

Symposium

Day 1 - Wednesday, July 20

Symposium S1-A-1

17:00 ~ 19:00 Room A (Main Hall)

Contribution of frontal pole cortex to primate cognition



ICP2016-related symposia

Chairpersons : Keiji Tanaka *Cognitive Brain Mapping Laboratory, RIKEN Brain Science Institute*
 Farshad A. Mansouri *Department of Physiology, Monash University*

- S1-A-1-1 Organisation and connections of frontal pole areas in different primates**
 Marcello Rosa
Monash University
- S1-A-1-2 Frontal pole, executive control and human adaptive behavior**
 Etienne Koechlin
Ecole Normale Supérieure / INSERM
- S1-A-1-3 The role of frontal pole cortex in primate goal-directed behaviour**
 Farshad Alizadeh Mansouri¹, Mark J Buckley², Keiji Tanaka³
¹*Department of Physiology, Monash University, Melbourne, Australia* ²*Department of Experimental Psychology, Oxford University, UK*
³*Cognitive Brain Mapping laboratory, RIKEN Brain Science Institute, Japan*
- S1-A-1-4 Behavioural deficits after frontopolar lesions in macaques**
 Mark Buckley
Oxford University

Symposium S1-B-1

9:00 ~ 11:00 Room B (501)

 Joint Symposium by the Presidents of Japan Neuroscience Society and
 Japanese Society for Neurochemistry: Dynamic neural processes for whole-
 body multiorgan network as a complexity system

The President of the Annual Meeting - organized symposia

Chairpersons : Atsushi Iriki *President, The 39th Annual Meeting of the Japan Neuroscience Society*
 Keiji Wada *Chair, The 59th Annual Meeting of the Japanese Society for Neurochemistry*

- S1-B-1-1 Molecular mechanisms of neural network reorganization after the central nervous system injury**
 Toshihide Yamashita
Dept Mol Neurosci, Osaka Univ, Osaka, Japan
- S1-B-1-2 Role of the inter-organ neural network from the liver in systemic energy metabolism**
 Tetsuya Yamada, Hideki Katagiri
Dept of Metabolism and Diabetes, Tohoku Univ, Sendai, Japan
- S1-B-1-3 Emotional behavior and the common hepatic branch of the vagus nerve**
 Masayuki Sekiguchi^{1,2}, Daisuke Yamada^{1,2},
 Peter Koppensteiner^{1,2}, Saori Odagiri^{1,2}, Tetsuya Yamada^{2,3}, Hideki Katagiri^{2,3}, Keiji Wada^{1,2}
¹*Dept Neurodegenerat Dis, Natl Inst Neurosci, NCNP, Tokyo, Japan*
²*Japan Agency for Medical Research and Development (AMED/CREST), Tokyo, Japan*
³*Dept Metab Diab, Grad Sch Med, Tohoku Univ, Sendai, Japan*
- S1-B-1-4 Which Areas of the Cerebral Cortex Mediate the Top-Down Control of the Adrenal**
 Peter L Strick
University of Pittsburgh School of Medicine

Symposium S1-B-2

14:00 ~ 16:00 Room B (501)

Function and dysfunction of prefrontal-basal ganglia circuit in integration of value


ICP2016-related symposia

 Chairpersons : Masamichi Sakagami *Brain Sci. Res. Inst, Tamagawa Univ.*
 Saori C Tanaka *ATR Brain Information Communication Research Lab. Group*

- S1-B-2-1** **Circuits of reward and decision-making: from monkey anatomy to human imaging.**
 Suzanne Haber
University of Rochester
- S1-B-2-2** **Value Coding in Monkey Prefrontal Network**
 Masamichi Sakagami, Shingo Tanaka
Brain Sci Inst, Tamagawa Univ, Tokyo
- S1-B-2-3** **Neural mechanisms underlying arbitration between model-based and model-free reinforcement-learning**
 John Odoherly
California Institute of Technology
- S1-B-2-4** **Cognitive control in obsessive compulsive disorder: findings from task-related and resting state functional magnetic resonance imaging analyses in OCD patients and unaffected relatives.**
 Stella J. de Wit^{1,5}, Froukje E. de Vries^{1,5}, Ysbrand D. van der Werf^{2,5}, Danielle C. Cath^{3,4},
 Dick J. Veltman^{1,5}, Odile A. van den Heuvel^{1,2,5}
¹VU University Medical Center, Amsterdam, the Netherlands
²Dept. Anatomy and Neuroscience, VU University Medical Center, Amsterdam, the Netherlands
³Altrecht Academic Anxiety center, Utrecht the Netherlands
⁴Dept. of Clinical and Health psychology, Utrecht University, Utrecht, the Netherlands
⁵Neuroscience Campus Amsterdam, the Netherlands
- S1-B-2-5** **Using advanced technologies to visualize circuit dynamics underlying OCD-like behaviors**
 Susanne E. Ahmari
University of Pittsburgh

Symposium S1-B-3

17:00 ~ 19:00 Room B (501)

Emerging genes for neurodegenerative diseases: a perspective on pathomechanisms

 Chairpersons : Koji Yamanaka *Research Institute of Environmental Medicine, Nagoya University*
 Hideshi Kawakami *Research Institute for Radiation Biology and Medicine, Hiroshima University*

- S1-B-3-1** **A mutation in *CACNA1G* causes autosomal dominant spinocerebellar ataxia**
 Hiroyuki Morino¹, Yukiko Matsuda¹, Keiko Mugaruma², Ryosuke Miyamoto³, Ryosuke Ohsawa¹,
 Toshiyuki Ohtake⁴, Reiko Otobe⁵, Masahiko Watanabe⁶, Hirofumi Maruyama⁷, Kouichi Hashimoto⁸,
 Hideshi Kawakami¹
¹Dept Epidemiology RIRBM, Hiroshima Univ, Hiroshima, Japan
²Lab for Organogenesis and Neurogenesis, CDB RIKEN, Kobe, Japan
³Dept Clinical Neuroscience, Grad Sch Health and Biosci, Univ of Tokushima, Tokushima, Japan
⁴Neurology, Ebara Hospital, Tokyo, Japan ⁵Dept of Clinical and Molecular Genetics, Hiroshima University Hospital, Hiroshima, Japan
⁶Dept of Anatomy, Hokkaido University, Graduate School of Medicine, Sapporo, Japan
⁷Dept of Clinical Neuroscience and Therapeutics, Grad Sch Biomed Sci, Hiroshima Univ, Hiroshima, Japan
⁸Dept Neurophysiology, Grad Sch Biomed Sci, Hiroshima Univ, Hiroshima, Japan
- S1-B-3-2** **CHCHD2 is Novel Causative Gene for Autosomal Dominant Parkinson's Disease**
 Manabu Funayama^{1,2,3}, Nobutaka Hattori^{1,2,3}
¹Res Inst for Diseases of Old Age, Grd Sch Med, Juntendo Univ, Tokyo, Japan ²Dept Neurol, Juntendo Univ Sch Med, Tokyo, Japan
³Center for Genomic and Regenerative Med, Grd Sch Med, Juntendo Univ, Tokyo, Japan
- S1-B-3-3** **Collapse of mitochondria-associated membrane in amyotrophic lateral sclerosis**
 Seiji Watanabe
Research Institute of Environmental Medicine, Nagoya University, Nagoya, Japan

- S1-B-3-4 Functional linkage between FUS and tau in ALS/FTLD**
Shinsuke Ishigaki^{1,2}, Yusuke Fujioka¹, Daiyu Honda¹, Satoshi Yokoi¹, Haruo Okado³, Hirohisa Watanabe¹, Masahisa Katsuno¹, Gen Sobue^{1,4}
¹Dept Neurol, Nagoya Univ, Sch of Med, Nagoya
²Department of Therapeutics for Intractable Neurological Disorders, Nagoya Univ, Sch of Med, Nagoya
³Dept Brain Dev, Tokyo Metro Inst for Med Sci, Tokyo
⁴Research Division of Dementia and Neurodegenerative Disease, Nagoya Univ, Sch of Med, Nagoya
- S1-B-3-5 Modeling C9orf72 disease and therapeutic development in amyotrophic lateral sclerosis and frontotemporal dementia**
Clotilde Lagier-Tourenne¹, Jie Jiang², Qiang Zhu², Tania Gendron³, Frank Rigo⁴, John Ravits², Don Cleveland²
¹Massachusetts General Hospital and Harvard Medical School ²University of California San Diego ³Mayo Clinic, Jacksonville
⁴Ionis Pharmaceuticals

Symposium S1-C-1

9:00 ~ 11:00 Room C (502)

Microendophenotypes in schizophrenia

Co-hosted by 'Microendophenotype of psychiatric disorders' Kakenhi Innovative Area

Chairperson : Tsuyoshi Miyakawa *Division of Systems Medical Science, Institute for Comprehensive Medical Science, Fujita Health University*

- S1-C-1-1 Dysregulation of neuronal development by interneuron circuit-specific interaction with mental disorder risk factor**
Hongjun Song
Johns Hopkins University School of Medicine
- S1-C-1-2 Function of risk genes for mental disorders in neural development**
Guo-Li Ming
Johns Hopkins University
- S1-C-1-3 Investigating Bipolar Disorder neurons using iPSC technology**
Jun Yao¹, Jerome Mertens^{1,2}, Qiuwen Wang¹, John Kelsoe⁴, Fred Gage³
¹Tsinghua University ²School of Life Sciences, Tsinghua University, Beijing 100084, China
³The Salk Institute for Biological Studies, Laboratory of Genetics, La Jolla, California 92037, USA
⁴Department of Psychiatry, University of California San Diego, La Jolla, California, 92093, USA
- S1-C-1-4 A genetic mouse model of GABAergic dysfunction in schizophrenia**
Yuchio Yanagawa
Dept Genetic and Behavioral Neuroscience, Gunma Univ Grad Sch of Medicine
- S1-C-1-5 Mice model can greatly mimic the behavioral and molecular characteristics of schizophrenia patients**
Keizo Takao^{1,2}
¹Life Sci Res Ctr, Univ of Toyama ²NIPS, Aichi, Japan

Symposium S1-C-2

14:00 ~ 16:00 Room C (502)

Effects of developmental changes on diversity of the brain functions and disordersChairpersons : Itaru Imayoshi *The Hakubi Center, Institute for Virus Research, Kyoto University*
Noriko Osumi *Department of Developmental Neuroscience, Tohoku University Graduate School of Medicine*

