brain, Cognition and Behaviour, The Netherlands, ³University Hospital Leuven, Belgium
- [P1.052] **Investigating cellular dynamics during neurodevelopment using live-imaging**
W-K. Chan^{*}, T. Pratt, D. Price, J. Mason, University of Edinburgh, UK
- [P1.053] **Electroacupuncture ameliorates PTSD symptoms in rats by enhancing hippocampal neurogenesis via the Nrf2/antioxidant signal pathway**
C-H. Zhou^{*}, S-S. Xue, D. Wu, Z-W. Peng, H-N. Wang, Xijing Hospital, China
- [P1.054] **Maternal obesity in mouse alters brain epigenetic regulation, amygdalar glutamatergic activity, and anxiety-like behaviour of offspring**
K.A. Glendining^{*}, L.C. Fisher, C.L. Jasoni, University of Otago, New Zealand
- [P1.055] **LTP maturation after neonatal proinflammatory stress: Intact mechanisms of consolidation**
I.V. Kudryashova^{*}, A.O. Manolova, M.Y. Stepanichev, N.V. Gulyaeva, Institute of higher nervous activity and neurophysiology RAS, Russia
- [P1.056] **Role of 5-HT on the development of the prefrontal to raphe circuit**
J. Olusakin^{*1,2}, M. Soiza-Reilly^{1,2}, P. Gaspar^{1,2}, ¹Institut du Fer a Moulin, INSERM-U839, France, ²UPMC, France, ³ENP, France
- [P1.057] **Blocking connexin 43 in the infralimbic cortex induces anhedonia and abolishes histaminergic neuron activation during motivated behavior in rats**
M.E. Riveros^{*}, M.A. Retamal, Universidad del Desarrollo, Chile
- [P1.058] **Schizophrenia risk gene DLG2 contributes to cortical neural development from hESCs**
B. Sanders^{*}, E.J. Shin, Cardiff University, UK
- [P1.059] **Disturbances of behavior and stress response in male and female rats in a model of perinatal reprogramming induced by neonatal proinflammatory stimulation**
M.Y. Stepanichev^{*}, A.O. Manolova, S.V. Freiman, M.V. Onufriev, N.A. Lazareva, N.V. Gulyaeva, Russian Academy of Sciences, Russia
- [P1.060] **Dysregulation of brain serotonergic systems in BALB/c mice: relevance for autism and anxiety**
J.M. Payet^{*1}, E. Burnie¹, N.J. Sathananthan¹, A.M. Russo¹, A.J. Lawther¹, S. Kent¹, C.A. Lowry², M.W. Hale¹, ¹La Trobe University, Australia, ²University of Colorado Boulder, USA
- [P1.061] **Prenatal cold stress alters morphology of noradrenergic neurons: An immunohistochemical study by using rat model**
K. Ikemoto, Iwaki Kyoritsu General Hospital, Japan
- [P1.062] **Haploinsufficiency of *dab1* causes upward shift and invasion of superficial-layer neurons into the cortical layer I and splitting of the CA1 pyramidal cell layer**
T. Honda^{*}, K. Nakajima, Keio University, Japan
- [P1.063] **ApoER2 controls not only neuronal migration but also termination of migration in the developing cerebral cortex**
Y. Hirota^{*1}, K. Kubo¹, T. Fujino², T.T. Yamamoto³, K. Nakajima¹, ¹Keio University, Japan, ²Ehime University, Japan, ³Tohoku University, Japan
- [P1.064] **From inside-out to outside-in: new insights into the cortical lamination development of reelin-deficient mice**

N. Mingo Moreno^{*1,2}, R.J. Wagener³, J.F. Staiger^{1,2}, ¹UMG - University Medicine Göttingen, Germany, ²Center Nanoscale Microscopy and Molecular Physiology of the Brain, Germany, ³University of Geneva, Switzerland

[P1.065] The role of the left intraparietal sulcus (IPS) in tactile enumeration - Behavioral and neuroanatomical findings

Z.Z. Cohen^{*1}, I. Arend¹, K. Yuen², S. Naparstek¹, Y. Glikzman¹, R. Veksler¹, A. Henik¹, ¹Ben-Gurion University of the Negev, Israel, ²Johannes Gutenberg University Medical Center, Germany

[P1.066] Glutamate, glutamine and GABA levels in the rat hippocampus in two models of autism measured by MRS, NMR and HPLC methods

D. Diamandakis^{*}, E. Zieminska, W. Hilgier, J. Orzel, B. Toczyłowska, J.W. Lazarewicz, Polish Academy of Sciences, Poland

[P1.067] Folding of the cerebral cortex requires Cdk5 in upper-layer neurons in gyrencephalic mammals

Y. Shinmyo^{*}, Y. Terashita, T.A. Dinh Duong, T. Horiike, M. Kawasumi, K. Hosomichi, A. Tajima, H. Kawasaki, Kanazawa University, Japan

[P1.068] The developmental differences of explicit and implicit motor learning between left and right handedness

K. Deng^{*}, Y. Deng, J. Chan, J. Yan, Shenzhen University, China

[P1.069] Gyrfication of the cerebral cortex requires FGF signaling in the mammalian brain

N.M. Matsumoto^{*}, Y.S. Shinmyo, Y.I. Ichikawa, H.K. Kawasaki, Kanazawa University, Japan

[P1.070] Sleep problems and family functioning in infants at high-risk for ADHD and their association with attention development

M. Downes^{*}, J. Keating, J. Bramham, University College Dublin, Ireland

[P1.071] Developmental differences in adaptation to visual perturbation in two-segment movement

J.M. Wu^{*}, J.S.Y. Chan, J.H. Yan, Shenzhen University, China

[P1.072] Early developmental long-lasting exposure to methylphenidate: New insights into attention-deficit/hyperactivity disorder

V. Coelho-Santos^{*}, F. Cardoso, R.A. Leitão, C.A. Fontes-Ribeiro, A.P. Silva, Institute of Pharmacology and Experimental Therapeutics and Institute for Biomedical Imaging and Life Sciences (IBILI), Faculty of Medicine, University of Coimbra, Portugal

[P1.073] Transcriptional regulation of Nfix by NFIB drives astrocytic maturation with the developing spinal cord

E. Matuzelski^{*1}, J. Bunt¹, D. Harkins¹, J.W.C. Lim¹, R.M. Gronostajski², L.J. Richards¹, L. Harris¹, M. Piper¹, ¹University of Queensland, Australia, ²State University of New York at Buffalo, USA

[P1.075] Proneural genes *Ascl1* and *Neurog2* are required for differentiation of ventromedial hypothalamic neurons during embryonic development

S. Aslanpour K^{*1,2}, C. Schuurmans³, D.M. Kurrasch^{1,2}, ¹University of Calgary, Canada, ²Alberta Children Hospital Research Institute, Canada, ³University of Toronto, Canada

[P1.076] Hominin-specific NOTCH2 paralogs expand human cortical neurogenesis through regulation of Delta/Notch interactions

I.K. Suzuki^{*}, D. Gacquer, R. Van Heurck, University of Brussels (ULB), Belgium

[P1.077] Distinct gene expression patterns resulting from prenatal pesticide exposure in autism spectrum disorder

