

Oral Sessions

Day 1 - Thursday, September 11th

Oral Session O1-G-1

15:00 ~ 16:00 Room G (303)

Visual System 1

Chairpersons : Izumi Ohzawa *Graduate School of Frontier Bioscience, Osaka University, Japan*
 Masao Tachibana *Graduate School of Humanities and Sociology, University of Tokyo Faculty of Letters, Japan*

- O1-G-1-1** **The First Stage of Cardinal Direction Selectivity Is Localized to the Dendrites of Retinal Ganglion Cells**
 Keisuke Yonehara¹, Karl Farrow¹, Alexander Ghanem², Daniel Hillier¹, Kamill Balint^{1,3}, Miguel Teixeira^{1,3}, Josephine Jüttner¹, Masaharu Noda⁴, Rachael L. Neve⁵, Karl-Klaus Conzelmann²
¹Neural Circuit Laboratories, Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland
²Max von Pettenkofer-Institute & Gene Center, Ludwig-Maximilians-University, Munich, Germany ³University of Basel, Basel, Switzerland
⁴Division of Molecular Neurobiology, National Institute for Basic Biology, Okazaki, Aichi, Japan
⁵Viral Gene Transfer Core, Massachusetts Institute of Technology, Cambridge, USA
- O1-G-1-2** **Neural representation for looming stimuli in the retina**
 Hiroshi Ishikane^{1,2,3}, Tsuyoshi Inomata¹, Yachiho Saito¹, Midori Matsuzaki¹
¹Dept Psychol, School of Human Sciences, Senshu Univ, Kanagawa, Japan ²Graduate School of Letters, Senshu Univ, Kanagawa, Japan
³Ctr. for Psychological Science, Inst. for the Develop. of Social Intelligence, Senshu Univ, Kanagawa, Japan
- O1-G-1-3** **Single cell mapping of the neuronal circuitry for the biological clock in the suprachiasmatic nucleus**
 Yi-Ting Chang, Chi-Chan Lee, Shih-Kuo Chen
 Department of Life Science, National Taiwan University, Taiwan
- O1-G-1-4** **Functional dissection of cortical microcircuits**
 Seung-Hee Lee
 Korea Advanced Institute of Science and Technology, Korea

Oral Session O1-G-2

17:00 ~ 18:00 Room G (303)

Visual System 2

Chairpersons : Satoshi Shimegi *Graduate School of Medicine, Osaka University, Japan*
 Hidehiko Komatsu *National Institute for Physiological Sciences, Japan*

- O1-G-2-1** **Functional significance of GABAergic interneuron clusters in the three-dimensional space of the mouse visual cortex**
 Teppei Ebina¹, Kazuhiro Sohya¹, Itaru Imayoshi², Shu-Ting Yin¹, Rui Kimura¹, Yuchio Yanagawa³, Hiroshi Kameda⁴, Hiroyuki Hioki⁴, Takeshi Kaneko⁴, Tadaharu Tsumoto¹
¹Brain Science Inst., RIKEN, Wako, Japan ²The Hakubi Center, Institute for Virus Research, Kyoto University, Kyoto, Japan
³Neurobiology and Behavior, Graduate School of Medicine, Gunma University, Gunma, Japan
⁴Department of Morphological Brain Science, Graduate School of Medicine, Kyoto University, Kyoto, Japan
- O1-G-2-2** **Nonlinear mechanisms for motion-in-depth selectivity in macaque area MT**
 Takahisa M Sanada^{1,2}, Gregory C. Deangelis³
¹National Institute for Physiological Sciences, Aichi, Japan ²The Graduate University for Advanced Studies, Aichi, Japan
³Center for Visual Science, University of Rochester, NY, USA
- O1-G-2-3** **Four-layer statistical learning model of natural images that explains tuning properties in V2 and V4**
 Haruo Hosoya^{1,2}, Aapo Hyvarinen³
¹ATR Computational Neurosci. Lab., Japan ²JST Presto, Japan ³University of Helsinki, Finland
- O1-G-2-4** **A model of depth judgment based on neuronal population responses of macaque area V4 accounts for fine stereopsis**
 Mohammad Abdolrahmani, Takahiro Doi, Hiroshi M. Shiozaki, Ichiro Fujita
 Graduate School of Frontier Biosciences, Osaka University & Center for Information and Neural Networks, Japan

Visual System 3

Chairpersons : Ichiro Fujita *Osaka University, Graduate School of Frontier Biosciences, Japan*
Naoko Inaba *Center for the Promotion of Interdisciplinary Education and Research, Kyoto University, Japan*

- O1-G-3-1 Neural basis of visual motion perception in humans with velocity selectivity studied by fMRI with direction selective adaptation**
Ichiro Kuriki^{1,2}, Yoshiyuki Yamada², Kazumichi Matsumiya^{1,2}, Satoshi Shioiri^{1,2}
¹Research Institute of Electrical Communication, Tohoku University, Japan
²Graduate School of Information Sciences, Tohoku University, Japan
- O1-G-3-2 On-line optical operant conditioning of cortical activity**
Yuya Kanemoto, Michael Hausser
University College London, London, UK
- O1-G-3-3 Probing face selectivity in human inferotemporal cortex with high-resolution fMRI**
Topi Tanskanen, Chien-Hui Tancy Kao, R. Allen Waggoner, Kenichi Ueno, Keiji Tanaka, Kang Tancy Cheng
RIKEN Brain Science Institute, Wakoshi, Saitama, Japan
- O1-G-3-4 Representation of viewpoints at different spatial scales in human occipital face area**
Chienhui Kao¹, Topi Tanskanen¹, Kenichi Ueno², R. Allen Waggoner¹, Keiji Tanaka¹, Kang Cheng^{1,2}
¹Cognitive Brain Mapping, RIKEN Brain Science Institute, Wako, Japan
²Support Unit for Functional Magnetic Resonance Imaging, RIKEN Brain Science Institute, Wako, Japan

Optogenetics and Optical Methods

Chairpersons : Ko Matsui *Division of Interdisciplinary Medical Science, Tohoku University Graduate School of Medicine, Japan*
Kotaro Kimura *Department of Biological Sciences, Osaka University, Japan*

- O1-H-1-1 Programmable wireless LED stimulator for chronic stimulation of optogenetic molecules in freely moving mice**
Mitsuhiro Hashimoto¹, Takaki Miyata¹, Hajime Hirase²
¹Dept Cell Bio, Nagoya Univ, Aichi, Japan ²Lab for Neuron-Glia Circuitry, RIKEN BSI, Saitama, Japan
- O1-H-1-2 Identifying unknown cortico-cortical projection patterns in macaque using optogenetics and optical imaging**
Yu Nakamichi¹, Mitsuhiro Hashimoto², Naohito Kitamura¹, Kei Hagiya¹, Takayuki Sato¹, Manabu Tanifuji¹
¹Lab. for Integrative Neural Systems, RIKEN Brain Science Institute, Japan
²Nagoya University Graduate School of Medicine, Department of Anatomy and Cell Biology, Japan
- O1-H-1-3 High-speed, high-magnification tracking system for monitoring interneuronal activity of freely moving C. elegans**
Yuki Tsukada¹, Xianfeng Fei³, Koichi Hashimoto², Ikue Mori¹
¹Grad Sch of Sci, Nagoya Univ, Aichi, Japan ²Grad Sch of Info Sci, Tohoku Univ, Miyagi, Japan
³Dept Sci and Tech, Tohoku Bunka Gakuen Univ, Miyagi, Japan
- O1-H-1-4 Neuronal mechanisms of decision making in C. elegans olfactory behavior revealed by a highly integrated microscope system**
Yuki Tanimoto¹, Akiko Yamazoe¹, Kosuke Fujita¹, Yuya Kawazoe¹, Yosuke Miyanishi¹, Shuhei J Yamazaki¹, Keiko Gengyo-Ando², Junichi Nakai², Xianfeng Fei³, Yuishi Iwasaki⁴, Koichi Hashimoto⁵, Kotaro Kimura¹
¹Dept. Biol. Sci., Osaka Univ., Osaka, Japan ²Brain Sci. Inst. Saitama Univ. Saitama, Japan
³Dept. Intel. Inf. Syst., Fac. Sci. Tech., Tohoku Bunka Gakuen Univ., Sendai, Japan ⁴Dept. Intel. Syst. Eng. Ibaraki Univ., Ibaraki, Japan
⁵Dept. Syst. Inf. Sci., Tohoku Univ., Sendai, Japan

Oral Session O1-H-2

10:00~11:00 Room H (304)

Neuro Imaging

Chairpersons : Kazuo Kitamura *Department of Neurophysiology, Graduate School of Medicine, The University of Tokyo, Japan*Takeshi Imai *RIKEN Center for Developmental Biology, Japan*

- O1-H-2-1** Correlative histochemistry: a quick and simple method for whole-mount immunohistochemistry and optical clearing of in vivo-imaged neurons
Takeshi Imai^{1,2}, Meng-Tsen Ke¹
¹RIKEN CDB, Kobe, Japan ²JST PRESTO, Japan
- O1-H-2-2** Nonlinear Decoding and Asymmetric Representation of Neuronal Input Information by CaMKII α and Calcineurin
Hajime Fujii¹, Masatoshi Inoue¹, Hiroyuki Okuno², Yoshikazu Sano³, Sayaka Takemoto-Kimura¹, Kazuo Kitamura³, Masanobu Kano³, Haruhiko Bito¹
¹Department of Neurochemistry, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan
²Medical Innovation Center, Graduate School of Medicine, Kyoto University, Kyoto, Japan
³Department of Neurophysiology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan
- O1-H-2-3** Highly sensitive calcium imaging of neural activity in vitro and in vivo with a new fluorescent calcium indicator, Cal-520
Atsuya Takeuchi¹, Mayumi Tada¹, Miki Hashizume², Kazuo Kitamura¹, Masanobu Kano¹
¹Dept Neurophysiol, Univ of Tokyo, Tokyo, Japan
²Dept of Biochemistry, Faculty of Medicine, Saitama Medical University, Saitama, Japan
- O1-H-2-4** Imaging CREB phosphorylation in live mouse brain using split luciferase
Tetsuya Ishimoto, Hiroki Mano, Hisashi Mori
Dept Mol Neurosci, Grad Sch Med Pharm Sci, Univ of Toyama, Toyama, Japan

Oral Session O1-H-3

14:00~15:00 Room H (304)

Noninvasive Measurement and Tracing Methodology

Chairpersons : Katsuei Shibuki *Brain Research Institute, Niigata University, Japan*Yukio Nishimura *Department of Developmental Physiology, Division of Behavioral Development, NATIONAL INSTITUTE for PHYSIOLOGICAL SCIENCES, Japan*

- O1-H-3-1** Visualization and lateralization of the direct frontoparietal connection revealed by TMS and NIRS
Hiroyuki Miyashita, Kuniyoshi L Sakai
Dept. of Basic Sci., Univ. of Tokyo, Japan
- O1-H-3-2** Beyond Response Amplitude - Within- and Between-Subject Reliability in fMRI BOLD Responses
Summit Suen¹, Kayako Matsuo², Michelle Liou¹
¹Institute of Statistical Science, Academia Sinica, Taipei, Taiwan ²Hamamatsu University School of Medicine, Shizuoka, Japan
- O1-H-3-3** Predictive multidimensional markers of preterm infants' developmental delay based on brain MRI, hematology and neonatological diagnosis
Mamiko Koshiba^{1,3}, Hiroko Kakei^{1,2,3}, Genta Karino¹, Masanori Shukuya⁴, Hirohisa Kishino⁵, Shun Nakamura², Makoto Komura¹, Tetsuya Kunikata¹, Hideo Yamanouchi¹
¹Saitama Med Univ., Japan ²Tokyo Univ A&T, Tokyo, Japan ³NCNP, Tokyo, Japan ⁴Tokyo City Univ, Japan ⁵Tokyo Univ, Japan
- O1-H-3-4** Three orthogonal Gate-Tag vectors for pathway-specific gene transfer in the mammalian brain
Makoto Matsuyama^{1,2}, Yohei Ohashi¹, Tadashi Tsubota¹, Masae Yaguchi¹, Kaori Mamada¹, Shigeki Kato³, Kazuto Kobayashi³, Yasushi Miyashita¹
¹Dept. of Physiol., Univ. of Tokyo Sch. of Med., Tokyo, Japan ²JSPS Research Fellow, Tokyo, Japan
³Dept. of Molecular Genetics, Inst. of Biomedical Sciences, Fukushima Med. Univ., Fukushima, Japan

Oral Session O1-H-4

15:00~16:00 Room H (304)

Cerebellum/Basal Ganglia

Chairpersons : Yasushi Kobayashi *Osaka University, Japan*Takatoshi Hikida *Medical Innovation Center, Kyoto University Graduate School of Medicine, Japan*

- O1-H-4-1** Functional regionalization of the teleost cerebellum analyzed in vivo
Hideaki Matsui^{1,2}, Kazuhiko Namikawa², Andreas Babaryka², Reinhard Köster²
¹Department of Neuroscience, University of Miyazaki, Japan
²Dept Cellular and Molecular Neurobiology, Technical University Braunschweig, Braunschweig, Germany

- O1-H-4-2** Withdrawn
- O1-H-4-3** **Neuronal activity in the motor thalamus of Parkinsonian rats**
Kouchi Nakamura¹, Andrew Sharott², Nicolas Mallet², Magill J. Peter²
¹Dept Morphol Brain Sci, Grad Sch Med, Kyoto Univ, Kyoto, Japan ²MRC Anatomical Neuropharmacology Unit, Univ Oxford, Oxford, UK
- O1-H-4-4** **Anti-Parkinsonian drugs and the motor cortical plasticity induced by quadri-pulse magnetic stimulation (QPS)**
Ritsuko Hanajima¹, Nobuyuki Tanaka², Ryosuke Tsutsumi¹, Takahiro Shimizu², Yasuo Terao², Hiroyuki Enomoto³, Yoshikazu Ugawa³
¹Dept Neurol, Kitasato Univ School of Med, Kanagawa, Japan ²Dept Neurol, Univ of Tokyo, Graduate school of med, Tokyo, Japan ³Dept Neurol, Fukushima Med Univ, Fukushima, Japan

Oral Session O1-H-5

17:00 ~ 18:00 Room H (304)

Oculomotor System

Chairpersons : Yuriko Sugiuchi *Department of Systems Neurophysiology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Japan*
Yoshiko Izawa *Department of Systems Neurophysiology, Tokyo Medical and Dental University, Japan*

- O1-H-5-1** **Separation of fixation micro-eye movement from micro-head motion using the video-oculogram method**
Yasuto Tanaka¹, Hiroyuki Fujie², Satoshi Shimegi³
¹Neuro-Mathematics Laboratory, Japan ²Development Section, Paris-Miki Inc., Himeji, Japan ³Dept Medicine, Univ of Osaka, Osaka, Japan
- O1-H-5-2** **Neural mechanism underlying Listing's law in saccadic eye movements**
Mayu Takahashi, Yuriko Sugiuchi, Yoshikazu Shinoda
Tokyo Medical and Dental University, Japan
- O1-H-5-3** **Anti-saccade signals in the primate cerebellar dentate nucleus**
Jun Kunimatsu, Tomoki Suzuki, Masaki Tanaka
Dept. of Physiology, Hokkaido Univ. School of Medicine, Sapporo, Japan
- O1-H-5-4** **Fixational-saccade related activity of pedunculo-pontine tegmental nucleus neurons in monkeys**
Yasushi Kobayashi^{1,2,3}, Ken-ichi Okada^{1,2}
¹Lab of Neuroscience, Grad Sch of Frontier Biosci., Osaka Univ, Suita, Japan
²Center for Information and Neural Networks, National Institute of Information and Communications Technology, Suita, Japan
³Osaka University Research Center for Behavioral Economics, Suita, Japan

Oral Session O1-H-6

18:00 ~ 19:00 Room H (304)

Sensorimotor Control

Chairpersons : Takashi Hanakawa *Department of Advanced Neuroimaging, Integrative Brain Imaging Center, National Center of Neurology and Psychiatry, Japan*
Kaoru Takakusaki *Asahikawa Medical University, The Center for Brain Function and Medical Engineering, Japan*