- S1-C-2-1 Paternal aging influences offspring's behavior: its significance and possible underlying epigenetics**
Noriko Osumi
Dept Devel Neurosci, Tohoku Univ Sch Med, Sendai, Japan
- S1-C-2-2 Impairment of the hippocampal postnatal neurogenesis and its involvement in the neurodevelopmental disorder**
Itaru Imayoshi^{1,2}
¹Institute for Virus Research, Kyoto University, Kyoto, Japan ²JST PRESTO
- S1-C-2-3 Mechanism of Rett syndrome pathogenesis**
Kinichi Nakashima
Dept Stem Cell Biol Med, Kyushu Univ, Japan

- S1-C-2-4 Assembly of neocortical circuitry by FoxG1, a gene associated with neurocognitive disorders**
 Goichi Miyoshi¹, Yoshifumi Ueta¹, Hironobu Osaki¹, Yuki Yagasaki¹, Carina Hanashima², Gord Fishell³,
 Mariko Miyata¹
¹*Dept Physiol, Tokyo Women's Med Univ, Tokyo, Japan* ²*CDB RIKEN, Kobe, Japan* ³*Neuroscience Inst, NYU SoM, New York, USA*
- S1-C-2-5 Late effects on CNS with behavioral disturbance induced by early exposure of environmental chemicals.**
 Kentaro Tanemura
Laboratory of Animal Reproduction and Development, Tohoku University, Miyagi, Japan

Symposium S1-C-3

17:00 ~ 19:00 Room C (502)

Novel circuit mechanisms underlying learning and memory

Co-hosted by 'Microendophenotype of psychiatric disorders' Kakenhi Innovative Area

 Chairpersons : Satoshi Kida *Dept.of Biosci., Tokyo Univ.of Agriculture*
 Thomas McHugh *RIKEN BSI*

- S1-C-3-1 Information Storage in Memory Engrams**
 Tomas J Ryan
Howard Hughes Medical Institute (HHMI) and Massachusetts Institute of Technology (MIT)
- S1-C-3-2 Corticoamygdala circuits regulating fear**
 Andrew Holmes
NIAAA
- S1-C-3-3 Active transition of memory phases from fear to safety**
 Satoshi Kida
Dept Bioscience, Tokyo Univ of Agriculture, Tokyo, Japan
- S1-C-3-4 Optical deconstruction of hippocampal circuits that control behavior**
 Mazen Kheirbek
University of California, San Francisco
- S1-C-3-5 CA2 output regulates timing and excitability across the hippocampal circuit.**
 Thomas J McHugh
RIKEN

Symposium S1-D-1

9:00 ~ 11:00 Room D (503)

Dementia Research towards drug development

 Chairpersons : Takeshi Iwatsubo *The University of Tokyo*
 Takashi Saito *RIKEN BSI*

- S1-D-1-1 Understanding the catabolic mechanism of amyloid- β protein by astrocyte-derived protease**
 Taisuke Tomita
Lab Neuropath Neurosci, Grad Sch Pharm Sci, Univ of Tokyo, Tokyo, japan
- S1-D-1-2 Somatostatin receptors regulate brain A β levels via the modulation of neprilysin activity**
 Takashi Saito, Per Nilsson, Naomasa Kakiya, Takaomi C Saido
Lab. for Proteolytic Neuroscience, RIKEN BSI
- S1-D-1-3 Prevention of dementia by rifampicin: its actions against amyloid oligomers**
 Takami Tomiyama
Department of Neuroscience, Osaka City University Graduate School of Medicine, Osaka, Japan
- S1-D-1-4 Current Status and Future of Drug Development for Dementia: Aiming at Translation to Clinics**
 Takeshi Iwatsubo
Dept Neuropath, Univ of Tokyo, Tokyo, Japan

Symposium S1-D-2

14:00 ~ 16:00 Room D (503)

New horizons in Ca²⁺ signaling research

Chairpersons : Haruhiko Bito *Graduate School of Medicine, The University of Tokyo*
Sayaka Takemoto-Kimura *Research Institute of Environmental Medicine, Nagoya University*

- S1-D-2-1 Nanoscopy of Neuronal Calcium Signaling**
Paul De Koninck
Université Laval
- S1-D-2-2 Development and imaging of new color indicators for Ca²⁺ signaling in living neurons.**
Hajime Fujii¹, Masatoshi Inoue², Haruhiko Bito¹
Dept Neurochem, Grad Sch of Med, Univ Tokyo, Tokyo
- S1-D-2-3 Visualizing and Ablating Synapses in vivo Using Novel Recombinant Probes**
Donald B Arnold
University of Southern California, Los Angeles, CA
- S1-D-2-4 Calcium signal modulation by direct activation of TRPC channels in neurons**
Yasuo Mori, Seishiro Sawamura
Sch Engineering Kyoto Univ, Kyoto, Japan

Symposium S1-D-3

17:00 ~ 19:00 Room D (503)

Pathogenetic mechanisms underlying Parkinson's disease -On the roles of alpha-synuclein, mitochondria and lysosomes-

Chairpersons : Ryosuke Takahashi *Department of Neurology, Kyoto University Graduate School of Medicine*
Masato Hasegawa *Tokyo Metropolitan Institute of Medical Science*

- S1-D-3-1 Medaka fish model of Parkinson's disease**
Ryosuke Takahashi
Dept Neurol, Kyoto Univ Grad Sch Med, Kyoto
- S1-D-3-2 Mitochondrial Degradation and Parkinson's Disease**
Noriyuki Matsuda
Ubiquitin Project, TMIMS, Tokyo, Japan
- S1-D-3-3 The function of CHCHD2, the novel gene responsible for a familial form of Parkinson's disease**
Nobutaka Hattori, Manabu Funayama, Yuzuru Imai, Shigeto Sato
Dept. of Neurology, Juntendo Univ.
- S1-D-3-4 Pathogenic α -synuclein species in prion-like seeded aggregation**
Airi Tarutani^{1,2}, Genjiro Suzuki¹, Aki Shimozawa¹, Shin-Ichi Hisanaga², Masato Hasegawa¹
¹Tokyo Met Inst Med Sci, Tokyo, Japan ²Tokyo Metropolitan University, Tokyo, Japan
- S1-D-3-5 Dysfunctional lysosomes occur prior to any degenerative changes in the brains of patients with Parkinson's disease**
Glenda Margaret Halliday, Karen Murphy
UNSW Australia

Symposium S1-E-1

9:00 ~ 11:00 Room E (301)

The Japan-China Joint Symposium: Recent advances in the development of nonhuman primate models for brain disorders**JNS - organized symposia**

Chairpersons : Masahiko Takada *Primate Research Institute, Kyoto University*
Zilong Qiu *Institute of Neuroscience, Chinese Academy of Sciences*

- S1-E-1-1 Genetically modified marmoset models for brain disorders**
Erika Sasaki^{1,2}
¹Central institute for experimental animals, Kanagawa, Japan ²Keio University, Advanced Research Centers, Tokyo, Japan
- S1-E-1-2 Genetically modified monkey models of human diseases**
Xiao-Jiang Li¹, Zhuchi Tu¹, Weili Yang¹, Xudong Liu¹, Sen Yan¹, Shihua Li²
¹Institute of Genetics and Developmental Biology, Chinese Academy of Sciences
²Emory University School of Medicine, Atlanta, GA USA

- S1-E-1-3 Autism-like behaviors and germline transmission in transgenic monkeys overexpressing MeCP2**
Zilong Qiu
Institute of Neuroscience, Chinese Academy of Sciences, China
- S1-E-1-4 Disrupted brain connectomics of transgenic monkeys overexpressing MeCP2**
Zheng Wang
Chinese Academy of Sciences
- S1-E-1-5 Genetic and neuronal correlates of autistic behavior in the macaque**
Masaki Isoda
Dept Physiol, Kansai Medical University, Osaka, Japan
- S1-E-1-6 A naturally emerging primate model of multiple system atrophy**
Taihei Ninomiya
Sys Neurosci, Primate Res Inst, Kyoto Univ, Aichi

Symposium S1-E-2

14:00 ~ 16:00 Room E (301)

Network dissection of hippocampal function

Chairpersons : Yoshiaki Shinohara *Laboratory for Neuron-Glia Circuitry, RIKEN Brain Science Institute*
Kenji Mizuseki *Department of Physiology, Graduate School of Medicine, Osaka City University*

- S1-E-2-1 Hippocampal CA1 pyramidal cells form functionally distinct sublayers**
Kenji Mizuseki
Dept Physiol, Osaka City Univ Grad Sch of Med, Osaka, Japan
- S1-E-2-2 Hippocampal network activity during spatial working memory**
Takuya Sasaki
Lab Chem Pharmacol, Grad Sch Pharma Sci, Univ of Tokyo, Tokyo
- S1-E-2-3 Experience drives development of left-right asymmetrical gamma oscillations in rat hippocampus**
Yoshiaki Shinohara
Neuron-Glia Circuitry Team, RIKEN Brain Science Institute
- S1-E-2-4 Complementary roles of multiple medial entorhinal cortex inputs into hippocampus**
Takashi Kitamura
RIKEN-MIT Center for Neural Circuit Genetics, MIT, USA
- S1-E-2-5 Speed cells for spatial orientation based on self-motion cues**
Emilio Kropff Causa
Leloir Institute - CONICET, Buenos Aires, Argentina
- S1-E-2-6 Temporal spike coordination in the prefrontal-thalamo-hippocampal circuit during trajectory decisions**
Hiroshi Ito^{1,2}, Edvard I Moser², May-Britt Moser²
¹Max Planck Institute for Brain Research, Frankfurt am Main, Germany ²Kavli Institute for Systems Neuroscience, Trondheim, Norway

Symposium S1-E-3

17:00 ~ 19:00 Room E (301)

Positive- and negative-valenced associations; lessons from amygdala and mushroom body

Chairpersons : Ayako M Watabe *Dept. Neurosci., Jikei Univ. School Med.*
Tetsuya Tabata *Institute of Molecular and cellular Biosciences The University of Tokyo*