J.J. DeWitt^{*1}, P.M. Hecht², R.J. Schmidt³, L. Delwiche³, S. Letovsky^{4,5}, B. Durbin-Johnson⁶, D.B. Campbell³, I. Hertz-Picciotto⁷, ¹University of Iowa Carver College of Medicine, USA, ²Braeburn Pharmaceuticals, USA, ³UC Davis School of Medicine, USA, ⁴LabCorp, USA, ⁵Boston University, USA, ⁶UC Davis Bioinformatics Core, USA, ⁷Michigan State University, USA

[P1.078] Canonical BMP signaling regulates the timing of neurogenesis and Bergmann glial development in cerebellum

T.C. Ma^{*1}, K.I. Vong¹, K.M. Kwan^{1,2}, ¹The Chinese University of Hong Kong, Hong Kong, ²Partner State Key Laboratory of Agrobiotechnology (CUHK), Hong Kong

[P1.079] Heterozygosity for nuclear factor one-X in mice reveals Sotos syndrome 2 characteristics

S. Oishi*¹, D. Harkins¹, N. Kurniawan², M. Kasherman³, M. Langguth⁴, T.J. Burne^{4,5}, M. Piper¹, ¹The University of Queensland, Australia, ²The Centre for Advanced Imaging, Australia, ³The Eskitis Institute for Drug Discovery, Australia, ⁴The Queensland Brain Institute, Australia, ⁵Queensland Centre for Mental Health Research, Australia

[P1.080] Dystrophin short isoform, Dp71, is regulated by phosphorylation and ubiquitin-proteasome system in neuronal cells

T. Fujimoto*, T. Yaoi, S. Fushiki, K. Itoh, *Kyoto Prefectural University of Medicine, Japan*

[P1.081] Increased cortical thickness in the right middle occipital gyrus in early high-proficient Cantonese-Mandarin bilinguals

L. Tu*¹, M. Niu², X. Pan², B. Jiang³, R. Huang², ¹Jinan University, China, ²South China Normal University, China, ³Sun Yat Sen University, China

[P1.082] Neuronal birthdate tagging: Cre-ER mouse lines for birthtime-dependent classification and manipulation of neuron subsets

T. Hirata, *National Institute of Genetics, Japan*

[P1.083] An rRNA methyltransferase: Fibrillarin is essential for brain development

Q. Wu*, F. Matsuzaki, *RIKEN CDB, Japan*

[P1.084] Foxg1 overexpression in neocortical pyramids stimulates dendrite elongation via Hes1 and pCreb1 upregulation

S. Chiola*¹, M.D. Do², L. Centrone¹, A. Mallamaci¹, ¹SISSA, Italy, ²University of Medicine and Pharmacy, Viet Nam

[P1.085] Cell cycle and cell fate decision: role of the cdc25b g2/m regulator in mammalian neurogenesis

M. Roussat*, F. Pituello, S. Bel-Vialar, *Université de Toulouse, France*

[P1.086] Standard Cre lines display spatiotemporally variable recombination with respect to the floxed Ldb1 allele in the dorsal telencephalon of embryonic mice

V. Kinare¹, T. Pramanik*², S. Tole², ¹Sophia College for Women, India, ²Tata Institute of Fundamental Research, India

[P1.087] Longitudinal diffusion tensor imaging revealed nerve fiber alterations in Aspm mutated microcephaly model mice

H. Ogi*¹, N. Nitta², S. Tando¹, A. Fujimori², I. Aoki², S. Fushiki¹, K. Itoh¹, ¹Kyoto Prefectural University of Medicine, Japan, ²National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology, Japan

[P1.088] Mechanisms underlying termination of tangential neuronal migration investigated by a RNA-seq based approach

A. Masuda, H. Nakaoka, A. Toyoda, T. Hirata, Y. Zhu*, *National Institute of Genetics, Japan*

[P1.089] Vsx1 and Chx10 paralogs sequentially secure V2 interneuron identity during spinal cord development

S. Debrulle¹, C. Baudouin¹, M. Hidalgo-Figueroa¹, B. Pelosi¹, C. Francius¹, K. Ronellenfitch², R.L. Chow², F. Tissir¹, S.K. Lee³, F. Clotman*¹, ¹Université Catholique de Louvain, Belgium, ²University of Victoria, Canada, ³Oregon Health and Science University, USA

[P1.090] Unkempt is a novel downstream regulator of mTOR signaling in mammalian neurogenesis

E. Vinsland*¹, P. Baskaran¹, A.R. Tee², J.M. Bateman¹, ¹King's College London, UK, ²Cardiff University, UK

[P1.091] A critical role for HnrnpU during mouse cortical development

T. Sapir*¹, T. Levy¹, O. Devinsky², D.B. Goldstein³, O. Reiner¹, ¹The Weizmann Institute of Science, Israel, ²NYU Langone School of Medicine, USA, ³Columbia University, USA

[P1.092] Intravenous infusion of mesenchymal stem cells alters metabolites in the brain and ameliorates neonatal stroke in mice

M. Tsuji*¹, E. Tanaka^{1,2}, Y. Ogawa¹, T. Mukai³, T. Shimonaka², Y. Sato⁴, T. Hamazaki², R. Fujii², T. Nagamura-Inoue³, H. Shintaku², ¹National Cerebral and Cardiovascular Center, Japan, ²Osaka City University, Japan, ³The University of Tokyo, Japan, ⁴Nagoya University Hospital, Japan

[P1.093] Single-cell quantitative assessment of mesencephalic dopaminergic populations during early mouse fetal brain development

W. Luan^{*1}, L. Hammond², S.A. Alexander³, S. Ali¹, D.W. Eyles^{1,3}, ¹University of Queensland, Australia, ²Columbia University, USA, ³Queensland Centre for Mental Health Research, Australia

[P1.094] Obesity during pregnancy in the mouse alters the Netrin-1 responsiveness of fetal arcuate nucleus NPY neurons

C.L. Jasoni^{*1}, T.R. Sanders^{1,2}, K.A. Glendinning¹, ¹University of Otago, New Zealand, ²National Institute for Deafness and Other Communication Disorders (NICDC), USA

[P1.095] The role of Id genes in mammalian developing cochlea

S. Sakamoto^{*}, T. Tateya, R. Kgeyama, Kyoto University, Japan

[P1.096] Homogeneous midbrain organoids from human pluripotent stem cells

T.H. Kwak^{*}, J.H. Kang, S. Hali, C.Y. Shin, D.W. Han, Konkuk University School of Medicine, Republic of Korea

[P1.097] The evolution of early mother-infant interactions in human and non-human primates

V. Sclafani^{*1,2}, L. De Pascalis^{2,3}, L. Bozicevic^{2,3}, S.J. Suomi⁴, P.F. Ferrari⁵, L. Murray², ¹University of Reading Malaysia, Malaysia, ²University of Reading, UK, ³University of Liverpool, UK, ⁴The National Institute of Child Health and Human Development, USA, ⁵Université Claude Bernard, Lyon, France

[P1.098] Neural tube closure responsible membrane channel TRPM7 N-terminal domain interacts with calmodulin

A. Frtus^{*}, M. Vargova, K. Bousova, J. Teisinger, Czech Academy of Sciences, Czech Republic

[P1.099] Novel calmodulin binding site on N-terminus of TRPM6, a regulator of the neural tube closure

M. Vargova^{*}, A. Frtus, K. Bousova, J. Teisinger, Academy of Sciences of the Czech Republic, Czech Republic

[P1.100] Methylglyoxal suppresses the translation of Notch1 mRNA to alter neural precursor cell homeostasis in the developing mouse cortex