- O1-H-6-1** **A novel method, time- and cell-specific RNAi, revealed the function of Ras in neurons regulating exploratory behavior**
Masayuki Hamakawa¹, Yuichi Iino², Takaaki Hirotsu^{1,3}
¹Graduate School of Systems Life Sciences Kyushu University, Japan
²Department of Biophysics and Biochemistry, Graduate School of Science, The University of Tokyo, Japan
³Department of Biology, Graduate School of Sciences, Kyushu University, Japan
- O1-H-6-2** **Exploring the Activity of Fusimotor Neurons in Man**
Naoyuki Kakuda¹, Genki Futatsubashi², Kouji Watanabe³, Toshiyuki Fukushima³, Yasuko Hayashi³, Masanori Nagaoka³
¹Dept of Neurol, Higashiyamato Hospital, Japan ²Faculty of Business and Information Sciences, Jobu Univ, Japan
³Dept Rehab, Juntendo Univ Graduate School of Medicine, Japan
- O1-H-6-3** **Spinal interneuronal organization involved in the control of postural muscle tone in the cat**
Kaoru Takakusaki¹, Ryosuke Chiba¹, Tsukasa Nozu², Toshikatsu Okumura³
¹Res Ctr for Brain Funct. & Med. Eng., Asahikawa Med. Univ., Asahikawa, Japan
²Dept Regional Med and Edu, Asahikawa Med Univ, Asahikawa, Japan ³Dept Gen Med, Asahikawa Med Univ, Asahikawa, Japan
- O1-H-6-4** **Asymmetric connectivity between motor cortex and cervical spinal cord during unilateral finger opposition tasks: simultaneous functional magnetic resonance imaging of brain and spinal cord**
Eiji Takasawa^{1,2,3}, Mitsunari Abe³, Yousuke Ogata², Hitoshi Shitara¹, Haku Iizuka¹, Manabu Honda³, Kenji Takagishi¹, Takashi Hanakawa²
¹Dept Orthop, Gunma University, Gunma, Japan ²IBIC, NCNP, Tokyo, Japan ³DFBR, NIN, NCNP, Tokyo, Japan

Oral Session O1-I-1

9:00~10:00 Room I (311+312)

Polyglutamine Diseases, ALS, SCD, Other Neurodegenerative Disorder 1

Chairpersons : Shinji Hadano *Department of Molecular Life Sciences, Tokai University School of Medicine, Japan*
Osamu Onodera *Brain Research Institute, Niigata University, Japan*

- O1-I-1-1** Loss of p62/SQSTM1, an autophagy substrate, aggravates motor dysfunction in a SOD1^{H46R}-expressing mouse ALS model
Shinji Hadano¹, Lei Pan¹, Asako Otomo¹, Koichiro Abe¹, Masato Koike², Yasuo Uchiyama², Masashi Aoki³, Tetsuro Ishii⁴, Toru Yanagawa⁴, Hui-Fang Shang⁵, Fumihito Yoshii⁶
¹Dept Mol Life Sci, Tokai Univ Sch of Med, Kanagawa, Japan ²Juntendo Univ Grad Sch of Med, Tokyo, Japan
³Tohoku Univ Grade Sch of Med, Miyagi, Japan ⁴Univ of Tsukuba, Ibaraki, Japan ⁵Sichuan Univ, Chengdu, China
⁶Tokai Univ Sch of Med, Kanagawa, Japan
- O1-I-1-2** Identification of target mRNA transported to axons by TDP-43
Seiichi Nagano¹, Sachiko Hirokawa², Masatoyo Nishizawa³, Kenji Sakimura⁴, Osamu Onodera², Toshiyuki Araki¹
¹Dept PNS Research, Natl Inst of Neuroscience, NCNP, Tokyo, Japan
²Dept Molecular Neuroscience, Brain Research Inst, Niigata Univ, Niigata, Japan
³Dept Neurology, Brain Research Inst, Niigata Univ, Niigata, Japan
⁴Dept Cellular Neurobiology, Brain Research Inst, Niigata Univ, Niigata, Japan
- O1-I-1-3** Quality loss of FUS and SFPQ in the nucleus causes FTL-like behavioral abnormalities by modulating Tau isoforms
Shinsuke Ishigaki¹, Yusuke Fujioka¹, Tsuyoshi Udagawa¹, Daiyu Honda¹, Satoshi Yokoi¹, Masahisa Katsuno¹, Haruo Okado², Gen Sobue¹
¹Department of Neurology, Nagoya University, Graduate School of Medicine, Japan
²Department of Brain Development and Neural Regeneration, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan
- O1-I-1-4** Investigating the role of UBQLN2 in the molecular pathogenesis of amyotrophic lateral sclerosis and frontal temporal dementia
Eiko Minakawa¹, Lisa M. Sharkey², Kai-Chun Chen², Matthew Thayer², Joseph Lyons², Keiji Wada¹, Yoshitaka Nagai¹, Henry L. Paulson¹
¹Dept Degenerative Neurological Diseases, Natl Inst Neurosci, NCNP, Tokyo, Japan ²Dept Neurol, Univ Michigan, Ann Arbor, USA

Oral Session O1-I-2

10:00~11:00 Room I (311+312)

Polyglutamine Diseases, ALS, SCD, Other Neurodegenerative Disorder 2

Chairpersons : Shigeru Yanagi *Laboratory of Molecular Biochemistry, School of Life Sciences, Tokyo University of Pharmacy and Life Sciences, Japan*
Hidemi Misawa *Department of Pharmacology, Faculty of Pharmacy, Keio University, Japan*

- O1-I-2-1** Osteopontin Serves as a Marker for Discriminating Alpha Motor Neuron Subtypes in the Mouse Spinal Cord
Yuta Morisaki¹, Atsushi Tsubota¹, Yasuhiro Moriwaki¹, Takashi Okuda¹, Koji Yamanaka², Hidemi Misawa¹
¹Dept Pharmacol, Keio Univ. Fac. Pharm., Tokyo, Japan
²Dept Neuroscience and Pathology, Research Institute of Environmental Medicine, Nagoya Univ., Aichi, Japan
- O1-I-2-2** Spatiotemporal alteration of phosphatidylcholines in a mouse model of amyotrophic lateral sclerosis
Hideyuki Arima¹, Takao Omura¹, Takahiro Hayasaka², Noritaka Masaki², Mitsuru Hanada¹, Tomohiro Banno¹, Dongmin Xu¹, Tomohiko Hasegawa¹, Kazuyoshi Kobayashi^{3,4}, Hideyuki Takeuchi⁵, Kenji Kadomatsu⁴, Yukihiko Matsuyama¹, Mitsutoshi Setou²
¹Department of Orthopaedic surgery, Hamamatsu University School of Medicine, Japan
²Dept Cell Biology and Anatomy, Hamamatsu University School of Medicine, Shizuoka, Japan
³Dept Orthopedic Surgery, Nagoya University Graduate School of Medicine, Aichi, Japan
⁴Dept Biochemistry, Nagoya University Graduate School of Medicine, Aichi, Japan
⁵Research Institute of Environmental Medicine Nagoya University, Aichi, Japan
- O1-I-2-3** Expanded UGGAA repeat RNA associated with SCA31 causes progressive neurodegeneration in *Drosophila*
Taro Ishiguro^{1,2}, Nobuhiro Fujikake², Nozomu Sato¹, Keiji Wada², Hidehiro Mizusawa^{1,3}, Yoshitaka Nagai², Kinya Ishikawa¹
¹Department of Neurology and Neurological science., Tokyo Medical and Dental University, Japan
²Dept. of Degenerative Neurolog. Dis., Natl. Inst. of Neuroscience, Natl. Ctr. of Neurol. and Psychiatry, Tokyo, Japan
³Natl. Ctr. of Neurol. and Psychiatry, Tokyo, Japan
- O1-I-2-4** CRAG enhances neuronal cell survival through SRF activation
Shigeru Yanagi, Toshifumi Fukuda, Ryoko Inatome, Shun Nagashima
Sch of Life Sci, Tokyo Univ of Pharm and Life Sci, Tokyo, Japan

Oral Session O1-I-3

14:00~15:00 Room I (311+312)

Alzheimer's Disease, Other Dementia, Aging 1

Chairpersons : Takatoshi Ueki *Department of Functional Anatomy, Nagoya City University Graduate School of Medical Sciences, Japan*

Jun C. Takahashi *Department of Neurosurgery, National Cerebral and Cardiovascular Center, Japan*

- O1-I-3-1** **Increased BDNF levels and improved spatial learning in mice after the treatment with Neurotrophin®**
Hiroji Yanamoto¹, Yukako Nakajo^{1,3}, Jun C Takahashi⁴
¹National Cerebral and Cardiovascular Research Center, Suita, Japan
²Dept of Cardiovascular Science, Div of Surgical Med, Osaka Univ, Suita, Japan ³Rakuwakai Otowa Hosp, Research Laboratories, Japan
⁴Dept of Neurosurgery, National Cerebral and Cardiovascular Center, Japan
- O1-I-3-2** **Differences in the densities of $\alpha 4 \beta 2$ and $\alpha 7$ nicotinic acetylcholine receptors in the living human brain**
Yasuomi Ouchi¹, Tatsuhiro Terada¹, Kyoko Nakaizumi², Etsuji Yoshikawa³, Akihiro Kakimoto³, Takashi Isobe³, Iori Suzuki³, Takatoshi Ueki⁴, Yasuhiro Magata⁵
¹Dept Biofunct Imaging, Med Photon Res Ctr, Hamamatsu Univ Sch Med, Japan ²Dept Psychiat, Hamamatsu Univ Sch Med, Japan
³Hamamatsu Photonics KK, Japan ⁴Dept Neuroanat, Hamamatsu Univ Sch Med, Japan
⁵Dept Mol Imaging, Med Photon Res Ctr, Hamamatsu Univ Sch Med, Japan
- O1-I-3-3** **Oxidative stress induced DNA damage and compromised antioxidant enzyme activity links obesity and accelerated aging in WNIN/Ob obese rats**
Jitendra K. Sinha¹, Shampa Ghosh¹, Umakanta Swain², Manchala Raghunath¹
¹Indian Council of Medical Research, National Institute of Nutrition, Hyderabad, India
²Jawaharlal Nehru Technological University (JNTU), Hyderabad, India
- O1-I-3-4** **Amyloid deposits and response to shunt therapy in idiopathic normal-pressure hydrocephalus**
Kotaro Hiraoka¹, Wataru Narita², Hirokazu Kikuchi², Toru Baba², Shigenori Kanno², Osamu Iizuka², Manabu Tashiro¹, Nobuyuki Okamura³, Katsutoshi Furukawa⁴, Hiroyuki Arai⁴, Ren Iwata⁵, Kazuhiko Yanai³
¹Division of Cyclotron Nuclear Medicine Cyclotron and Radioisotope Center, Tohoku University, Japan
²Department of Behavioral Neurology and Cognitive Neuroscience, Tohoku University Graduate School of Medicine, Japan
³Department of Pharmacology, Tohoku University Graduate School of Medicine, Japan
⁴Department of Geriatrics and Gerontology, Institute of Development, Aging and Cancer, Tohoku University, Japan
⁵Division of Radiopharmaceutical Chemistry, Cyclotron and Radioisotope Center, Tohoku University, Japan

Oral Session O1-I-4

15:00~16:00 Room I (311+312)

Alzheimer's Disease, Other Dementia, Aging 2

Chairpersons : Maki K. Yamada *Department of Physiological Chemistry and Metabolism, Graduate School of Medicine, The University of Tokyo, Japan*

Masaki Nishimura *Moleculer Neuroscience Research Center, Shiga University of Medical Science, Japan*

- O1-I-4-1** **Diosgenin-induced cognitive enhancement in normal mice is mediated by 1,25D₃-MARRS**
Chihiro Tohda¹, Young-A Lee², Yukiori Goto², Ilka Nemere³
¹Div Neuromedical Science, Inst Natural Med, Univ of Toyama, Japan
²Cognition and Learning Sec, Primate Research Inst, Kyoto Univ, Japan
³Dept Nutrition, Dietetics, and Food Sciences, Utah State Univ, Logan, US
- O1-I-4-2** **The effect of Dcr3 on modulating microglia activation phenotypes and cognitive functions in Alzheimer's disease animal model**
Irene Cheng, Yi-Ling Liu
National Yang Ming University, Taiwan
- O1-I-4-3** **DR improves memory impairment in Alzheimer's disease model mice, 5xFAD, and attenuates amyloid β -induced axonal atrophy**
Zhiyou Yang, Tomoharu Kuboyama, Chihiro Tohda
Div. of Neuromedical Sci., Institute of Natural Medicine, Univ. of Toyama, Toyama, Japan
- O1-I-4-4** **ILEI reduces amyloid- β generation by destabilizing APP-C99**
Lei Liu¹, Hiroshi Hasegawa¹, Ikuo Tooyama¹, Shigeo Murayama², Masaki Nishimura¹
¹Mol Neurosci Res Cent, Shiga Univ of Med Sci, Shiga, Japan ²Dept of Neuropathol, Tokyo Met Inst of Gerontol, Tokyo, Japan

Oral Session O1-I-5

17:00~18:00 Room I (311+312)

Neuronal Death and Neuroprotection

Chairpersons : Hideo Kimura *Department of Molecular Pharmacology, National Institute of Neuroscience, NCNP, Japan*
 Yuki Ogasawara *Department of Analytical Biochemistry, Meiji Pharmaceutical University, Japan*

- O1-I-5-1** The regulation of H₂S production and its role in the retina
 Hideo Kimura¹, Yoshinori Mikami^{1,5}, Norihiro Shibuya¹, Yuka Kimura¹, Yuki Ogasawara², Noriyuki Nagahara³, Masahiro Yamada⁴
¹Natl Inst. of Neurosci., NCNP, Japan ²Meiji Pharm. Univ. Tokyo, Japan ³Nippon Medical School, Tokyo, Japan
⁴Saitama Medical School, Saitama, Japan ⁵Tokyo Univ. Tokyo, Japan
- O1-I-5-2** A Novel Pathway for the Production of Hydrogen Sulfide from D-Cysteine in Mammalian Cells
 Norihiro Shibuya¹, Shin Koike², Makiko Tanaka¹, Mari Ishigami-Yuasa¹, Yuka Kimura¹, Yuki Ogasawara², Kiyoshi Fukui³, Noriyuki Nagahara⁴, Hideo Kimura¹
¹Dept Mol Pharm, Natl Inst Neurosci, NCNP, Tokyo, Japan ²Dept Anal Chem, Meiji Pharm Univ, Tokyo, Japan
³Inst Enzyme Res, Univ of Tokushima, Tokushima, Japan ⁴Isotope Res Center, Nippon Med Sch, Tokyo, Japan
- O1-I-5-3** Prosurvival signals including Ca²⁺ regulation mediated by PDGF protect neurons from oxidative stress
 Yoko Ishii¹, Lian-Shun Zheng^{1,3}, Qing-Li Zhao², Takashi Kondo², Masakiyo Sasahara¹
¹Dept Pathology, Univ of Toyama, Toyama, Japan ²Dept Radiological Sciences, Univ of Toyama, Toyama, Japan
³Institute of Anatomy and Cell Biology, Univ of Zhejiang, Zhejiang, China
- O1-I-5-4** Edaravone, a radical scavenger, may behave as a prooxidant
 Osamu Tokumar¹, Yachiko Shuto¹, Kazue Ogata¹, Takaaki Kitano², Isao Yokoi¹
¹Dept Neurophysiol, Oita Univ Fac Med, Oita, Japan ²Med Edu Cntr, Oita Univ Fac Med, Oita, Japan

Oral Session O1-I-6

18:00~19:00 Room I (311+312)

Neuronal Death and Neurodegeneration

Chairpersons : Hitoshi Okazawa *Tokyo Medical and Dental University, Japan*
 Kazuhiko Watabe *ALS/Neuropathy Project, Tokyo Metropolitan Institute of Medical Science, Japan*

- O1-I-6-1** Endosomal SNAREs (vti1a/vti1b) double knockout mice show significant neuronal degeneration in central as well as peripheral nervous system
 Ajaya J Kunwar^{1,2}, M. Rickmann², G. Fv Mollard², K. Kriegstein³
¹Dept. of Anatomy, Nepalese Army Institute of Health Sciences - COM, Sanobharyang, Kathmandu, Nepal
²Dept. of Anatomy/Neuroanatomy, Uni. Goettingen, Goettingen, Germany
³Dept. of Anatomy/Mol. Embryology, Uni. Freiburg, Freiburg, Germany
- O1-I-6-2** Schwann cells affect neurodegeneration in transthyretin amyloidosis
 Tatsufumi Murakami¹, Kazunori Sango², Kazuhiko Watabe², Naoko Niimi², Shizuka Takaku², Zhenghua Li³, Ken-ichi Yamamura³, Yoshihide Sunada¹
¹Kawasaki Medical School, Japan ²Dept of Sensory and Motor Systems, Tokyo Metropolitan Inst of Med Sci, Tokyo, Japan
³Div of Developmental Genetics, Inst of Resource Development and Analysis, Kumamoto Univ, Kumamoto, Japan
- O1-I-6-3** Mitochondrial fusion and fission proteins expression dynamically change in a murine model of transient ischemic mouse
 Kosuke Matsuzono, Wentao Liu, Nozomi Hishikawa, Toru Yamashita, Kentaro Deguchi, Koji Abe
 Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical science, Japan
- O1-I-6-4** An anti-HSP70 antibody, a marker of brain ischemia, induced neuronal cell death via H₂O₂
 Tatsuro Yagami, Yasuhiro Yamamoto, Hiromi Koma, Eisuke Ohta
 Himeji Dokkyo University, Japan

Oral Session O1-J-1

9:00~10:00 Room J (313+314)

Drug Development and Neuroprotection

Chairpersons : Hanako Ohashi-Ikeda *Institute for Advancement of Clinical and Translational Science, Kyoto University Hospital, Japan*
 Chihiro Tohda *Division of Neuromedical Science, Institute of Natural Medicine, University of Toyama, Japan*

