

## List of Publications in 2024

### WPI papers

#### (1) Original Articles

1. Kumar D, Yanagisawa M, Funato H (2024) Sleep-dependent memory consolidation in young and aged brains. *Aging Brain* **6**. doi:10.1016/j.nbas.2024.100124
2. Hayano J, Yamamoto H, Tanaka H, Yuda E (2024) Piezoelectric rubber sheet sensor: a promising tool for home sleep apnea testing. *Sleep Breathing*. **28**(3):1273-1283. doi:10.1007/s11325-024-02991-9
3. Moridera A, Fujihara H, Cherasse Y, Mugishima G, Fujiki N (2024) Effects of sleep deprivation on sleep and sleep electroencephalogram in secretin-receptor knockout mice. *Neurosci. Res.* **200**:41-47. doi:10.1016/j.neures.2023.09.008
4. Hasegawa E, Li YL, Sakurai T (2024) Regulation of REM sleep in mice: The role of dopamine and serotonin function in the basolateral amygdala. *Neurosci. Res.* **200**:28-33. doi:10.1016/j.neures.2023.09.003
5. Miyanishi K, Hotta-Hirashima N, Miyoshi C, Hayakawa S, Kakizaki M, Kanno S, Ikkyu A, Funato H, Yanagisawa M (2024) Microglia modulate sleep/wakefulness under baseline conditions and under acute social defeat stress in adult mice. *Neurosci. Res.* **202**:8-19. doi:10.1016/j.neures.2023.11.010
6. Moctezuma LA, Suzuki Y, Furuki J, Molinas M, Abe T (2024) GRU-powered sleep stage classification with permutation-based EEG channel selection. *Sci. Rep.* **14** (1). doi:10.1038/s41598-024-68978-4
7. Nakata S, Iwasaki K, Funato H, Yanagisawa M, Ozaki H (2024) Neuronal subtype-specific transcriptomic changes in the cerebral neocortex associated with sleep pressure. *Neurosci. Res.* **207** 13-25. doi:10.1016/j.neures.2024.03.004
8. Nakai A, Kashiwagi M, Fujiyama T, Iwasaki K, Hirano A, Funato H, Yanagisawa M, Sakurai T, Hayashi Y (2024) Crucial role of TFAP2B in the nervous system for regulating NREM sleep. *Mol. Brain.* **17**(1). doi:10.1186/s13041-024-01084-8
9. Sato N, Inada N, Miyazaki Y, Oi H, Inoue M, Kikuchi S, Nakajima S (2024) Maternal depression and its association with sleep problems and emotional and behavioral problems in preschool children. *Sleep Biol.Rhythms*. doi:10.1007/s41105-024-00557-6
10. Fan ZW, Zhu YY, Suzuki C, Suzuki Y, Watanabe Y, Watanabe T, Abe T (2024) Binaural beats at 0.25 Hz shorten the latency to slow-wave sleep during daytime naps. *Sci. Rep.* **14**(1). doi:10.1038/s41598-024-76059-9
11. Hama Y, Yamada S, Nishimura R, Yoshida M, Tsuga K, Morita E, Tamada Y, Kato Y, Kubo Y, Okada R, Nagayoshi M, Tamura T, Hishida A, Wakai K, Naito M (2024) Association between dysphagia risk and sleep quality in community-dwelling older adults: A cross-sectional study. *Heliyon* **10**(11). doi:10.1016/j.Heliyon.2024.e32028
12. Nakata S, Fujiyama T, Asano F, Komiya H, Hotta-Hirashima N, Juichi M, Komine D, Kakizaki M, Ikkyu A, Mizuno S, Takahashi S, Miyoshi C, Funato H, Yanagisawa M (2024) Partial activation of salt-inducible kinase 3 delays the onset of wakefulness and alleviates hypersomnia due to the lack of protein kinase A-phosphorylation site. *Sleep* **48**(2). doi:10.1093/sleep/zsae279
13. Inoue M, Nakajima S, Inada N, Oi H, Sato N, Miyazaki Y, Takashina H, Tagaya H, Adachi Y, Kuga H (2024) Development of the Parenting Behavior Checklist to Promote Preschoolers' Sleep (PCPP). *Behav. Sleep Med.* **22**(3):275-284. doi:10.1080/15402002.2023.2241590
14. Park I, Yoshitake R, Kioka K, Ishihara A, Yajima K, Kawana F, Kokubo T, Matsuzaki I, Kanbayashi T, Yanagisawa M, Tokuyama K (2024) Orexin receptor antagonist increases fat catabolism during sleep

