

**新学術領域研究「人工知能と脳科学」「適応回路シフト」合同領域会議
ポスター演題**

**The Joint Research Area Meeting Scientific Research on Innovative Areas:
“Artificial Intelligence and Brain Science” and “Adaptive Circuit Shift”
Poster Presentation List**

**新学術領域研究「人工知能と脳科学」
“Artificial Intelligence and Brain Science” Project
＜A01＞**

＜計画班/ Planned Research Group＞

A01-01 (Board No.1)

Attention Learning with Intrinsic Reward and Adversarial Learning
Tatsuya Matsushima, Shohei Osawa, Yutaka Matsuo
(Dr. Matsuo group)

A01-02 (Board No.2)

Experimental investigation of hierarchical Bayesian inference in sensory and motor cortices
Yuzhe Li, Sergey Zobnin, Kenji Doya
(Dr. Doya group)

A01-03 (Board No.3)

The Gamma-Ensemble – A Braininspired Framework for Transfer and Zero-shot Reinforcement Learning
Chris Reinke, Eiji Uchibe, Kenji Doya
(Dr. Doya group)

A01-04 (Board No.4)

Robust and Efficient Policy Evaluation for Reinforcement Learning
Tadashi Kozuno, Donqi Han
(Dr. Doya group)

A01-05 (Board No.65)

Neural representation of value information in striatal striosome/matrix compartments
Tomohiko Yoshizawa, Makoto Ito, Jiafu Zeng, Kenji Doya
(Dr. Doya group)

A01-06 (Board No.5)

Columnar scale representation of faces in the human inferotemporal cortex
Topi Tanskanen, Chien-Hui Kao, R. Allen Waggoner, K. Ueno, K. Cheng, K. Tanaka
(Dr. Tanaka group)

A01-07 (Board No.6)

Prefrontal cortex associates with human cognitive dynamics in the congruency-sequence effect
Nan Li, Kang Cheng, R Allen Waggoner, Keiji Tanaka
(Dr. Tanaka group)

<公募班/Publicly Research Group>

A01-08 (Board No.7)

Adaptive identity representations in the orbitofrontal cortex revealed by multivoxel pattern analysis
Takaaki Yoshimoto, Junichi Chikazoe, Norihiro Sadato
(Dr. Chikazoe group)

A01-09 (Board No.8)

Weakly-Supervised Semantic Segmentation and Learning from the Web
Wataru Shimoda, Keiji Yanai
(Dr. Yanai group)

A01-10 (Board No.9)

Learning heterogeneous tasks on a single network and its applications
Keiji Yanai, Takumi Ege
(Dr. Yanai group)

<A02>

<計画班/Planned Research Group>

A02-11 (Board No.10)

Human Observations for Acquisition and Coordination of Robot Skills
Guilherme Maeda, Jun Morimoto
(Dr. Morimoto group)

A02-12 (Board No.11)

Hierarchical Control Architecture for Humanoid Model
Koji Ishihara, Jun Morimoto
(Dr. Morimoto group)

A02-13 (Board No.12)

What factor characterize the specificity of visual motion analysis for manual following response?
Daiki Nakamura, Hiroaki Gomi
(Dr. Gomi group)

A02-14 (Board No.13)

Nigrostriatal dopamine pathway transmit a stop signal during the performance of a saccadic countermanding task in monkeys
Takaya Ogasawara, Masafumi Nejime, Masahiko Takada, Masayuki Matsumoto
(Dr. Matsumoto group)

A02-15 (Board No.14)

Ventral pallidum neurons control aversive learning
Tom Macpherson, Hiroyuki Mizoguchi, Akihiro Yamanaka, Takatoshi Hikida
(Dr. Hikida group)

<公募班/Publicly Research Group>

A02-16 (Board No.15)

Forward and inverse reinforcement learning and generative adversarial formulation
Eiji Uchibe
(Dr. Uchibe group)

<A03>

<計画班/Planned Research Group>

A03-17 (Board No.16)

Comparison of fMRI Activity between Dog Experts and Non-experts Observing Human-Dog Interaction
Rina Ouchi, Takatomi Kubo, Eri Nakahara, Kazuyuki Samejima,
Miho Nagasawa, Takefumi Kikusui, Kazushi Ikeda
(Dr. Taniguchi group)

A03-18 (Board No.17)

Acceleration of Nonparametric Bayesian Double Articulation Analyzer for Further Applications
Ryo Ozaki, Tadahiro Taniguchi
(Dr. Taniguchi group)

A03-19 (Board No.18)

Microendoscopic calcium imaging from the prefrontal cortex of awake macaque monkey
Mineki Oguchi, Takehiko Ito, Jiasen Jiang, Kensaku Nomoto, Takefumi Kikusui, Masamichi Sakagami
(Dr. Sakagami group)