- S1-E-3-1 Principles of memory encoding revealed by neuronal circuit analysis in *Drosophila*.**
Pierre-Yves Plaçais¹, Michael John-Dolan², Ghislain Belliard-Guerin¹, Gregory Jefferis², Thomas Preat¹
¹ESPCI, CNRS, Paris, France ²Laboratory of Molecular Biology, MRC, Cambridge
- S1-E-3-2 The mode of dopamine signaling for reinforcement of sensory inputs association in the *Drosophila* mushroom bodies**
Kohei Ueno
Learning & Memory Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan
- S1-E-3-3 Bidirectional switch of disinhibition for differentiating positive and negative associations**
Daisuke Yamazaki, Makoto Hiroi, Maki M Ohtsubo, Yuko Maeyama, Tetsuya Tabata
Lab of Neurosci, Inst of Mol Cell Biosci, Univ of Tokyo, Japan

- S1-E-3-4 Visualization of neuronal activities for anxiety behavior in the bed nucleus of the stria terminalis**
Hiroshi Nomura, Garret D Stuber
Dept Psychiatry, Univ of North Carolina at Chapel Hill, Chapel Hill, USA
- S1-E-3-5 Regulation of fear memory via nociceptive amygdala**
Ayako M Watabe, Fusao Kato
Dept Neurosci, Jikei Univ Sch Med
- S1-E-3-6 Critical roles of CREB-Arc signaling in fear memory formation**
Ryang Kim^{1,2}, Kazuki Sakai¹, Takashi Kawashima¹, Mio Nonaka¹, Manaka Goto¹, Hiroaki Koyama¹, Shigetaka Kobari¹, Itaru Imayoshi³, Hiroyuki Okuno³, Haruhiko Bito^{1,2}
¹*Dept Neurochem, Grad Sch of Med, Univ Tokyo, Tokyo* ²*CREST, AMED, Chiyoda-ku, Tokyo, Japan*
³*Med Innov Ctr, Grad Sch of Med, Kyoto Univ, Kyoto*

Symposium S1-F-1

9:00 ~ 11:00 Room F (302)

Regulation and function of neuronal activity-dependent gene expression

Chairpersons : Akiko Tabuchi *University of Toyama, Graduate School of Medicine & Pharmaceutical Sciences*
Nobuhiko Yamamoto *Osaka University, Graduate School of Frontier Biosci.*

- S1-F-1-1 Activity-dependent regulation of neural enhancers**
Tae-Kyung Kim
UT Southwestern Medical Center, Dallas, USA
- S1-F-1-2 Roles of transcriptional cofactors for CREB and SRF in the regulation of neuronal plasticity-related gene expression**
Akiko Tabuchi¹, Mamoru Fukuchi¹, Keietsu Kikuchi¹, Yukimi Kubo¹, Shizuku Shoji¹, Tomoyuki Hakamata¹, Takuro Tanaka¹, Natsumi Satou¹, Yuta Ishibashi¹, Hiroyuki Sakagami², Haruhiko Bito³, Hiroyuki Okuno⁴, Toshihisa Ohtsuka⁵, Masaaki Tsuda¹
¹*Grad Sch of Med & Pharm Sci, Univ of Toyama, Toyama, Japan* ²*Dep of Anatomy, Kitasato Univ, Sch of Med, Kanagawa, Japan*
³*Dept of Neurochem, Grad Sch of Med, Univ of Tokyo* ⁴*Med Innovation Center, Grad Sch of Med, Kyoto Univ, Kyoto, Japan*
⁵*Fac of Med/Grad Sch of Med, Univ of Yamanashi*
- S1-F-1-3 The NMDAR subunit GluN3A limits NMDAR-dependent activation of transcription in developing neurons**
Anne E. West, Liang-Fu Chen, Michelle Lyons
Duke University
- S1-F-1-4 Positive and negative regulation of activity-dependent thalamocortical axon branching**
Nobuhiko Yamamoto
Graduate School of Frontier Biosciences, Osaka University, Suita, Japan
- S1-F-1-5 Activity-dependent Arc expression: mechanism and applications**
Haruhiko Bito^{1,2}
¹*Dept Neurochemistry, Grad Sch of Med, Univ of Tokyo, Tokyo* ²*AMED-CREST, Tokyo, Japan*

Symposium S1-F-2

14:00 ~ 16:00 Room F (302)

Advances in computational human neuroanatomy

Co-hosted by 'Understanding brain plasticity on body representations to promote their adaptive functions' Kakenhi Innovative Area
Center for Information and Neural Networks (CiNet), National Institute of Information and Communications Technology

Chairpersons : Hiromasa Takemura *Center for Information and Neural Networks (CiNet), National Institute of Information and Communications Technology*
Franco Pestilli *Department of Psychological and Brain Sciences, Indiana University, USA*

S1-F-2-1 Introduction to computational human neuroanatomyHiromasa Takemura^{1,2,3}, Franco Pestilli^{4,5}¹*CiNet, NICT and Osaka Univ, Osaka, Japan* ²*JSPS, Tokyo, Japan*³*Frontier Biosci., Osaka University, Osaka, Japan* ⁴*Dept Psychol and Brain Sci, Indiana Univ, Bloomington, IN, USA*⁵*Programs in Neurosci and Cogn Sci, Indiana Univ Network Sci Institute, Indiana Univ, Bloomington, IN, USA*

- S1-F-2-2** **New technologies for precision brain science: studying individuality and variability in large human populations**
 Franco Pestilli¹, Cesar Caiafa^{1,2}, Hiromasa Takemura^{3,4,5}
¹Indiana University, Bloomington, IN USA ²Istituto Argentino de Radioastronomia - CONICET- Argentina
³Center for Information and Neural Networks (CiNet), National Institute of Information and Communications Technology, Japan
⁴The Japan Society for the Promotion of Science, Japan ⁵Graduate School of Frontier Biosciences, Osaka University, Japan
- S1-F-2-3** **Mapping white matter pathways in the living human brain: biodiversity & behaviour**
 Michel Thiebaut de Schotten
 CNRS, Institut du Cerveau et de la Moelle Epinière
- S1-F-2-4** **Computational MRI: from morphometry to in-vivo histology**
 Siawoosh Mohammadi¹, Martina F. Callaghan², Antoine Lutti³, Nikolaus Weiskopf^{2,4}
¹Department of Systems Neuroscience, Medical Center Hamburg-Eppendorf, Hamburg, Germany
²Wellcome Trust Centre for Neuroimaging, UCL Institute of Neurology, University College London, London, UK,
³LREN, Department of Clinical Neurosciences, CHUV, University of Lausanne, Lausanne, Switzerland
⁴Department of Neurophysics, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany
- S1-F-2-5** **Ultra-high resolution imaging of 3D orientation of fibre tracts in the cerebral cortex, white matter and subcortical regions**
 Karl Zilles
 Institute of Neuroscience and Medicine, Research Centre Juelich, Juelich, Germany

Symposium S1-F-3

17:00 ~ 19:00 Room F (302)

Linking neural-circuit dynamics to computation

*This symposium is held as part of RIKEN symposium.

Chairpersons : Taro Toyozumi *Brain Science Institute, RIKEN*
 Andrea Benucci *Brain Science Institute, RIKEN*

- S1-F-3-1** **Predictive modeling using human neuroimaging data**
 Yukiyasu Kamitani^{1,2}
¹Grad Sch of Info, Kyoto Univ, Kyoto ²ATR CNS, Kyoto, Japan
- S1-F-3-2** **Discovering collective dynamics and computation in neural circuits**
 Maneesh Sahani
 University College London
- S1-F-3-3** **Neural substrate of dynamic Bayesian inference in posterior parietal cortex**
 Akihiro Funamizu¹, Bernd Kuhn², Kenji Doya¹
¹Neural Computation Unit, Okinawa Institute of Science and Technology
²Optical Neuroimaging Unit, Okinawa Institute of Science and Technology
- S1-F-3-4** **Stability of discrete cortical representations in the presence of synaptic turnover**
 Matthias Kaschube¹, Jens-Bastian Eppler¹, Dominik Aschauer², Anna Chambers², Simon Rumpel²
¹Frankfurt Institute for Advanced Studies, Frankfurt, Germany ²University of Mainz, Germany
- S1-F-3-5** **Spine-size fluctuations enable stable cell assembly learning in recurrent circuit models**
 James Humble¹, Haruo Kasai², Taro Toyozumi¹
¹RIKEN Brain Science Institute ²Graduate School of Medicine University of Tokyo
- S1-F-3-6** **Plasticity and fluctuations of dendritic spines in mice models of autism and schizophrenia.**
 Haruo Kasai
 Laboratory of Structural Physiology, Center for Disease Biology and Integrative Medicine, Faculty of Medicine, University of Tokyo

Symposium

Day 2 - Thursday, July 21

Symposium S2-B-1

9:00 ~ 11:00 Room B (501)

New understanding of dopaminergic functions in health and disease



ICP2016-related symposia

Co-hosted by 'Non-linear Neuro-oscillology: Towards Integrative Understanding of Human Nature' Grant-in-Aid for Scientific Research on Innovative Areas

Chairpersons : Toshikuni Sasaoka *Niigata University Brain Research Institute*
Atsushi Nambu *Division of System Neurophysiology, National Institute for Physiological Sciences*

- S2-B-1-1** Transient attention and definitive reward coding by the two phasic dopamine response components
Wolfram Schultz
University of Cambridge
- S2-B-1-2** Distinct roles of the basal ganglia and the frontal cortex in cognitive control of action
Eiji Hoshi
Tokyo Metropolitan Institute of Medical Science
- S2-B-1-3** Vulnerability of dopaminergic cells in Parkinson's disease
José A. Obeso
Centro Integral de Neurociencias AC (CINAC), Fundacion HM-Hospitales de Madrid and Cibernet
- S2-B-1-4** The monoamine neurons - its physiological role and related neuropsychological diseases
Hiroshi Ichinose
Grad Sch Biosci & Biotech, Tokyo Inst Tech, Yokohama, Japan
- S2-B-1-5** Dopaminergic transmission maintains dynamic activity changes in the basal ganglia to appropriately control movements
Satomi Chiken¹, Atsushi Nambu^{1,2}
¹*Div System Neurophysiol, National Inst for Physiological Sci, Okazaki, Japan* ²*Dept Physiol Sci, SOKENDAI, Okazaki, Japan*

Symposium S2-B-2

14:00 ~ 16:00 Room B (501)

Long range circuit interactions controlling learned behaviors

*This symposium is held as part of RIKEN symposium.

