

# Koki Mimura

PROJECT ASSOCIATE PROFESSOR · PH.D. ENG.

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## Education

### Tokyo University of Agriculture and Technology

PH.D. IN ENGINEERING

• Advisor: Dr. Shun Nakamura

Koganei, Tokyo

- March 2013

### Tokyo University of Agriculture and Technology

M.S. IN ENGINEERING

• Advisor: Dr. Shun Nakamura

Koganei, Tokyo

- March 2010

### Tokyo University of Agriculture and Technology

B.S. IN ENGINEERING

• Undergrad research advisor: Dr. Shun Nakamura

Koganei, Tokyo

- March 2008

## Employment

- 2023- **Project Associate Professor**, Research Center for Medical and Health Data Science, The Institute of Statistical Mathematics, Tokyo, Japan
- 2023- **Visiting Researcher**, Department of Functional Brain Imaging, National Institutes for Quantum and Radiological Science and Technology, Chiba, Japan
- 2017-2023 **Researcher**, Department of Functional Brain Imaging, National Institutes for Quantum and Radiological Science and Technology, Chiba, Japan
- 2014-2017 **Research Fellow of the Japan Society for the Promotion of Science (PD)**, Department of Ultrastructural Research, National Center of Neurology and Psychiatry, Tokyo, Japan
- 2013-2014 **Research Fellow of the Japan Society for the Promotion of Science (PD)**, Research Group of Systems Ethology, Department of Biological Production, Tokyo University of Agriculture and Technology, Tokyo, Japan
- 2012-2013 **Research Fellow of the Japan Society for the Promotion of Science (DC2)**, Neuroengineering Lab., Department of Biotechnology and Life Science, Tokyo University of Agriculture and Technology, Tokyo, Japan

## Publications

### PUBLISHED

- Koki Mimura\***, Jumpei Matsumoto, Daichi Mochihashi, Tomoaki Nakamura, Hisao Nishijo, Toshiyuki Hirabayashi, Takafumi Minamimoto\*: Unsupervised decomposition of natural monkey behavior into a sequence of motion motifs, *Communications Biology*, 2024 (in-press)
- Key Oyama, K. Majima, Y. Nagai, Y. Hori, T. Hirabayashi, M. Eldridge, **K. Mimura**, N. Miyakawa, A. Fujimoto, Y. Hori, H. Iwaoki, K. Inoue, RC. Saunder, M. Takadam N. Yahata, M. Higuchi, B. Richmond, T. Minamimoto\*: Distinct roles of monkey OFC-subcortical pathways in adaptive behavior, *Nature Communications* (2024, in-press)
- Y. Hori\*, H. Iwaoki, **K. Mimura**, Y. Nagai, M. Higuchi, and T. Minamimoto: Effects of 5-HT4 receptor antagonist in the caudate nucleus on the performance of macaques in a delayed-reward task, *Scientific Reports*, 14, 19619 (2024)
- T. Hirabayashi\*, Y. Nagai, Y. Hori, Y. Hori, K. Oyama, **K. Mimura**, N. Miyakawa, H. Iwaoki, K. Inoue, M. Takada, M. Higuchi and T. Minamimoto: Multiscale causal dissection of front-temporal top-down regulation for primate object memory, *Nature Communications*, 15(1) 5369 (2024)
- H. Endo\*, M. Ono, Y. Takado, K. Matsuoka, M. Takahashi, K. Tagai, Y. Kataoka, K. Hirata, K. Takahata, C. Seki, N. Kokubo, M. Fujinaga, W. Mori, Y. Nagai, **K. Mimura**, K. Kumata, T. Kikuchi, A. Shimozaawa, S. K. Mishra, Y. Yamaguchi, H. Shimizu, A.