A03-20 (Board No.19)

representational structure in the higher-level visual cortex of patients with schizophrenia
Akio Murakami, Mohamed Abdelhack, Kei Majima, Yukiyasu Kamitani, Hidehiko Takahashi
(Dr. Takahashi group)

A03-21 (Board No.20)

Neural mechanisms for deciding with predicting others in human brain
Ning Ma, Norihiro Harasawa, Kenichi Ueno, Noritaka Ichinohe, Masahiro Haruno, Kang Cheng, Hiroyuki Nakahara
(Dr. Nakahara group)

新学術領域研究「適応回路シフト」

“Adaptive Circuit Shift” Project

<A01>

A01-01 (Board No.21)

Development of improved viral vectors for the pathway-specific manipulation and analysis of the brain areas activated during the auditory discrimination learning
Shigeki Kato, Susumu Setogawa
(Dr. Kobayashi group)

A01-02 (Board No.22)

Neuroimaging of a mouse model of neurodevelopmental disorder using PET and ultra-high magnetic field MRI
Keigo Hikishima
(Dr. Onoe group)

A01-03 (Board No.23)

Large scale brain network analysis using non-invasive method
Yasuharu Koike
(Dr. Koike group)

A01-04 (Board No.24)

The effects of serotonin and dopamine to the experience dependent courtship in
Drosophila
Masayuki Koganezawa
(Dr. Koganezawa group)

A01-05 (Board No.25)

Elucidating layer-specific roles of projection neurons in the mouse visual cortex
Fumitaka Osakada
(Dr. Osakada group)

A01-06 (Board No.26)

Neuron-specific efficient gene transduction in the primate brain with modified AAV
vectors
Soshi Tanabe
(Dr. Inoue group)

A01-07 (Board No.27)

Decoding distinct memories in the *Drosophila* mushroom body
Mai Kanno, Toshiharu Ichinose, Hiromu Tanimoto
(Dr. Tanimoto group)

A01-08 (Board No.28)

Balance between dopamine and adenosine signals regulates Rap1gap
phosphorylation in medium spiny neurons
Keisuke Kuroda
(Dr. Kaibuchi group)

A01-09 (Board No.29)

Establishment of inhibitory neuron-specific expression system using genetic
engineered mice together with virus
Yuchio Yanagawa
(Dr. Yanagawa group)

A01-10 (Board No.30)

Adaptive Circuit Shift in the Central Olfactory System
Tatsumi Hirata
(Dr. Tatsumi Hirata group)

A01-11 (Board No.31)

Spatial representation of hippocampal place cells in a T-Maze with an aversive stimulation

Sakura Okada, Yuki Aoki, Yuji Ikegaya, Takuya Sasaki

(Dr. Sasaki group)

A01-12 (Board No.32)

Optimization, generalization, and application of quantitative activation-induced manganese-enhanced MRI for visualization of the adaptive circuit shift

Makoto Osanai

(Dr. Osanai group)

A01-13 (Board No.33)

Visualization of brain activity in neuropathic pain model using quantitative activity-dependent manganese MRI

Masahiro Ohsawa

(Dr. Osanai group)

A01-14 (Board No.34)

Optogenetic identification of subicular projection targets during large-scale recording

Takuma Kitanishi

(Dr. Kitanishi group)

<A02>

A02-15 (Board No.35)

Altered laterality in forelimb-movement representation of rat Motor cortex under hemiparkinsonian state

Alain Rios

(Dr. Isomura group)

A02-16 (Board No.36)

Direct cortical innervation modulates excitability of globus pallidus neurons in rodents

Fuyuki Karube, Fumino Fujiyama

(Dr. Fujiyama group)

A02-17 (Board No.37)

In vivo imaging of neural activity and intracellular signaling in freely-moving animal

Satoshi Yawata

(Dr. Watanabe group)

A02-18 (Board No.38)

Expression of glia-derived molecules in the midbrain after hemispherectomy

Nobuhiko Yamamoto

(Dr. Yamamoto group)

- A02-19 **(Board No.39)**
Differences in developmental retardation caused by impairment of
dopamine-biosynthesis from that of biopterin-biosynthesis
Hiroshi Ichinose
(Dr. Ichinose group)
- A02-20 **(Board No.40)**
Analysis of spontaneous neural activity pattern in the fly embryos
Hiroshi Kohsaka
(Dr. Nose group)
- A02-21 **(Board No.41)**
Adaptive circuit shift of inhibitory glycinergic synapse in zebrafish
Hiromi Hirata
(Dr. Hiromi Hirata group)
- A02-22 **(Board No.42)**
Regulation of reflex eye movement and its adaptation by norepinephrine in the
cerebellar flocculus
Takuma Inoshita
(Dr. Hirano group)
- A02-23 **(Board No.43)**
Bai3 Recruits Surplus Climbing Fiber Synapses in Adult Cerebellum
Hirotaka Aimi, Wataru Kakegawa, Michisuke Yuzaki
(Dr. Kakegawa group)
- A02-24 **(Board No.44)**
Mechanisms for active transitio from fear to safety
Satoshi Kida
(Dr. Kida group)
- A02-25 **(Board No.45)**
Investigation of the presynaptic active zone gene expression in the circuits
activated during learning and behaviors
Shun Hamada
(Dr. Ohtsuka group)
- A02-26 **(Board No.46)**
Functional shift by ablation of MCH neurons in the hypothalamus improved
memory
Akihiro Yamanaka
(Dr. Yamanaka group)