in humans. *IScience* **27**(7). doi:10.1016/j.isci.2024.110212

15. Nakatsuka D, Kanda T, Sato M, Ishikawa Y, Cherasse Y, Yanagisawa M (2024) A novel GABAergic population in the medial vestibular nucleus maintains wakefulness and gates rapid eye movement sleep. *IScience* **27**(3). doi:10.1016/j.isci.2024.109289
16. Seol J, Chiba S, Kawana F, Tsumoto S, Masaki M, Tominaga M, Amemiya T, Tani A, Hiei T, Yoshimine H, Kondo H, Yanagisawa M (2024) Validation of sleep-staging accuracy for an in-home sleep electroencephalography device compared with simultaneous polysomnography in patients with obstructive sleep apnea. *Sci. Rep.* **14**(1). doi:10.1038/s41598-024-53827-1
17. Sawada T, Iino Y, Yoshida K, Okazaki H, Nomura S, Shimizu C, Arima T, Juichi M, Zhou S, Kurabayashi N, Sakurai T, Yagishita S, Yanagisawa M, Toyozumi T, Kasai H, Shi S (2024) Prefrontal synaptic regulation of homeostatic sleep pressure revealed through synaptic chemogenetics. *Science* **385**(6716):1459-1465. doi:10.1126/Science.adl3043
18. Kashiwagi M, Beck G, Kanuka M, Arai Y, Tanaka K, Tatsuzawa C, Koga Y, Saito YC, Takagi M, Oishi Y, Sakaguchi M, Baba K, Ikuno M, Yamakado H, Takahashi R, Yanagisawa M, Murayama S, Sakurai T, Sakai K, Nakagawa Y, Watanabe M, Mochizuki H, Hayashi Y (2024) A pontine-medullary loop crucial for REM sleep and its deficit in Parkinson's disease. *Cell* **187** (22). doi:10.1016/j.cell.2024.08.046
19. Wang YM, Cao SY, Tone D, Fujishima H, Yamada RG, Ohno R, Shi S, Matsuzawa K, Yada S, Kaneko M, Sakamoto H, Onishi T, Ukai-Tadenuma M, Ukai H, Hanashima C, Hirose K, Kiyonari H, Sumiyama K, Ode KL, Ueda HR (2024) Postsynaptic competition between calcineurin and PKA regulates mammalian sleep-wake cycles. *Nature* **636**(8042):412. doi:10.1038/s41586-024-08132-2
20. Kon K, Ode KL, Mano T, Fujishima H, Takahashi RR, Tone D, Shimizu C, Shiono S, Yada S, Matsuzawa K, Yoshida SY, Garçon JY, Kaneko M, Shinohara Y, Yamada RG, Shi S, Miyamichi K, Sumiyama K, Kiyonari H, Susaki EA, Ueda HR (2024) Cortical parvalbumin neurons are responsible for homeostatic sleep rebound through CaMKII activation. *Nat. Commun.* **15**(1). doi:10.1038/s41467-024-50168-5
21. Asaga T, Hashimoto K, Kawamura Y, Fujita N, Kimata M, Sekizawa A, Ono Y, Obuchi Y, Kobayashi N, Hirasawa H, Kanbayashi T, Tanaka Y (2024) Idiopathic hypersomnia with a video recording of a spontaneous sleep attack: A case report. *Medicine* **103**(7). doi:10.1097/MD.00000000000036782
22. Suzuki Y, Ding N, Sato K, Wang ZS, Suzuki Y, Oiwa Y, Kanbayashi T, Abe T (2024) Effects of Slow Oscillation Enhancement during NREM Sleep Using Closed-Loop Auditory Stimulation on Anxiety. *Sleep* **47**. doi:10.1093/sleep/zsae067.0138
23. Park I, Yoshitake R, Kioka K, Ishihara A, Yajima K, Kawana F, Kokubo T, Matsuzaki I, Yanagisawa M, Kanbayashi T, Tokuyama K (2024) Orexin receptor antagonist modulates sleeping energy metabolism in humans. *J. Sleep Res.* **33**.
24. Horie K, Miyamoto R, Ota L, Abe T, Suzuki Y, Kawana F, Kokubo T, Yanagisawa M, Kitagawa H (2024) An ensemble method for improving robustness against the electrode contact problems in automated sleep stage scoring. *Sci. Rep.* **14**(1). doi:10.1038/s41598-024-72612-8
25. Kanbayashi T, Li R, Burhani OT, Konno Y, Nemoto T, Chiba S, Park I, Anegawa E, Hirano A, Sakurai T (2024) Aripiprazole as a new treatment for circadian rhythm sleep-wake disorders and its mechanism of action. *J. Sleep Res.* **33**.
26. Suzuki Y, Ding N, Sato K, Wang ZS, Suzuki Y, Oiwa Y, Kanbayashi T, Abe T (2024) Slow-oscillation enhancement during non-rapid eye movement sleep using closed-loop auditory stimulation in healthy adults with high anxiety may improve cardiac health after sleep. *J. Sleep Res.* **33**.
27. Cherasse Y, Taira Y, Rassu AL, Barateau L, Evangelista E, Muratani M, Funato H, Yanagisawa M, University of Tsukuba-2