- Kakita, H. Takuwa, H. Shinotoh, H. Shimada, Y. Kimura, M. Ichise, T. Suhara, T. Minamimoto, N. Sahara, K. Kawamura, M-R Zhang, M. Hasegawa, M. Higuchi: Imaging  $\alpha$ -synuclein pathologies in animal models and patients with Parkinson's and related diseases, *Neuron*, 112 2540-2557 (2024) DOI: <https://doi.org/10.1016/j.neuron.2024.05.006>
- Yukiko Hori, **Koki Mimura**, Yuji Nagai, Yuki Hori, Katsushi Kumata, Ming-Rong Zhang, Tetsuya Suhara, Makoto Higuchi, Takafumi Minamimoto\*, Reduced serotonergic transmission alters sensitivity to cost and reward via 5-HT1A and 5-HT1B receptors in monkeys, *PLOS Biology*, 22(1) e3002445, 2024
- Yuki Hori, Yuji Nagai, Yukiko Hori, Kei Oyama, **Koki Mimura**, Toshiyuki Hirabayashi, Ken-ichi Inoue, Masayuki Fujinaga, Ming-Rong Zhang, Masahiko Takada, Makoto Higuchi, Takafumi Minamimoto\*, Multimodal imaging for validation and optimization of ion channel-based chemogenetics in nonhuman primates, *Journal of Neuroscience*, 43(39) 6619-6627, 2023
- Naohisa Miyakawa\*, Yuji Nagai, Yuki Hori, **Koki Mimura**, Asumi Orihara, Kei Oyama, Takeshi Matsuo, Kenichi Inoue, Takafumi Suzuki, Toshiyuki Hirabayashi, Tetsuya Suhara, Masahiko Takada, Makoto Higuchi, Keisuke Kawasaki, Takafumi Minamimoto\*, Chemogenetic attenuation of cortical seizures in primates, *Nature Communications*, 14(1) 971, 2023
- Kei Oyama, Yukiko Hori, **Koki Mimura**, Yuji Nagai, Mark AG Eldridge, Richard C Saunders, Naohisa Miyakawa, Toshiyuki Hirabayashi, Yuki Hori, Ken-ichi Inoue, Tetsuya Suhara, Masahiko Takada, Makoto Higuchi, Barry J Richmond, Takafumi Minamimoto\*, Chemogenetic disconnection between the orbitofrontal cortex and the rostromedial caudate nucleus disrupts motivational control of goal-directed action, *Journal of Neuroscience*, 42 (32) 6267-6275, 2022
- Kei Oyama, Yukiko Hori, Yuji Nagai, Naohisa Miyakawa, **Koki Mimura**, Toshiyuki Hirabayashi, Ken-ichi Inoue, Masahiko Takada, Makoto Higuchi, Takafumi Minamimoto\*, Chronic behavioral manipulation via orally delivered chemogenetic actuator in macaques, *Journal of Neuroscience*, 42(12) 2552-2561, 2022
- Koki Mimura**, Yuji Nagai, Ken-ichi Inoue, Jumpei Matsumoto, Yukiko Hori, Chika Sato, Kei Kimura, Takashi Okauchi, Toshiyuki Hirabayashi, Hisao Nishijo, Noriaki Yahata, Masahiko Takada, Tetsuya Suhara, Makoto Higuchi, Takafumi Minamimoto\*, Chemogenetic activation of nigrostriatal dopamine neurons in freely moving common marmosets, *iScience*, 24(9), 103066, 2021
- Masafumi Shimojo, Maiko Ono, Hiroyuki Takuwa, **Koki Mimura**, Yuji Nagai, Masayuki Fujinaga, Tatsuya Kikuchi, Maki Okada, Chie Seki, Masaki Tokunaga, Jun Maeda, Yuhei Takado, Manami Takahashi, Takeharu Minamihisamatsu, Ming-Rong Zhang, Yutaka Tomita, Norihiro Suzuki, Anton Maximov, Tetsuya Suhara, Takafumi Minamimoto, Naruhiko Sahara, Makoto Higuchi\* A genetically targeted reporter for PET imaging of deep neuronal circuits in mammalian brains, *The EMBO Journal*, e107757, 2021
- Yukiko Hori, **Koki Mimura**, Yuji Nagai, Atsushi Fujimoto, Kei Oyama, Erika Kikuchi, Ken-ichi Inoue, Masahiko Takada, Tetsuya Suhara, Barry J Richmond, Takafumi Minamimoto\*, Single caudate neurons encode temporally discounted value for formulating motivation for action, *eLife*, 10, e61248, 2021
- Yukiko Hori, Yuji Nagai, **Koki Mimura**, Tetsuya Suhara, Makoto Higuchi, Sebastien Bouret, Takafumi Minamimoto\*, D1- and D2-like receptors differentially mediate the effects of dopaminergic transmission on cost-benefit evaluation and motivation in monkeys, *PLoS Biology*, 19(7), e3001055, 2021
- Kei Oyama, Yukiko Hori, Yuji Nagai, Naohisa Miyakawa, **Koki Mimura**, Toshiyuki Hirabayashi, Ken-ichi Inoue, Tetsuya Suhara, Masahiko Takada, Makoto Higuchi, Takafumi Minamimoto\*, Chemogenetic dissection of the primate prefronto-subcortical pathways for working memory and decision-making, *Science Advances*, 7(26), eabg4246, 2021
- Yuji Nagai, Naohisa Miyakawa, Hiroyuki Takuwa, Yukiko Hori, Kei Oyama, Bin Ji, Manami Takahashi, Xi-Ping Huang, Samuel T Slocum, Jeffrey F DiBerto, Yan Xiong, Takuya Urushihata, Toshiyuki Hirabayashi, Atsushi Fujimoto, **Koki Mimura**, Justin G English, Jing Liu, Ken-ichi Inoue, Katsushi Kumata, Chie Seki, Maiko Ono, Masafumi Shimojo, Ming-Rong Zhang, Yutaka Tomita, Jin Nakahara, Tetsuya Suhara, Masahiko Takada, Makoto Higuchi, Jian Jin, Bryan L Roth\*, Takafumi Minamimoto\*, Deschloroclozapine, a potent and selective chemogenetic actuator enables rapid neuronal and behavioral modulations in mice and monkeys, *Nature neuroscience*, 23 (9), 1157-1167, 2020
- Koki Mimura**, Tomofumi Oga, Tetsuya Sasaki, Keiko Nakagaki, Chika Sato, Kayo Sumida, Kohei Hoshino, Koichi Saito, Izuru Miyawaki, Tetsuya Suhara, Ichio Aoki, Takafumi Minamimoto\*, Noritaka Ichinohe\*, Abnormal axon guidance signals and reduced interhemispheric connection via anterior commissure in neonates of marmoset ASD model, *NeuroImage*, 195, 243-251, 2019
- Hiroshi Abe, Toshiki Tani, Hiromi Mashiko, Naohito Kitamura, Naohisa Miyakawa, **Koki Mimura**, Kazuhisa Sakai, Wataru Suzuki, Tohru Kurotani, Hiroaki Mizukami, Akiya Watakabe, Tetsuo Yamamori, Noritaka Ichinohe\*, 3D reconstruction of