D. Rodrigues², F. Ishraque¹, S.L. Erickson¹, H. Liu¹, J.U. Perez¹, J. Ellis², D.R. Kaplan², G. Yang^{*1}, ¹University of Calgary, Canada, ²The Hospital for Sick Children, Canada

[P1.101] The mTOR pathway orchestrates the expression of gene regulatory networks during neuronal differentiation

M. Schüle, T. Butto, S. Dewi, J. Krummeich, D. Strand, S. Strand, S. Schweiger, J. Winter^{*}, University Medical Center of the Johannes Gutenberg University, Germany

[P1.102] Temporal shift of signal dependence for progenitor specification in telencephalon from mouse embryonic stem cells

M. Nasu^{*}, S. Esumi, N. Tamamaki, Kumamoto University, Japan

[P1.103] Holoprosencephaly in LRP2 deficient C57BL/6N mice is rescued on FVB/N background

N. Mecklenburg^{*1}, F. Kreuchwig¹, A. Laier¹, J. Görne¹, W. Chen², N. Hübner¹, A. Hammes¹, ¹Max-Delbrück-Center for Molecular Medicine, Germany, ²Southern University of Science and Technology of China, China

[P1.104] Celsr2 regulates neuronal dendritic development and neural function

B. Chen, X. Li, C. Li, Y. Huang, Y. Qu^{*}, Jinan University, China

[P1.105] Effect of maternal immune activation with lipopolysaccharide on pre- and early postnatal development of oligodendrocytes, myelin and microglia in the spinal cord

K.W. McDermott^{*1}, R.C. Anderson¹, T. Foley², J. Radford², J. Allardyce¹, S. O'Halloran¹, G.W. O'Keeffe², ¹University of Limerick, Ireland, ²University College Cork, Ireland

[P1.106] Live imaging of human basal radial glial cells in fetal brain slices and dissociated in vitro cultures

L. Coquand^{*1}, F. Guimiot², G.S. Victoria¹, V. Fraiser¹, A. Baffet¹, ¹PSL research university, France, ²Hôpital universitaire Robert Debré, France

[P1.107] Social stress during the neonatal period differentially affects memory processes according to the developmental stage of male rats

N. Uriarte^{*}, V. Atahaide Garcia, M.J. Zuluaga, V. Cardozo, G. Bedó, D. Agrati, A. Ferreira, Universidad de la República, Uruguay

[P1.108] Retromer complex acts downstream mTOR kinase in dendritic arbor development

K. Kiselewska¹, M. Blazejczyk¹, M. Bakun², M. Dadlez², L. Johannes³, J. Jaworski^{*1}, ¹International Institute of Molecular and Cell Biology, Poland, ²Institute of Biochemistry and Biophysics PAS, Poland, ³Institut Curie, France

[P1.109] Mitochondrial dynamics in the regulation of cortical neurogenesis

R. Iwata^{*}, P. Vanderhaeghen, University of Brussels (ULB), Belgium

[P1.110] Prenatal nicotine exposure is associated in young children with abnormal connectivity of resting-state cognitive control networks

J.C. Ipser^{*1}, C. Wedderburn^{1,4}, A. Roos¹, K.L. Narr¹, R.P. Woods¹, S. Joshi¹, H.J. Zar¹, D.J. Stein¹, K.A. Donald¹, ¹University of Cape Town, South Africa, ²University of California, Los Angeles, USA, ³Stellenbosch University, South Africa, ⁴London School of Hygiene & Tropical Medicine, UK, ⁵South African Medical Research Council, South Africa

[P1.111] Gabrb3 heterozygosity-associated ASD genetic susceptibility interacts with maternal immune activation in the mouse neocortex

H.M. Moon^{*1}, P.A. Carpentier¹, V. Saravanapandian¹, U. Haditsch¹, J. Su¹, M. Chin¹, K. Muench¹, A. Bormann², G. Subramayam³, T.D. Palmer¹, ¹Stanford University, USA, ²Cal State University, Fullerton, USA, ³San Jose State University, USA

[P1.112] Beta III Spectrin is required for the dendrite growth guided by axonal bundles in cerebellar circuits

K. Fujishima^{*}, M. Yamada, Y. Nishida, J. Kurisu, M. Kengaku, Kyoto University, Japan

[P1.113] Rolipram, a PDE-IV inhibitor protects against experimental Parkinsonism in mice

N. Kumar^{*}, R.K. Khanna, Vivekananda Global University, India

[P2.087] Testing the Lhx2:Ldb1 interaction in neuron-glia cell fate specification in the embryonic hippocampus

T. Khan^{*1}, V. Kinare², L. D' Souza¹, G. Godbole¹, H. Padmanabhan^{1,3}, Z. Khatri¹, U. Maheshwari¹, B. Muralidharan¹, S. Tole¹, ¹Tata Institute of Fundamental Research, India, ²Sophia College for Women, India, ³Harvard University, USA

[P2.118] Modulating cortical asymmetry: the transdiagnostic reduction of depressive and anxiety symptoms utilising a novel therapeutic approach

R.W. Beck^{*1}, J. Laugharne², W. Woldman³, R. Laugharne⁴, B. McLean⁵, M.T. Beck⁶, C. Mastropasqua¹, R. Shankar⁴, R. Jorge¹, ¹Institute of Functional Neuroscience, Australia, ²University of Western Australia, Australia, ³University of Exeter, UK, ⁴University of Exeter Medical School, UK, ⁵Royal Cornwall Hospital, UK, ⁶Institute of Functional Neuroscience, Canada

Poster Session 2

Thursday, 24th May 2018 – 18:00-19:30

Room – Reception Hall 1 and Gallery

[P2.001] A tunable microtubule targeting system that shapes dendrite arbor topology

A. Moore^{*1}, L-F. Yoong¹, H-K. Lim¹, S. Lackner¹, P. Hong², ¹RIKEN BSI, Japan, ²Brandeis University, USA

[P2.002] Effect of gap junction blockade in the hippocampus of rats after neonatal anoxia

S.H. Takada^{*}, N.M.M. Dias, J.M. Ikebara, D.S. Cardoso, T.A.S. Bretherick, P.P. Martins, A.H. Kihara, Universidade Federal do ABC, Brazil

[P2.003] Nck2 in spinal motor axon guidance

M.Y. Chang², T.J. Kao^{*1}, ¹Taipei Medical University, Taiwan, ²Min-Sheng General Hospital, Taiwan

[P2.004] Lhx1/5 is critical in controlling dendritogenesis and spine morphogenesis of Purkinje cells via regulation of Espin

N.C. Lui¹, W.Y. Tam¹, J. Huang³, C.C. Wang¹, L. Jiang^{1,2}, W.H. Yung¹, K.M. Kwan^{*1,2}, ¹The Chinese University of Hong Kong, Hong Kong, ²Partner State Key Laboratory of Agrobiotechnology (CUHK), China, ³University of Hong Kong, Hong Kong

[P2.005] Development of left-right asymmetric structure in the Drosophila brain

S. Sakamura^{*1}, F. Hsu², A-S. Chiang², K. Matsuno¹, ¹Osaka University, Japan, ²National Tsing Hua University, Taiwan

[P2.006] Roles of N-cadherin in columnar unit organization in the Drosophila brain