- Dauvilliers Y (2024) Association between idiopathic hypersomnia and a genetic variant in the PER3 gene. *J. Sleep Res.* **33**(5). doi:10.1111/jsr.14146
28. Bjorness TE, Greene RW (2024) Orexin-mediated motivated arousal and reward seeking. *Peptides* **180**. doi:10.1016/j.peptides.2024.171280
  29. Chiba S, Honaga T, Konno Y, Anegawa E, Ishido H, Nemoto T, Irukayama Y, Takahashi S, Kanbayashi T, Kimura M (2024) Pathophysiology and treatment of young patients with prolonged nocturnal sleep after COVID-19 infection. *J. Sleep Res.* **33**.
  30. Roy K, Zhou XZ, Otani R, Yuan PC, Ioka S, Vogt KE, Kondo T, Farag NHT, Ijiri H, Wu ZF, Chitose Y, Amezawa M, Uygun DS, Cherasse Y, Nagase H, Li YL, Yanagisawa M, Abe M, Basheer R, Wang YQ, Saitoh T, Lazarus M (2024) Optochemical control of slow-wave sleep in the nucleus accumbens of male mice by a photoactivatable allosteric modulator of adenosine A2A receptors. *Nat. Commun.* **15** (1). doi:10.1038/s41467-024-47964-4
  31. Furukawa Y, Nagaoka D, Sato S, Toyomoto R, Takashina HN, Kobayashi K, Sakata M, Nakajima S, Ito M, Yamamoto R, Hara S, Sakakibara E, Perlis M, Kasai K (2024) Cognitive behavioral therapy for insomnia to treat major depressive disorder with comorbid insomnia: A systematic review and meta-analysis. *Journal of Affective Disorders* **367** 359-366. doi:10.1016/j.jad.2024.09.017
  32. Futagawa A, Tsuneoka Y, Lazarus M, Oishi Y (2024) Comprehensive mapping of histamine H1 receptor mRNA in the mouse brain. *J. Comp. Neurol* **532**(5). doi:10.1002/cne.25622
  33. Naganuma F, Girgin B, Agu ABS, Hirano K, Nakamura T, Yanai K, Vetrivelan R, Mochizuki T, Yanagisawa M, Yoshikawa T (2025) Pharmacological inhibition of histamine N-methyltransferase extends wakefulness and suppresses cataplexy in a mouse model of narcolepsy. *Sleep* **48**(1). doi:10.1093/sleep/zsae244
  34. Nagata K, Shibuya K, Fujii Y, Seol J, Jindo T, Okura T (2024) Cross-sectional study of the optimal types of physical exercise for cognitive function in older Japanese adults. *Geriatrics & Gerontology International* **24**(11):1173-1180. doi:10.1111/ggi.14991
  35. Suzuki Y, Suzuki C, Abe T (2024) Examination of post—arousal hypersynchrony in the first—night effect. *Sleep* **47**. doi:10.1093/sleep/zsae067.0089
  36. Mizuno Y, Uehara T, Nakamura Y, Okadome T, Mukaino T, Koh K, Takiyama Y, Kanbayashi T, Isobe N, Kira JI, Murai H, Shigeto H (2024) A case of monozygotic twins with hereditary spastic paraplegia type 4 and epilepsy of whom only one developed narcolepsy type 1. *J. Sleep Res.* **33**(4). doi:10.1111/jsr.14102
  37. Abe T, Suzuki Y, Suzuki C, Ohigashi T, Maruo K, Watanabe Y, Endo J, Watanabe T (2024) Effects of Optimal-timed automatic awakening from a short daytime nap on cognitive performance and fatigue. *Sleep* **47**. doi:10.1093/sleep/zsae067.0143
  38. Li YD, Luo YJ, Su WK, Ge J, Crowther A, Chen ZK, Wang L, Lazarus M, Liu ZL, Qu WM, Huang ZL (2024) Anterior cingulate cortex projections to the dorsal medial striatum underlie insomnia associated with chronic pain. *Neuron* **112**(8). doi:10.1016/j.neuron.2024.01.014
  39. Lim N, Tsunoda K, Nagata K, Asano Y, Seol J, Jindo T, Tsuji T, Okura T (2024) Developing a battery of physical performance tests to predict functional disability in Japanese older adults: A longitudinal study from the Kasama study. *Geriatrics & Gerontology International* **24**(12):1343-1349. doi:10.1111/ggi.15008
  40. Yajima K, Chiba S, Park I, Ogata H, Kayaba M, Ishihara A, Tanaka Y, Simeng Z, Jaehoon S, Katakura M, Tokuyama K (2024) Dietary palmitic acid to oleic acid ratio modulates energy metabolism and biological rhythms in young healthy Japanese males. *Br. J. Nutr.* **131**(3):447-460.