Chairpersons : Joshua P. Johansen *RIKEN Brain Science Institute*
Shigeyoshi Fujisawa *RIKEN Brain Science Institute*

- S2-B-2-1** Functional imaging cortical and subcortical inputs to the hippocampus in behaving mice
Attila Losonczy
Columbia University, Department of Neuroscience, New York, Unites States
- S2-B-2-2** Long-range neuronal mechanisms of conditioned fear expression
Cyril Herry
NEUROCENTER MAGENDIE-INSERM U862
- S2-B-2-3** Coordination of prefrontal-rhinal-hippocampal activity during temporal associative learning
Kaori Takehara-Nishiuchi
Dept Psych, Univ of Toronto, Toronto, Canada
- S2-B-2-4** Hippocampal encoding of spatial information of self and other
Shigeyoshi Fujisawa
RIKEN Brain Science Institute, Saitama, Japan
- S2-B-2-5** Functional specificity based on efferent connectivity in the locus coeruleus noradrenaline system
Joshua P. Johansen
RIKEN Brain Science Institute

Symposium S2-B-3

17:00 ~ 19:00 Room B (501)

Exploring causal machinery of inter-/intra-areal circuit for brain functions

 Chairpersons : Masaki Takeda *Juntendo University School of Medicine*
 Yoshikazu Isomura *Brain Science Institute, Tamagawa University*

- S2-B-3-1 Experience-dependent maturation of neural circuits and functions in the secondary visual cortex of rats**
 Yumiko Yoshimura^{1,2}
¹*Nat Inst Physiol Sci, Okazaki, Japan* ²*SOKENDAI, Okazaki, Japan*
- S2-B-3-2 Synchronized excitability in a network enables generation of internal neuronal sequences.**
 Eva Pastalkova¹, Yingxue Wang¹, Zachary Roth^{1,2}
¹*HHMI* ²*Department of Mathematics, University of Nebraska-Lincoln, Lincoln, NE, 68588, USA*
- S2-B-3-3 Cortical, striatal and hippocampal circuits for reward-based behaviors**
 Yoshikazu Isomura
Brain Sci Inst, Tamagawa Univ, Tokyo
- S2-B-3-4 Brain mechanism for successful memory recall: layer specific inter-areal circuit in temporal cortex**
 Masaki Takeda^{1,2}
¹*Juntendo University Graduate School of Medicine, Tokyo, Japan* ²*Univ of Tokyo Graduate School of Medicine, Tokyo, Japan*
- S2-B-3-5 Control of visual processing through optogenetic and electrical stimulation in the non-human primate**
 David Sheinberg
Brown University

Symposium S2-C-1

9:00 ~ 11:00 Room C (502)

Genome editing in Neuroscience

 Chairpersons : Hitoshi Okazawa *Medical Research Institute, Tokyo Medical and Dental University*
 Kohichi Tanaka *Medical Research Institute, Tokyo Medical and Dental University*

- S2-C-1-1 High efficient CRISPR knock-in in mouse**
 Kohichi Tanaka^{1,2}, Tomomi Aida¹
¹*Lab of Mol Neurosci, Medical Res Institute, Tokyo Medical & Dental Univ, Tokyo, Japan*
²*CBIR, Tokyo Medical & Dental Univ, Tokyo, Japan*
- S2-C-1-2 Modeling Human Psychiatric/Neurological Disorders using Transgenic technologies and Genome-Editing in Non-human Primates.**
 Hideyuki Okano^{1,2}
¹*Dept Physiol, Keio Univ Sch Med, Tokyo, Japan* ²*Lab for marmoset neural architecture, RIKEN BSI, Saitama, Japan*
- S2-C-1-3 Gene modification of the adult mouse brain using viral vector-mediated genome editing**
 Hidenori Aizawa
Dept Neurobiol, Inst Biomed Health Sci, Hiroshima Univ
- S2-C-1-4 Genome editing iPS cells by CRISPR-Cas9 for Duchenne muscular dystrophy gene therapy**
 Akitsu Hotta
Center for iPS Cell Research and Application (CiRA), Kyoto University
- S2-C-1-5 Optical control of the genome**
 Moritoshi Sato
Graduate School of Arts and Sciences, The University of Tokyo, Tokyo, Japan

Symposium S2-C-2

14:00 ~ 16:00 Room C (502)

Frontiers of advanced, high-resolution optical imaging for neuroscience

Sponsored by GORYO Chemical Inc.

 Chairpersons : Yasushi Okada *RIKEN QBIC*
 Hiroki R. Ueda *University of Tokyo/RIKEN QBIC*

- S2-C-2-1 High resolution imaging analysis of postsynaptic structure**
 Shigeo Okabe
Dept Cell Neurobiol, Univ of Tokyo, Tokyo, Japan

- S2-C-2-2** Development and application of super-resolution live imaging and single-molecule imaging for the study of neurons
Yasushi Okada
Quantitative Biology Center, RIKEN, Osaka, Japan
- S2-C-2-3** Correcting spherical aberration using a transmissive liquid crystal device in two-photon excitation laser scanning microscopy
Ayano Tanabe^{1,2,3}, Terumasa Hibi², Sari Ipponjima^{1,2}, Kenji Matsumoto³, Masafumi Yokoyama³, Makoto Kurihara³, Nobuyuki Hashimoto³, Tomomi Nemoto^{1,2}
¹Grad. Sch. of Info Sci. and Tech., Hokkaido Univ., Hokkaido, Japan ²RIES., Hokkaido Univ., Hokkaido, Japan
³Citizen Holdings Co. LTD., Saitama, Japan
- S2-C-2-4** Adaptive optical microscope for high resolution deep tissue fluorescence imaging
Kai Wang¹, Wenzhi Sun², Na Ji², Eric Betzig²
¹Institute of Neuroscience, SIBS, CAS ²Janelia Research Campus, HHMI
- S2-C-2-5** Whole-body and Whole-organ Clearing and Imaging with Single-cell Resolution toward Organism-level Systems Biology in Mammals
Hiroki R Ueda^{1,2}
¹The University of Tokyo ²RIKEN QBiC

Symposium S2-C-3

17:00 ~ 19:00 Room C (502)

Chronic pain as a "neuroplasticity disease"

Chairpersons : Fusao Kato *Dept. Neurosci., Jikei Univ.Sch.of Med.*
Yu-Lin Dong *Department of Anatomy, The Fourth Military Medical University, Xi'an, China*

- S2-C-3-1** Role of the amygdala in early phase of the central pain chronification
Yukari Takahashi^{1,2}, Yuta Miyazawa^{1,2}, Yae K Sugimura^{1,2}, Mariko Sugimoto^{1,2}, Kei Shinohara^{1,2}, Zahra Ghasemi^{1,2}, Ayako M Watabe^{1,2}, Fusao Kato^{1,2}
¹Dept Neurosci, Jikei Univ Sch Med, Tokyo, Japan ²Center for Neuroscience of Pain, Jikei Univ Sch Med, Tokyo, Japan
- S2-C-3-2** Roles of paraventricular thalamus and central nucleus of amygdala in mechanical allodynia of neuropathic pain
Yu-Lin Dong
The Fourth Military Medical University
- S2-C-3-3** Alterations of resting-state brain activity in central dysfunctional pain patients
Shigeyuki Kan¹, Hironobu Uematsu², Seiichi Osako², Hisashi Tanaka³, Yoshiyuki Watanabe³, Masahiko Shibata¹
¹Dept Pain Manag, Osaka Univ Grad School of Med, Osaka, Japan ²Dept Anesthesiol, Osaka Univ School of Med, Osaka, Japan
³Dept Radiol, Osaka Univ Grad School of Med, Osaka, Japan
- S2-C-3-4** Pathology and Pharmacology of Locus coeruleus in Chronic Pain
Ken-Ichiro Hayashida
Dept Neurophysiol, Akita Uni Sch of Med, Akita
- S2-C-3-5** Chronic pain induced long term synaptic plasticity in the anterior cingulate cortex
Kohei Koga¹, Min Zhuo²
¹Dept Neurophysiol, Hirosaki University, Aomori, Japan ²Dept Physiol, Graduate School of Med, Univ of Toronto, Toronto, Canada

Symposium S2-D-1

9:00 ~ 11:00 Room D (503)

The Japan-Canada Joint Symposium: Science of consciousness

JNS - organized symposia

Chairpersons : Ryota Kanai *Araya Brain Imaging KK*
Anthony Phillips *University British Columbia*

- S2-D-1-1** What are the contents of consciousness that are generated by the ventral vs. the dorsal stream of visual processing?
Melvyn Alan Goodale
University of Western Ontario
- S2-D-1-2** Can machines have consciousness?
Ryota Kanai
Araya Brain Imaging, Tokyo, Japan

S2-D-1-3 Varieties of Visual Attention

Ronald A. Rensink
Univ of British Columbia

S2-D-1-4 Postdiction - its implications on perceptual awareness and sense of agency

Shinsuke Shimojo
California Institute of Technology

Symposium S2-D-2

14:00 ~ 16:00 Room D (503)

JNS-JSNP Joint Symposium: Translational researches for development of medicines for mental disorders

JNS - organized symposia

Chairpersons : Norio Ozaki *Department of Psychiatry, Nagoya University Graduate School of Medicine*
Kazutaka Ikeda *Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science*

S2-D-2-1 NMDA receptor channel GluN2D subunit as a target molecule for medicines for mental disorders

Kazutaka Ikeda, Yoko Hagino, Soichiro Ide
Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science

S2-D-2-2 R-ketamine as rapid onset antidepressant

Kenji Hashimoto
Dev Clin Neurosci, Chiba Univ, Chiba, Japan

S2-D-2-3 Translational research in psychiatry

Ryota Hashimoto^{1,2}
¹*United Graduate School of Child Development, Osaka University, Osaka, Japan*
²*Department of Psychiatry, Osaka University Graduate School of Medicine, Osaka, Japan*

S2-D-2-4 The significance of dopamine D2 receptor partial agonists as drugs of psychiatric disorders

Tetsuro Kikuchi
Qs' Research Institute, Otsuka Pharmaceutical Co., Ltd., Tokushima, Japan

Symposium S2-D-3

17:00 ~ 19:00 Room D (503)

Cortical development in health and diseases

Chairpersons : Kozo Kaibuchi *Nagoya University Graduate School of Medicine*
Orly Reiner *Department of Molecular Genetics, Weizmann Institute of Science*