O. Trush*, C. Liu, M. Sato, Kanazawa University, Japan

[P2.007] Genome stability by DNA polymerase β is required for neuronal differentiation in the postnatal cortex

A. Uyeda¹, K. Onishi¹, T. Hirayama^{1,2}, T. Yagi^{1,2}, N. Yamamoto¹, N. Sugo*¹, ¹Osaka University, Japan, ²Japan Agency for Medical Research and Development (AMED), Japan

[P2.008] MIM regulation of actin-nucleating formin DAAM1 determines dendritic protrusion morphology and final dendritic configuration of Purkinje cells

K.K. Galbraith*¹, H. Mizuno¹, K. Fujishima¹, S.J. Lee², T. Uemura², K. Sakimura³, M. Mishina⁴, N. Watanabe¹, M. Kengaku¹, ¹Kyoto University, Japan, ²University of Tokyo, Japan, ³Niigata University, Japan, ⁴Ritsumeikan University, Japan

[P2.009] The analysis of the functional state of spinal circuit during a two month period after spinal cord injury

D.I. Silantyeva*, E.I. Yamalitdinova, M.E. Baltin, T.V. Baltina, Kazan Federal University, Russia

[P2.010] The influence of electric stimulation of the ulnar nerve on evoked potentials recorded in calf muscles

A.D. Militiskova*, L.M. Bikchentaeva, G.G. Yafarova, I.A. Lavrov, Kazan Federal University, Russia

[P2.011] GSK3B-mediated phosphorylation of MCL1 regulates axonal autophagy to promote Wallerian degeneration

S. Wakatsuki*, T. Araki, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Japan

[P2.012] Induction of neuronal apoptosis in a Drosophila model of traumatic brain injury

M.T. Bounajem*¹, B. Frost¹, ¹Joe R. and Teresa Lozano Long School of Medicine, UT Health San Antonio, USA, ²Barshop Institute for Longevity and Aging Studies, USA

[P2.013] Sensory sensitivity and behavior of rats with hyperhomocysteinemia in the model of chronic migraine

G.F. Burkhanova*, E.V. Gerasimova, G.F. Sitdikova, Kazan Federal University, Russia

[P2.014] The effects of sulfur-containing amino acids on the spontaneous neuronal activity in the hippocampus of neonatal rats

E. Gataulina, E. Kurmasheva, G. Sitdikova, A. Yakovlev*, Kazan Federal University, Russia

[P2.015] Susceptibility to cortical spreading depression of rats with prenatal hyperhomocysteinemia

E.V. Gerasimova*, G.F. Burkhanova, K.A. Chernova, A.V. Zakharov, N.N. Khaertdinov, G.F. Sitdikova, Kazan Federal University, Russia

[P2.016] Clustered protocadherins except three PcdhyC isoforms are necessary for generating functional neuronal circuits

K. Takemoto*, H. Kobayashi, S. Hasegawa, Y. Inoue, T. Hirabayashi, T. Yagi, Osaka university, Japan

[P2.017] Cadherin-13 deficiency increases dorsal raphe 5-HT neuron density and prefrontal cortex innervation in the developing mouse brain

A. Forero*¹, O. Rivero¹, S. Wäldchen¹, H.P. Ku¹, Y. Gärtner¹, J. Waider¹, R. Blum¹, M. Sauer¹, K.P. Lesch^{1,2}, ¹University of Würzburg, Germany, ²Maastricht University, The Netherlands

[P2.018] Identifying new genes playing a role in severe heterotopia: the unsuspected role of Dlgap4 in radial glial cells

D.M. Romero*¹, N. Bahi-Buisson², K. Poirier³, A.G. Le Moing⁴, J. Chelly⁵, J.F. Deleuze⁶, F. Francis¹, ¹Sorbonne Université, Université Pierre et Marie Curie, France, ²Université Paris Descartes, France, ³INSERM U1016, Université René Descartes, France, ⁴Service de neurologie pédiatrique, CHU Amiens, France, ⁵IGBMC-CNRS UMR7104, INSERM U964, France, ⁶CEA/DSV/Institut de Génomique, Centre National de Genotypage, France

[P2.019] Extracellular Pax6 regulates tangential migration of Cajal-Retzius cells

H. Kaddour*^{1,2}, E. Coppola^{2,3}, M. Volovitch¹, A. Di Nardo¹, A. Prochiantz¹, A. Pierani^{2,3}, ¹College de France, France, ²Imagine Institute, France, ³Center of Psychiatry and Neuroscience, France

[P2.020] Semaphorin 6A-Plexin A2/A4 signaling between neurons and radial glial cells is required for proper positioning of superficial layer neurons in the mouse cerebral cortex

Y. Hatanaka*^{1,5}, T. Kawasaki², T. Abe³, G. Shioi³, T. Kohno⁴, M. Hattori⁴, A. Sakakibara⁵, Y. Kawaguchi¹, T. Hirata², ¹National Institute for Physiological Sciences, Japan, ²National Institute of Genetics, Japan, ³RIKEN Center for Life Science Technologies, Japan, ⁴Nagoya City University, Japan, ⁵Chubu University, Japan

[P2.021] The kinesin KIF21B modulates neuronal migration in the developing cerebral cortex both in mice and human

L. Asselin*¹, P. Tilly¹, S. Heide², D. Héron², C. Depienne³, B. Yalcin¹, J. Godin¹, ¹Institut de Génétique et de Biologie Moléculaire et Cellulaire (IGBMC), France, ²Hôpital de la Pitié-Salpêtrière, Paris VI, France, ³University Hospital Essen, Germany

[P2.022] Dynamics and function of CXCR4 in formation of the granule cell layer during hippocampal development

Y. Mimura-Yamamoto¹, H. Shinohara¹, T. Kashiwagi¹, T. Sato¹, S. Shioda², T. Seki*¹, ¹Tokyo Medical University, Japan, ²Hoshi University, Japan

[P2.023] Assembly of inhibitory circuitry by FoxG1, a gene associated with autism spectrum disorders

G.M. Miyoshi*^{1,2}, Y.U. Ueta¹, H.O. Osaki¹, G.F. Fishell², M.M. Miyata¹, ¹Tokyo Women's Medical University, Japan, ²New York University, USA

[P2.024] Unified control of neuronal delamination and oRG generation by Lzts1

A. Kawaguchi, Nagoya University, Japan

[P2.025] Layer and area-specific radial migration modes in the primate are modulated by direction of vesicular traffic

D. Delaunay*¹, E. Gautier¹, V. Cortay¹, D. Patti¹, N. Doerflinger¹, C. Mayere¹, P. Giroud¹, C. Huissoud^{1,2}, K. Knoblauch¹, H. Kennedy¹, C. Dehay¹, ¹Université Claude Bernard Lyon 1, France, ²Hôpital Croix Rousse, Service Obstétrique, France

[P2.026] Altered functional organization of cortical circuits in a rat model of subcortical band heterotopia

J-B. Manent*^{1,2}, V. Plantier^{1,2}, F. Watrin^{1,2}, E. Buhler^{1,2}, I. Bureau^{1,2}, A. Represa^{1,2}, ¹INSERM, France, ²Aix-Marseille University, France

[P2.027] The protein tyrosine phosphatase receptor delta PTPRD regulates neural precursor cell biology during embryonic cortical development