doi:10.1017/S0007114523001770

41. Tagawa N, Mori K, Koebis M, Aiba A, Iino Y, Tsuneoka Y, Funato H (2024) Activation of lateral preoptic neurons is associated with nest-building in male mice. *Sci. Rep.* **14**(1). doi:10.1038/s41598-024-59061-z
42. Tsuneoka Y, Funato H (2024) Whole Brain Mapping of Orexin Receptor mRNA Expression Visualized by Branched In Situ Hybridization Chain Reaction. *Eneuro* **11**(2). doi:10.1523/ENEURO.0474-23.2024
43. Nishiyama S, Sekine A, Masuyama T, Nagatomo K, Kanbayashi T, Sanui M (2025) Orexin concentrations and diurnal variation in the cerebrospinal fluid of intensive care unit patients undergoing aortic surgery with spinal drainage. *Neuropsychopharmacol. Rep.* **45**(1). doi:10.1002/npr2.12504
44. Furukawa Y, Sakata M, Yamamoto R, Nakajima S, Kikuchi S, Inoue M, Ito M, Noma H, Takashina HN, Funada S, Ostinelli EG, Furukawa TA, Efthimiou O, Perlis M (2024) Components and Delivery Formats of Cognitive Behavioral Therapy for Chronic Insomnia in Adults A Systematic Review and Component Network Meta-Analysis. *Jama Psychiatry* **81**(4):357-365. doi:10.1001/jamapsychiatry.2023.5060
45. Kawakami C, Naoi T, Sakaguchi M (2024) Spaced conditioned stimulus presentation facilitates the extinction of strong fear memory in mice. *Biochem. Biophys. Res. Commun.* **718**. doi:10.1016/j.bbrc.2024.150071
46. Masuda K, Sakurai T, Hirano A (2024) A coupled model between circadian cell-cycle and redox rhythms reveals their regulation of oxidative stress. *Sci. Rep.* **14**(1). doi:10.1038/s41598-024-66347-9
47. Masuda K, Tokuda IT, Fukuda H (2024) Recovering detailed shape of phase response curves from the higher harmonics of singularity response. *Phys. Rev. Res.* **6**(4). doi:10.1103/PhysRevResearch.6.043174
48. Bou S, Amagasa T, Kitagawa H (2024) Finformer: Fast Incremental and General Time Series Data Prediction. *IEICE Trans. Inf. Syst.* **E107D**(5):625-637. doi:10.1587/transinf.2023DAP0003
49. Li KZ, Koukoutselos K, Sakaguchi M, Cioocchi S (2024) Distinct ventral hippocampal inhibitory microcircuits regulating anxiety and fear behaviors. *Nat. Commun.* **15**(1). doi:10.1038/s41467-024-52466-4
50. Suzuki Y, Ramadhiani R, Ryanto GR, Musthafa A, Hara T, Yanagisawa M, Emoto N (2024) Endothelin-2 specifically expressed in the pulmonary neuroendocrine cells plays a novel and crucial role in the development of hypoxia-induced pulmonary hypertension. *Clin. Sci.* **138** A106-A106.
51. Shaikh SA, Kitagawa H, Matono A, Kim KS (2024) A Distributed and Scalable Framework for Low-Latency Continuous Trajectory Stream Processing. *IEEE Access* **12** 159426-159444. doi:10.1109/ACCESS.2024.3484433
52. Seol J, So R, Murai F, Matsuo T (2024) Relationship between rest-activity rhythms and cardiorespiratory fitness in middle-aged workers: a cross-sectional study with non-parametric analysis using accelerometers worn on the thigh. *Bmc Public Health* **24**(1). doi:10.1186/s12889-023-17580-w
53. Okabe Y, Murakoshi N, Kurebayashi N, Inoue H, Ito Y, Murayama T, Miyoshi C, Funato H, Ishii K, Xu DZ, Tajiri K, Qin RJ, Aonuma K, Murakata Y, Song ZH, Wakana S, Yokoyama U, Sakurai T, Aonuma K, Ieda M, Yanagisawa M (2024) An inherited life-threatening arrhythmia model established by screening randomly mutagenized mice. *PNAS* **121**(17). doi:10.1073/pnas.2218204121
54. Martino P, Sunkara R, Heitman N, Rangl M, Brown A, Saxena N, Grisanti L, Kohan D, Yanagisawa M, University of Tsukuba-4