S2-D-3-1 The dysfunction of neurodevelopmental genes, NDE1 and RELN in schizophrenia revealed by the common disease-rare variant hypothesis

Norio Ozaki
Department of Psychiatry, Nagoya University Graduate School of Medicine, Nagoya, Japan

S2-D-3-2 A mechanism of autism-related cortical overgrowth at early postnatal stages

Yukiko Gotoh¹, Dennis O'leary², Daichi Kawaguchi¹
¹*Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan* ²*The Salk Institute, USA*

S2-D-3-3 Cell-extrinsic and -intrinsic mechanisms that control the neuronal layer identity in the developing neocortex

Kazunori Nakajima
Dept Anat, Keio Univ, Tokyo, Japan

S2-D-3-4 Unexpected Activities of the Complement Pathway in Migrating Neurons

Orly Reiner¹, Anna Gorelik¹, Tamar Sapir¹, Rebecca Haffner-Krausz¹, Trent Woodruff²
¹*Weizmann Institute of Science* ²*School of Biomedical Sciences, University of Queensland, Brisbane, QLD 4072, Australia.*

S2-D-3-5 Physiological and pathological analyses of a psychiatric disorder-related gene, AUTS2

Mikio Hoshino¹, Taku Nagai², Shinichiro Taya¹, Kenji Sakimura³, Kiyofumi Yamada², Kozo Kaibuchi², Kei Hori¹
¹*National Institute Neuroscienc, NCNP, Tokyo, Japan* ²*Nagoya University Graduate School of Medicine* ³*Niigata Univ. BRI, Niigata*

Symposium S2-E-1

9:00 ~ 11:00 Room E (301)

Newly-occurring knowledge of molecular mechanism concerning polarity formation of the myelinating nerve

Chairpersons : Junji Yamauchi *Department of Pharmacology, National Research Institute for Child Health and Development*
 Nobuhiko Ohno *Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi*

- S2-E-1-1 Submembranous cytoskeleton in myelinating glia stabilizes nodes of Ranvier**
 Keiichiro Susuki
Dept Neurosci, Cell Biol & Physiol, Wright State Univ Sch of Med, Dayton, USA
- S2-E-1-2 Tyro3 receptor and the binding partner Fyn promote PNS myelination**
 Junji Yamauchi^{1,2}, Yuki Miyamoto¹
¹NICHHD of Japan ²TMDU
- S2-E-1-3 Membrane Skeletal Protein Complex, 4.1G-MPP6-Src-CADM4, in Peripheral Nerve Schwann Cells**
 Nobuo Terada¹, Yurika Saitoh², Nobuhiko Ohno²
¹Division of Health Sciences, Shinshu University Graduate School of Medicine
²Department of Anatomy and Molecular Histology, University of Yamanashi Graduate School of Medicine
- S2-E-1-4 Tuning of excitable axonal domains in central auditory neurons**
 Hiroshi Kuba
Dept Cell Physiol, Nagoya Univ Grad Sch Med, Japan
- S2-E-1-5 Polarization of energy metabolism and mitochondrial behavior in myelinated axons**
 Nobuhiko Ohno
Dept Anat Mol Histol, Univ Yamanashi, Chuo, Japan

Symposium S2-E-2

14:00 ~ 16:00 Room E (301)

Behavior directed toward others: Neural and endocrine regulation of brain and mind development



ICP2016-related symposia

Chairpersons : Masaki Takeyama *Waseda University Faculty of Human Sciences*
 Shinji Tsukahara *Graduate School of Science and Engineering, Saitama University*

- S2-E-2-1 Introduction of Symposium: Mouse social behavior, environmental and genetic factors**
 Masaki Takeyama
Waseda University Faculty of Human Sciences
- S2-E-2-2 Calcium-dependent phosphorylation signaling in emotional and social limbic circuits**
 Sayaka Takemoto-Kimura^{1,2,3}, Kanzo Suzuki², Toshihiro Endo², Ryang Kim^{2,4}, Hiroaki Koyama²,
 Shin-Ichiro Horigane^{1,2}, Satoshi Kamijo^{2,4}, Hajime Fujii², Haruhiko Bito^{2,4}
¹Dept Neuroscience I, Research Institute of Environmental Medicine, Nagoya Univ, Nagoya, Japan ²Dept Neurochemistry,
 Univ of Tokyo Grad Sch of Med, Tokyo, Japan ³PRESTO, Japan Science and Technology Agency, Chiyoda-ku, Tokyo, Japan
⁴CREST, Japan Agency for Medical Research and Development, Chiyoda-ku, Tokyo, Japan
- S2-E-2-3 Vasopressin and Oxytocin Receptor Genes *AVPR1a* and *OXTR* and Aggression in Children and Adolescents**
 Irwin Douglas Waldman¹, Devon Loparo¹, Courtney Lyding¹, Haase Walum^{1,2}, Ada Johansson³,
 Pekka Santilla⁴, Lars Westberg⁵, Kimberly Kerley⁶, Larry Young², Kerry Ressler^{2,6,7}
¹Emory University ²Center for Translational Social Neuroscience, Yerkes National Primate Center, Emory University, Atlanta GA, USA
³Department of Behavioural Sciences and Philosophy, University of Turku, Finland
⁴Department of Psychology and Logopedics, Abo Akademi University, Turku, Finland
⁵Department of Pharmacology, Institute of Neuroscience and Physiology, Sahlgrenska Academy, University of Gothenburg, Sweden
⁶Department of Psychiatry and Behavioral Sciences, Emory University, Atlanta, GA, USA
⁷McLean Hospital, Harvard Medical School, Belmont, MA, USA
- S2-E-2-4 Gonadal steroid actions on sex-specific formation of the brain**
 Shinji Tsukahara
Grad Sch Sci Engin, Saitama Univ
- S2-E-2-5 Hormonal influences on social brain: Modification of sex-typical social behaviors by hormonal and environmental factors**
 Sonoko Ogawa
Lab Behavioral Neuroendocrinology, Univ. of Tsukuba, Tsukuba, Japan

Symposium S2-E-3

17:00 ~ 19:00 Room E (301)

Action-perception coupling; neuroscientific approach


ICP2016-related symposia

Co-hosted by 'The Science of Mental Time' Kakenhi Innovative Area, 'Understanding brain plasticity on body representations to promote their adaptive functions' Kakenhi Innovative Area

Chairpersons : Nobuhiro Hagura *CiNet, NICT*
 Tsuyoshi Ikegami *CiNet, NICT*

S2-E-3-1 Action costs bias perceptual decisions

 Nobuhiro Hagura¹, Patrick Haggard², Jorn Diedrichsen^{2,3}
¹*CiNet, NICT, Osaka, Japan* ²*Institute of Cognitive Neuroscience, University College London, London, UK*
³*Univ. Western Ontario, London, Canada*
S2-E-3-2 Embodied decision-making during interactive behavior in a dynamic world

David Thura, Paul Cisek

Dept Neuroscience, Univ of Montreal, Montreal, Canada
S2-E-3-3 Shared mechanism in the production of actions and the prediction of observed actions

 Tsuyoshi Ikegami¹, Ganesh Gowrishankar^{2,3}
¹*Center for Information and Neural Networks(CiNet), National Institute of Information and Communications Technology, Osaka, Japan*
²*Centre national de la recherche scientifique, France*
³*National Institute of Advanced Industrial Science and Technology(AIST), Tsukuba, Japan*
S2-E-3-4 Action, Perception, and Decision Making: when are cognitive and perceptual processes 'embodied' in motor circuits?

Flavia Filimon

MAX PLANCK INSTITUTE FOR HUMAN DEVELOPMENT, BERLIN GERMANY
S2-E-3-5 The cortical sensori-motor system investigated through touchscreen interactions

Arko Ghosh

University of Zurich
Symposium S2-F-1

9:00 ~ 11:00 Room F (302)

New probes and new light: Evolution of optogenetics for neuroscientific

Chairpersons : Hiromu Yawo *Dept.of Dev. Biol. and Neurosci., Tohoku Univ., Grad.Sch.of Life Sci.*
 Ken Berglund *Emory University School of Medicine*

S2-F-1-1 Super-duper bioluminescent proteins for optical imaging and control of biological functions

Takeharu Nagai

ISIR, Osaka Univ, Osaka, Japan
S2-F-1-2 Luminopsins: Integration of Opto- and Chemogenetics by Using Physical and Biological Light Sources for Opsin Activation


Ken Berglund

Dept Neurosurgery, Emory Univ Sch of Med
S2-F-1-3 Light-driven cation pump rhodopsins for optogenetics

 Keiichi Inoue^{1,2}
¹*Grad Sch Eng, Nagoya Inst of Tech, Nagoya, Japan* ²*JST PRESTO*
S2-F-1-4 Up-conversion optogenetic system using near-infrared (NIR) light

 Hiromu Yawo^{1,2}, Shoko Hososhima¹, Mohammad Razuanul Hoque¹, Hideya Yuasa³, Takayuki Yamashita⁴, Akihiro Yamanaka⁴, Toru Ishizuka¹
¹*Department of Developmental Biology and Neurosciences, Graduate School of Life Science, Tohoku University, Miyagi, Japan*
²*Center for Neuroscience, Tohoku University Graduate School of Medicine, Sendai, Japan*
³*Department of Life Science, Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology, Yokohama, Japan*
⁴*Department of Neuroscience II, Research Institute of Environmental Medicine, Nagoya University, Nagoya, Japan*

Symposium S2-F-2

14:00 ~ 16:00 Room F (302)

Mechanisms regulating prefrontal cortex maturation: Relevance to psychiatric disorders

Chairpersons : Hirofumi Morishita *Department of Psychiatry & Neuroscience, Icahn School of Medicine at Mount Sinai*
 Takeshi Sakurai *Medical Innovation Center, Kyoto University Graduate School of Medicine*