brain section images for creating axonal projection maps in marmosets, *Journal of Neuroscience Methods*, 286, 102-113, 2019

Mamiko Koshiba, Genta Karino, **Koki Mimura**, Shun Nakamura, Kunio Yui, Tetsuya Kunikata, Hideo Yamanouchi, Psycho-cognitive intervention for ASD from cross-species behavioral analyses of infants, chicks and common marmosets, *CNS & Neurological Disorders-Drug Targets*, 15 (5), 578-586, 2016

**Koki Mimura**, Hirohisa Kishino, Genta Karino, Etsuko Nitta, Aya Senoo, Kentaro Ikegami, Tetsuya Kunikata, Hideo Yamanouchi, Shun Nakamura, Kan Sato, Mamiko Koshiba, Potential of a smartphone as a stress-free sensor of daily human behaviour, *Behavioural brain research*, January 1, 2015

Mamiko Koshiba, Aya Senoo, Genta Karino, Simpei Ozawa, Ikuko Tanaka, Yoshiko Honda, Setsuo Usui, Tohru Kodama, **Koki Mimura**, Shun Nakamura, Tetsuya Kunikata, Hideo Yamanouchi, Hironobu Tokuno, Susceptible period of socio-emotional development affected by constant exposure to daylight, *Neuroscience research*, 93, 91-98, 2015

**Koki Mimura**, Shun Nakamura, Mamiko Koshiba, A flexion period for attachment formation in isolated chicks to unfamiliar peers visualized in a developmental trajectory space through behavioral multivariate correlation analysis, *Neuroscience letters*, 547, 70-75, 2013

**Koki Mimura**, Yuka Shirakawa, Shun Nakamura, Mamiko Koshiba, Multivariate PCA analysis combined with Ward's clustering for verification of psychological characterization in visually and acoustically social contexts, *J. Clin. Toxicol*, 3 (1), 10.4172, 2013

**Koki Mimura**, Daijiro Mochizuki, Shun Nakamura, Mamiko Koshiba, A sensitive period of peer-social learning, *J. Clin. Toxicol*, 3, 158, 2013