G.I. Cancino*^{1,2}, H. Tomita², C.L. Woodard², C.C. Rioseco², B.G. Neel³, D.R. Kaplan², F.D. Miller², ¹Universidad Mayor, Chile, ²The Hospital for Sick Children, Canada, ³New York University Langone Health, USA

[P2.028] Molecular basis of nuclear dynamics in migrating neurons of developing brain

Y. Wu*, H. Umeshima, M. Kengaku, Kyoto University, Japan

[P2.029] Reelin C-terminal region regulates hippocampal layer formation

K. Ishii*, T. Kohno, M. Hattori, Nagoya City University, Japan

[P2.030] Projection neurons instruct region-specific interneuron distribution during cortical development

H-W. Hsing*, Z-H. Zhuang, S-J. Chou, Academia Sinica, Taiwan

[P2.031] Correct laminar positioning in the neocortex influences proper dendritic and synaptic development

F.S. Martineau¹, S. Sahu¹, V. Plantier¹, E. Buhler¹, F. Schaller¹, L. Fournier¹, H. Kawasaki², A. Represa¹, F. Watrin*¹, J-B. Manent¹, ¹Aix-Marseille Université, France, ²Kanazawa University, Japan

[P2.032] Influence of mTOR hyperactive mutants on brain development

B. Tarkowski*, K. Kuchcinska, J. Weslawski, A. Koscielny, J. Jaworski, International Institute of Molecular and Cell Biology in Warsaw, Poland

[P2.033] Oligophrenin1 (OPHN1), a synaptic protein implicated in intellectual disability, regulates neuronal migration in the mouse neocortex

Y. Saillour*^{1,2}, C-L. Wang³, Y-T. Yang³, N. Gallo³, L. Bouriette^{1,2}, A. Christophe^{1,2}, N. Lebrun^{1,2}, L. Van Aelst³, P. Billuart^{1,2}, ¹Université Paris Descartes, France, ²INSERM U1016, France, ³Cold Spring Harbor Laboratory, USA

[P2.034] Changes in Wnt-dependent neuronal migration patterns contributed to the evolution of mammalian neocortex

T. Nomura*¹, C. Ohtaka-Maruyama², H. Gotoh¹, K. Ono¹, ¹Kyoto Prefectural University of Medicine, Japan, ²Tokyo Metropolitan Institute of Medical Science, Japan

[P2.035] Clathrin-independent endocytosis regulates neuronal maturation and migration

T. Kawauchi^{1,2}, ¹Institute of Biomedical Research and Innovation, Japan, ²Keio University School of Medicine, Japan

[P2.036] Area-specific laminar organization is regulated by thalamocortical axons through axon-derived NRN1 and VGF in developing neocortex

H. Sato*¹, J. Hatakeyama¹, T. Iwasato², N. Yamamoto³, K. Shimamura¹, ¹Kumamoto University, Japan, ²National Institute of Genetics, Japan, ³Osaka University, Japan

[P2.037] Human forebrain endothelial cells for cell-based therapy of neuropsychiatric disorders

D. Datta*^{1,2}, S. Subburaju^{1,2}, S. Kaye², A. Vasudevan^{1,2}, ¹Harvard Medical School, USA, ²McLean Hospital, USA

[P2.038] Subtype specification of cortical neurons by the extracellular environment

K. Oishi*, K. Nakajima, Keio University School of Medicine, Japan

[P2.039] Dynamic temporal coupling between progenitor and post-mitotic neuron identity during corticogenesis

E. Magrinelli¹, C. Glangetas¹, C. Bellone¹, D. Jabaudon*^{1,2}, ¹University of Geneva, Switzerland, ²Geneva University Hospital, Switzerland

[P2.040] The role of the microRNA-122 in the migration and maturation of superficial cortical neurons

U. Tomasello*¹, L. De Vevey¹, E. Klingler¹, M. Niquille¹, J. Prados¹, D. Jabaudon^{1,2}, V. Borrell³, A. Dayer^{1,2}, ¹Geneva University, Switzerland, ²Geneva University Hospital, Switzerland, ³Universidad Miguel Hernandez, Spain

[P2.041] A novel genome-integrating vector system for the study of neural development

T. Kumamoto*, B. Raphaëlle, S. Tozer, F. Maurinot, C. Vaslin, M. Le, S. Nedelec, K. Loulier, J. Liveť, Sorbonne Université, France

[P2.042] LIS1 takes the RISC to modulate chromatin dynamics and alternative splicing in priming

A. Kshirsagar*¹, T. Olender¹, E. Karzbrun¹, T. Levy¹, K. Kaibuchi², J. Hanna¹, O. Reiner¹, ¹Weizmann Institute of Science, Israel, ²Nagoya University Graduate School of Medicine, Japan

[P2.043] The expression profile of long non-coding RNA in microglia derived exosomes and relationship to Parkinson's disease

Y. Liang*, D. Lin, T. Zhou, The Sun Yat-sen Memorial Hospital of Sun Yat-sen University, China

[P2.044] Epigenetic roadmap of central and peripheral neurodegeneration in DNMT1 mutation knock-in mice

C.J.K. Klein*¹, M.X. Xu¹, X.D. Duan², W.W. Wang², S.B. Baheti¹, C.S. Sun¹, P.J.D. Dyck¹, Y.W. Wu¹, Z.S. Sun¹, ¹Mayo Clinic, USA, ²China-Japan Friendship Hospital, China

[P2.045] Olive biophenols inhibited cholinesterase and protected oxidative stress induced human neuroblastoma SH-SY5Y cells

S.H. Omar, Endeavour College of Natural Health, Australia

[P2.046] Oligodendrocyte development in the postembryonic and adult zebrafish CNS

H-K. Kim*, S. Kim, D-W. Lee, E. Kim, I. Jeong, B. Kim, H-C. Park, Korea Univ. Ansan Hospital, Republic of Korea

[P2.047] mtSOD1-induced myelin degeneration contributes ALS pathogenesis

S. Kim*, A-Y. Chung, J.E. Na, E. Kim, I. Jeong, H-K. Kim, D-W. Lee, W. Sun, I.J. Rhyu, H-C. Park, Korea university, Republic of Korea

[P2.048] Identification and functional investigation of mammalian piRNA-pathway in adult hippocampal neurogenesis

C. Gasperini*, M. Pons Espinal, R. Cossu, M. Scarpato, S. Gustincich, D. De Pietri Tonelli, Istituto Italiano di Tecnologia, Italy

[P2.049] Functional integration of *in vivo* induced neurons in the mouse cerebral cortex

N. Marichal*¹, S. Péron¹, M. Karow^{1,2}, B. Berninger¹, ¹Johannes Gutenberg University Mainz, Germany, ²Ludwig Maximilian University Munich, Germany

[P2.050] MiR-135a-5p is critical for physical exercise-dependent regulation of proliferation in hippocampal adult neurogenesis

M. Pons-Espinal¹, C. Gasperini¹, M.J. Marzi², T.L. Walker^{3,4}, K. Fabel^{3,4}, F. Nicassio², G. Kempermann^{3,4}, D. De Pietri Tonelli^{*1}, ¹*Istituto Italiano di Tecnologia, Italy*, ²*Istituto Italiano di Tecnologia, Center for Genomic Science, Italy*, ³*German Center for Neurodegenerative Diseases (DZNE), Germany*, ⁴*Technische Universität Dresden, Germany*