- O1-J-1-1** The recovery of motor function by a crude drug and its active constituent in spinal cord injured mice
 Norio Tanabe¹, Tomoharu Kuboyama¹, Kohei Kazuma², Katsuhiro Konno², Chihiro Tohda¹
¹Div. of Neuromedical Science, Inst. of Natural Medicine, Univ. of Toyama, Toyama, Japan
²Div. of Kampo-Pharmaceutics, Inst. of Natural Medicine, Univ. of Toyama, Toyama, Japan

- 01-J-1-2** Connecting dots from identification, expression and interaction of estrogen receptor β interacting proteins in the brain: provide hint for drug targeting
Vijay Paramanik¹, Mahendra K Thakur²
¹Indira Gandhi National Tribal University, Amarkantak (MP), India ²Banaras Hindu University, Varanasi, India
- 01-J-1-3** H₂S-derived polysulfides are potential signaling molecules that activate TRPA1 channels in rat brain
Yuka Kimura¹, Yoshinori Mikami², Kimiko Osumi¹, Mamiko Tsugane³, Jun-ichiro Oka⁴
¹Dept Mol Pharmacol, National Inst Neuroscience, NCNP, Tokyo, Japan ²Dept Pharmacol, Grad Sch Med, Univ of Tokyo, Tokyo, Japan
³Fclty Sci Eng, Chuo Univ, Tokyo, Japan ⁴Dept Pharmacy, Tokyo Univ of Sci, Chiba, Japan
- 01-J-1-4** Enhancing brain repair potential in kainic acid-degenerated hippocampus by pluripotency inducers
Sareh Asadi, Samaneh Dehghan, Mohammad Javan
Tarbiat Modares University, Iran

Oral Session O1-J-2

10:00 ~ 11:00 Room J (313+314)

Pain

Chairpersons : Takayuki Nakagawa *Department of Clinical Pharmacology and Therapeutics, Kyoto University Hospital, Japan*
Emiko Suzuki *Structural biology Center, National Institute of Genetics, Japan*

- 01-J-2-1** Involvement of TRPA1 activation through oxidative modification in oxaliplatin-induced acute peripheral neuropathy
Saki Nakamura¹, Meng Zhao¹, Takahito Miyake¹, Satoshi Hamano², Nobuaki Takahashi², Hisashi Shirakawa¹, Takayuki Nakagawa^{1,3}, Yasuo Mori², Shuji Kaneko¹
¹Dept. Mol. Pharmacol., Grad. Sch. Pharmaseu. Sci., Kyoto Univ., Kyoto, Japan
²Dept. Synth. Chem. and Biol. Chem., Grad. Sch. of Engineer., Kyoto Univ., Kyoto, Japan
³Dept. Clin. Pharmacol. Ther., Kyoto Univ. Hosp., Kyoto, Japan
- 01-J-2-2** The ubiquitin proteasome system negatively regulates BMP signaling to inhibit nociceptors in *Drosophila*
Ken Honjo¹, Emiko Suzuki¹, Dan Tracey²
¹National Institute of Genetics, Japan
²Department of Anesthesiology, Cell Biology, Neurobiology, Duke University Medical Center, Durham, USA
- 01-J-2-3** Connectivity between dorsal anterior cingulate cortex and right insula correlated with subjective pain ratings during cognitive modulation of acute pain
Epifanio Bagarinao^{1,2}, Heather Chapin², Sean Mackey²
¹Brain and Mind Research Center, Nagoya University, Nagoya City, Japan
²Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine, Palo Alto, California, US
- 01-J-2-4** Intrathecal Administration of NMDA Activates Spinal Microglia and Production of Cytokines in Rats
Li Li¹, Shan Ji², Yong Wang², Wenbin Li²
¹Dept Sci & Tech, The Second Hospital of Hebei Medical University, Shijiazhuang, China ²Hebei Medical University, China

Oral Session O1-J-3

14:00 ~ 15:00 Room J (313+314)

Ion Channels and Excitable Membranes

Chairpersons : Kouichi Hashimoto *Department of Neurophysiology, Hiroshima University, Japan*
Iwao Fukui *Physiology & Neurobiology, Faculty of Medicine, Kyoto University, Japan*

- 01-J-3-1** Peptide hormone ghrelin enhances neuronal excitability by inhibition of Kv7/KCNQ channels
Limin Shi
Department of Physiology, Shandong Provincial Key Laboratory of Pathogenesis and Prevention of Neurological Disorders and State Key Disciplines: Physiology, Medical College of Qingdao University, China
- 01-J-3-2** PIP2 regulation on the pharmacological selectivity and gating of KCNQ channels
Pingzheng Zhou¹, Haiibo Yu², Min Gu¹, Fajun Nan¹, Zhaobing Gao¹, Min Li²
¹State Key Laboratory of Drug Research and Chinese National Drug Screening Center, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, China
²The Solomon H. Snyder Department of Neuroscience and High Throughput Biology Center, The Johns Hopkins University School of Medicine, Baltimore, MD, USA
- 01-J-3-3** Molecular mechanisms for LGI1 mutation-related epilepsy and new strategy for human epilepsy
Norihiro Yokoi¹, Yuko Fukata¹, Daisuke Kase², Taisuke Miyazaki³, Jaegle Martine⁴, Keiji Imoto², Meijer Dies⁴, Masahiko Watanabe³, Masaki Fukata¹
¹Dept Cell Physiol, Natl Inst Physiol Sci, Aichi, Japan ²Dept Information Physiol, Natl Inst Physiol Sci, Aichi, Japan
³Dept Anat, Hokkaido Univ, Hokkaido, Japan ⁴Dept Cell Biol and Genet, Erasmus Univ, Rotterdam, The Netherlands

O1-J-3-4 Temperature elevation in epileptogenic zone accelerates epilepsyKoji Shibasaki¹, Makoto Tominaga², Yasuki Ishizaki¹¹Dept Mol Cell Neurobiology, Gunma Univ Grad Sch Medicine, Maebashi, Japan ²Okazaki Inst Integrative Biosci, Okazaki, Japan**Oral Session O1-J-4****15:00 ~ 16:00 Room J (313+314)****Glia**Chairpersons : Schuichi Koizumi *Department of Neuropharmacology, Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, Japan*Makoto Tsuda *Department of Life Innovation, Graduate School of Pharmaceutical Sciences, Kyushu University, Japan***O1-J-4-1 In vivo expression of the Arf6 guanine-nucleotide exchange factor cytohesin-1 in mice exhibits enhanced myelin thickness in nerves**Tomohiro Torii¹, Yuki Miyamoto¹, Akito Tanoue¹, Junji Yamauchi^{1,2}¹NICHD, Tokyo, Japan ²TMDU, Tokyo, Japan**O1-J-4-2 Fosb gene products contribute to excitotoxic microglial activation by regulating the expression of complement C5a receptors in microglia**Hiroko Nomaru¹, Kunihiro Sakumi^{1,2}, Atsuhisa Katogi¹, Daisuke Tsuchimoto^{1,2}, Yusaku Nakabeppu^{1,2}¹Div. of Neurofunc. Genomics, Med. Inst. Bioreg., Kyushu Univ., Fukuoka, Japan²Research Center for Nucleotide Pool, Kyushu Univ., Fukuoka, Japan**O1-J-4-3 PDGFR- α inactivation induces maturation of OPCs and recruitment and transdifferentiation of MSCs into OPCs**Masakiyo Sasahara¹, Chung Thanh Dang¹, Yoko Ishii¹, Takeru Hamashima¹, Seiji Yamamoto¹, Noriaki Ohkawa^{2,3}, Yoshito Saitoh^{2,3}, Kaoru Inokuchi^{2,3}, Hisashi Mori⁴¹Dept Pathol, Univ of Toyama, Toyama, Japan ²Dept Biochem, Univ of Toyama, Toyama, Japan ³CREST, Japan⁴Dept Mol Neurosci, Univ of Toyama, Toyama, Japan**O1-J-4-4 Involvement of TRPC channels in sphingosine-1-phosphate-induced astrocytic responses**Rumi Katsumoto¹, Hisashi Shirakawa¹, Takuya Nagashima¹, Takayuki Nakagawa^{1,2}, Shuji Kaneko¹¹Dept Mol Pharm, Kyoto Univ, Kyoto, Japan ²Dept Clin Pharmacol Ther, Kyoto Univ Hosp, Kyoto, Japan**Oral Session O1-J-5****17:00 ~ 18:15 Room J (313+314)****Stem Cells, Neuronal and Glial Production/Differentiation 1**Chairpersons : Toshiyuki Ohtsuka *Department of Cell Biology, Institute for Virus Research, Kyoto University, Japan*Carina Hanashima *RIKEN Center for Developmental Biology, Japan***O1-J-5-1 Cell division style of radial glia as revealed by adenovirus transduction in NeuroD6-Cre knock-in mouse**

Nobuaki Tamamaki

*Dept. of Morphol. Neural Sci., Kumamoto Univ. Grad. Sch. of Med. Scis., Japan***O1-J-5-2 Molecular mechanisms underlying the origin of the neocortex**

Takuma Kumamoto, Carina Hanashima

*RIKEN Center for Developmental Biology, Japan***O1-J-5-3 Evolution of basal progenitors in mammalian and non-mammalian pallium**Tadashi Nomura^{1,5}, Wataru Yamashita², Federico Calegari³, Yasunori Murakami⁴¹Dept of Biology, Kyoto Pref Univ Med, Japan ²Grd Sch of Sci, Kyoto University, Japan³Center for Regenerative Therapies Dresden, Germany ⁴Grd Sch of Sci, Ehime University, Japan ⁵JST.PRESTO, Japan**O1-J-5-4 A mechanism that controls "the pace of neurogenesis" through Notch signaling in the developing cerebral cortex**

Jun Hatakeyama, Kenji Shimamura

*Department of Brain Morphogenesis, Institute of Molecular Embryology and Genetics, Kumamoto University, Kumamoto, Japan***O1-J-5-5 Mathematical modeling and genetic analysis of the wave of differentiation in the Drosophila visual center**Makoto Sato¹, Takashi Miura², Masaharu Nagayama³¹Brain Liver Interface Medicine Research Center, Kanazawa Univ, Japan ²Grad Sch Med Sci, Kyushu Univ, Japan³Res Inst Elect Sci, Hokkaido Univ, Japan

Gene Expression and Translational Regulation

Chairpersons : Hiroyuki Okuno *Medical Innovation Center, Kyoto University Graduate School of Medicine, Japan*
Ryuichi Shigemoto *IST Austria, Austria*

O1-J-6-1 Purkinje neuron transcriptome at subcellular resolution

Thomas Launey¹, Anton Kratz², Pascal Beguin¹, Megumi Kaneko¹, Takahiko Chimura¹, Ana Maria Suzuki², Atsuko Matsunaga¹, Sachi Kato², Nicolas Bertin², Timo Lassmann², Réjan Vigot¹, Piero Carninci¹, Charles Plessy²

¹Launey Research Unit, Brain Sci.Inst., RIKEN, Wako-shi, Japan

²RIKEN Center for Life Science Technologies, Division of Genomic Technologies, Yokohama, Japan

O1-J-6-2 High resolution analysis of presynaptic protein localizations in the parallel fiber-Purkinje cell synapses

Ryuichi Shigemoto¹, Kaoru Beppu², Ko Matsui², Masahiko Watanabe³, Hirokazu Sakamoto⁴, Shigeyuki Namiki⁴, Kenzo Hirose⁴, Harumi Harada¹

¹IST Austria, Austria ²Tohoku University Graduate School of Medicine, Japan ³Hokkaido University School of Medicine, Japan

⁴The University of Tokyo, Graduate School of Medicine, Japan

O1-J-6-3 Plasticity in the suprachiasmatic nucleus lies in individual neurons

Jihwan Myung, Toru Takumi

RIKEN Brain Science Institute, Japan

Oral Session O2-H-1

9:00 ~ 10:00 Room H (304)

Sleep and Biological Rhythms

Chairpersons : Kazuhiro Yagita *Department of Physiology and Systems Bioscience, Kyoto Prefectural University of Medicine, Japan*
 Takefumi Hitomi *Department of Clinical Laboratory Medicine, Kyoto University, Graduate school of Medicine, Japan*

O2-H-1-1 Salt-inducible kinase 3 regulates circadian clocks in mice by destabilization of PER2 protein

Naoto Hayasaka^{1,2,3}, Yuka Miyoshi³, Arisa Hirano⁴, Isao T. Tokuda⁵, Yoshitaka Fukada⁴

¹Dept Funct Anatomy, Yamaguchi Univ Med School, Yamaguchi, Japan ²PRESTO, JST, Saitama, Japan

³Dept Anatomy, Kinki Univ, Osaka, Japan ⁴Dept Biophysics Biochem, Univ of Tokyo, Tokyo, Japan

⁵Dept Mechanical Engineering, Ritsumeikan Univ, Shiga, Japan

O2-H-1-2 Identification of a single nucleotide substitution specific to the Sleepy mutant mouse pedigree by linkage analysis and whole exome sequencing

Hiromasa Funato^{1,2}, Chika Miyoshi¹, Makito Sato³, Aya Ikkyu¹, Noriko Hotta¹, Miyo Kakizaki¹, Satomi Kanno¹, Kanako Harano¹, Fuyuki Asano¹, Tomoyuki Fujiyama¹, Tomohiro Suzuki⁴, Shigeharu Wakana⁴, Masashi Yanagisawa^{1,3,5}

¹WPI-III, Univ of Tsukuba, Ibaraki, Japan ²Dept Anatomy, Toho Univ, Tokyo, Japan

³Dept Mol Genetics, Univ Texas Southwestern Medical Center at Dallas, Texas, USA

⁴Technology and Development Team for Mouse Phenotype Analysis, Japan Mouse Clinic, RIKEN BioResource Center, Ibaraki, Japan

⁵Howard Hughes Medical Institute, USA

O2-H-1-3 Dynamic modulation of inter-areal neuronal integrity during sleep: evidence from high frequency activities induced by direct cortical stimulation in human

Kiyohide Usami^{1,2}, Riki Matsumoto^{1,3}, Takefumi Hitomi⁴, Katsuya Kobayashi¹, Akihiro Shimotake¹, Takayuki Kikuchi⁵, Takeharu Kunieda⁵, Nobuhiro Mikuni^{5,6}, Susumu Miyamoto⁵, Hidenao Fukuyama⁷, Ryosuke Takahashi¹, Akio Ikeda^{1,3}

¹Dept Neurol, Kyoto Univ, Kyoto, Japan ²Dept Neurol, Rakuwakai Otowa HP, Kyoto, Japan

³Dept Epilepsy, Movement Disorders and Physiology, Kyoto Univ, Kyoto, Japan

⁴Dept Resp Care Sleep Ctrl Med, Kyoto Univ, Kyoto, Japan ⁵Dept Neurosurg, Kyoto Univ, Kyoto, Japan

⁶Dept Neurosurg, Sapporo Med Univ, Sapporo, Japan ⁷Human Brain Res Center, Kyoto Univ, Kyoto, Japan

O2-H-1-4 Yoga Nidra Training Improves Slow Wave Sleep in Chronic Insomnia Patients

Karuna Datta, Manjari Tripathi, Kk Deepak, Hrudra Nanda Mallick
AllMS, New Delhi, India

Oral Session O2-H-2

10:00 ~ 11:00 Room H (304)

Language

Chairpersons : Kuniyoshi L. Sakai *Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo, Japan*
 Riki Matsumoto *Department of Epilepsy, Movement Disorders and Physiology, Kyoto University, Japan*

O2-H-2-1 An fMRI study in Kaqchikel Maya for the effect of scrambled sentences

Shinri Ohta^{1,2}, Masatoshi Koizumi³, Kuniyoshi L. Sakai^{1,2}

¹Dept. of Basic Sci., Univ. of Tokyo, Tokyo, Japan ²CREST, JST, Tokyo, Japan ³Dept. of Ling., Tohoku U., Miyagi, Japan

O2-H-2-2 Abnormal functional connectivity patterns in syntax-related networks caused by a glioma

Ryuta Kinno^{1,2}, Yoshihiro Muragaki³, Takashi Maruyama³, Shinri Ohta², Kuniyoshi L. Sakai²

¹Dept of Intern Med, Showa Univ Northern Yokohama Hosp, Kanagawa, Japan ²Dept of Basic Sci, Univ of Tokyo, Tokyo, Japan

³Dept of Neurosurg, Tokyo Women's Med Univ, Tokyo, Japan

O2-H-2-3 EEG Phase Synchronization during Recognizing Ambiguity in Chinese and English Sentences

Jih-Fu Hsieh¹, Yi-Li Tseng^{1,2}, Juin-Der Lee³, Michelle Liou¹

¹Institute of Statistical Science, Academia Sinica, Taipei, Taiwan

²Department of Electrical Engineering, Fu Jen Catholic University, New Taipei City, Taiwan

³Department of Business Administration, National Chengchi University, Taipei, Taiwan

O2-H-2-4 Role of the ventral anterior temporal lobe in semantic cognition: neuropsychological evidence from epilepsy patients with left anterior temporal lobectomy

Akihiro Shimotake¹, Riki Matsumoto², Hisaji Imamura¹, Takeharu Kunieda³, Hidenao Fukuyama⁴, Nobuhiro Mikuni⁵, Susumu Miyamoto³, Ryosuke Takahashi¹, Akio Ikeda²