Mamiko Koshiba, Aya Senoo, **Koki Mimura**, Yuka Shirakawa, Genta Karino, Saya Obara, Shinpei Ozawa, Hitomi Sekihara, Yuta Fukushima, Toyotoshi Ueda, Hirohisa Kishino, Toshihisa Tanaka, Hidetoshi Ishibashi, Hideo Yamanouchi, Kunio Yui, Shun Nakamura, A cross-species socio-emotional behaviour development revealed by a multivariate analysis, *Scientific reports*, 3 (1), 1-7, 2013

Mamiko Koshiba, Genta Karino, Aya Senoo, **Koki Mimura**, Yuka Shirakawa, Yuta Fukushima, Saya Obara, Hitomi Sekihara, Shimpei Ozawa, Kentaro Ikegami, Toyotoshi Ueda, Hideo Yamanouchi, Shun Nakamura, Peer attachment formation by systemic redox regulation with social training after a sensitive period, *Scientific reports*, 2503, 2013

Mamiko Koshiba, Aya Seno, Genta Karino, Yuka Shirakawa, **Koki Mimura**, Takeshi Sagawa, Wakako Tsugawa, Koji Sode, Shun Nakamura, Blood Glucose Dependence on Emotional Behaviors and Body Surface Temperatures in Common Marmoset's Socio-Psychological Learning with Peers - for 'Development of Human-Environment Interface by Sensing and Multivariate Analysis of Bio-Ecosystem' -, *ECS Transactions*, 50 (28), 9, 2013

Mamiko Koshiba, Yuka Shirakawa, **Koki Mimura**, Aya Senoo, Genta Karino, Shun Nakamura, Familiarity perception call elicited under restricted sensory cues in peer-social interactions of the domestic chick, *PloS one*, 8 (3), e58847, 2013

Mamiko Koshiba, Shun Nakamura, **Koki Mimura**, Aya Senoo, Genta Karino, Shin Amemiya, T Miyaji, Tetsuya Kunikata, Hideo Yamanouchi, Socio-emotional development evaluated by Behaviour Output analysis for Quantitative Emotional State Translation: towards early diagnosis of individuals with developmental disorders, *OA Autism*, 1 (2), 18, 2013

Yuka Shirakawa, **Koki Mimura**, Aya Senoo, Kenji Fujii, Takao Shimizu, Tadafumi Saga, Ikuko Tanaka, Yoshiko Honda, Hironobu Tokuno, Setsuo Usui, Toru Kodama, Wakako Tsugawa, Koji Sode, Shun Nakamura, Mamiko Koshiba, Multivariate correlation analysis suggested high ubiquinol and low ubiquinone in plasma promoted primate's social motivation and IR detected lower body temperature, *J. Clin. Toxicol*, 3 (160), 10.4172, 2013

Aya Senoo, Teruhisa Okuya, Yasushi Sugiura, **Koki Mimura**, Yoshiko Honda, Ikuko Tanaka, Tohru Kodama, Hironobu Tokuno, Kunio Yui, Shun Nakamura, Setsuo Usui, Mamiko Koshiba, Effects of constant daylight exposure during early development on marmoset psychosocial behavior, *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 35 (6), 1493-1498, 2011

Mamiko Koshiba, **Koki Mimura**, Yasushi Sugiura, Teruhisa Okuya, Aya Senoo, Hidetoshi Ishibashi, Shun Nakamura, Reading marmoset behavior 'semantics' under particular social context by multi-parameters correlation analysis, *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 35 (6), 1499-1504, 2011

## REVIEW ARTICLE

**Koki Mimura**, Kyonko Matsumura, Yuya Matsumura, Yuko Sekiya, *Programming for Information Professionals. Beginner's guide to text analysis with R*, *Information Science and Technology*, 70 (4), 181-186, 2020

Shun Nakamura, Genta Karino, Aya Senoo, **Koki Mimura**, Yuka Shirakawa, Kazuyuki Yamazaki, Yuta Fukushima, Saya Obara, Hltomi Sekihara, Shinpei Ozawa, Kunio Yui, Mamiko Koshiba, *Development and Neural Basis of Social Behavior*, *Psychiatry et neurologia Japonica*, 114 (8), 921-927, 2012