- [P2.051] Effect of Bacopa on hind limb movement post spinal cord injury**
R. Sarda*, R. Sinha, M. Sherpa, A. Gupta, *Sikkim Manipal Institute of Medical Sciences, India*
- [P2.052] Intrinsic and systemic regulation of embryonic and adult neurogenesis**
I. Crespo-Enriquez¹, H. Shimojo², I. Imayoshi², R. Kageyama², F. Guillemot³, N. Urban^{*1}, ¹*Institute of Molecular Biotechnology Austria (IMBA), Austria*, ²*Kyoto University, Japan*, ³*The Francis Crick Institute, UK*
- [P2.054] Enhanced lysosomal degradation in the quiescent state of neural stem cells**
T. Kobayashi*, W. Piao, I. Imayoshi, R. Kageyama, *Kyoto University, Japan*
- [P2.055] Modulation of mitochondrial complex I/III activity underpins lutein enhanced neural differentiation**
K. Xie*, J. Rong, S. Ngo, A. Sheppard, *University of Auckland, New Zealand*
- [P2.056] Functions of the p57 imprinted allele in mouse neocortical development**
Y. Imaizumi*, T. Watanabe, S. Furutachi, D. Kawaguchi, Y. Gotoh, *The University of Tokyo, Japan*
- [P2.057] Roles of lysosomes in embryonic neural stem/progenitor cells**
N. Yuizumi*, Y. Harada, D. Kawaguchi, S. Furutachi, Y. Gotoh, *The University of Tokyo, Japan*
- [P2.058] Role of the cdk inhibitor p57^{kip2} in regulating the fate of embryonic neural progenitor cells**
Y. Harada*, S. Furutachi, D. Kawaguchi, Y. Gotoh, *The University of Tokyo, Japan*
- [P2.059] The functional analysis of *Auts2* in the cerebral corticogenesis**
K. Shimaoka^{*1}, K. Hori¹, A. Sakamoto¹, M. Abe², K. Sakimura², M. Hoshino¹, ¹*NIN, NCNP, Japan*, ²*Univ. of Niigata, Japan*
- [P2.060] GABA_A receptor activation by maternally-derived taurine underlies the temporal regulation of cellular properties of the neural progenitors in the mouse developing cortex**
S. Tochitani^{*1,2}, T. Furukawa^{3,4}, T. Ito⁵, Y. Matsushima⁶, T. Kojima⁷, H. Matsuzaki², A. Fukuda³, ¹*Suzuka University of Medical Science, Japan*, ²*University of Fukui, Japan*, ³*Hamamatsu University School of Medicine, Japan*, ⁴*Hirosaki University Graduate School of Medicine, Japan*, ⁵*Fukui Prefectural University, Japan*, ⁶*Tokyo University of Agriculture, Japan*, ⁷*Toyohashi University of Technology, Japan*
- [P2.061] Induction of outer radial glia causes severe microcephaly in the *Aspm* mutant mice**
I. Fujita^{*1}, T. Suetsugu¹, C. Kishida¹, Y. Tsunekawa¹, D. Konno¹, A. Fujimori², F. Matsuzaki¹, ¹*CDB, Riken, Japan*, ²*NIRS, Japan*
- [P2.062] The role of *Auts2* in the morphogenesis of the dentate gyrus**
S. Egusa^{*1}, K. Hori¹, A. Sakamoto¹, M. Abe², K. Sakimura², Y. Go³, M. Hoshino¹, ¹*NCNP, Japan*, ²*Univ. of Niigata, Japan*, ³*NIPS, Japan*
- [P2.063] Premigratory neurons mechanically limit interkinetic nuclear migration to secure progenitor cells' apical cytotgenesis**
T. Kawaue*, Y. Watanabe, T. Miyata, *Nagoya University, Japan*
- [P2.064] *Intersectin 1* is a target of NFIX during granule neuron precursor cell differentiation within the postnatal cerebellum**
J. Fraser¹, A. Essebier¹, A. Brown², R. Davila¹, A. Sengar³, K. Ensbey⁴, B. Day⁴, M. Boden¹, T.J. Harvey^{*1}, M. Piper¹, ¹*University of Queensland, Australia*, ²*Stanford University, USA*, ³*The Hospital for Sick Children, Canada*, ⁴*QIMR Berghofer Medical Research Institute, Australia*, ⁵*University of New York at Buffalo, USA*
- [P2.065] Chromatin regulation of neural stem cell fate during neocortical development**
Y. Kishi*, M. Tsuboi, N. Kuwayama, Y. Hirabayashi, Y. Gotoh, *The University of Tokyo, Japan*
- [P2.066] The role of *Betacellulin* in embryonic neural stem cells**
S. Yoshimochi*, J. Hatakeyama, H. Takemoto, R. Matsushita, K. Shimamura, *Kumamoto University, Japan*

- [P2.067] Dominant negative regulation of *asc11* protein by *id4* maintains adult neural stem cell quiescence**
I. Blomfield¹, B. Rocamonde², E. Huillard², F. Guillemot¹, N. Urbán³, ¹The Francis Crick Institute, UK, ²ICM - Institut du Cerveau et de la Moelle épinière, France, ³IMBA - Institute of Molecular Biotechnology GmbH, Austria
- [P2.068] Mib1 prevents Notch cis-inhibition to defer differentiation and preserve neuroepithelial integrity during neural delamination**
C. Baek¹, L. Freem², R. Goïame¹, H. Sang², X. Morin¹, S. Tozer¹, ¹Ecole Normale Supérieure, Inserm, CNRS, France, ²The Roslin Institute and Royal School of Veterinary Studies, UK
- [P2.070] Glycine regulates the survival and development of neuronal stem cells**
A. Bekri^{1,2}, E. Samarut¹, P. Drapeau¹, ¹Research Center of CHUM, Neurosciences axis, Canada, ²Montreal university, Canada
- [P2.071] The human specific gene *NOTCH2NL* promotes proliferation of basal progenitors in embryonic mouse neocortex**
A. Pinson¹, M. Florio^{1,2}, M. Heide¹, M. Hiller^{1,3}, W.B. Huttner¹, ¹Max Planck Institute of Molecular Cell Biology and Genetics, Germany, ²Harvard Medical School, USA, ³Max Planck Institute for the Physics of Complex Systems, Germany
- [P2.072] Human-specific gene *ARHGAP11B* promotes basal progenitor amplification and induces cortical expansion in transgenic mouse neocortex**
L. Xing¹, T. Namba¹, A. Pinson¹, M. Florio^{1,2}, M. Sarov¹, W.B. Huttner¹, ¹Max Planck Institute of Molecular Cell Biology and Genetics, Germany, ²Harvard Medical School, USA
- [P2.073] A novel population of *Hopx*-dependent human-like basal radial glial cells in the developing mouse neocortex**
S. Vaid, J.G. Camp, A-K. Heninger, M. Sarov, B. Treutlein, W.B. Huttner, T. Namba*, ¹Max Planck Institute, Germany
- [P2.074] Cell cycle control by Rb during adult neurogenesis: direct implications on progenitor proliferation and neuronal survival inside the adult mammalian brain**
R. Naser¹, R. Vandenbosh², S. Omais¹, C. Jaafar¹, A. Clark², B.C. Fong², D. Hayek¹, A. Saliba¹, R.S. Slack², N. Ghanem¹, ¹American University of Beirut, Lebanon, ²University of Ottawa, Canada
- [P2.075] Disruption of *Tsukushi* function leads to the hydrocephalus by aberrant neurogenesis in the brain**
K. Ohta*, S.A.I. Ahmad, M.B. Anam, N. Ito, ¹Kumamoto University, Japan
- [P2.076] Seizure severity-dependent selective vulnerability of the granule cell layer and aberrant neurogenesis in the rat hippocampus**
T. Uemori*, K. Toda, T. Seki, ¹Tokyo Medical University, Japan
- [P2.077] Adolescence neurogenesis and schizophrenia: a new therapeutic opportunity?**
A. Iannitelli¹, A. Quartini², F. Pacitti¹, P. Tirassa³, G. Bersani², ¹University of L'Aquila, Italy, ²Sapienza University of Rome, Italy, ³National Research Council, Italy
- [P2.078] Interleukin-6 regulates adult neural stem cell numbers during normal and abnormal postnatal development**
M.A. Storer¹, D. Gallagher¹, M.P. Fatt¹, J.V. Simonetta^{1,2}, D.R. Kaplan^{1,2}, F.D. Miller^{1,2}, ¹Hospital for Sick Children, Canada, ²University of Toronto, Canada
- [P2.079] The importance of suppressing canonical wnt signaling within the developing telencephalic midline**
M. Chatterjee¹, S. Pal¹, M.M. Taketo², S. Tole¹, ¹Tata Institute of Fundamental Research, India, ²Kyoto University, Japan
- [P2.080] Analyses of *Cyclin D2* mRNA transportation mechanism in radial glial cells during corticogenesis**
T. Kikkawa¹, Y. U Inoue², T. Inoue², N. Osumi¹, ¹Tohoku University Graduate School of Medicine, Japan, ²National Center of Neurology and Psychiatry, Japan
- [P2.081] Transcriptomics and behavioral analysis of a transgenic mouse in which the choroid plexus has been transformed into neuronal tissue by constitutive activation of canonical wnt signaling**
V. Suresh¹, M. Chatterjee¹, M.M. Taketo², S. Tole¹, ¹Tata Institute for Fundamental Research, India, ²Kyoto University, Japan