¹Dept. of Neurol, Grad. Sch. of Med., Kyoto Univ., Japan ²Dept. of Epi, Mov Disord & Physiol Grad. Sch. of Med., Kyoto Univ., Japan

³Dept. of Neurosurg Grad. Sch. of Med., Kyoto Univ., Japan ⁴HBRC Grad. Sch. of Med., Kyoto Univ., Japan

⁵Dept. of Neurosurg, Sapporo Med Univ, Sapporo, Japan

Reward 1

Chairpersons : Katsuo Furukubo-Tokunaga *Institute of Biological Sciences, University of Tsukuba, Japan*
Masaki Takeyama *Department of Neurobiology and Behavior, Graduate School of Biomedical Sciences, Nagasaki University, Japan*

- O2-H-3-1 Induction of Associative Olfactory Memory by Targeted Activation of the Memory Circuits in *Drosophila* Larvae**
Takato Honda¹, Chi-Yu Lee², Maki Yoshida-Kashikawa², Ken Honjo², Katsuo Furukubo-Tokunaga²
¹Ph.D. Program in Human Biology, University of Tsukuba, Tsukuba, Japan
²Grad School of Life and Environmental Sci, Univ of Tsukuba, Tsukuba, Japan
- O2-H-3-2 Development of Touchscreen-Based Tests for Measuring Behavioral Inhibition in Mice**
Aya Okada¹, Toshihiro Endo¹, Chiharu Tohyama¹, Masaki Takeyama^{1,2}
¹Laboratory of Environmental Health Sciences, Center for Disease Biology and Integrative Medicine, Graduate School of Medicine, the University of Tokyo, Tokyo, Japan
²Department of Neurobiology and Behavior, Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan
- O2-H-3-3 Striato-nigral pathways control inflexible sugar intake**
Luis A. Tellez¹, Sara Medina¹, Tatiana L. Ferreira^{1,2}, Wenfei Han¹, Ivan E. De Araujo¹
¹The J.B. Pierce Laboratory / Yale University School of Medicine, New Haven, CT, USA
²Universidade Federal do ABC, Santo Andre, Brazil
- O2-H-3-4 Single-neuron operant conditioning by two-photon imaging induces reward-timing-dependent modulation in cortical microcircuit**
Riichiro Hira¹, Fuki Ohkubo¹, Yoshito Masamizu¹, Masamichi Ohkura², Junichi Nakai², Takashi Okada³, Masanori Matsuzaki¹
¹National Institute for Basic Biology, Okazaki, Japan ²Brain Science Institute, Saitama University, Japan
³Department of Biochemistry and Molecular Biology, Nippon Medical School, Tokyo, Japan

Reward 2

Chairpersons : Masamichi Sakagami *Tamagawa University, Brain Science Institute, Japan*
Munetaka Shidara *University of Tsukuba, Faculty of Medicine, Japan*

- O2-H-4-1 Neural representation of Economic Values in monkey ventromedial prefrontal cortex**
Hiroshi Yamada^{1,2,3}, Kenway Louie³, Agnieszka Tymula^{3,4}, Paul W Glimcher³
¹Tsukuba Univ, Japan ²Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Ibaraki, Japan
³Center for Neural Science, New York University, New York, NY, USA
⁴School of Economics, University of Sydney, Sydney, NSW, Australia.
- O2-H-4-2 Periodic discharge of pedunculopontine tegmental nucleus neurons in behaving monkeys**
Ken-ichi Okada^{1,2}, Yasushi Kobayashi^{1,2,3}
¹Osaka University Graduate School of Frontier Biosciences, Suita, Japan
²Center for Information and Neural Networks (CiNet), National Institute of Information and Communications Technology and Osaka University, Osaka, Japan ³Osaka University Research Center for Behavioral Economics, Suita, Japan
- O2-H-4-3 Weighting of 'action value' and switching of 'internal state' by secondary reinforcer in blindsight monkeys**
Rikako Kato¹, Norihiro Takakuwa^{1,2}, Abdelhafid Zeghibib³, Peter Redgrave³, Tadashi Isa^{1,2}
¹Dept Dev Physiol, Nat Inst Physiol Sci, Okazaki, Japan ²Graduate Univ for Advanced Stud, Hayama, Japan
³Dept Psychol, Univ of Sheffield, Sheffield, UK
- O2-H-4-4 The cost paid for the reward enhances the value of the reward**
Shingo Tanaka¹, John P O'doherty², Masamichi Sakagami¹
¹Brain Science Institute, Tamagawa University, Japan ²Caltech, CA, USA

Oral Session O2-H-5

17:10~18:10 Room H (304)

Reward and Motivation

Chairpersons : Kenji Matsumoto *Tamagawa University Brain Science Institute, Japan*
 Hidehiko Takahashi *Department of Psychiatry, Kyoto University Graduate School of Medicine, Japan*

- O2-H-5-1 Conditioning and Extinction Learning of Visceral Pain in Human- an fMRI Study**
 Michiko Kano^{1,2,3}, Steven J Coen³, Adam D Farmer³, Vincent Gampietro⁴, Michael Brammer⁴, Shin Fukudo², Aziz Qasim³
¹Frontier Research Institute for Interdisciplinary Sciences, Tohoku Univ, Japan
²Behavioral Medicine, Graduate School of Tohoku Univ, Japan ³Wingate Institute of Neurogastroenterology, London, UK
⁴King's College London, Department of Neuroimaging, London, UK
- O2-H-5-2 Disability to Modulate Risk Attitude in Pathological Gambling**
 Atsushi Fujimoto, Hidehiko Takahashi
 Kyoto University, Graduate School of Medicine, Japan
- O2-H-5-3 Regional gray matter volume associated with general self-efficacy**
 Ayaka Sugiura^{1,2}, Ryuta Aoki^{2,3,4}, Yukihiro Yomogida³, Madoka Matsumoto³, Kou Murayama⁵, Keise Izuma^{2,3,4}, Tomoki Haji⁶, Atsuko Saito¹, Toshikazu Hasegawa¹, Kenji Matsumoto³
¹Dept Life Sci, GSAS, Univ of Tokyo, Tokyo, Japan ²Japan Society for the Promotion of Sciences, Tokyo, Japan
³Brain Sci. Institute, Tamagawa Univ., Tokyo, Japan ⁴Caltech, Pasadena, USA ⁵University of Reading, Berkshire, UK
⁶Brain Activity Imaging Center, ATR-Promotions, Japan
- O2-H-5-4 Brain Correlates of Creativity - ERP and Time-frequency Creative Insight Responses Analysis**
 Tomasz Rutkowski^{1,2}, Yuko Nakano³, Daichi Shimizu³, Takeshi Okada³, Zbigniew R Struzik^{2,3}
¹University of Tsukuba, Tsukuba, Japan ²RIKEN Brain Science Institute, Wako-shi, Japan ³University of Tokyo, Tokyo, Japan

Oral Session O2-H-6

18:10~19:10 Room H (304)

Social Behavior 1

Chairpersons : Noritaka Ichinohe *Department of Ultrastructural Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Japan*
 Yoko Yamaguchi *RIKEN Brain Science Institute, Japan*

- O2-H-6-1 From own real-body modification to "own" virtual-body modification: analgesic effects induced by altered body representation**
 Daniele Luigi Romano^{1,2}, Christian Pfeiffer², Olaf Blanke², Angelo Maravita¹
¹University of Milano-Bicocca, Italy ²Laboratory of Cognitive Neuroscience, EPFL, Lausanne, Switzerland
- O2-H-6-2 Neural substrates of foraging effort and social facilitation are doubly dissociated**
 Yukiko Ogura^{1,2,4}, Toshiya Matsushima³
¹Dep Psychiatry, Grad Sch Med, Hokkaido Univ, Sapporo, Hokkaido, Japan ²Grad Sch Life Sci, Hokkaido Univ, Sapporo, Hokkaido, Japan
³Grad Sch of Sci, Hokkaido Univ, Sapporo, Hokkaido, Japan ⁴Japan Society for the Promotion of Sci., Tokyo, Japan
- O2-H-6-3 Marmoset monkeys evaluate each character in third-party**
 Noritaka Ichinohe¹, Miyuki Yasue^{1,2}, Taku Banno¹, Nobuyuki Kawai^{1,2}
¹Department of Ultrastructural Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Japan
²Graduate School of Information Science, Nagoya University, Nagoya, Japan
- O2-H-6-4 Behavioral Synchronization in a Two-Person Alternate Tapping Task: Analyses with Phase Response Curves**
 Yoko Yamaguchi^{1,2}, Yinjie Cheng^{1,2}, Masahiro Kawasaki³, Keiichi Kitajo^{4,5}
¹NIJC, RIKEN BSI, Saitama, Japan ²Grad School of Info Sci Tech, Univ of Tokyo, Tokyo, Japan
³Grad School of Sys Info Eng, Tsukuba Univ, Ibaraki, Japan ⁴RBIP Unit, BSI-Toyota Collaboration Ctr. RIKEN BSI, Saitama, Japan
⁵ABSP Lab, RIKEN BSI, Saitama, Japan

Oral Session O2-I-1

9:00~10:00 Room I (311+312)

Polyglutamin Diseases

Chairpersons : Yasuo Uchiyama *Department of Cellular and Molecular Neuropathology Juntendo University Graduate School of Medicine, Japan*
 Yoshitaka Nagai *Department of Degenerative Neurological Diseases, National Center of Neurology and Psychiatry, Japan*

- O2-I-1-1 High-nutrient diet aggravates protein misfolding-related neurodegeneration in *Drosophila***
 Mari Suzuki, Anne-Marie Neumann, Yuji Saito, Nobuhiro Fujikake, Keiji Wada, Yoshitaka Nagai
 National Institute of Neuroscience, NCNP, Tokyo, Japan

- 02-I-1-2** p62/SQSTM1 plays a protective role in the autophagic clearance of polyglutamine aggregates in polyglutamine disease model flies
Yuji Saitoh, Nobuhiro Fujikake, Yuma Okamoto, Keiji Wada, Yoshitaka Nagai
National Center of Neurology and Psychiatry, Japan
- 02-I-1-3** A novel type of proteinopathy in brain neurons of NF-Y-deficient mice
Tomoyuki Yamanaka^{1,2,3,7}, Asako Tosaki^{2,7}, Masaru Kurosawa^{1,2,3,7}, Gen Matsumoto^{1,2,3,7}, Masato Koike⁴, Yasuo Uchiyama⁴, Sankar N Maity⁵, Tomomi Shimogori³, Nobutaka Hattori⁶, Nobuyuki Nukina^{1,2,3,7}
¹Neurode. Disord., Juntendo Univ. Med., Tokyo, Japan ²Struc. Neuropa., RIKEN BSI, Saitama, Japan
³Mol. Mech. Thalam. Dev., RIKEN BSI, Saitama, Japan ⁴Cell Biol. Neurosc., Juntendo Univ. Med., Tokyo, Japan
⁵Med. Oncol., Univ. Texas MDACC, Texas, USA ⁶Neurol., Juntendo Univ. Med., Tokyo, Japan ⁷CREST JST, Tokyo, Japan
- 02-I-1-4** Impaired axonal transport in Purkinje cells of HuC knockout mice
James Hirotaka Okano¹, Yuki Ogawa¹, Kyoko Kakumoto², Tetsu Yoshida², Hideyuki Okano²
¹Div Regen Med, Jikei Univ Sch of Med, Tokyo, Japan ²Dept Physiol, Keio Univ Sch of Med, Tokyo, Japan

Oral Session O2-I-2

10:00~11:00 Room I (311+312)

Mood Disorders and Addiction

Chairpersons : Norio Ozaki *Department of Psychiatry, Nagoya University Graduate School of Medicine, Japan*
Hirotaka Onoe *RIKEN Center for Life Science Technologies, Japan*

- 02-I-2-1** Long-term imipramine treatment up-regulates NMDA receptors by epigenetic mechanisms in mouse cortical cultured neurons
Nghia Nguyen¹, Takae Hirasawa¹, Hirotake Kasai², Chie Obata¹, Kohji Moriishi², Kazuki Mochizuki³, Takeo Kubota¹
¹Dept. Epigenetics, Univ of Yamanashi, Chuo, Japan ²Dept. Microbiology, Univ of Yamanashi, Chuo, Japan
³Faculty of Life and Environmental Sciences, Univ of Yamanashi, Kofu, Japan
- 02-I-2-2** Ketamine Acts As an Antidepressant : Involvement of Nucleus Accumbens and Ventral Pallidum 5-HT1B Receptors
Hajime Yamanaka¹, Chihiro Yokoyama¹, Hisashi Doi², Christer Halldin³, Hirotaka Onoe¹
¹Bio-Func Imaging, RIKEN CLST, Hyogo, Japan ²Labelling Chemistry, RIKEN CLST, Hyogo, Japan
³Karolinska Institute, Stockholm, Sweden
- 02-I-2-3** Astrocyte-derived ATP modulates depressive-like behaviors
Xiong Cao
Dept. of Neurobiology, Southern Medical University, Guangzhou, China
- 02-I-2-4** Synaptic switched in addiction (Molecular basis of neurotrophin and cocaine action in the brain's reward circuitry)
Joo Min Park¹, David J Linden², Worley F Worley²
¹Jeju National University School of Medical, Korea ²Johns Hopkins University School of Medicine Dept of Neuroscience, USA

Oral Session O2-I-3

15:00~16:00 Room I (311+312)

Alzheimer's Disease, Other Dementia, Aging 3

Chairpersons : Akira Tamaoka *Department of Neurology, University of Tsukuba, Japan*
Akiko Taguchi *Department of Neurology, Respiriology, Endocrinology and Metabolism, Miyazaki University School of Medicine, Japan*

- 02-I-3-1** Contribution of preoptic area thermo transient receptor potential vanilloid type IV (TRPV4) channel in thermoregulation in rats
Rajesh Yadav, Hruda Nanda Mallick, Ashok Kumar Jaryal, Velayudhan Mohan Kumar
All India Institute of Medical Sciences, New Delhi, India
- 02-I-3-2** BACE1 expression is enhanced by amyloid β -protein
Wataru Araki¹, Ai Hosaka², Naomi Mamada^{1,2}, Daisuke Tanokashira¹, Akira Tamaoka²
¹Natl Inst. of Neurosci., NCNP, Tokyo, Japan ²Dept Neurol, Univ of Tsukuba, Tsukuba, Japan
- 02-I-3-3** Withdrawn
- 02-I-3-4** Neural IRS2 deficiency prevents age-related cognitive decline
Akiko Taguchi^{1,2}, Manabu Makinodan^{3,4}, Toshifumi Kishimoto⁴, Gabriel Corfas³, Morris White²
¹Division of Neurology, Respiriology, Endocrinology, and Metabolism, Department of Internal Medicine, University of Miyazaki, Japan
²Div Endocrinology, Childrens Hospital Boston Harvard Med Sch, Boston, MA, USA
³Dept Neurology and Otolaryngology, Childrens Hospital Boston Harvard Med Sch, Boston, MA, USA
⁴Dept Psychiatry, Nara Medical University, Japan

Oral Session O2-I-4

16:00~17:00 Room I (311+312)

Alzheimer's Disease, Other Dementia, Aging 4

Chairpersons : Katsutoshi Furukawa *Department of Geriatrics and Gerontology, Division of Brain Sciences, Institute of Development Aging and Cancer, Tohoku University, Japan*Ikuo Tooyama *Molecular Neuroscience Research Center, Shiga University of Medical Science, Japan*

- O2-I-4-1** Effect of novel curcumin derivatives on amyloid pathology in APP/PS1 mice
Daijiro Yanagisawa, Nor Faeizah Ibrahim, Lina Wati Durani, Hiroyasu Taguchi, Ikuo Tooyama
Shiga University of Medical Science, Japan
- O2-I-4-2** In vivo imaging of tau pathology in Alzheimer's disease using [¹⁸F]THK-5117 PET
Ryuichi Harada^{1,2}, Nobuyuki Okamura², Shozo Furumoto^{3,5}, Katsutoshi Furukawa⁴, Aiko Ishiki⁴, Naoki Tomita⁴, Tetsuro Tago⁵, Ren Iwata⁵, Manabu Tashiro⁵, Hiroyuki Arai⁴, Kazuhiko Yanai², Yukitsuka Kudo¹
¹Divi Neuro-imaging, Institute of Development, Aging and Cancer, Tohoku Univ, Sendai, Japan
²Dept Pharmacol, Tohoku Univ Grad School of Med, Sendai, Japan
³Frontier Research Institute for Interdisciplinary Science, Tohoku Univ, Sendai, Japan
⁴Dept Geriatrics and Gerontology, Institute of Development, Aging and Cancer, Tohoku Univ, Sendai, Japan
⁵CYRIC, Tohoku Univ, Sendai, Japan
- O2-I-4-3** Fluorine-19 MRI probe for detecting amyloid deposition in Alzheimer's disease
Ikuo Tooyama¹, Daijiro Yanagisawa¹, Hiroyasu Taguchi¹, Nor Faeizah Ibrahim¹, Lina Wati Durani¹, Shigehiro Morikawa², Akihiko Shiino², Koichi Hirao³, Nobuaki Shirai³, Takayuki Sogabe⁴
¹Molecular Neuroscience Research Center, Shiga University of Medical Science, Japan
²Biomedical MR Science Center, Shiga University of Medical Science, Shiga, Japan
³Northeastern Industrial Research Center of Shiga Prefecture, Shiga, Japan ⁴Otsuka Pharmaceutical Co., Ltd, Tokushima, Japan
- O2-I-4-4** Regional Distribution of Microglial Proliferation and Tau Phosphorylation in Diabetes Mellitus Model of Tauopathy
Yumiko Motoi¹, Zafrul Hassan³, Shin-Ei Matsumoto^{1,2}, Koichi Ishiguro², Nobutaka Hattori^{1,2}
¹Dept Diagnosis, Prevention and Treatment of Dementia, Juntendo University School of Medicine, Japan
²Dept Neurology, Juntendo University School of Medicine, Japan ³Spotology center, Juntendo University School of Medicine, Japan