- S2-F-2-1 Development and function of mouse prefrontal cortex**
 Takeshi Sakurai
Medical Innovation Center, Kyoto Univ, Kyoto, Japan
- S2-F-2-2 Molecular Control of Prefrontal Cortex Maturation for Establishing Attention**
 Hirofumi Morishita
Friedman Brian Institute, Icahn School of Medicine at Mount Sinai, USA
- S2-F-2-3 Social experience-dependent glia development in the medial prefrontal cortex related to autism spectrum disorder**
 Manabu Makinodan¹, Kazuhiko Yamamuro¹, Hiroki Yoshino¹, Daisuke Ikawa¹, Yasunori Yamashita¹, Yuki Miyamoto², Junji Yamauchi², Toshifumi Kishimoto¹
¹*Department of Psychiatry, Nara Medical University School of Medicine, Kashihara, Nara, Japan*
²*Department of Pharmacology, National Research Institute for Child Health and Development, Setagaya, Tokyo, Japan*
- S2-F-2-4 Involvement of stress-associated pathways in the developmental trajectory of cortical maturation and behavior: relevance to major mental illness**
 Minae Niwa
Johns Hopkins University School of Medicine
- S2-F-2-5 Role of redox regulation in prefrontal parvalbumine interneurons and myelin maturation**
 Kim Q. Do, Jan-Harry Cabungcal, Daniella Dwir, Pascal Steullet, Michel Cuenod
Lausanne University Hospital

Symposium S2-F-3

17:00 ~ 19:00 Room F (302)

No self-control; disturbed decision-making in psychiatric disorders

Chairpersons : Shigenobu Toda *Department of Psychiatry, Kanazawa University Hospital*
 Eisuke Koya *School of Psychology, University of Sussex*

- S2-F-3-1 The insular GABAergic system controls decision-making in drug dependent rats**
 Hiroyuki Mizoguchi¹, Kiyofumi Yamada²
¹*Res. Inst. Environmental Med., Nagoya Univ., Nagoya, Japan*
²*Dep. Neuropsychopharmacol. Hosp. Pharm., Nagoya Univ. Grad. Sch. Med.*
- S2-F-3-2 Involvement of brainstem noradrenaline system in acute stress-induced enhancement of cocaine craving behavior**
 Katsuyuki Kaneda
Lab Mol Pharmacol, Kanazawa Univ, Kanazawa, Japan
- S2-F-3-3 The intrinsic membrane excitability properties of orbitofrontal cortex and nucleus accumbens neurons activated by sucrose-associated cues**
 Eisuke Koya, Josph Ziminski, Sabine Hessler, Meike Sieburg, Gabriella Margetts-Smith
University of Sussex
- S2-F-3-4 Identification of neuronal ensembles in the entire striatum that coincides with the transition period from goal-directed to habitual during instrumental learning in rats**
 Shigenobu Toda
Dept. of Psychiatry and Neurobiology, Kanazawa University School of Medicine, Ishikawa, Japan
- S2-F-3-5 Neural mechanisms for delay discounting in psychiatric disorders**
 Saori C Tanaka-Kawawaki
ATR CNS, Kyoto, Japan

Symposium S3-A-1

17:00 ~ 19:00 Room A (Main Hall)

Behavioural disruption and brain networks of psychiatric disease

Chairpersons : Mitsuo Kawato *Advanced Telecommunications Research Institute International*
Ben Seymour *Cambridge University / Center for Information and Neural Networks (CiNet), NICT*

- S3-A-1-1 Impulsivity and compulsivity: Neural substrates and neuropsychiatric implications**
Trevor Robbins
University of Cambridge
- S3-A-1-2 Flexible modulation of risk attitude during decision-making under quota and its impairments in gambling disorders**
Hidehiko Takahashi
Dept Psychiatry, Kyoto Univ, Kyoto
- S3-A-1-3 Connectomics in health and disease: graph theoretical analysis of brain networks**
Edward T Bullmore^{1,2}
¹*University of Cambridge* ²*GlaxoSmithKline, Immuno-Psychiatry, Academic Discovery Performance Unit, Cambridge UK*
- S3-A-1-4 Brain network models of chronic pain.**
Wako Yoshida^{1,2}
¹*ATR CNS, Kyoto, Japan* ²*NICT CiNet, Osaka, Japan*
- S3-A-1-5 Neural Dynamics of Cognitive Flexibility**
Tim Buschman
Princeton University, Princeton, USA
- S3-A-1-6 Extinction of fearful memory with decoded neurofeedback (DecNef): a potential clinical application for PTSD**
Ai Koizumi^{1,2,3}, Kaoru Amano³, Aurelio Cortese^{1,3,4,5}, Wako Yoshida^{1,3,7}, Ben Seymour^{1,3,7}, Mitsuo Kawato^{1,4}, Hakwan Lau^{2,5,6}
¹*ATR Computational Neuroscience Laboratories, Kyoto, Japan* ²*Dept Psychology, Columbia University, New York, USA*
³*Center for Information and Neural Networks, NICT, Osaka, Japan*
⁴*Faculty of Information Science, Nara Institute of Science and Technology NAIST, Nara, Japan*
⁵*Dept Psychology, UCLA, Los Angeles, USA* ⁶*Brain Research Institute, UCLA, Los Angeles, USA*
⁷*Behavioural and Clinical Neuroscience Institute, University of Cambridge, Cambridge, England*

Symposium S3-B-1

9:00 ~ 11:00 Room B (501)

Neural mechanisms underlying social decision-making and communications

 ICP2016-related symposia

Chairpersons : Hidehiko Takahashi *Department of Psychiatry, Kyoto University Graduate School of Medicine*
Yosuke Morishima *University Hospital of Psychiatry, University of Bern*

- S3-B-1-1 The neural mechanisms underlying interpersonal blink synchrony**
Tamami Nakano^{1,2}
¹*Grad Sch Front Bio, Osaka Univ, Osaka* ²*Dept Brain Physiol, Grad Sch Med, Osaka Univ, Osaka, Japan*
- S3-B-1-2 Functional architecture of brain networks reveals (mal)adaptive processing of social information**
Yosuke Morishima^{1,2}
¹*University Hospital of Psychiatry, University of Bern* ²*JST PRESTO*
- S3-B-1-3 Neural substrates of face-to-face communication through eyes: an approach with hyperscanning fMRI**
Norihiro Sadato
Dep Cereb Res, NIPS, Okazaki, Japan
- S3-B-1-4 Neural Circuitry of Iterated Strategic Thinking**
Colin Camerer
California Institute of Technology

Symposium S3-B-2

14:00 ~ 16:00 Room B (501)

Symposium on Industry-Academia Collaboration: Human resource development for applied neuroscience

*In Japanese

JNS - organized symposia

Chairperson : Manabu Honda *National Center of Neurology and Psychiatry/Industry-Academia Partnership Committee, Japan Neuroscience Society***S3-B-2-1 Symposium on Industry-Academia Collaboration: Human resource development for applied neuroscience**Manabu Honda¹, Yasuharu Koike², Tetsuto Minami³, Rieko Osu⁴, Takuya Ibaraki⁵, Ippei Hagiwara⁵¹Dept Functional Brain Res, NCNP, Tokyo, Japan ²Tokyo Institute of Technology, Kanagawa, Japan³TOYOHASHI University of Technology, Aichi, Japan ⁴The Nielsen Company Japan, Tokyo, Japan⁵NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc., Tokyo, Japan**Symposium S3-B-3**

17:00 ~ 19:00 Room B (501)

Data-driven approaches to complex brain functions

ICP2016-related symposia

Co-hosted by 'Innovative SHITSUKAN Science and Technology' Grant-in-Aid for Scientific Research on Innovative Areas

Chairpersons : Shin'ya Nishida *NTT Communication Science Labs*
Yukiyasu Kamitani *Graduate School of Informatics, Kyoto University***S3-B-3-1 Brain decoding via deep neural network feature representation**Tomoyasu Horikawa
*ATR CNS, Kyoto, Japan***S3-B-3-2 Human computation: how we can harness the power of human intelligence**Yukino Baba
*Dept. of Intelligence Science and Technology, Kyoto University, Kyoto, Japan***S3-B-3-3 New Models of Human Auditory Cortex via Deep Learning**Josh McDermott, Alex Kell, Sam Norman-Haignere, Dan Yamins
*MIT***S3-B-3-4 Utility of Deep Neural Network (DNN) for Neuroscientists**Izumi Ohzawa^{1,2}
¹Graduate School of Frontier Biosciences, Osaka University ²Center for Information and Neural Networks (CiNet), Osaka, Japan**Symposium S3-C-1**

9:00 ~ 11:00 Room C (502)

Leading edge of viral vectors that visualize / manipulate a specific network in the CNSChairpersons : Hirokazu Hirai *Department of Neurophysiology & Neural Repair, Gunma University Graduate School of Medicine*
Hiroyuki Nakai *Oregon Health & Science University School of Medicine***S3-C-1-1 Neural Circuit Tracing with Glycoprotein-Deleted Rabies Viruses**Fumitaka Osakada^{1,2,3,4}
¹Lab Cell Pharmacol, Nagoya Univ, Japan ²Lab Neural Info Process, Nagoya Univ, Japan ³PRESTO JST
⁴Systems Neurobiol Lab, Salk Inst, USA**S3-C-1-2 Dissecting higher olfactory neural circuits by projection-based viral and genetic technology in mice**Kazunari Miyamichi^{1,2}, Kentato Ishii^{1,2}, Kazushige Touhara^{1,2}
¹Dept Appl Biol Chem, the Grad School of Agri Life Sci, Univ of Tokyo, Tokyo, Japan ²JST ERATO Touhara Chemosensory Signal Project**S3-C-1-3 AAV Barcode-Seq: a novel high-throughput approach to develop the next generation AAV vectors for CNS gene therapy**Hiroyuki Nakai
Dept Mol Med Genet, Oregon Health and Science University, Portland, OR, USA

S3-C-1-4 Development of viral vectors labeling a specific cell population in non-human primates and their application to generation of a neurodegenerative disease model

Hirokazu Hirai^{1,2}

¹Dept Neurophysiol & Neural Repair, Gunma Univ, Gunma, Japan ²Gunma Univ, Initiative for Advanced Research, Gunma, Japan

Symposium S3-C-2

14:00 ~ 16:00 Room C (502)

Fiberphotometry-mediated cell-type specific recording from deep brain structure in behaving animal

Chairpersons : Akihiro Yamanaka *Research Institute of Environmental Medicine (RIEM), Nagoya University*
Kenji F. Tanaka *Keio University School of Medicine, Department of Neuropsychiatry*

S3-C-2-1 In vivo recoding of activity of orexin neurons in the hypothalamus using fiber photometry

Akihiro Yamanaka, Ayumu Inutsuka, Akira Yamashita, Toru Taguchi
RIEM, Nagoya Univ, Aichi, Japan