- [P2.082] Characterization of a discrete olig2-expressing astrocyte sub-type in the developing spinal cord**
D. Ohayon*, N. Esacalas, P. Cochard, B. Glise, C. Danesin, C. Soula, Centre de Biologie du Développement, UMR5547 CNRS/UPS, France
- [P2.083] Developmental emergence of adult neural stem cells as revealed by single-cell transcriptional profiling**
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- [P2.084] Decline in Olig2-dependent NG2 glial cell fate plasticity with age**
H. Zuo¹, W.M. Wood¹, A. Sherafat¹, R.A. Hill¹, Q.R. Lu^{1,2}, A. Nishiyama*¹, ¹University of Connecticut Storrs, USA, ²Cincinnati Children's Hospital Medical Center, USA
- [P2.085] Analysis of δ -catenin as a novel autism spectrum disorder (ASD) gene in early development of the mammalian telencephalon**
S.H. Chun*, T. Kikkawa, T. Sato, N. Osumi, Tohoku University, Japan
- [P2.086] Notch signaling dynamics for the asymmetric cell fate determination in the mouse neurogenesis**
S. Mase*^{1,2}, Y. Tsunekawa¹, A. Shitamukai¹, F. Matsuzaki^{1,2}, ¹RIKEN, Japan, ²Kyoto University, Japan
- [P2.088] Baf chromatin remodelling complexes regulate differentiation of neural progenitors in late brain development**
K.A. Kiszka*^{1,2}, C. Kerimoglu³, M. Pirouz⁴, A. Fischer³, J.F. Staiger^{1,2}, T.C. Tuoc^{1,2}, ¹University Medical Center Göttingen, Germany, ²Center for Nanoscale Microscopy and Molecular Physiology of the Brain, Germany, ³German Center for Neurodegenerative Diseases, Germany, ⁴Harvard Medical School, USA
- [P2.089] The role of Fgf8 for development of the anterior telencephalon**
T. Sato*¹, T. Kikkawa¹, T. Saito², K. Itoi¹, N. Osumi¹, ¹Tohoku University, Japan, ²Chiba University, Japan
- [P2.090] Temporal control of neurogenesis by eph/ephrin signaling**
A. Kischel*¹, M-A. Fawal¹, T. Jungas¹, C. Audouard¹, J. Iacovoni², A. Davy¹, ¹Université Paul Sabatier, France, ²Université de Toulouse, France
- [P2.091] Feedback signaling from neuron to neural stem cell**
A. Shitamukai*¹, D. Konno¹, T. Shimogori², A. Goto³, H. Kiyonari⁴, S. Takada⁵, M. Matsuda³, F. Matsuzaki¹, ¹RIKEN CDB, Japan, ²RIKEN BSI, Japan, ³Kyoto University, Japan, ⁴RIKEN CLST, Japan, ⁵National Institute for Basic Biology, Japan
- [P2.092] Cortical intermediate GABAergic neuron progenitors divide symmetrically to produce similar GABAergic neuron pairs**
S.E. Esumi*¹, M.N. Nasu¹, K.M. Miike¹, T.S. Seki⁴, Y.Y. Yanagawa², K.S. Sakimura³, N.T. Tamamaki¹, ¹Kumamoto University, Japan, ²Gunma University, Japan, ³Niigata University, Japan, ⁴Tokyo Medical University, Japan
- [P2.093] Overexpression of Hes1 leads to prolonged neocortical neurogenesis and expansion of neural stem cell reservoir in postnatal brain**
T. Ohtsuka*, R. Kageyama, Kyoto University, Japan
- [P2.094] Region-specific roles of SOX9 during brain neuroepithelial progenitor differentiation**
A. Caramello*, K. Rizzoti, C. Galichet, R. Lovell-Badge, The Francis Crick Institute, UK
- [P2.095] A novel G-protein Coupled Receptor involved in the pattern formation of the central nervous system**
A. Yatsuzuka, A. Nishi-Hori, M. Kadoya, N. Sasai*, Nara Institute of Science and Technology, Japan
- [P2.096] Control of the cell fate in the developing neocortex by protein phosphorylation**
M. Ambrozkiwicz*¹, E. Borisova², A. Rusanova², V. Tarabykin^{1,2}, ¹Charité – Universitätsmedizin Berlin, Germany, ²Lobachevsky State University of Nizhny Novgorod, Russia
- [P2.097] Transcriptional mechanisms underlying the establishment of sensory areas**
P. Hou*, C. Hanashima, Waseda University, Japan