Oral Session O2-I-5

17:10~18:10 Room I (311+312)

Parkinson's Disease and Related Disorders 1

Chairpersons : Kentaro Ozawa *Nara Medical University, Japan*Hodaka Yamakado *Department of Neurology, Kyoto University Graduate School of Medicine, Japan*

- O2-I-5-1** TBK1 controls PINK1/Parkin-dependent mitophagy through p62/SQSTM1 phosphorylation
Gen Matsumoto^{1,2}, Nobuyuki Nukina¹
¹Juntendo University, Grad. School. Med., Dept. Neurosci. Neurodegenerative disorders, Japan ²RIKEN, BSI, Japan
- O2-I-5-2** Nitric oxide regulates degradation of depolarized mitochondria via S-nitrosylation of parkin
Kentaro Ozawa, Jing Zhao, Yoji Kyotani, Satoyasu Ito, Kosuke Nagayama, Yuichi Tsuji, Masanori Yoshizumi
Dept Pharmacol., Nara Med. Univ., Nara, Japan
- O2-I-5-3** Parkin mutations impair mitochondrial function and enhance neurodegeneration in synucleinopathy associated with dementia with Lewy bodies
Jianshe Wei¹, Yi Wang¹, Jiannan Wu¹, Nannan Wei¹, Ping Li¹, Huimin Liang¹, Masayo Fujita², Makoto Hashimoto²
¹Institute for Brain Science Research ²Tokyo Metropolitan Institute of Medical Sciences, Japan
- O2-I-5-4** Alpha-synuclein accumulation in Gaucher disease model of medaka does not contribute to neurodegeneration
Norihito Uemura¹, Tomoko Fujiwara-Ishikawa², Masato Kinoshita³, Masato Koike⁶, Hideaki Matsui⁵, Hodaka Yamakado¹, Yasuo Uchiyama⁶, Takeshi Todo², Shun-ichi Takeda⁴, Ryosuke Takahashi¹
¹Dept Neurol, Univ of Kyoto, Kyoto, Japan ²Dept RadBio, Univ of Osaka, Suita, Japan
³Division of Applied Biosciences, Univ of Kyoto, Kyoto, Japan ⁴Dept of Radiation Genetics, Univ of Kyoto, Kyoto, Japan
⁵Dept Medical Sciences, Section of Integrative Physiology Faculty of Medicine, Med Univ of Miyazaki, Miyazaki, Japan
⁶Dept Cell Biology and Neuroscience, Univ of Juntendo, Tokyo, Japan

Parkinson's Disease and Related Disorders 2

Chairpersons : Masahiro Nomoto *Department of Neurology and Clinical Pharmacology, Ehime University, Graduate School of Medicine, Japan*
Miho Murata *Department of Neurology, National Center Hospital, National Center of Neurology and Psychiatry, Japan*

O2-I-6-1 Genetic co-regulation of the nigrostriatal dopaminergic function by V-1 gene via the Rho-MAL-SRF pathway *in vitro* and *in vivo*

Ichiro Kawahata¹, Lai Yanxin¹, Shiori Ohtaku¹, Junichi Morita¹, Shigeki Kato², Yoshihisa Tomioka³, Akiko Tabuchi³, Mamoru Fukuchi³, Masaaki Tsuda⁴, Chiho Sumi-Ichinose⁴, Kazunao Kondo⁴, Yasuhiko Izumi⁵, Yoshiaki Kume⁵, Akinori Akaike⁵, Kazumasa Ohashi⁶, Kensaku Mizuno⁶, Hiroshi Ichinose⁷, Kazuto Kobayashi², Tohru Yamakuni¹

¹Graduate School of Pharmaceutical Sciences, Tohoku University, Japan

²Inst of Biomedical Sci, Fukushima Med Univ, Fukushima, Japan ³Grad Sch of Med and Pharm Sci, Univ of Toyama, Japan

⁴Sch of Med, Fujita Health Univ, Japan ⁵Grad Sch of Pharm Sciences, Kyoto Univ, Japan ⁶Grad Sch of Life Sci, Tohoku Univ, Japan

⁷Grad Sch of Biosci and Biotech, Tokyo Inst of Tech, Japan

O2-I-6-2 Immunohistochemistry of mouse and human brain using specific antibodies against oxidized DJ-1

Yoshiro Saito¹, Tomohiro Miyasaka², Hiroyuki Hatsuta³, Kazuko Takahashi-Niki⁴, Hiroyoshi Ariga⁴, Shigeo Murayama³, Yasuo Ihara², Noriko Noguchi¹

¹Sys Life Sci Lab, Fac of Life Med Sci, Doshisha Univ, Kyotanabe, Japan

²Neuropathol, Fac of Life Med Sci, Doshisha Univ, Kyotanabe, Japan ³Dep of Neuropathol, Tokyo Metro Inst of Geront, Tokyo, Japan

⁴Dept of Mol Biol Lab, Grad Sch of Pharm Sci, Hokkaido Univ, Sapporo, Japan

O2-I-6-3 Evaluation of driving ability using a driving simulator on drugs or disorders

Win Thiri Kyaw, Noriko Nishikawa, Tomoaki Tsujii, Hirotaka Iwaki, Masahiro Nagai, Madoka Kubo, Masahiro Nomoto

Dept of Neurology and Clinical Pharmacology, Ehime Univ Graduate School of Med, Ehime, Japan

O2-I-6-4 Dendritic spines of medium spiny neurons in nucleus accumbens in 6-OHDA-lesioned rats chronically treated with levodopa

Yukihisa Funamizu^{1,3}, Tatsuya Ueno^{1,2}, Haruo Nishijima^{1,2}, Shinya Ueno², Soroku Yagihashi³, Masahiko Tomiyama^{1,2}

¹Aomori Prefectural Central Hospital Department of Neurology, Japan

²Department of Neurophysiology Hirosaki University Graduate School of Medicine, Hirosaki, Japan

³Department of Pathology and Molecular Medicine, Hirosaki University Graduate School of Medicine, Hirosaki, Japan

Stress, Autonomic Nervous System and Respiration

Chairpersons : Harumi Hotta *Department of Autonomic Neuroscience, Tokyo Metropolitan Institute of Gerontology, Japan*
Akiko Arata *Department of Physiology, Hyogo College of Medicine, Japan*

O2-J-1-1 Systematic regulation of memory-linked temperature tolerance in *C. elegans*

Akane Ohta¹, Tomoyo Ujisawa^{1,2}, Misato Uda^{1,2}, Tomohiro Ishiwari¹, Makoto Iroi¹, Natsune Takagaki¹, Mai Kimura¹, Satoru Sonoda^{1,2}, Atsushi Kuhara^{1,2}

¹Konan University, Japan ²Institute for Integrative Neurobiology, Konan Univ., Japan

O2-J-1-2 Regulatory mechanism of testosterone secretion from the ovary by autonomic nerves

Sae Uchida, Fusako Kagitani

Dept Auton Neurosci, Tokyo Metropol Inst Gerontol, Tokyo, Japan

O2-J-1-3 Functional anatomy of the rhythmogenic inspiratory premotor information pathway from the preBotzinger complex

Yasumasa Okada¹, Yoshitaka Oku², Shigefumi Yokota³, Yoshitaka Oyamada⁴, Yukihiko Yasui³, Naohiro Koshiya⁵

¹Lab Electrophysiol, Clin Res Ctr, Murayama Med Ctr, Tokyo, Japan ²Dept Physiol, Hyogo Coll of Med, Nishinomiya, Japan

³Dept Anat Morphol Neurosci, Shimane Univ, Izumo, Japan ⁴Dept Respirol, Tokyo Med Ctr, Tokyo, Japan

⁵NIH - NINDS, Bethesda MD, USA

O2-J-1-4 Effects of Breathing on Motor Evoked Potential of Non-respiratory Forearm Muscles Following Transcranial Magnetic Stimulation

Kiyoshi Kurata¹, Isamu Ozaki²

¹Dept. of Physiol, Hirosaki Univ. Graduate Sch. of Med., Japan

²Dept Physical Therapy, Faculty of Health Science, Aomori Univ of Health and Welfare, Japan

Oral Session O2-J-2

10:00~11:00 Room J (313+314)

Reproduction, Feeding and Metabolic Regulation

Chairpersons : Hiroshi Kunugi *Department of Mental Disorder Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Japan*Yoichi Ueta *Department of Physiology, School of Medicine, University of Occupational and Environmental Health, Japan*

- O2-J-2-1** Phasic synaptic incorporation of GluR2-lacking AMPA receptors at gonadotropin-releasing hormone neurons is involved in the generation of the luteinizing hormone surge in female rats
Yoko Kuroki¹, Hirobumi Tada¹, Toshiya Funabashi^{1,2}, Yoshitaka Kamiya³, Takahisa Goto⁵, Kumiko Suyama¹, Akane Sano¹, Dai Mitsushima¹, Anne M Etgen⁴, Takuya Takahashi^{1,4}
¹Dept. of Physiology Yokohama City University Graduate School of Medicine, Kanagawa, Japan
²Dept Physiol, St.Marianna University School of Medicine, Kanagawa, Japan
³Dept Anesthesiology, Niigata University Graduate School of Medicine, Niigata, Japan
⁴Dept Neuroscience, Albert Einstein College of Medicine, NY, USA
⁵Dept Anesthesiology, Yokohama City University Graduate School of Medicine, Kanagawa, Japan
- O2-J-2-2** A novel sexually dimorphic area exhibiting female-dominant morphology in the hypothalamus of mice
Kyi Tha Thu Chaw¹, Hiroto Ito¹, Kota Okoshi¹, Ken-ichi Matsuda², Mitsuhiro Kawata², Shinji Tsukahara¹
¹Laboratory of Regulatory Biology, Division of Life Science, Graduate School of Science and Engineering, Saitama University, Japan
²Department of Anatomy and Neurobiology, Kyoto Prefectural University of Medicine Graduate School of Medical Science, Japan
- O2-J-2-3** High fat diet-induced deficiency of prepulse inhibition in mice
Chisato Wakabayashi, Tadahiro Numakawa, Yoshiko Ooshima, Kotaro Hattori, Hiroshi Kunugi
National Institute of Neuroscience, NCNP, Japan
- O2-J-2-4** Sirt1 overexpression in POMC neurons rescues the obese phenotype induced by constitutively-nuclear FoxO1 in male mice
Tsutomu Sasaki, Vina Y Susanti, Hiromi Yokota-Hashimoto, Sho Matsui, Osamu Kikuchi, Masaki Kobayashi, Tadahiro Kitamura
Institute for Molecular and Cellular Regulation Gunma University, Maebashi, Japan

Oral Session O2-J-3

15:00~16:00 Room J (313+314)

Stem Cells, Neuronal and Glial Production/Differentiation 2

Chairpersons : Hideki Enomoto *Department of Physiology and Cell Biology, Graduate School of Medicine, Kobe University, Japan*Yoichi Kosodo *Department of Anatomy, Kawasaki Medical School, Japan*

- O2-J-3-1** RNA Binding Protein MARF1 Regulates Embryonic Neurogenesis
Yoshitaka Kanemitsu, Masashi Fujitani, Suxiang Zhang, Toshihide Yamashita
Department of Molecular Neuroscience, Graduate school of medicine, Osaka University, Japan
- O2-J-3-2** Discovery of the population of activated microglia which enhance neurogenesis and oligodendrogenesis in the early postnatal subventricular zone
Kaoru Sato¹, Yukari Shigemoto-Mogami¹, Kazue Hoshikawa¹, James E Goldman², Yuko Sekino¹
¹NIHS, Japan ²Dept Pathol, Cell Biol, Columbia Univ, USA
- O2-J-3-3** Tet3 regulates Glial Differentiation
Kazuyuki Yamagata¹, Takao Kuroda², Mayuko Inoue², Ken-ichi Mizutani^{2,3}
¹Boston Children's Hospital, USA ²Grad Sch Brain Sc, Doshisha Univ, Kyoto, Japan ³PRESTO, JST, Saitama, Japan
- O2-J-3-4** Locus-specific expansion of Polycomb domain determines the temporal repression of the neurogenic genes in neocortical development
Yusuke Kishi¹, Yusuke Hirabayashi², Kelsey Tyssowski², Haruhiko Koseki³, Yutaka Suzuki⁴, Yukiko Gotoh¹
¹Grad Sch Pharma, Univ of Tokyo, Japan ²IMCB, Univ of Tokyo, Japan ³RIKEN, IMS-RCAl, Japan
⁴Grad Sch Frontier Sci, Univ of Tokyo, Japan

Cell Migration and Layer/Nuclear Formation

Chairpersons : Mineko Kengaku *Institute for Integrated Cell-Material Sciences(iCeMS), Kyoto University, Japan*
Nobuaki Maeda *Neural Network Project, Tokyo Metropolitan Institute of Medical Science, Japan*

- O2-J-4-1** **The unique migratory properties of glial progenitors derived from the cortical ventricular zone**
Hidenori Tabata^{1,2}, Megumi Sasaki², Hirohide Takebayashi³, Masatsugu Ema⁴, Kazuhiro Ikenaka⁵, Koh-ichi Nagata¹, Kazunori Nakajima²
¹Dept of Mol Neurobiol, Inst for Dev Res, Aichi Human Service Cent, Aichi, Japan ²Dept Anat, Sch of Med, Keio Univ, Tokyo, Japan
³Div of Neurobiol & Anat, Grad Sch of Med & Den Sci, Niigata Univ, Niigata, Japan
⁴Res Cent for Animal Life Sci, Shiga Univ of Med Sch, Shiga, Japan ⁵Div of Neurobiol & Bioinformatics, NIPS, Aichi, Japan
- O2-J-4-2** **The subplate layer plays critical roles in the radial neuronal migration in the developing mouse neocortex**
Chiaki Maruyama¹, Mayumi Okamoto², Haruo Okado³, Nobuaki Maeda¹
¹Neural Network, Tokyo Metropol Inst Med Sci, Japan ²Dept Anat Cell Biol, Nagoya Univ Grad Sch Med, Aichi, Japan
³Neuronal Dev, Tokyo Metropol Inst Med Sci, Japan
- O2-J-4-3** **Maternally-derived ambient taurine plays a pivotal role in radial migration in the embryonic mouse neocortex by tonically activating GABA_A receptors**
Atsuo Fukuda¹, Tomonori Furukawa¹, Junko Yamada², Tenpei Akita¹, Yoshitaka Matsushima³, Yuchio Yanagawa⁴
¹Dept. Neurophysiol., Hamamatsu Univ. Sch. Med., Shizuoka, Japan ²Dept. Neurophysiol., Hirosaki Univ. Grad. Sch. Med., Aomori, Japan
³Dept. Chem., Hamamatsu Univ. Sch. Med., Shizuoka, Japan
⁴Dept. Genet. Behav. Neurosci., Gunma Univ. Grad. Sch. Med., Gunma, Japan
- O2-J-4-4** **Origins of amygdalar neurons and glial cells revealed by in utero electroporation**
Fujio Murakami, Makio Torigoe
Neurosci. Lab. Grad. Sch. of Frontier Biosci, Osaka Univ., Osaka, Japan

Adult Neurogenesis

Chairpersons : Ryoichiro Kageyama *Institute for Virus Research, Kyoto University, Japan*
Naoko Kaneko *Department of Developmental and Regenerative Biology, Nagoya City University Graduate School of Medical Sciences, Japan*

- O2-J-5-1** **Activity-dependent layer-specific sorting of new neurons in the olfactory bulb by Sema3E-PlexinD1 signaling-mediated regulation of migratory morphology**
Masato Sawada¹, Shih-Hui Huang¹, Takao Hikita¹, Akiyoshi Uemura², Kazunobu Sawamoto¹
¹Department of Developmental and Regenerative Biology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan
²Department of Retinal Vascular Biology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan
- O2-J-5-2** **Ecto-domain phosphorylation of Nogo-66 receptor promotes neuronal cell production from adult neural stem cells**
Yoshinori Takei
Kyoto University, Japan
- O2-J-5-3** **New neurons express Slit1 for their efficient migration through activated astrocytes in stroke-injured brain**
Naoko Kaneko, Kazunobu Sawamoto
Nagoya City University Graduate School of Medical Sciences, Japan
- O2-J-5-4** **The role of 5-HT₄ receptor in neurogenic action by chronic fluoxetine in dentate gyrus of mouse hippocampus**
Yuki Imoto¹, Naoya Nishitani², Kazuki Nagayasu², Takayuki Nakagawa², Shuji Kaneko², Katsunori Kobayashi^{3,4}, Eri Segi-Nishida⁵
¹Dept. Physiol. Chem., Kyoto Univ. Pharm. Sci., Japan ²Dept. Mol. Pharm., Kyoto Univ. Pharm. Sci., Japan
³Dept. Pharmacol., Nippon Med. Sch., Japan ⁴JST,CREST, Japan ⁵Cntr Integrat. Edu in Pharm. And Pharm. Sci. Kyoto Univ., Japan