## BOOK

Kieran Healy, Uryu Shinya, Akifumi Eguchi, **Koki Mimura**, *Data Visualization: A Practical Introduction (Japanese Edition)*. Kodansha, Jan. 2021

## IN PREP

## Awards, Fellowships, & Grants

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|           |   |             |
|-----------|---|-------------|
| 2024-2027 | <b>Brain/MINDE 2.0</b> , AMED (24wm0625124h0001)  | ¥50,000,000 |
| 2022-2027 | <b>Grant-in-Aid for Scientific Research C</b> , MEXT KAKENHI (22K07338)                                     | ¥3,200,000  |
| 2019-2021 | <b>Grant-in-Aid for Scientific Research on Innovative Areas</b> , MEXT KAKENHI (19H04996)                   | ¥8,600,000  |
| 2017-2019 | <b>Grant-in-Aid for Scientific Research on Innovative Areas</b> , MEXT KAKENHI (17H06040)                   | ¥9,000,000  |
| 2015-2018 | <b>Grant-in-Aid for Young Scientists B</b> , JSPS KAKENHI (15K21651)  | ¥3,100,000  |
| 2014-2017 | <b>Research Fellow of the Japan Society for the Promotion of Science (PD)</b> , JSPS KAKENHI (14J10961)     | ¥3,800,000  |
| 2012-2014 | <b>Research Fellow of the Japan Society for the Promotion of Science (DC2/PD)</b> , JSPS KAKENHI (12J03188) | ¥1,800,000  |
| 2012      | <b>Best Presentation Award, 2012 Spring Meeting of Japanese Poultry Science Association</b> , JPSA          |             |

## Presentations

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### INVITED TALKS

**Koki Mimura**, Akifumi Eguchi, Shinya Uryu, *Data visualization with R*. Invited talk (tutorial session): Japanese Joint Statistical Meeting, Online, Sept. 2021.

**Koki Mimura**, *Unsupervised temporal segmentation of marmoset goal-directed behavior*, Invited talk: 10th International Symposium on Biology of Decision-Making, Paris, France, May 2021.

**Koki Mimura**, Chika Sato, Jumpei Matsumoto, Ichio Aoki, Noritaka Ichinohe, Tetsuya Suhara, Takafumi Minamimoto, *Atypical behavioral and neural phenotypes in a common marmoset model of autism spectrum disorders*, Invited talk: 12th International "Stress and Behavior" Society Regional Conference (Asia), Yokohama, Japan, July 2017

**Koki Mimura**, Noritaka Ichinohe, *Abnormal Intra-Group Vocal Communication within Primate Family including a Kid of Model of Autism*, Invited talk: 6th International "Stress and Behavior" Society Regional Conference (Asia), Kobe, Japan, July 2015

**Koki Mimura**, Kan Sato, Shun Nakamura, Mamiko Koshiba, *A high sensitive period of attachment expression to unfamiliar peers visualized by longitudinal analysis of behavioral multivariate correlation*, 20th International Neuroscience and biological Psychiatry Conference "Stress and Behavior", New Orleans, LA, USA, June 22-24, 2013

### ORAL PRESENTATIONS

**Koki Mimura**, *Data Science of Behavior: Computational Description of Behavior by Unsupervised Machine Learning*, Japanese Joint Statistical Meeting 2023, Japan, 2023

**Koki Mimura**, Jumpei Matsumoto, Daichi Mochihashi, Tomoaki Nakamura, Takafumi Minamimoto, *Unsupervised segmentation of the contextual structure inherent in goal-directed behavior in non-human primates*, The 81st Annual meeting of Japanese society for animal psychology, Japan, 2021

**Koki Mimura**, Tomoaki Nakamura, Jumpei Matsumoto, Hisao Nishijo, Testuya Suhara, Daichi Mochihashi, Takafumi Minamimoto, *Body Motion Segmentation in Non-Human Primate Based on Gaussian Process HiddenSemi-Markov Model*, The 33rd Annual Conference of the Japanese Society for Artificial Intelligence, Niigata, Japan, 2019

**Koki Mimura**, Yuji Nagai, Ken-ichi Inoue, Testuya Suhara, Masahiko Takada, Takafumi Minamimoto, *PET-imaging guided chemogenetic manipulation of the nigrostriatal dopamine system*, Annual Meeting of Japan Society for Marmoset Research, Kyoto Univ., Kyoto, Japan, Jan. 2018