- Rendl M (2024) Progenitor-derived endothelin controls dermal sheath contraction for hair follicle regression. *Clin. Sci.* **138** A16-A16.
55. Tsunoda R, Kume K, Kagawa R, Sanuki M, Kitagawa H, Mase K, Yamagata K (2024) Machine-learning-based identification of patients with IgA nephropathy using a computerized medical billing database. *PLoS One* **19**(12). doi:10.1371/journal.pone.0312915
  56. Yoshioka T, Yamada D, Hagiwara A, Kajino K, Iio K, Saitoh T, Nagase H, Saitoh A (2024) Delta opioid receptor agonists activate PI3K-mTORC1 signaling in parvalbumin-positive interneurons in mouse infralimbic prefrontal cortex to exert acute antidepressant-like effects. *Mol. Psychiatry*. doi:10.1038/s41380-024-02814-z
  57. Kawaminami A, Yamada D, Yoshioka T, Hatakeyama A, Nishida M, Kajino K, Saitoh T, Nagase H, Saitoh A (2024) The delta opioid receptor agonist KNT-127 relieves innate anxiety-like behavior in mice by suppressing transmission from the prelimbic cortex to basolateral amygdala. *Neuropsychopharmacol. Rep.* **44**(1):256-261. doi:10.1002/npr2.12406
  58. Ryanto GRT, Fujiyama T, Suzuki Y, Hara T, Nagai T, Yanagisawa M, Emoto N (2024) Evaluation of ET-2 physiology in the lung via the generation of a novel Edn-2 luminescent reporter mice. *Clin. Sci.* **138** A105-A105.
  59. Bou S, Amagasa T, Kitagawa H (2024) O(1)-Time Complexity for Fixed Sliding-Window Aggregation Over Out-of-Order Data Streams. *IEEE Trans. Knowl. Data Eng.* **36**(11):6745-6757. doi:10.1109/TKDE.2024.3419566
  60. Aida K, Hirao M, Saitoh T, Yamamoto T, Einaga Y, Ota E, Yamaguchi J (2024) Selective C-N Bond Cleavage in Unstrained Pyrrolidines Enabled by Lewis Acid and Photoredox Catalysis. *JACS* **146**(44):30698-30707. doi:10.1021/jacs.4c13210
  61. Yoshioka T, Kimiki S, Yamazaki M, Hamano T, Ou M, Ode Y, Ehara R, Kajino K, Kasai S, Yoshizawa K, Saitoh T, Yamada D, Nagase H, Saitoh A (2025) Agonists of the opioid  $\delta$ -receptor improve irritable bowel syndrome-like symptoms via the central nervous system. *Br. J. Pharmacol.* **182**(7):1599-1609. doi:10.1111/bph.17428
  62. Maeda K, Sugai T, Tokuda A, Kajino K, Saitoh T, Nagase H, Kutsumura N (2024) Design and synthesis of unique morphinan-type molecules: Their application to the search for the unexplored binding domain between opioid receptors and morphinan ligands. *Bioorganic & Medicinal Chemistry Letters* **99**. doi:10.1016/j.bmcl.2024.129611
  63. Okamoto M, Shimoda R, Amaya Y, Soya S, Soya M, Koizumi H, Nakamura K, Hiraga T, Torma F, Soya H (2024) Accelerated Fear Extinction by Regular Light-Intensity Exercise: A Possible Role of Hippocampal BDNF-TrkB Signaling. *Med. Sci. Sports Exercise* **56**(2):221-229. doi:10.1249/MSS.0000000000003312
  64. Yoshida N, Miyajima M, Suzuki Y, Matsushima E, Watanabe T, Omoya R, Fujiwara M, Nakamura M, Takahashi H, Takeuchi T (2024) Heart rate variability in schizophrenia: A comparative analysis before and after electroconvulsive therapy. *Psychiatry And Clinical NeuroSciences Reports* **3**(4). doi:10.1002/pcn5.70030
  65. Murakami Y, Ando M, Imamura A, Oketani R, Leproux P, Honjoh S, Kano H (2024) Molecular Fingerprinting of Mouse Brain Using Ultrabroadband Coherent Anti-Stokes Raman Scattering (CARS) Microspectroscopy Empowered by Multivariate Curve Resolution-Alternating Least Squares (MCR-ALS). *Chem. Biomed. Imaging* **2**(10):689-697. doi:10.1021/cbmi.4c00034
  66. So RN, Murai F, Seol J, Matsuo T (2025) The impact of occupational sitting time and occupation on cardiometabolic health in Japanese workers. *International Archives of Occupational and Environmental Health* **98**(1):25-32. doi:10.1007/s00420-024-02111-w