Oral Session O2-J-6

18:10~19:10 Room J (313+314)

Trophic Factors

Chairpersons : Masami Kojima *Biointerface Research Group, Health Research Institute (HRI), National Institute of Advanced Industrial Science and Technology (AIST) , Japan*

Yo Shinoda *Department of Applied Biological Science, Faculty of Science and Technology, Tokyo University of Science, Japan*

- O2-J-6-1** Reduction of Plasmalogens in the Mice Hippocampus Significantly Reduces the Memory by Downregulating BDNF and its Target Gene Expressions
Toshihiko Katafuchi¹, Shamim Md. Hossain¹, Saleh Md. Yousef Ahmed¹, Kiyotaka Miake²
¹Dept Integr Physiol, Grad Sch Med Sci, Kyushu Univ., Fukuoka Japan
²Center Research Institute, Marudai Food Company Lit., Osaka, Japan
- O2-J-6-2** Decreased release of neurotransmitter induced by BDNF in cultured cortical neurons from IUGR(intrauterine growth retardation) rats
Yoshiko Ooshima¹, Tadahiro Numakawa¹, Tomoya Matsumoto², Shuichi Chiba³, Miyako Furuta⁴, Aiko Izumi¹, Midori Ninomiya-Baba¹, Haruki Odaka¹, Kazuo Hashido¹, Naoki Adachi¹, Hiroshi Kunugi¹
¹Nat'l Inst.of Neurosci., NCNP, Tokyo, Japan ²Dept DentPhar., Univ of Hiroshima, Hiroshima, Japan
³Dept Phar., Musashino Univ, Tokyo, Japan ⁴Dept Med., St. Marianna Univ, Kanagawa, Japan
- O2-J-6-3** Repression in the transcriptional activity of BDNF gene after phencyclidine addition
Yu Katanuma^{1,2}, Tadahiro Numakawa^{2,3}, Naoki Adachi^{2,3}, Noriko Yamamoto², Yoshiko Ooshima², Haruki Odaka^{1,2}, Takafumi Inoue¹, Hiroshi Kunugi^{2,3}
¹Dept Life Sci Med Biosci, Waseda Univ, Tokyo, Japan
²Dept Mental Disorder, National Ins of Neurosci, National Center of Neurology and Psychiatry, Tokyo, Japan ³CREST, JST, Japan
- O2-J-6-4** Retrograde BDNF signaling from Purkinje cell regulates synapse elimination in the developing cerebellum
Myeong Jeong Choo¹, Taisuke Miyasaki², Maya Yamazaki³, Asami Tanimura¹, Naofumi Uesaka¹, Masahiko Watanabe², Kenji Sakimura³, Masanobu Kano¹
¹Dept Neurophysiol, Univ of Tokyo, Tokyo, Japan ²Dept Anat, Grad Sch Med, Hokkaido Univ, Sapporo, Japan
³Dept Cell Neurobiol, Brain Res Inst, Niigata Univ, Niigata, Japan

Oral Session O3-G-1

17:10~18:10 Room G (303)

BMI/BCI

Chairpersons : Yoichi Miyawaki *Center for Frontier Science and Engineering The University of Electro-Communications, Japan*
Tatsuya Mima *Human Brain Research Center, Kyoto University, Graduate School of Medicine, Japan*

- O3-G-1-1 Motor reconstruction by MEG-based neuroprosthetic arm aggravates deafferentation pain due to brachial plexus root avulsion**
Takufumi Yanagisawa^{1,2,3}, Ryohei Fukuma^{4,5}, Takeshi Shimizu^{1,3}, Ryu Kato⁶, Tatsuya Seki⁶, Yukiyasu Kamitani^{3,4}, Hiroshi Yokoi⁶, Masayuki Hirata¹, Toshiki Yoshimine¹, Youichi Saitoh^{1,3}
¹Dept Neurosurg, Osaka Univ Grad Sch Med, Osaka, Japan ²Div Func Diag Sci, Osaka Univ Grad Sch Med, Osaka, Japan
³Dept Neuromodulation and Neurosurgery, Osaka Univ Grad Sch Med, Osaka, Japan ⁴ATR Comp Neurosci Labs, Kyoto, Japan
⁵Nara Inst Sci Tech, Nara, Japan ⁶Dept Mec Eng Intel Sys, Univ Electro-Comm, Tokyo, Japan
- O3-G-1-2 Decoding daily-life behavioral signatures in the real environment: portable NIRS signal using behavior labels**
Takeshi Ogawa¹, Pankaj Gupta¹, Ken Yano¹, Jamilah Abdur-Rahim¹, Hiroshi Morioka^{1,2,3}, Jun-ichiro Hirayama¹, Shumpei Yamaguchi⁴, Akihiro Ishikawa⁴, Yoshihiro Inoue⁴, Motoaki Kawanabe¹, Shin Ishii^{1,2}
¹Dept Dynamic Brain Imaging, CMC, ATR, Japan ²Dept System Science, Graduate School of Informatics, Kyoto Univ, Kyoto, Japan
³JSPS, Tokyo, Japan ⁴Shimadzu Corp, Kyoto, Japan
- O3-G-1-3 Structurally-constrained functional brain networks as revealed by the combinatorial use of non-invasive neuroimaging modalities**
Makoto Fukushima¹, Okito Yamashita¹, Knösche R. Thomas², Masaaki Sato¹
¹ATR Neural Information Analysis Labs, Kyoto, Japan ²MPI Hum Cogn Brain Sci, Leipzig, Germany
- O3-G-1-4 Exploring the role of eye blinking in terms of attention/arousal: a method to quantify a person's mental state via EEG, EOG, and classification analysis**
Jamilah Abdur-Rahim¹, Takeshi Ogawa¹, Motoaki Kawanabe¹, Shin Ishii^{1,2}
¹Dept. of Dynamic Brain Imaging, CMC, ATR, Kyoto, Japan
²Dept. of System Science, Graduate School of Informatics, Kyoto Univ, Kyoto, Japan

Oral Session O3-G-2

18:10~19:10 Room G (303)

Neural Network Modeling

Chairpersons : Yutaka Sakai *Brain Science Institute, Tamagawa University, Japan*
Kosuke Hamaguchi *Department of Biological Sciences, Graduate School of Medicine, Kyoto University, Japan*

- O3-G-2-1 Modulation of preferred direction can unify motor learning in unimanual and bimanual movements**
Ken Takiyama^{1,2}, Yutaka Sakai²
¹JSPS, Japan ²Brain Sci Inst, Tamagawa Univ, Japan
- O3-G-2-2 A model of Amygdala-mPFC interaction for resistance to extinction after partial reinforcement fear conditioning**
Yuzhe Li¹, Shin Ishii², Naoki Honda³
¹Kyoto University, Japan ²Grad Informatics, Kyoto Univ, Kyoto, Japan ³Grad Medicine, Kyoto Univ, Kyoto, Japan
- O3-G-2-3 Computer simulation of superior colliculus dynamics using spiking neural circuit models**
Richard Veale^{1,2}, Tadashi Isa^{2,3}, Masatoshi Yoshida^{2,3}
¹Cognitive Science Program, Indiana University, Bloomington, USA
²Dept. Developmental Physiology, National Institute for Physiological Sciences, Okazaki, Japan
³School of Life Sciences, Graduate University for Advanced Studies, Hayama, Japan
- O3-G-2-4 3D shape estimation from a single glossy object image**
Takeaki Shimokawa¹, Akiko Nishio², Masaaki Sato¹, Mitsuo Kawato¹, Hidehiko Komatsu^{2,3}
¹ATR-BICR, Kyoto, Japan ²National Institute for Physiological Sciences, Okazaki, Japan
³The Graduate University for Advanced Studies (SOKENDAI), Okazaki, Japan

Oral Session O3-H-1

9:00~10:00 Room H (304)

Attention & Spatio-Temporal cognition

Chairpersons : Masakazu Agetsuma *JST, PRESTO, Japan*
 Ayumu Tashiro *Warwick-NTU Neuroscience Programme, Nanyang Technological University, Singapore/
 University of Warwick, UK*

- O3-H-1-1** Primate superior collicular neurons respond rapidly to snake images
 Quan Le Van, Jumpei Matsumoto, Quang Le Van, Etsuro Hori, Taketoshi Ono, Hisao Nishijo
System Emotional Science, Grad Sch of Med and Pharm Sci, Univ of Toyama, Toyama, Japan
- O3-H-1-2** Neuronal correlates to attention disengagement in the rat superior colliculus
 Nguyen Ngan, Jumpei Matsumoto, Taketoshi Ono, Hisao Nishijo
University Of Toyama, Japan
- O3-H-1-3** Functional contribution of different interneuron subtypes to cortical network synchrony
 Masakazu Agetsuma^{1,2,3}, Rafael Yuste³
¹JST PRESTO, Japan ²Osaka Univ, Osaka, Japan ³Dept Biol Sci, Columbia Univ, New York, USA
- O3-H-1-4** NMDA receptor regulates phase lock firing of CA1 principal cells during theta oscillation
 Mehdi Fallahnezhad^{1,2,3}, Takuma Kitanishi¹, Naomi Kitanishi¹, Ayumu Tashiro^{1,2,3}
¹Kavli Institute for Systems Neuroscience, Norwegian University of Science and Technology (NTNU), Trondheim, Norway
²Warwick-NTU Neuroscience program, Nanyang Technological University (NTU), Singapore
³Warwick-NTU Neuroscience program, University of Warwick, Coventry, United Kingdom

Oral Session O3-H-2

10:00~11:00 Room H (304)

Memory and Temporal Cognition

Chairpersons : Norihiro Sadato *Department of Cerebral Research, National Institute for Physiological Sciences, Japan*
 Shigeru Kitazawa *Osaka University, Graduate School of Frontier Biosciences, Japan*

- O3-H-2-1** Consolidation of overlapping memories requires immature neurons in the dentate gyrus
 Brianne Alyssia Kent¹, Pedro Bekinschtein², Charlotte A Oomen¹, Amy L Beynon³,
 Gregory D Clemenson⁴, Jeff Davies³, Fred H Gage⁴, Lisa M Saksida¹, Timothy J Bussey¹
¹Department of Psychology, University of Cambridge, Cambridge, UK
²Institute of cell biology and neuroscience, Univ. of Buenos Aires, Buenos Aires, Argentina
³Institute of Life Sciences, Swansea Univ., Swansea, UK ⁴Laboratory of Genetic, The Salk Inst., San Diego, USA
- O3-H-2-2** Dissociable activity patterns in the macaque medial temporal lobe during memory encoding predict subsequent recognition performance
 Kentaro Miyamoto, Yusuke Adachi, Takahiro Osada, Takamitsu Watanabe, Hiroko M Kimura,
 Rieko Setsuie, Tomomi Watanabe, Yasushi Miyashita
The Univ. of Tokyo, Japan
- O3-H-2-3** Alpha-phase dependent reversal of tactile temporal order judgment
 Toshimitsu Takahashi^{1,2}, Shigeru Kitazawa^{1,2}
¹Dynamic Brain Network Laboratory Graduate School of Frontier Biosciences, Osaka University, Japan
²Department of Brain Physiology, Graduate School of Medicine, Osaka University, Japan
- O3-H-2-4** Duration Selectivity in the Human Parietal Cortex
 Masamichi Hayashi^{1,2,3,4}, Thomas Ditye², Tokiko Harada⁵, Maho Hashiguchi^{5,6}, Norihiro Sadato^{5,6,7},
 Synnöve Carlson^{3,4}, Vincent Walsh², Ryota Kanai^{1,2}
¹School Psychol, Univ of Sussex, Brighton, UK ²Inst Cogn Neurosci, Univ College London, London, UK
³Brain Res Unit, O. V. Lounasmaa Lab, Aalto Univ School of Sci, Espoo, Finland ⁴Inst Biomed, Physiol, Univ of Helsinki, Helsinki, Finland
⁵Div Cereb Integ, Natl Inst Physiol Sci, Aichi, Japan ⁶Dep Physiol Sci, The Grad Univ Adv Studies, Aichi, Japan
⁷BIRC, Univ of Fukui, Fukui, Japan

Oral Session O3-H-3

15:00~16:00 Room H (304)

Human Higher Brain Functions

Chairpersons : Takeshi Arimitsu *Department of Pediatrics, School of Medicine, Keio University, Japan*
 Seiki Konishi *Department of Physiology, Juntendo University School of Medicine, Japan*

- O3-H-3-1** Neonatal cerebral responses to linguistic phonetic differences predict later language development
 Yasuyo Minagawa¹, Takeshi Arimitsu², Atsuko Matsuzaki³, Tatsuhiko Yagihashi^{2,4}, Jun-ichi Yamamoto³,
 Kazushige Ikeda², Takao Takahashi²
¹Dept Psychol, Keio Univ, Tokyo, Japan ²Dept Pediatr, Keio Univ, Sch of Med, Tokyo, Japan
³Grad Sch of Human Relations, Keio Univ, Tokyo, Japan ⁴Dept Child Psychiatry, Komagino Hospital, Tokyo, Japan

- 03-H-3-2 Functional connectivity from the human entorhinal cortex: a cortico-cortical evoked potential study**
Hirofumi Takeyama¹, Riki Matsumoto², Katsuya Kobayashi¹, Kiyohide Usami¹, Akihiro Shimotake¹, Takayuki Kikuchi³, Takeharu Kunieda³, Susumu Miyamoto³, Ryosuke Takahashi¹, Akio Ikeda²
¹Dept Neurol, Univ of Kyoto, Kyoto, Japan ²Dept Epilepsy, Movement Disorders and Physiology, Univ of Kyoto, Kyoto, Japan ³Dept Neurosurgery, Univ of Kyoto, Kyoto, Japan
- 03-H-3-3 The differential roles of the subregions of the left inferior frontal gyrus for solving algebraic equations**
Tomoya Nakai^{1,2}, Hiroyuki Miyashita^{1,3}, Kuniyoshi L. Sakai^{1,3}
¹Dept Arts and Sci, Univ of Tokyo, Tokyo, Japan ²JSPS Research Fellow, Japan ³CREST, JST, Tokyo, Japan
- 03-H-3-4 The laterality of the arcuate fasciculus in early adolescence: Differential effects of shared and non-shared factors in monozygotic twins**
Kayako Yamamoto^{1,2}, Kuniyoshi L Sakai^{1,2}
¹Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo, Komaba, Japan ²CREST, Japan Science and Technology Agency, Tokyo, Japan

Oral Session O3-H-4

16:00 ~ 17:00 Room H (304)

Social Behavior 2

Chairpersons : Sonoko Ogawa *Laboratory of Behavioral Neuroendocrinology, University of Tsukuba, Japan*
Tsuyoshi Koide *Mouse Genomics Resource Laboratory, National Institute of Genetics, Japan*

- 03-H-4-1 Effects of site-specific knockdown of estrogen receptor beta in the dorsal raphe nucleus on female sexual behavior in mice**
Sonoko Ogawa¹, Chihiro Morimoto¹, Kazuhiro Sano¹, Mariko Nakata¹, Sergei Musatov², Naoko Yamaguchi³, Toshiro Sakamoto⁴
¹Lab Behav Neuroendo, Univ of Tsukuba, Ibaraki, Japan ²Weill Cornell Univ Med Col, New York, USA ³Dept Med, Aich Medical Univ, Aich, Japan ⁴Dept Health Sci, Kyoto Tachibana Univ, Kyoto, Japan
- 03-H-4-2 Evolutionary analysis of brain function using non-mammalized Brn-2/Pou3f2 knock-in mice**
Saori Yada¹, Makoto Nasu¹, Atsushi Igarashi¹, Den'etsu Sutoo², Kayo Akiyama², Meguru Ito¹, Nobuaki Yoshida³, Shintaroh Ueda¹
¹Dept. of Biol. Sci., Grad. Sch. of Sci., The Univ. of Tokyo, Japan ²Inst. of Medi. Sci., Univ. of Tsukuba, Ibaraki, Japan ³Cent. for Exp. Med. and Syst. Biology, Inst. of Med. Sci., The Univ. of Tokyo, Japan
- 03-H-4-3 Paternal behavior and inhibitory synaptic transmission in the bed nucleus of stria terminalis**
Taiju Amano¹, Yousuke Tsuneoka², Sayaka Shindo¹, Chihiro Yoshihara¹, Kumi O. Kuroda¹
¹Kuroda Research Unit, RIKEN Brain Science Institute, Japan ²Dept Anat, Toho Univ, Tokyo, Japan
- 03-H-4-4 The cholinergic projection from the ventral Medial Habenula to the Interpeduncular nucleus defines the set point of surrender in social conflicts**
Miho Matsumata¹, Kenzo Hirao¹, Yuki Kobayashi², Arthur Huang³, Megumi Kobayashi¹, Kawori Eizumi¹, Thomas J McHugh³, Shigeyoshi Itoharu², Hitoshi Okamoto¹
¹Lab for Developmental Gene Regulation, RIKEN, BSI, Japan ²Lab for Behavioral genetics, RIKEN, BSI, Japan ³Lab for Circuit & behavioral physiology, RIKEN, BSI, Japan