**Koki Mimura**, Keiko Nakagaki, Noritaka Ichinohe, *Disturbed vocal communication in common marmoset family with an autism-model child*, 24th International "Stress and Behavior" Conference Symposium, St. Petersburg, Russia, May 2017

**Koki Mimura**, Keiko Nakagaki, Noritaka Ichinohe, *Vocal communication abnormality within common marmoset family including their autism model child*, 75th Annual Meeting of the Japan Society of Animal Psychology, Japan Women's Univ., Tokyo, Japan, Sept. 2015

## RESEARCH AREA MEETINGS

**Koki Mimura**, *Social context segmentation analysis in a primate model of Autism Spectrum Disorder*. Invited talk: The 10th Research Area Meeting of Scientific Research on Innovative Areas: Artificial Intelligence and Brain, Online, Mar. 2021

**Koki Mimura**, *Social context segmentation analysis in a primate model of Autism Spectrum Disorder*. Invited talk: The 9th Research Area Meeting of Scientific Research on Innovative Areas: Artificial Intelligence and Brain, Online, Oct. 2020.

**Koki Mimura**, *Social context segmentation analysis in a primate model of Autism Spectrum Disorder*. Invited talk: The 8th Research Area Meeting of Scientific Research on Innovative Areas: Artificial Intelligence and Brain, Online, June 2020.

**Koki Mimura**, *Computational Modeling of Dynamical Social Interaction in Non-Human Primate*. Invited talk: The 7th Research Area Meeting of Scientific Research on Innovative Areas: Artificial Intelligence and Brain, Online, Dec. 2019.

**Koki Mimura**, *Computational Modeling of Dynamical Social Interaction in Non-Human Primate*. Invited talk: The 6th Research Area Meeting of Scientific Research on Innovative Areas: Artificial Intelligence and Brain, Tamagawa Univ., Tokyo, Japan, May. 2019.

**Koki Mimura**, *Computational Modeling of Dynamical Social Interaction in Non-Human Primate*. Invited talk: The 5th Research Area Meeting of Scientific Research on Innovative Areas: Artificial Intelligence and Brain, ATR, Nara, Japan, Sep. 2018.

**Koki Mimura**, *Computational Modeling of Dynamical Social Interaction in Non-Human Primate*. Invited talk: Joint Research Area Meeting of Scientific Research on Innovative Areas: "Adaptive Circuit Shift" and "Artificial Intelligence and Brain Science", OIST, Okinawa, Japan, May. 2018.

**Koki Mimura**, *Computational Modeling of Dynamical Social Interaction in Non-Human Primate*. Invited talk: The 3rd Research Area Meeting of Scientific Research on Innovative Areas: Artificial Intelligence and Brain Science, Tokyo, Japan, Dec. 2017.

**Koki Mimura**, *Computational Modeling of Dynamical Social Interaction in Non-Human Primate*. Invited talk: The 2nd Research Area Meeting of Scientific Research on Innovative Areas: Artificial Intelligence and Brain Science, Osaka Univ, Osaka, Japan, May 2017.

## POSTER PRESENTATIONS

Kei Oyama, Kei Majima, Yuji Nagai, Yukiko Hori, Toshiyuki Hirabayashi, Mark A G Eldridge, Naohisa Miyakawa, **Koki Mimura**, Atsushi Fujimoto, Ken-ichi Inoue, Richard C Saunders, Masahiko Takada, Noriaki Yahata, Makoto Higuchi, Barry J Richmond, Takafumi Minamimoto, *Distinct roles of pathways from monkey orbitofrontal cortex to caudate and mediodorsal thalamus in value-based adaptive decision-making*, The 45th Annual Meeting of the Japan Neuroscience Society, Feb. 2022

**Koki Mimura**, Jumpei Matsumoto, Daichi Mochihashi, Tomoaki Nakamura, Toshiyuki Hirabayashi, Makoto Higuchi, Takafumi Minamimoto, *Contextual segmentation of chunky structures in marmoset feeding behavior using a non-parametric Bayesian model*, 11st Annual Meeting of the Japanese Society for Marmoset Research, Online, Feb. 2022

Chika Sato, **Koki Mimura**, Takafumi Minamimoto, Noriaki Yahata, *The reproducibility of resting-state functional network analysis in marmoset functional MRI*, 49th Annual Meeting of the Japanese Society for Magnetic Resonance in Medicine, Online, Oct. 2020