S3-C-2-2 Ventral striatopallidal neurons govern motivated behaviors

Kenji Tanaka¹, Hiroshi Nishida¹, Iku Tsutsui-Kimura¹, Akiyo Natsubori²
¹Keio University School of Medicine ²Tokyo Metropolitan Institute for Medical Science

S3-C-2-3 Kinase imaging in freely moving animals by fiber-bundle type micro-endoscope

Kazuo Funabiki^{1,2}
¹Inst Biomedical Research Innovation, Kobe, Japan ²Riken Center for Life Science Technologies, Kobe, Japan

S3-C-2-4 Optical monitoring of the activity of ventromedial hypothalamic neurons of female mice during sociosexual behavior

Kensaku Nomoto, Susana Q Lima
Champalimaud Neuroscience Programme, Lisbon, Portugal

Symposium S3-C-3

17:00 ~ 19:00 Room C (502)

Brain's spark: Biophysics of neurotransmitter receptors and channels

Chairpersons : Makoto Tominaga *Okazaki Institute for Integrative Bioscience, National Institute for Physiological Sciences*
Yasushi Okamura *Graduate School of Medicine, Osaka University*

S3-C-3-1 Homologous CALHM subunits assemble to form a novel voltage-gated ATP channel

Akiyuki Taruno¹, Hiroaki Miyazaki¹, Naomi Niisato^{1,3}, Hongxin Sun¹, Makiko Kashio¹,
Yoshinori Marunaka^{1,2}
¹Dept Mol Cell Physiol, Kyoto Pref Univ of Med ²Dept Bio-Ionomics, Kyoto Pref Univ of Med, Kyoto, Japan
³Health Sports Sci, Kyoto Gakuen Univ, Kyoto, Japan

S3-C-3-2 Molecular mechanism of the olfactory masking

Hiroko Takeuchi
Grad Sch Frontier Biosci, Osaka Univ, Toyonaka, Japan

S3-C-3-3 Molecular mechanism of novel channel and transporter

Osamu Nureki
Dept Biological Sciences, The Univ. of Tokyo, Tokyo

S3-C-3-4 Structural rearrangements of the ATP receptor channel P2X2 associated with voltage and ATP-dependent gating of the pore

Yoshihiro Kubo^{1,2}, Batu Keceli¹, Rizki Andriani^{1,2}
¹Div Biophys and Neurobiol, Natl Inst Physiol Sci, Aichi, Japan ²Dept Physiol Sci, SOKENDAI, Kanagawa, Japan

S3-C-3-5 Single channel analysis of the thermosensitive TRP channels in planar lipid bilayers

Kunitoshi Uchida¹, Eleonora Zakharian³, Makoto Tominaga^{1,2}
¹Div Cell Signaling, OIIB (NIPS), Okazaki, Japan ²Dept Physiol, SOKENDAI, Okazaki, Japan
³Dept of Cancer Biol and Pharmacol, Univ of Illinois Coll of Med, Peoria, USA

S3-C-3-6 How does voltage sensor domain regulate downstream effector?: lesson from voltage-sensor domain proteins

Yasushi Okamura¹, Souhei Sakata², Akira Kawanabe¹, Yuichiro Fujiwara¹, Yuka Jinno¹
¹Grad Sch Med, Osaka Univ, Suita ²Department of Physiology, Osaka Medical College

Symposium S3-D-1

9:00 ~ 11:00 Room D (503)

Coordinated regulation of neural network by inhibitory and excitatory neurons

Chairpersons : Yumiko Yoshimura *National Institute for Physiological Sciences*
Mikio Hoshino *National Institute of Neuroscience, NCNP*

- S3-D-1-1** **Generation of cerebellar neurons from human pluripotent stem cells**
Keiko Muguruma
RIKEN Center for Developmental Biology
- S3-D-1-2** **The deficiency of DSCAML1, which is a mutant model with limbic-like seizures, induces the excitatory and inhibitory imbalance.**
Shinichiro Taya¹, Yoneko Hayase¹, Mayumi Yamada¹, Toshihiko Momiyama², Takuma Nishijo², Yoshiki Miura³, Yukihiro Ohno⁴, Takuji Imaoku⁴, Yuchio Yanagawa⁵, Nobuo Ihara⁶, Tadao Serikawa⁷, Shigeru Amano⁷, Mikio Hoshino¹
¹Dept. of Biochem. & Cell Biol., NCNP ²Dept. of Pharm., Jikei Univ. Sch. of Med. ³Biosci. Business, KAC Co.
⁴Lab. of Pharm., Osaka Univ. of Pharm. Sci. ⁵Genet. and Behav. Neurosci., Gunma Univ. Sch. of Med. ⁶Inst. of ICR Res.
⁷Kyoto Univ. Sch. of Med.
- S3-D-1-3** **Interaction between GABAergic cells and two types of target-specific pyramidal cells in layer 5 of the rat frontal cortex**
Mieko Morishima¹, Yasuo Kawaguchi^{1,2}
¹National Institute for Physiological Sciences, Aichi, Japan ²SOKENDAI, Okazaki, Japan
- S3-D-1-4** **Experience-dependent maturation of inhibitory circuits in ocular dominance plasticity**
Sayaka Sugiyama, Xubin Hou
Lab Neuro Dev, Grad Sch Med Dent Sci, Niigata Univ
- S3-D-1-5** **Beyond inhibition: stress-induced (meta)plasticity at hypothalamic GABA synapse**
Wataru Inoue¹, Jaideep Bains²
Robarts Research Institute, Univ of Western Ontario, London, Canada

Symposium S3-D-2

14:00 ~ 16:00 Room D (503)

Biology of autism

*This symposium is held as part of RIKEN symposium.

Chairpersons : Toru Takumi *RIKEN Brain Science Institute*
Katsuhiko Tabuchi *Shinshu University*

- S3-D-2-1** **Modeling Autism**
Toru Takumi
RIKEN BSI, Saitama, Japan
- S3-D-2-2** **Complement family proteins--complementary and essential synaptic organizers**
Michisuke Yuzaki
Dept Physiol, Keio Univ Sch of Med, Tokyo, Japan
- S3-D-2-3** **Visualization of altered dynamics of the dendritic spine in the rodent model of neuropsychiatric disorders**
Akiko Hayashi-Takagi
Lab for Structural Physiology, Univ of Tokyo, Tokyo, Japan
- S3-D-2-4** **Coordinated spine pruning and maturation mediated by inter-spine competition for cadherin/catenin complexes**
Xiang Yu, Wen-Jie Bian, Miao Wang, Wan-Ying Miao, Shu-Ji He, Zilong Qiu
Institute of Neuroscience, Chinese Academy of Sciences
- S3-D-2-5** **Modification of genes associated with synaptic functions in the subpopulation of neurons in mouse brains and the effects on pathophysiology of autism.**
Katsuhiko Tabuchi
Dept Mol Cell Physiol, Shinshu Univ Sch Med, Matsumoto, Japan



Symposium S3-D-3

17:00 ~ 19:00 Room D (503)

Molecular dynamics driving neuronal morphogenesis

Chairpersons : Hiroyuki Kamiguchi *RIKEN Brain Science Institute*
Makoto Kinoshita *Nagoya University Graduate School of Science*

- S3-D-3-1 Cytoskeletal control of dynamic motility of the nucleus during neuronal migration**
Mineko Kengaku^{1,2}, You K Wu², Hiroki Umeshima¹
¹*Inst for Integrated Cell-Material Sci, Kyoto Univ* ²*Dept Biostudies, Kyoto Univ, Kyoto, Japan*
- S3-D-3-2 Myosin Va-dependent membrane export for axon guidance**
Fumitaka Wada, Hiroyuki Kamiguchi
Laboratory for Neuronal Growth Mechanisms, RIKEN Brain Science Institute, Saitama
- S3-D-3-3 Septins promote dendrite and axon development by negatively regulating microtubule stability via HDAC6-mediated deacetylation**
Natsumi Ageta-Ishihara¹, Takaki Miyata², Masahiko Watanabe³, Haruhiko Bito⁴, Makoto Kinoshita¹
¹*Dept Mol Biol, Grad Sch Sci, Nagoya Univ, Nagoya, Japan* ²*Dept Anatomy and Cell Biol, Grad Sch Med, Nagoya Univ, Nagoya, Japan*
³*Dept Anatomy, Grad Sch Med, Hokkaido Univ, Sapporo, Japan* ⁴*Dept Neurochem, Grad Sch Med, Univ Tokyo, Tokyo, Japan*
- S3-D-3-4 Long-distance membrane trafficking for neural network formation**
Yoshio Goshima¹, Naoya Yamashita^{1,2}
¹*Dept Mol Pharmacol and Neurobiol, Grad Sch Med, Yokohama City Univ, Yokohama, Tokyo*
²*Department of Biology, Johns Hopkins University, Baltimore 21218, MD, 21218, USA*

Symposium S3-E-1

9:00 ~ 11:00 Room E (301)

Novel mechanisms of the vesicular recycling in the presynaptic terminals

Chairperson : Michihiro Igarashi *Dept Neurochem & Mol.Cell.Biol., Niigata Univ., Grad.Sch.Med.Dent.Sci*

- S3-E-1-1 Presynaptic CaMKII Regulates Short-term Plasticity through the Interaction with Syntaxin**
Michihiro Igarashi
Dept Neurochem & Mol Cell Biol, Niigata Univ Grad Sch Med Dent Sci
- S3-E-1-2 Phosphorylation of an active zone protein controls short-term plasticity**
Sumiko Mochida
Dept Physiol, Tokyo Medical University, Tokyo, Japan
- S3-E-1-3 Two-photon fluorescence lifetime imaging of primed SNARE complexes.**
Noriko Takahashi¹, Wakako Sawada¹, Jun Noguchi¹, Ucar Hasan¹, Satoshi Watanabe^{1,2}, Haruo Kasai¹
¹*Dept Structural Physiol, Univ of Tokyo, Tokyo, Japan* ²*Dept Bioengineering Robotics, Tohoku University, Miyagi, Japan*
- S3-E-1-4 Regulation of synaptic vesicle exocytosis by nanoassembly of synaptic molecules**
Shigeyuki Namiki, Hirokazu Sakamoto, Tetsuro Ariyoshi, Kenzo Hirose
Dept Neurobiol, Grad Sch of Med, Univ of Tokyo, Tokyo, Japan
- S3-E-1-5 Relation of Vesicle Positioning to Pool Identity and Exocytotic Fusion Mode: Insight from Real-time Three-dimensional Tracking of Single Synaptic Vesicles in Live Neurons**
Hyokeun Park
Hong Kong University of Science and Technology
- S3-E-1-6 Role of heparan sulfate in excitatory synapses**
Yu Yamaguchi, Fumitoshi Irie
Sanford Burnham Peabody Medical Discovery Institute