Oral Session O3-H-5

17:10 ~ 18:10 Room H (304)

Voluntary Movements

Chairpersons : Yasuharu Koike *Tokyo Institute of Technology, Japan*
Ken-ichiro Tsutsui *Division of Systems Neuroscience, Graduate School of Life Sciences, Tohoku University, Japan*

- 03-H-5-1 Neural synergy: The Future of Motor Function Development and Recovery**
Fady Sk Alnajjar, Shingo Shimoda
Intelligent Behavior Control Unit, BSI, RIKEN, Nagoya, Japan
- 03-H-5-2 Motor function after surgery: correlation between outcome and motor network connectivity**
Yukihiro Yamao¹, Nobukatsu Sawamoto², Takeharu Kunieda¹, Takayuki Kikuchi¹, Riki Matsumoto², Akio Ikeda³, Ryosuke Takahashi³, Hidenao Fukuyama⁴, Susumu Miyamoto¹
¹Dept Neurosurg, Kyoto Univ, Kyoto, Japan ²Dept Neurology, Kyoto Univ, Kyoto, Japan ³Dept Epilepsy, Movement Disorders and Physiology, Kyoto Univ, Kyoto, Japan ⁴HBRC, Kyoto Univ, Kyoto, Japan
- 03-H-5-3 Internal model mechanisms of slow and fast prism adaptation in human hand-reaching movement**
Takeru Honda¹, Soichi Nagao^{1,2,3}, Yuji Hashimoto¹, Kinya Ishikawa¹, Hidehiro Mizusawa¹, Masao Ito²
¹Dept Neurol, Tokyo Med Dent Univ, Japan ²RIKEN BSI, Japan ³Nozomi Higher Brain Function Laboratory, Japan

- 03-H-5-4 Functional inputs from thalamus to cortical layer 1 during a self-initiated motor task**
 Yasuyo H. Tanaka^{1,4}, Yasuhiro R. Tanaka^{1,4}, Hiroaki Wake², Yoshito Masamizu^{1,4}, Yasuo Kawaguchi^{3,4}, Masanori Matsuzaki^{1,4}
¹Div Brain Circuits, National Institute for Basic Biology, Okazaki, Japan
²Div Homeostatic Development Dept Developmental Physiology, National Institute for Physiological Sciences, Okazaki, Japan
³Div Cerebral Circuitry, National Institute for Physiological Sciences, Okazaki, Japan ⁴JST, CREST, Saitama, Japan

Oral Session O3-H-6

18:10~19:10 Room H (304)

Animal Experimental Models

Chairpersons : Akiya Watakabe *Division of Brain Biology, National Institute for Basic Biology, Japan*
 Toru Nishikawa *Section of Psychiatry and Behavioral sciences, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Japan*

- 03-H-6-1 Extinction of fear and drug-seeking during adolescence**
 Jee Hyun Kim
University of Melbourne, Australia
- 03-H-6-2 Altered Social Behavior by Monosodium Glutamate is mediated by Vagus Nerve Afferent in ADHD Model Rat**
 Hideki Hida, Yoshihiro Yokoyama, Yuko Shimizu, Sachiyo Misumi, Akimasa Ishida, Cha-Gyun Jung
Nagoya City Univ Grad Sch Med Sci, Japan
- 03-H-6-3 Phencyclidine-induced disruption of oscillatory activity in prefrontal cortex: Reversal by antipsychotic drugs**
 Laia Lladó-Pelfort, Eva Troyano-Rodriguez, Noemi Jurado, Francesc Artigas, Pau Celada
Institut d'Investigacions Biomèdiques de Barcelona (CSIC-IDIBAPS), CIBERSAM, Spain
- 03-H-6-4 Ameliorative effect naringin on okadaic acid -induced cognitive dysfunction and apoptotic neurodegeneration in the rat brain**
 Anand Kamal Sachdeva, Kanwaljit Chopra
UNIVERSITY INSTITUTE OF PHARMACEUTICAL SCIENCES, PANJAB UNIVERSITY, CHANDIGARH, INDIA

Oral Session O3-I-1

9:00~10:00 Room I (311+312)

Neurodevelopmental Disorders and Schizophrenia

Chairpersons : Toru Takumi *RIKEN Brain Science Institute, Japan*
 Yoko Kamio *Department of Child and Adolescent Mental Health, National Institute of Mental Health, National Center of Neurology and Psychiatry, Japan*

- 03-I-1-1 Synaptic etiology of autism and other developmental disorders : “developmental origins of health and diseases (DOHaD)-type synaptic disease” and the “co-development” of connectomes in the brain**
 Yoichiro Kuroda¹, J Kimura-Kuroda²
¹Environmental Neuroscience Information Center, Japan
²Dept of Brain Development & Neural Regeneration, Tokyo Metro.Inst of Medical Science, Tokyo, Japan
- 03-I-1-2 Effects of long-term oxytocin administration on functional connectivities with default mode network in autism spectrum disorder**
 Hirotaka Kosaka^{1,2,8}, Jung Minyoung^{1,2,3}, Daisuke N Saito^{1,2}, Makoto Ishitobi^{1,4}, Keisuke Inohara^{1,5}, Sumiyoshi Arai^{1,2}, Yasuhiro Masuya¹, Tohru Fujioka¹, Yuko Okamoto^{1,2}, Toshio Munosue^{2,6}, Akemi Tomoda^{1,2}, Makoto Sato^{1,2}, Norihiro Sadato⁷, Hidehiko Okazawa^{1,2}, Yuji Wada^{1,2}
¹Res Center Child Mental Develop, Univ. of Fukui, Japan ²United Graduate School of Child Develop, Osaka Univ, Fukui, Japan
³JSPS, Japan ⁴NCNP, Japan ⁵Univ of Electro-Communications, Japan ⁶Kanazawa Univ, Japan ⁷NIPS, Japan
⁸Dept Neuropsychi, Univ of Fukui, Japan
- 03-I-1-3 Aberrant resting state functional connectivities with amygdala in autism spectrum disorder**
 Minyoung Jung^{1,2,3}, Daisuke Saito^{1,3}, Makoto Ishitobi⁴, Tomoyo Morita¹, Keisuke Inohara⁵, Akihiro Sasaki^{6,7}, Sumiyoshi Arai^{1,3}, Yasuhiro Masuya³, Toru Fujioka³, Yuko Okamoto^{1,3}, Toshio Munosue^{1,8}, Akemi Tomoda^{1,3}, Norihiro Sadato⁹, Hidehiko Okazawa^{1,3}, Tetsuya Iidaka¹⁰, Yuji Wada^{1,3}, Hirotaka Kosaka^{1,3}
¹United Graduate School of Child Develop, Osaka Univ, Japan ²Research Fellow of JSPS, Japan ³Univ of Fukui, Japan ⁴NCNP, Japan
⁵Univ of Electro-Communications, Japan ⁶Osaka City Univ, Japan ⁷RIKEN, Japan ⁸Kanazawa Univ, Japan ⁹NIPS, Japan
¹⁰Nagoya Univ, Japan
- 03-I-1-4 Identification of epistatic effect between Akt1 and neuregulin 1 in the regulation of behavioral phenotypes and social functions in genetic mouse models of schizophrenia**
 Ching-Hsun Huang¹, Ju-Chun Pei¹, Yi-Wen Chen¹, Da-Zhong Luo¹, Wen-Sung Lai^{1,2,3}
¹National Taiwan University, Taiwan ²Graduate Institute of Brain and Mind Sciences, National Taiwan University, Taipei, Taiwan
³Neurobiology and Cognitive Science Center, National Taiwan University, Taipei, Taiwan

Epilepsy

Chairpersons : Kiyohito Terada *NHO Shizuoka Institute of Epilepsy and Neurological Disorders, Japan*
Nobuhiro Mikuni *Department of Neurosurgery, Sapporo Medical University, Japan*

- 03-I-2-1 Effect of epilepsy surgery on musicians who possess absolute pitch**
Keiko Usui, Kiyohito Terada, Naotaka Usui, Kazumi Matsuda, Hiroshi Hosoyama, Yumi Kashida, Yasukiyo Araki, Takayasu Tottori, Koichi Baba, Yushi Inoue
Shizuoka Institute of Epilepsy and Neurological Disorders, Japan
- 03-I-2-2 Intracranially-recorded ictal direct current shifts may precede high frequency oscillations in human epilepsy**
Kyoko Kanazawa^{1,5}, Riki Matsumoto², Hisaji Imamura⁶, Masao Matsuhashi⁴, Takayuki Kikuchi³, Takeharu Kunieda³, Nobuhiro Mikuni⁷, Susumu Miyamoto³, Ryosuke Takahashi¹, Akio Ikeda²
¹*Department of Neurology, Kyoto University, Kyoto, Japan*
²*Department of Epilepsy, Movement Disorders and Physiology, Kyoto University, Kyoto, Japan*
³*Department of Neurosurgery, Kyoto University, Kyoto, Japan* ⁴*Human Brain Research Center, Kyoto University, Kyoto, Japan*
⁵*Department of Neurology, Takeda General Hospital, Kyoto, Japan* ⁶*Department of Neurology, Fukui Red Cross Hospital, Fukui, Japan*
⁷*Department of Neurological Surgery, Sapporo Medical University, Hokkaido, Japan*
- 03-I-2-3 Interactions between thalamus and hippocampus in epileptic seizures induced by pilocarpine in Mice**
Yong-Hua Li¹, Jia-Jia Li², Qin-Chi Lu², Hai-Qing Gong¹, Pei-Ji Liang¹, Pu-Ming Zhang¹
¹*School of Biomedical Engineering, Shanghai Jiao Tong University, Shanghai, China*
²*Department of Neurology, Renji Hospital, Shanghai Jiao Tong University, Shanghai, China*
- 03-I-2-4 Reliable MEG spike focus estimation by Temporal Spread Imaging (TSI) with statistical validation**
Masao Matsuhashi^{1,5}, Sumiya Shibata^{1,3}, Yukihiro Yamao^{1,3}, Katsuya Kobayashi², Takeharu Kunieda³, Riki Matsumoto², Akio Ikeda², Nobuhiro Mikuni⁴, Tatsuya Mima¹, Hidenao Fukuyama¹
¹*Hum Brain Res C, Kyoto, Japan* ²*Department of Epilepsy, Movement Disorders & Physiology, Kyoto Univ, Kyoto, Japan*
³*Dept Neurosurg, Kyoto Univ, Kyoto, Japan* ⁴*Dept Neurosurg, Sapporo Med Univ, Sapporo, Japan* ⁵*CPIER, Kyoto Univ, Kyoto, Japan*

Neuroinflammation and Inflammatory Disease in Nervous System

Chairpersons : Jun-ichi Kira *Department of Neurology, Neurological Institute, Graduate School of Medical Sciences, Kyusyu University, Japan*
Akio Suzumura *Department of Neuroimmunology, Research Institute of Environmental Medicine, Nagoya University, Japan*

- 03-I-3-1 The role of interleukin-19 in the central nervous system**
Hiroshi Horiuchi, Hideyuki Takeuchi, Tetsuya Mizuno, Akio Suzumura
Department of Neuroimmunology, Research Institute of Environmental Medicine, Nagoya University, Japan
- 03-I-3-2 Atopic inflammation induces microglial activation and tactile allodynia**
Ryo Yamasaki¹, Bing Wang², Jun-ichi Kira²
¹*Dept of neurology, Kyushu Univ., Fac of Med., Japan* ²*Dept. Neurological therapeutics, Univ of Kyushu, Kyushu, Japan*
- 03-I-3-3 Natural history of clinically isolated syndrome on conversion to multiple sclerosis: a meta-analysis**
Masako Kinoshita¹, Masako Daifu², Keiko Tanaka³, Masami Tanaka²
¹*Department of Neurology, Utano National Hospital, Japan* ²*Multiple Sclerosis Center, Utano National Hospital, Japan*
³*Department of Neurology, Kanazawa Medical University, Japan*
- 03-I-3-4 Biochemical, histological and proteomic characterization of contusion and pericontusion during traumatic brain injury**
Harish Gangadharappa¹, Anita Mahadevan², Nupur Pruthi³, Vinuth Np⁴, Keshava Prasad TS⁴, Shankar Sk², Srinivas Bharath MM¹
¹*Neurochemistry, NIMHANS, Bangalore, India* ²*Neuropathology, NIMHANS, Bangalore, India*
³*Neurosurgery, NIMHANS, Bangalore, India* ⁴*Institute of Bioinformatics, Whitefield, Bangalore, India*

Oral Session O3-I-4

16:00~17:00 Room I (311+312)

Neuroprotection, Neurotoxicity and Neuroinflammation

Chairpersons : Wakako Maruyama *Department of Cognitive Brain Science, National Center for Geriatrics and Gerontology, Japan*Makoto Sawada *Research Institute of Environmental Medicine, Nagoya University, Japan*

- O3-I-4-1** Voltage-sensitive dye imaging of whole hippocampal circuit activity showing alteration in excitability after maternal bisphenol A exposure in mice
Takashi Tominaga¹, Yoko Tominaga¹, Katsuhide Igarashi^{2,3}, Maky I Otsuka^{2,3}, Yusuke Furukawa², Jun Kanno², Kentaro Tanemura⁴
¹*Inst Neurosci, Tokushima Bunri University, Kagawa, Japan* ²*Div Cellular & Molecular Toxicol, NIHS, Tokyo, Japan*
³*L-StaR, Hoshi University, Sch Pharm Pharmaceut Sci, Tokyo, Japan*
⁴*Lab Animal Reproduction, Grad Sch Agr Sci, Tohoku Univ., Sendai, Japan*
- O3-I-4-2** Activation of microglia by the protease Omi through the NF-kappa B pathway
Guanghui Wang, Qingsong Hu, Feng Gao
Soochow University College of Pharmaceutical Sciences, Suzhou, China
- O3-I-4-3** Neuroprotective mechanisms of cystatin C against mutant SOD1-mediated toxicity
Seiji Watanabe¹, Keisuke Wakasugi², Koji Yamanaka¹
¹*Dept Neurosci Pathobiol, RIEM, Nagoya Univ, Aichi, Japan* ²*Dept Life Sci, Grad Sch of Arts and Sci, Univ of Tokyo, Tokyo, Japan*
- O3-I-4-4** Role of microtubule in Parkinson's disease
Choi Won-Seok
Chonnam National University, Korea

Oral Session O3-I-5

17:10~18:10 Room I (311+312)

Cerebrovascular Disease and Ischemia 1

Chairpersons : Yoshiki Yagita *Department of Stroke Medicine, Kawasaki Medical School, Japan*Hiroshi Yamauchi *Shiga Medical Center Research Institute, Japan*

- O3-I-5-1** Development of less invasive transient middle cerebral artery occlusion model on Common Marmoset and transplantation of NS/PCs
Satoshi Inoue^{1,2,3}, Kohichi Hara⁴, Hiroki Iwai⁵, Yuji Komaki^{3,6}, Hiroshi Iwata⁷, Hideo Tsukada⁸, Masaya Nakamura⁵, Hiroataka James Okano⁹, Kazunari Yoshida², Hideyuki Okano³
¹*Neurosurgery, Tokyo Dental College Ichikawa General Hospital, Japan* ²*Dept Neurosurgery, Univ of Keio, Tokyo, Japan*
³*Dept Physiol, Univ of Keio, Tokyo, Japan* ⁴*Hino Municipal Hospital, Tokyo, Japan*
⁵*Dept Orthopaedic surgery, Univ of Keio, Tokyo, Japan* ⁶*Central Institute for Experimental Animals, Kawasaki, Japan*
⁷*Shimadzu Corporation, Kyoto, Japan* ⁸*Hamamatsu Photonics K.K. PET Center, Hamamatsu, Japan*
⁹*Regenerative Medicine, Univ. of Jikei, Tokyo, Japan*
- O3-I-5-2** Neuronal protective effect of ceftriaxone against global brain ischemia via modulating glial glutamate transporter-1
Yu-Yan Hu¹, Li Li^{1,2}, Jing Xu¹, Min Zhang¹, Wen-Bin Li¹
¹*Department of Pathophysiology, Hebei Medical University, Shijiazhuang, P.R. China*
²*Department of Science and Technology, The Second Hospital of Hebei Medical University, Shijiazhuang, P.R. China*
- O3-I-5-3** A Novel Rat Model of Subcortical Ischemic Vascular Dementia with Ameroid Constrictor
Akihiro Kitamura¹, Naoya Oishi², Hidenao Fukuyama², Ryosuke Takahashi¹, Masafumi Ihara³
¹*Department of Neurology, Kyoto University Graduate School of Medicine, Japan*
²*Human Brain Research Center, Kyoto University Graduate School of Medicine, Japan*
³*Department of Stroke and Cerebrovascular Diseases, National Cerebral and Cardiovascular Center, Japan*
- O3-I-5-4** Guanfacine facilitates structural and functional plasticity of medial prefrontal cortex during hypobaric hypoxia
Hina Kauser, Surajit Sahu, Sanjeev Kumar, Usha Panjwani
Defence Institute of Physiology and Allied Sciences, Defence Research and Development Organization, Delhi, India