Yuji Nagai, Naohisa Miyakawa, Hiroyuki Takuwa, Yukiko Hori, Kei Oyama, Bin Ji, Takahashi Manami, Xi-Ping Haung, Samuel T. Slocum, Yan Xiong, Toshiyuki Hirabayashi, Atsushi Fujimoto, **Koki Mimura**, Justin G. English, Jing Liu, Ken-ichi Inoue, Katsushi Kumata, Chie Seki, Maiko Ono, Masafumi Shimojo, Ming-Rong Zhang, Yutaka Tomita, Tetsuya Suhara, Masahiko Takada, Makoto Higuchi, Jian Jin, Brayan L. Roth, Takafumi Minamimoto, *A novel ligand “deschloroclozapine” selectively visualizes and activates chemogenetic receptors in non-human primates*, BRAIN & BRAIN PET 2019, Yokohama, Japan, July 2020

**Koki Mimura**, Jumpei Matsumoto, Cika Sato, Kei Kimura, Yukiko Hori, Yuji Nagai, Ken-ichi Inoue, Ichio Aoki, Hisao Nishijo, Testuya Suhara, Masahiko Takada, Noriaki Yahata, Takafumi Minamimoto. *A chemogenetic toolbox with multimodal imaging and motion tracking for free marmoset behavior*, Marmoset Bioscience Symposium, Chicago, Illinois, USA, Oct. 2019

**Koki Mimura**, Yuji Nagai, Ken-ichi Inoue, Suhara Testuya, Masahiko Takada, Takafumi Minamimoto, Using PET imaging to monitor chemogenetic manipulation of nigrostriatal dopamine system in common marmoset, Neuroscience2018, Kobe, Japan, July 2018

**Koki Mimura**, Jumpei Matsumoto, Hisao Nishijo, Tetsuya Suhara, Takafumi Minamimoto, *Marker-less 3D head direction tracking system in free moving common marmoset*, Annual Meeting of Japan Society for Marmoset Research, Kyoto Univ., Kyoto, Japan, Jan. 2018

Masafumi Shimojo, Maiko Ono, Hiroyuki Takuwa, Masayuki Fujinaga, Tatsuya Kikuchi, Maki Okada, **Koki Mimura**, Yuji Nagai, Chie Seki, Masaki Tokunaga, Jun Maeda, Yuhei Takado, Manami Takahashi, Takeharu Minamihisamatsu, Ming-Rong Zhang, Yutaka Tomita, Norihiro Suzuki, Takafumi Minamimoto, Anton Maximov, Tetsuya Suhara, Naruhiko Sahara, Makoto Higuchi, *Genetically encoded reporter for bimodal optical and PET imaging in the mammalian brain*, Neuroscience 2018, San Diego, USA

J. Matsumoto, H. Nishimaru, Y. Takamura, **K. Mimura**, A. Asaba, W. Suzuki, N. Ichinohe, T. Minamimoto, T. Ono, H. Nishijo, *3D-Tracker, an open-source 3D video based behavioral analysis system for laboratory animals for neuroscience*, Neuroscience 2017, Washington DC, USA

**Koki Mimura**, Chika Sato, Jumpei Matsumoto, Ichio Aoki, Noritaka Ichinohe, Tetsuya Suhara, Takafumi Minamimoto, *Atypical Behavioral and Neural Phenotype in a Common Marmoset Model of Autism Spectrum Disorders*, 12th International “Stress and Behavior” Society Regional Conference (Asia), Japan, 2017

**Koki Mimura**, Chika Sato, Keiko Nakagaki, Ichio Aoki, Takafumi Minamimoto, Noritaka Ichinohe, *Atypical behavioral and neural phenotypes in a non-human primate model of autism spectrum disorders*, Society for Neuroscience, San Diego, California, USA, Nov. 2016