- [P2.098] Triggering astrocyte differentiation by cyclin-dependent kinase inhibitor in the neural stem cell**
W. Lee*, Y. Kosodo, *Korea Brain Research Institute, Republic of Korea*
- [P2.099] Histone 3 lysine 79 methylation carries information of neuronal progenitor differentiation in the CNS**
H. Franz, A. Villarreal, P. Bovio, A. Gray de Christoforis, T. Vogel*, *Albert-Ludwigs-University Freiburg, Germany*
- [P2.100] A mechanism of region-specific neocortical overgrowth relevant to autism spectrum disorder**
D. Kawaguchi*¹, D. O'Leary², Y. Gotoh¹, ¹*The University of Tokyo, Japan*, ²*The Salk Institute, USA*
- [P2.101] Functions of lincRNAs in physiological neurogenesis and induced reprogramming of astrocytes-to-neurons**
C. Nakajima*¹, S. Thakurela², V. Tiwari², B. Berninger¹, ¹*University Medical Center Johannes Gutenberg University Mainz, Germany*, ²*Institute of Molecular Biology (IMB), Germany*
- [P2.102] Dmrt transcription factors orchestrate the cerebral cortical development via integrating positional information in neural progenitors**
D. Konno*, F. Matsuzaki, *RIKEN, Japan*
- [P2.103] Neural activity training: rehabilitative treatments to improve neural circuits functions**
P. Crispiani, E. Palmieri*, *University Macerata, Italy*
- [P2.104] Minor spliceosome inactivation in the developing mouse cortex causes self-amplifying radial glial cell death and microcephaly**
M. Baumgartner*¹, A.M. Olthof¹, G.S. Aquino¹, C. Lemoine², K. Hyatt¹, R.N. Kanadia¹, ¹*University of Connecticut, USA*, ²*University of Illinois, USA*
- [P2.105] HIF1 α role in early neural commitment and development**
J. Vecera*¹, V. Konir¹, J. Kudova², V. Sumberova¹, L. Kubala², E.R. Andersson³, J. Pachernik¹, ¹*Masaryk University, Czech Republic*, ²*Institute of Biophysics, Czech Republic*, ³*Karolinska Institutet, Sweden*
- [P2.106] Prenatal neurogenesis induction therapy normalizes brain structure and functions in Down syndrome mice**
A. Nakano-Kobayashi*¹, T. Awaya¹, I. Kii¹, Y. Sumida², Y. Okuno¹, K. Wanezaki¹, S. Yoshida², H. Inoue¹, T. Hosoya², M. Hagiwara¹, ¹*Kyoto University, Japan*, ²*Tokyo Medical and Dental University, Japan*
- [P2.107] Developing de novo gene targeting methods**
Y. Tsunekawa*¹, R. Terhune^{1,2}, K. Suzuki¹, E. Kim³, E. Callaway³, J. Belmonte³, F. Matsuzaki^{1,2}, ¹*Riken Center for Developmental Biology, Japan*, ²*Kyoto University Global Frontier in Life Science, Japan*, ³*Salk Institute for Biological Studies, USA*
- [P2.108] The amygdalar and hippocampal functions in zebrafish**
K. Kawakami, *National Institute of Genetics, Japan*
- [P2.109] Forebrain Pff1 α is required for sexual differentiation of the brain**
T. Fujiyama*^{1,2}, H. Funato^{1,3}, M. Hoshino², ¹*WPI-IIIIS, University of Tsukuba, Japan*, ²*National Institute of Neuroscience, NCNP, Japan*, ³*Toho University, Japan*
- [P2.110] Association between rhythm/exercise intervention and execution function and neural plasticity in children with ASD**
M. Morinaga*¹, T. Yamamoto², ¹*General incorporated association LITTO-LABO, Japan*, ²*Tezukayama University, Japan*
- [P2.111] Usp9x-null mice show corpus callosum dysgenesis and cortical dysplasia**
M.A. Kasherman*^{1,2}, S.A. Wood¹, M. Piper², ¹*Griffith University, Australia*, ²*University of Queensland, Australia*
- [P2.112] The heat shock protein 72 –mediated heat tolerance in primary hypothalamic neurons**
C.P. Chang*, C.C. Chio, M.T. Lin, K.C. Lin, *Chi Mei Medical Center, Taiwan*
- [P2.113] Human umbilical cord mesenchymal stem cells attenuate ischemic stroke in rats by inhibiting cerebral formation of hypertrophic microglia/macrophages**
M.T. Lin*¹, Y.C.Y. Hsuan², C.P. Chang¹, ¹*Chi Mei Medical Center, Taiwan*, ²*Meridigen Biotech Co., Ltd., Taiwan*
- [P2.114] The emergence of network inefficiencies in infants with autism spectrum disorder**

J.D. Lewis^{*1}, A.C. Evans¹, J.R. Pruett, Jr², K.N. Botteron², R.C. McKinstry², L. Zwaigenbaum³, A. Estes⁴, D.L. Collins¹, P. Kostopoulos¹, G. Gerig⁵, ¹McGill University, Canada, ²Washington University School of Medicine, Canada, ³University of Alberta, Canada, ⁴University of Washington, USA, ⁵New York University, USA

- [P2.116] Schwann cell lamellipodia regulate cell-cell interactions and phagocytosis**
J. Tello Velasquez^{*}, J.A. St John, L. Nazareth, J.A.K. Ekberg, *Griffith University, Australia*
- [P2.117] Novel roles of Fgf signaling in the development of chick hindbrain**
J. Hatakeyama^{*}, K. Shimamura *Kumamoto University, Japan*
- [P2.119] Selective myelination of primary motor neurons mediated by Nrg1 type3-ErbB2/3 signaling in the zebrafish PNS**
D-W. Lee^{*}, E.M. Kim, I.Y. Jeong, H-K. Kim, B.A. Kim, S.H. Kim, H-C. Park, *Korea university, Republic of Korea*
- [P2.120] Analysis of spexin 1/2 expression suggests potential roles of spexin neuropeptides in the zebrafish CNS**
E. Kim^{*}, I. Jeong, J.Y. Seong, H-C. Park, *Korea University, Republic of Korea*
- [P2.122] Spatial genome organization in the developmental brain**
Y. Fujita^{*}, T. Yamashita, *Osaka University, Japan*
- [P2.123] AKT1 promoter methylation in the peripheral blood of Malaysian schizophrenia patients**
E. Laere^{*}, S.F. Tee, P.Y. Tang, *Universiti Tunku Abdul Rahman, Malaysia*
- [P2.124] Perceptions of social dominance in bipolar disorder**
S-H. KIM, *Yong-in Mental Hospital, Republic of Korea*
- [P2.125] BNF is related to cardiovascular function in adolescents**
M.A. Alomari^{*}, N.A. Al-Sheyab, *Jordan University of Science and Technology, Jordan*
- [P2.126] Regulation of Neurogenin 2 proneural activity via the Polycomb protein Mbt1 in cortical progenitors**
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- [P2.127] Developmental parcellation of the striatal complex into the dorsal and ventral striatum of the mouse brain**
S-Y. Chen¹, K-M. Lu¹, H-A. Ko¹, T-H. Huang¹, J.H-J. Hao¹, H-Y. Kuo¹, Y-T. Yan², S.L-Y. Chang³, S. Evans⁴, F-C. Liu^{*1}, ¹National Yang-Ming University, Taiwan, ²Academia Sinica, Taiwan, ³China Medical University, Taiwan, ⁴University of California San Diego, USA
- [P2.128] JAK/STAT guarantees robust differentiation of neural stem cells by shutting off biological noises in the developing fly brain**
M. Sato^{*1}, T. Yasugi¹, Y. Tanaka², T. Miura³, M. Nagayama², S. Ei², ¹Kanazawa University, Japan, ²Hokkaido University, Japan, ³Kyushu University, Japan
- [P1.005] Testing functional consequences of Lhx2 over-expression mediated hippocampal neurogenesis**
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Withdrawn:

P1.017, P1.074, P2.053, P2.069, P2.115, P2.121