Cerebrovascular Disease and Ischemia 2

Chairpersons : Hidekazu Tomimoto *Department of Neurology, Mie University, Japan*
Koiji Abe *Department of Neurology, Okayama University, Japan*

- 03-I-6-1** Ultra-early analysis of cerebral edema formation in the infarct marginal zone using 7T-MRI in mice
Yukako Nakajo^{1,2}, Qiang Zhao^{1,3}, Jun-ichiro Enmi⁴, Hidehiro Iida⁴, Jun C. Takahashi³, Hiroji Yanamoto^{1,5}
¹Lab. of Neurol. and Neurosurg., Natl. Cerebral and Cardiovasc. Center, Japan ²Res. Lab., Rakuwa-kai Otowa Hosp., Kyoto, Japan
³Dept. of Neurosurg., Natl. Cerebral and Cardiovasc. Res. Ctr., Suita, Osaka, Japan
⁴Department of bio-medical imaging, Natl. Cerebral and Cardiovasc. Ctr. Res. Inst., Suita, Osaka, Japan
⁵Dept. of Cardiovasc. Science, Div. of Surgical Med., Osaka Univ. Grad. Sch. of Med., Suita, Osaka, Japan
- 03-I-6-2** Imaging mass spectrometry provides the new insight into white matter injury rat model
Hideaki Ono¹, Hideaki Imai¹, Takahiro Hayasaka², Satoru Miyawaki¹, Hirofumi Nakatomi¹, Mitsutoshi Setou², Nobuhito Saito¹
¹Dept Neurosurg, Univ of Tokyo, Tokyo, Japan ²Dept Cell Bio Anat, Hamamatsu Univ, Hamamatsu, Japan
- 03-I-6-3** Contribution of the cortico-rubral pathway to the recovery of skilled forelimb movements through CIMT after capsular hemorrhage in rats
Akimasa Ishida¹, Kaoru Isa², Kenta Kobayashi³, Tatsuya Umeda², Tadashi Isa², Hideki Hida¹
¹Nagoya City Univ. Grad. Sch. Med. Sci., Japan ²Dept. Dev. Physiol., Natl. Inst. Physiol. Sci., Okazaki, Japan
³Div. Viral Vector Dev, Natl. Inst. Physiol. Sci., Okazaki, Japan
- 03-I-6-4** Electrophysiological evidence of functional recovery by melatonin treatment in the subcortical hemorrhage model rat
Yoshitomo Ueda, Akimasa Ishida, Sachiyo Misumi, Cha-Gyun Jung, Hideki Hida
Dept Neuro-physiol & Brain Sci, Nagoya City Univ Grad Sch Med Sci, Japan

Olfactory and Auditory system

Chairpersons : Masahiro Yamaguchi *Department of Physiology, Graduate School of Medicine, the University of Tokyo, Japan*
Hokuto Kazama *Laboratory for Circuit Mechanisms of Sensory Perception Brain Science Institute, RIKEN, Japan*

- 03-J-1-1** Function of nonclassical class I MHC genes in the mouse vomeronasal organ
Tomohiro Ishii^{1,2}, Trese Leinders-Zufall³, Frank Zufall³, Peter Mombaerts²
¹Dept Cell Biol, Tokyo Med Dent Univ, Tokyo, Japan ²Max Planck Research Unit for Neurogenetics, Frankfurt, Germany
³Dept Physiol, Univ of Saarland School of Medicine, Homburg, Germany
- 03-J-1-2** Rapid linear decoding of olfactory perception during flight
Laurent Badel, Kazumi Ohta, Yoshiko Tsuchimoto, Hokto Kazama
Laboratory for Circuit Mechanisms of Sensory Perception, Riken Brain Science Institute, Japan
- 03-J-1-3** Motivational state-dependent activation of distinct subregions of the mouse olfactory tubercle
Koshi Murata^{1,2}, Michiko Kanno^{1,2}, Nao Ieki^{1,2}, Kensaku Mori^{1,2}, Masahiro Yamaguchi^{1,2}
¹Dept Physiol, Univ of Tokyo, Tokyo, Japan ²JST-CREST, Tokyo, Japan
- 03-J-1-4** Direct roles of the main olfactory system in mouse social behaviour
Tomohiko Matsuo¹, Tatsuya Hattori², Akari Asaba², Naokazu Inoue^{3,4}, Takefumi Kikusui², Reiko Kobayakawa¹, Ko Kobayakawa^{1,5}
¹Department Functional Neuroscience, Osaka Bioscience Institute, Osaka, Japan
²Companion Animal Research, Sch of Veterinary Medicine, Azabu Univ, Sagami-hara, Japan
³Research Institute for Microbial Diseases, Osaka University, Osaka, Japan
⁴Department of Cell Science, Institutes for Biomedical Sciences, School of Medicine, Fukushima Medical University, Fukushima, Japan
⁵PRESTO, Japan Science and Technology Agency, Saitama, Japan

Oral Session O3-J-2

10:00~11:00 Room J (313+314)

Fear Memory

Chairpersons : Kensaku Mori *Department of Physiology, Graduate School of Medicine, University of Tokyo, Japan*
 Masayoshi Mishina *Brain Science Laboratory, The Research Organization of Science and Technology, Ritsumeikan University, Japan*

O3-J-2-1 A neural circuit mechanism for calculating prediction errors in amygdala neurons and setting the strength of fear memories

Takaaki Ozawa, Edgar A Ycu, Touqeer Ahmed, Jenny Koivumaa, Joshua P Johansen
RIKEN BSI, Japan

O3-J-2-2 Habenulo-raphé pathway underlies fear-motivated active avoidance behavior

Ryunosuke Amo^{1,2}, Felipe Fredes¹, Masae Kinoshita¹, Ryo Aoki^{1,3}, Hidenori Aizawa¹, Masakazu Agetsuma¹, Tazu Aoki¹, Toshiyuki Shiraki¹, Hisaya Kakinuma¹, Masaru Matsuda⁴, Masako Yamazaki¹, Mikako Takahoko¹, Shin-ichi Higashijima⁵, Nobuhiko Miyasaka⁶, Tetsuya Koide⁶, Yoichi Yabuki⁶, Yoshihiro Yoshihara⁶, Hitoshi Okamoto^{1,2}

¹Lab for Developmental Gene Regulation, RIKEN BSI, Saitama, Japan ²Dept Life Sci and Medical Biosci, Waseda Univ, Tokyo, Japan

³Dept Life Sci, Graduate School of Arts and Sci, Univ of Tokyo, Tokyo, Japan

⁴Center for Bioscience Research and Education, Utsunomiya Univ, Tochigi, Japan

⁵NIPS, Okazaki Institute for Integrative Biosci, Aichi, Japan ⁶Lab for Neurobiology of Synapse, RIKEN BSI, Saitama, Japan

O3-J-2-3 Fear circuits in higher olfactory areas

Kunio Kondoh, Zhonghua Lu, Linda B Buck

Howard Hughes Medical Institute, Basic Sciences Division, Fred Hutchinson Cancer Research Center, Seattle, USA

O3-J-2-4 Striatal Dopamine D1 Receptor Is Essential for Contextual Fear Conditioning

Masayoshi Mishina^{1,2}, Masaru Ikegami², Takeshi Uemura², Ayumi Kishioka², Kenji Sakimura³

¹Brain Sci Lab, Res Org of Sci & Tech, Ritsumeikan Univ, Kusatsu, Japan ²Dept Mol Neurobiol & Pharmacol, Univ of Tokyo, Tokyo, Japan

³Dept of Cell Neurobiol, Brain Res Inst, Niigata Univ, Niigata, Japan

Oral Session O3-J-3

15:00~16:00 Room J (313+314)

Axonal/Dendritic Growth and Circuit Formation 1

Chairpersons : Takahisa Furukawa *Laboratory for Molecular and Developmental Biology, Institute for Protein Research, Osaka University, Japan*

Yoshihiro Omori *Institute for Protein Research, Osaka University, Japan*

O3-J-3-1 Molecular remodeling of the presynaptic active zone of Drosophila photoreceptors via an activity-dependent feed-back signal

Takashi Suzuki¹, Atsushi Sugie², Satoko Hakeda^{1,4}, Emiko Suzuki³, Gaia Tavosanis²

¹Grad Schl Biosci & Biotech, Tokyo Institute of Technology, Yokohama, Japan ²DZNE, Bonn, Germany

³National Inst Genetics, Mishima, Japan ⁴JSPS Fellow, Japan

O3-J-3-2 Functional Relationship between PTEN and Nedd4-1 in Neurite Development

Hiroshi Kawabe, Hung-En Hsia

Max-Planck-Institute for Experimental Medicine, Goettingen, Germany

O3-J-3-3 Ciliary kinase ICK is required for cell type-specific ciliogenesis and the regulation of ciliary transport at ciliary tips, and essential for hedgehog signal transduction

Yoshihiro Omori^{1,2,3,4}, Taro Chaya^{1,2,3,4,5}, Takahisa Furukawa^{1,3,4}

¹Osaka University, Institute for Protein Research, Japan ²JST, PRESTO, Japan ³JST, CREST, Japan

⁴Osaka Bioscience Institute, Osaka, Japan ⁵Grad Sch of Med, Kyoto Univ, Kyoto, Japan

O3-J-3-4 Rabies Virus Hijacks and Accelerates the p75NTR Retrograde Axonal Transport Machinery

Shani Gluska¹, Eitan Erez Zahavi¹, Michael Chein¹, Tal Gradus¹, Anja Bauer², Stefan Erez Finke², Eran Perlson¹

¹Tel Aviv University, Israel

²Friedrich-Loeffler-Institut, Federal Research Institute for Animal Health, Institute of Molecular Virology and Cell Biology, Germany

Oral Session O3-J-4

16:00~17:00 Room J (313+314)

Axonal/Dendritic Growth and Circuit Formation 2

Chairpersons : Kohtarō Takei *Graduate School of Medicine, Life Science, Yokohama City University, Japan*
Izumi Oinuma *Laboratory of Molecular Neurobiology, Graduate School of Biostudies, Kyoto University, Japan*

- O3-J-4-1 Presynaptic protein Synaptotagmin1 regulates the neuronal polarity and axon differentiation in cultured hippocampal neurons**
Yuriko Inoue
Department of Anatomy School of medicine Faculty of Medicine, Toho University, Japan
- O3-J-4-2 Axonal branching and elongation are independently regulated by cAMP**
Zhiwen Zhou¹, Kenji Tanaka², Shigeru Matsunaga³, Mineo Iseki⁴, Masakatsu Watanabe⁵, Norio Matsuki¹, Yuji Ikegaya¹, Ryuta Koyama¹
¹Laboratory of Chemical Pharmacology, Graduate School of Pharmaceutical Sciences, The University of Tokyo, Japan
²Department of Neuropsychiatry, School of Medicine, Keio University, Japan
³Central Research Laboratory, Hamamatsu Photonics K.K., Japan ⁴Faculty of Pharmaceutical Sciences, Toho University, Japan
⁵The Graduate School for the Creation of New Photonics Industries, Japan
- O3-J-4-3 Dogi serves as a platform for early endosome organization during axon elongation**
Chisako Sakuma¹, Takeshi Kawauchi^{2,3}, Shuka Haraguchi¹, Mima Shikanai², Yoshifumi Yamaguchi^{1,3}, Vladimir I Gelfand⁵, Liqun Luo⁶, Masayuki Miura^{1,4}, Takahiro Chihara^{1,3,4}
¹Dept. Genetics, Grad. Sch. of Pharm. Sci., Univ. of Tokyo, Japan ²Dept. Physiol., Keio Univ. Sch. of Med., Japan ³PRESTO, JST, Japan
⁴CREST, JST, Japan ⁵Dept. of Cell. Mol. Biol., Northwestern Univ. Feinberg Sch. of Med., Chicago, U.S.A.
⁶HHMI and Dept. of Biol., Stanford Univ. U.S.A.
- O3-J-4-4 Local ATP generation by dendritic mitochondria and creatine kinases regulates dendrite outgrowth in cerebellar Purkinje cells**
Kansai Fukumitsu^{1,2}, Kazuto Fujishima¹, Azumi Yoshimura¹, Yuu Kure^{1,2}, John Heuser¹, Mineko Kengaku¹
¹Institute for Integrated Cell-Material Sciences (WPI-iCeMS), Kyoto University, Kyoto, Japan
²Graduate School of Biostudies, Kyoto University, Kyoto, Japan

Oral Session O3-J-5

17:10~18:10 Room J (313+314)

Synaptic Plasticity

Chairpersons : Sayaka Takemoto-Kimura *Department of Neurochemistry, Graduate School of Medicine, University of Tokyo, Japan*
Kentaro Abe *Department of Biological Sciences, Graduate School of Medicine, Kyoto University, Japan*

- O3-J-5-2 Functional analysis of protein tyrosine phosphatase Shp2 in the adult forebrain neurons**
Hiroshi Ohnishi¹, Shinya Kusakari², Fumihito Saitow³, Miho Hashimoto¹, Yasunori Matsuzaki⁴, Takenori Kotani⁵, Yoji Murata⁵, Hirokazu Hirai⁴, Hidenori Suzuki³, Takashi Matozaki⁵
¹Dept Lab Sci, Gunma Univ Grad Sch Health Sci, Gunma, Japan ²Lab Biosig Sci, Inst Mol Cell Reg, Gunma Univ, Gunma, Japan
³Dept Pharmacol, Nippon Med Sch, Tokyo, Japan ⁴Dept Neurophysiol, Gunma Univ Grad Sch Med, Gunma, Japan
⁵Div Mol Cell Signal, Dept Biochem Mol Biol, Kobe Univ Grad Sch Med, Kobe, Japan
- O3-J-5-3 Experience-dependent synaptic regulation requires postsynaptic mGluR-IP₃ signaling in the mature barrel cortex**
Jun Kubota, Kazunori Kanemaru, Hiroshi Sekiya, Yohei Okubo, Masamitsu Iino
Dept Pharmacol, Univ of Tokyo, Tokyo, Japan
- O3-J-5-4 Glucose increased during food intake facilitates brain plasticity**
Yutaka Oomura¹, Shuji Aou², Toshihiko Katafuchi¹, Shamin M Hosssain¹, Shigeki Moriguchi³, Kouji Fukunaga³
¹Dept. Integr. Physi., Grad. Sch. Med. Sci., Kyushu Univ., Japan
²Dept Human Intellig Syst, Grad Sch Life Sci Systems Engineer, Kyushu Inst Tech, Kitakyushu, Japan
³Dept Pharmacol, Grad Sch Pharmacy, Tohoku Univ, Sendai, Japan

Oral Session O3-J-6

18:10~19:10 Room J (313+314)

Synapse

Chairpersons : Takeshi Sakaba *Doshisha University, Japan*
 Gen Ohtsuki *Department of Molecular Physiology, Graduate School of Medical Science, Kyushu University, Japan*

- O3-J-6-1** Retrograde monosynaptic tracing with a glycoprotein-deleted rabies virus reveals a widespread distribution of the corticomotoneuronal cells in the infant mouse cortex
 Naoyuki Murabe¹, Satoshi Fukuda¹, Takuma Mori², Hiroaki Mizukami³, Keiya Ozawa³, Yumiko Yoshimura², Masaki Sakurai¹
¹*Dept Physiol, Teikyo Univ Sch of Med, Tokyo, Japan*
²*Div Visual Information Processing, National Institute for Physiological Sciences, Okazaki, Japan*
³*Div Genetic Therapeutics, Center for Molecular Medicine, Jichi Medical Univ, Tochigi, Japan*
- O3-J-6-2** Synapse organizers for excitatory and inhibitory synapse formation: slitrks and LAR-RPTPs
 Jaewon Ko
Yonsei University, College of Life Science and Biotechnology, Seoul, Korea
- O3-J-6-3** Transcription factor Npas4 regulates the sensory experience-dependent development of dendritic spines in newborn olfactory bulb interneurons
 Seiichi Yoshihara¹, Hiroo Takahashi¹, Nobushiro Nishimura¹, Masahito Kinoshita¹, Ryo Asahina¹, Yoko Furukawa-Hibi², Taku Nagai², Kiyofumi Yamada², Akio Tsuboi¹
¹*Faculty of Medicine, Nara Medical University, Nara, Japan*
²*Dept of Neuropsychopharmacology and Hospital Pharmacy, Nagoya University Graduate School of Medicine, Aichi, Japan*
- O3-J-6-4** Organizing Principles for GABAergic Synapses in Memory Microcircuits
 Cheng-Chang Lien
Institute of Neuroscience, National Yang-Ming University, Taipei, Taiwan