## Outreach & Professional Development \_\_\_\_\_

### SERVICE AND OUTREACH

Aug. 2023 - **Frontiers in Computational Neuroscience**, Review Editor

Nov. 2017 - **Tokyo.R**, Organizer  
Mar. 2024

Sept. 2021 - **Japan.R**, Organizing member

### LECTURE

|            |   |            |
|------------|---|------------|
| Oct. 2023  | <b>Data visualization</b> , 109th Tokyo.R                                   | Online     |
| Sept. 2023 | <b>Nested data handling</b> , 108th Tokyo.R                                 | Online     |
| July 2023  | <b>Introduction for R &amp; Geostatistics</b> , 107th Tokyo.R               | Online     |
| March 2023 | <b>Data Processing and visualization</b> , 104th Tokyo.R                    | Online     |
| Jan. 2023  | <b>Data Processing and visualization</b> , 103rd Tokyo.R                    | Online     |
| Sept. 2022 | <b>R Markdown</b> , 102nd Tokyo.R   | Online     |
| Oct. 2022  | <b>Regression analysis</b> , 101st Tokyo.R                                  | Online     |
| June 2022  | <b>Divergence</b> , 99th Tokyo.R  | Online     |
| April 2022 | <b>Text Analysis</b> , 98th Tokyo.R   | Online     |
| March 2022 | <b>BeggineR Session - Data visualization</b> , 97th Tokyo.R                 | Online     |
| Jan. 2022  | <b>Probability theory</b> , 96th Tokyo.R                                    | Online     |
| Sept. 2021 | <b>BeggineR Session - Bayesian statistics -</b> , 94th Tokyo.R              | Online     |
| July 2021  | <b>BeggineR Session - Data processing -</b> , 93rd Tokyo.R                  | Online     |
| April 2021 | <b>BeggineR Session - Regression analysis -</b> , 91st Tokyo.R              | Online     |
| March 2021 | <b>BeggineR Session - Nested data handling -</b> , 90th Tokyo.R             | Online     |
| Jan. 2021  | <b>BeggineR Session - Data visualization -</b> , 89th Tokyo.R               | Online     |
| Sept. 2020 | <b>Narrative of iris data</b> , 88th Tokyo.R                                | Online     |
| June 2020  | <b>BeggineR Session - Data analysis -</b> , 86th Tokyo.R                    | Online     |
| May 2020   | <b>BeggineR Session - Data visualization -</b> , 85th Tokyo.R               | Online     |
| Jan. 2020  | <b>Landscape with R</b> , 83rd Tokyo.R                                      | KPMG AZUSA |
| Oct. 2019  | <b>BeggineR Session - Data visualization -</b> , 82nd Tokyo.R               | CyberAgent |
| Sept. 2019 | <b>IntRoduction &amp; DemonstRation</b> , 81st Tokyo.R                      | DIP        |
| July 2019  | <b>R Interface to Python</b> , 80th Tokyo.R                                 | Cresco     |
| June 2019  | <b>BeggineR Session - Probability -</b> , 79th Tokyo.R                      | Infocom    |
| May 2019   | <b>BeggineR Session - Data analysis -</b> , 78th Tokyo.R                    | MS & AD    |
| May 2019   | <b>BeggineR Session</b> , Sendai.R #1                                       | Datacom    |
| April 2019 | <b>BeggineR Session - Data analysis -</b> , 77th Tokyo.R                    | SONY       |
| March 2019 | <b>BeggineR Session - Data pipeline -</b> , 76th Tokyo.R                    | DeNA       |
| Jan. 2019  | <b>BeggineR Session - Data pipeline -</b> , 75th Tokyo.R                    | ALTOA      |
| Oct. 2018  | <b>BeggineR Session - Visualization &amp; Plot -</b> , 73rd Tokyo.R         | eureka     |
| Oct. 2018  | <b>Concept of "BeginnerR Session" -Tokyo.R cases report-</b> , Tsukuba.R #1 | Tsukuba    |
| July 2018  | <b>Landscape with R - the Japanese R community -</b> , 71st Tokyo.R         | Yahoo!JP   |
| June 2018  | <b>BeggineR Session - Bayesian Modeling -</b> , 70th Tokyo.R                | Microsoft  |
| April 2018 | <b>BeggineR Session - Data Import/Export -</b> , 69th Tokyo.R               | DIP        |
| March 2018 | <b>BeggineR Session - Data Import/Export -</b> , 68th Tokyo.R               | Softbank   |
| Jan. 2018  | <b>BeggineR Session - Data manipulation -</b> , 67th Tokyo.R                | Otto       |
| Dec. 2017  | <b>BeggineR Session - Data manipulation -</b> , 66th Tokyo.R                | DIP        |