A02-27 (Board No.47)

Task specific roles of distinct hypothalamic–hippocampal circuits
Tom McHugh
(Dr. McHugh group)

A02-28 (Board No.48)

Neural mechanisms of flexible decision making
Takanori Uka
(Dr. Uka group)

A02-29 (Board No.49)

Expression of estrogen receptor beta in the neural networks for the regulation of social behavior
Sonoko Ogawa
(Dr. Ogawa group)

A02-30 (Board No.50)

Integration of innate and learned fear and its biological significance
Reiko Kobayakawa
(Dr. Kobayakawa group)

<A03>

A03-31 (Board No.51)

Brain activity associated with recovery of motor function after spinal cord injury
Reona Yamaguchi
(Dr. Isa group)

A03-32 (Board No.52)

Depression induced by the low-frequency magnetic stimulation (LF-rTMS) to the monkey medial frontal cortex
Kenichiro Tsutsui
(Dr. Tsutsui group)

A03-33 (Board No.53)

Monoamine metabolism and its role in stress-induced behavioral alterations
Hidenori Aizawa
(Dr. Aizawa group)

A03-34 (Board No.54)

Contribution of the cortico–rubral and cortico–reticular tracts on functional recovery induced by poststroke rehabilitation
Akimasa Ishida
(Dr. Hida group)

- A03-35 **(Board No.55)**
Physiological and behavioral responses induced by activation of striatal medium spiny neurons
Hiromi Sano
(Dr. Sano group)
- A03-36 **(Board No.56)**
Adaptation from Visceral Pain to Visceral Analgesia by Intracerebral Circuit Shift
Shin Fukudo
(Dr. Fukudo group)
- A03-37 **(Board No.57)**
Genetic and functional dissection of corticospinal circuit for skilled motor behavior
Masaki Ueno
(Dr. Ueno group)
- A03-38 **(Board No.58)**
Pruning of collaterals from corticospinal tract fibers contributes to the motor recovery after spinal cord injury
Toru Nakanishi, Yuki Fujita, Toshihide Yamashita
(Dr. Yamashita group)
- A03-39 **(Board No.59)**
In vivo regulation of Chondroitin sulfate gene to recovery from Spinal cord injury and brain infarction
Kosei Takeuchi
(Dr. Takeuchi group)
- A03-40 **(Board No.60)**
Plastic neural mechanisms underlying morphological changes in layer V large pyramidal neurons in cortical motor-related areas after spinal cord injury in macaque monkeys
Yu Takata, Hiroshi Nakagawa, Hajime Yamanaka, Masahiko Takada
(Dr. Takada group)
- A03-41 **(Board No.61)**
Entorhinal cortex-hippocampal dentate gyrus synapse anomaly underlying spatial discrimination defects in Sept3-null mice
Natsumi Ageta-Ishihara, Yugo Fukazawa, Keizo Takao, Tsuyoshi Miyakawa, Haruhiko Bito, Makoto Kinoshita et al
(Dr. Kinoshita group)
- A03-42 **(Board No.62)**
Social defeat stress-induced remodeling of prefrontal cortical circuits and its molecular mechanisms
Tomoyuki Furuyashiki
(Dr. Furuyashiki group)

A03-43 (Board No.63)

Neural activity-dependent transcription factor Npas4 plays a crucial role in neuronal survival after ischemic stroke

Akio Tsuboi

(Dr. Tsuboi group)

A03-44 (Board No.64)

Altered behavior and phosphoproteomic status in Sik3 mutant mice

Hiromasa Funato

(Dr. Funato group)

Poster presentation (ポスター発表について)

最大ポスターサイズ: 幅 90cm × 高さ 180cm

ポスター発表者リストと会場レイアウト図にて、ポスター掲示指定番号をご確認ください。

対応するポスターボードにポスターを掲示ください。

押しピンは事務局にてご用意いたします。

ポスター掲示は、5 月 10 日 8 時以降に掲示できます。ポスター発表終了後(20 時 30 分)、速やかに剥がしていただき、お持ち帰りください。

Maximum poster size: Width 90cm Height 180cm

Please see the presenters' list and the layout of the meeting room.

Please verify your poster number from the poster presenters' list. Be sure to identify the appropriate board number for your poster.

Thumbtacks will be available onsite for mounting the posters.

Posters may be set up after 8:00AM on May 10 and have to be removed as soon as the session is finished.