Symposium S3-E-2

14:00 ~ 16:00 Room E (301)

Exploring brain functions and connections using faster and more accurate MRI approaches

Chairpersons : Kang Cheng *RIKEN Brain Science Institute*
Tetsuya Matsuda *Tamagawa University Brain Science Institute*

- S3-E-2-1 Multiband imaging for higher spatial and temporal resolutions for studying brain functions**
Essa Yacoub
University of Minnesota

- S3-E-2-2 Event-Related fMRI of the Visual System Using Multi-Band EPI**
 R.Allen Waggoner
Laboratory for Cognitive Brain Mapping, RIKEN Brain Science Institute
- S3-E-2-3 diffusion tensor imaging and next generation diffusion MR imaging to visualize and quantify the white matter tracts**
 Shigeki Aoki¹, Masaaki Hori¹, Koji Kamagata¹, Christina Andica¹, Katsutoshi Murata²
¹Department of Radiology, Juntendo University, Tokyo, Japan ²Siemens Healthcare K.K., Tokyo, Japan
- S3-E-2-4 High-resolution diffusion MRI of human brain microstructure: in vivo and ex vivo**
 Alard Roebroeck
Maastricht University

Symposium S3-E-3

17:00 ~ 19:00 Room E (301)

Exploring evolutionary roots of "Social Brain" with a comparative point of view

 ICP2016-related symposia

Co-hosted by 'Empathetic Systems' Grant-in-Aid for Scientific Research on Innovative Areas
 The Japanese Association for Neuroethology

Chairpersons : Hideaki Takeuchi *Molecular Ethology Laboratory, Graduate School of Natural Science and Technology, Okayama University*
 Ei-Ichi Izawa *Department of Psychology, Keio University*

- S3-E-3-1 Neural mechanism of social behaviors mediated by individual recognition in medaka fish**
 Hideaki Takeuchi
Grad. Sch. Natural Sci. Tech. Okayama University
- S3-E-3-2 Physiological and psychological mechanisms for inter-individual social relationships in crows**
 Ei-Ichi Izawa
Dept Psychology, Keio Univ, Tokyo, Japan
- S3-E-3-3 Neural mechanisms underlying social memory and social familiarity**
 Teruhiro Okuyama
Picower Inst. for Learning and Memory, MIT, Cambridge, USA
- S3-E-3-4 Neuroimaging and social behavior in common marmosets**
 Chihiro Yokoyama
Func Arch Imag Unit, RIKEN CLST, Kobe, Japan
- S3-E-3-5 Integrative Neuroscience of Social Competence**
 Hans A Hofmann
The University of Texas at Austin

Symposium S3-F-1

9:00 ~ 11:00 Room F (302)

Frontiers of consciousness studies in mice

 ICP2016-related symposia

Chairpersons : Katsuei Shibuki *Brain Res. Inst., Niigata Univ.*
 Christof Koch *Allen Institute for Brain Science*

- S3-F-1-1 Neural correlates of visual awareness organized by short-term memory in mice**
 Katsuei Shibuki^{1,2}
¹Dept Neurophysiol, Brain Res Inst, Niigata Univ, Niigata, Japan ²CREST
- S3-F-1-2 Gene codes for generating the complex neural networks in the brain**
 Takeshi Yagi
Grad Front Biosci, Osaka Univ, Osaka, Japan
- S3-F-1-3 Physiological Roles of Top-Down Input in Behaviors**
 Masanori Murayama
Behavioral Neurophysiology Lab, Brain Science Institute, Riken
- S3-F-1-4 The Why and How of Studying Consciousness in the Laboratory Mouse**
 Christof Koch
Allen Institute for Brain Science

**Symposium S3-F-2**

14:00 ~ 16:00 Room F (302)

Postmodern neuroscience: Deconstruction of the neuron central dogma

Chairpersons : Hiroaki Wake *Division of Homeostatic Development, National Institute of Physiological Sciences*
 Ko Matsui *Division of Interdisciplinary Medical Science, Tohoku University Graduate School of Medicine*

- S3-F-2-1 The role of microglia in learning during systemic inflammation**
 Hiroaki Wake
National Institute for Physiological Sciences, NINS, Okazaki, JAPAN
- S3-F-2-2 Possibility of pathology control via manipulation of astrocyte function**
 Ko Matsui
Div of Interdisciplinary Med Sci, Tohoku Univ, Sendai, Japan
- S3-F-2-3 Increased neuronal excitability by genetic manipulation of astrocytic Ca²⁺ signals**
 Eiji Shigetomi¹, Yukiho Hirayama¹, Schuichi Koizumi¹, Fumikazu Sano^{1,2}
¹Dept Neuropharmacol, Univ Yamanashi, Yamanashi ²Dept Pediatr, Univ Yamanashi, Yamanashi
- S3-F-2-4 Thermal stimulation-induced activation of microglia in epilepsy**
 Ryuta Koyama, Yuji Ikegaya
Lab. Chem. Pharmacol., Grad. Sch. Pharmaceut. Sci., Univ. Tokyo, Tokyo, Japan
- S3-F-2-5 Myelination: a new dimension for experience dependent brain maturation**
 Gabriel Corfas¹, Manabu Makinodan², Patrick Long¹, Xiangying Meng³, Patrick Kanold³
¹Kresge Hearing Research Institute, The University of Michigan ²Nara Medical University, Kashihara, Nara 634-8522, Japan
³University of Maryland, College Park, MD 20742

Symposium S3-F-3

17:00 ~ 19:00 Room F (302)

Neuroinformatics for integration of multidimensional Neuroscience

Chairpersons : Yoko Yamaguchi *Neuroinformatics Japan Center*
 Teiichi Furuichi *Tokyo University of Science*

- S3-F-3-1 Enhancing Brain Transcriptome Database by Neural Gene Ontology**
 Teiichi Furuichi
Dept Appl Biol Sci, Fac Sci Tech, Tokyo Univ Sci, Chiba, Japan
- S3-F-3-2 Improving reproducibility in neuroimaging and neuroscience : current challenges and future neuroinformatics solutions**
 Jean-Baptiste Poline
University of California at Berkeley, CA, USA
- S3-F-3-3 Standardized Provenance for Reproducible Dataflows in Neuroscience**
 Satrajit S Ghosh^{1,2}
¹Massachusetts Institute of Technology ²Department of Otolaryngology, Harvard Medical School, Boston, MA, USA
- S3-F-3-4 Using the neuroimaging data model (NIDM) for databasing and querying complex data**
 David Bryant Keator
University of California, Irvine
- S3-F-3-5 Toward biophysically-detailed and large-scale neural circuit simulation of insect brain**
 Tomoki Kazawa
RCAST, Univ of Tokyo, Tokyo
- S3-F-3-6 Development of Neuroinformatics to Data Science through International Collaboration**
 Yoko Yamaguchi
Neuroinformatics Japan Center, RIKEN BSI

Symposium S3-G-1

9:00 ~ 11:00 Room G (303)

Brain mechanisms of decision timing

ICP2016-related symposia

Chairpersons : Shogo Sakata *Department of Behavioral Sciences, Graduate School of Integrated Arts & Sciences, Hiroshima University*
 Catalin V Buhusi *Department of Psychology, Utah State University*

- S3-G-1-1 Emotion and Timing in the Brain**
 Catalin V Buhusi, Alexander R Matthews, Mona Buhusi
Utah State University

- S3-G-1-2 Timing and Temporal Discounting in a Model of Aging-related Parkinsonism**
 Mona Buhusi, Kaitlin Olsen, Catalin V Buhusi
Utah State University
- S3-G-1-3 Temporal bisection timing in rats**
 Shogo Sakata
Dept Behav Sci, Hiroshima Univ, Hiroshima, Japan
- S3-G-1-4 Pavlovian modulation of decision-making: Encoding of reward identity and timing**
 Andrew Delamater
Dept Psychology, Brooklyn College - City University of New York, Brooklyn, New York, USA
- S3-G-1-5 The dynamics of reward encoding in value-based decision-making**
 Bernard Walter Balleine^{1,2}, Amir Dezfouli^{1,2}
¹Brain & Mind Centre, University of Sydney, Camperdown, Australia ²School of Psychology, University of NSW, Kensington, Australia

Symposium S3-G-2

14:00 ~ 16:00 Room G (303)

Singapore-Japan 50 Neuroscience Symposium

The President of the Annual Meeting - organized symposia

Chairpersons : Balázs Zoltán Gulyás *Lee Kong Chian School of Medicine, Imperial College London - Nanyang Technological University*
 Carlos Ibanez *National University of Singapore, Neurobiology Programme*

- S3-G-2-1 Direct induction and functional maturation of forebrain GABAergic neurons from human pluripotent stem cells.**
 Hyunsoo Shawn Je^{1,2}, Alfred X Sun^{1,3}, Qiang Yuan^{1,2}
¹Duke-NUS Medical School ²Department of Physiology Yong Loo Lin School of Medicine, National University of Singapore, Singapore ³National Neuroscience Institute
- S3-G-2-2 Thalamo-cortical axons regulate the radial dispersion of neocortical GABAergic interneurons**
 Carlos Ibanez
National University of Singapore
- S3-G-2-3 Roles of synaptic plasticity-related mechanisms in place cell activity in the hippocampus**
 Ayumu Tashiro^{1,2}
¹Warwick-NTU Neuroscience Programme, Sch Biol Sci, Nanyang Technological University, Singapore ²Warwick-NTU Neuroscience Programme, Sch Life Sci, University of Warwick, Coventry, UK
- S3-G-2-4 Multifunctional nanoprobe for amyloid imaging**
 Yang Xia¹, Parasuraman Padmanabhan², Murukeshan Vadakke Matham³, Balázs Gulyás²
¹Lee Kong Chian School of Medicine and School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore ²Lee Kong Chian School of Medicine, Nanyang Technological University ³School of Mechanical and Aerospace Engineering, Nanyang Technological University