67. Suganuma T, Hatori S, Chen CK, Hori S, Kanuka M, Liu CY, Tatsuzawa C, Yanagisawa M, Hayashi Y (2024) Caffeoylquinic Acid Mitigates Neuronal Loss and Cognitive Decline in 5XFAD Mice Without Reducing the Amyloid- $\beta$  Plaque Burden. *J. Alzheimers Dis.* **99**(4):1285-1301. doi:10.3233/JAD-240033
68. Nomura S, Terada SI, Ebina T, Uemura M, Masamizu Y, Ohki K, Matsuzaki M (2024) ARViS: a bleed-free multi-site automated injection robot for accurate fast and dense delivery of virus to mouse and marmoset cerebral cortex. *Nat. Commun.* **15**(1). doi:10.1038/s41467-024-51986-3
69. Hiraga T, Hata T, Soya S, Shimoda R, Takahashi K, Soya M, Inoue K, Johansen JP, Okamoto M, Soya H (2024) Light-exercise-induced dopaminergic and noradrenergic stimulation in the dorsal hippocampus: Using a rat physiological exercise model. *FASEB J.* **38**(24). doi:10.1096/fj.202400418RRR
70. Arai K, Ono Y, Hirai N, Sugiura Y, Kaneko K, Matsuda S, Iio K, Kajino K, Saitoh T, Wei FY, Katagiri H, Inoue A (2024) Chemogenetic activation of hepatic G12 signaling ameliorates hepatic steatosis and obesity. *Biochim Biophys Acta Mol Basis Dis.* **1871**(2):167566. doi:10.1016/j.bbadis.2024.167566
71. Seol J, So R, Murai F, Matsuo T (2024) Association between physical activity patterns of working-age adults and social jetlag depressive symptoms and presenteeism. *Journal of Occupational Health* **66**(1). doi:10.1093/jocuh/uiae068
72. Arai M, Suzuki E, Kitamura S, Otaki M, Kanai K, Yamasaki M, Watanabe M, Kambe Y, Murata K, Takada Y, Arisawa T, Kobayashi K, Tajika R, Miyazaki T, Yamaguchi M, Lazarus M, Hayashi Y, Itohara S, d'Exaerde AD, Nawa H, Kim R, Bito H, Momiyama T, Masukawa D, Goshima Y (2024) Enhancement of Haloperidol-Induced Catalepsy by GPR143 an L-Dopa Receptor in Striatal Cholinergic Interneurons. *J. Neurosci.* **44**(11). doi:10.1523/JNEUROSCI.1504-23.2024
73. Hario S, Le GNT, Sugimoto H, Takahashi-Yamashiro K, Nishinami S, Toda H, Li SLE, Marvin JS, Kuroda S, Drobizhev M, Terai T, Nasu Y, Campbell RE (2024) High-Performance Genetically Encoded Green Fluorescent Biosensors for Intracellular L-Lactate. *ACS Cent. Sci.* **10**(2):402-416. doi:10.1021/acscentsci.3c01250

## (2) Review articles

74. Hasegawa E, Lazarus M (2024) Mental health: The REM sleep paradox in depression. *Curr. Biol.* **34**(15). doi:10.1016/j.cub.2024.06.053
75. Horie K, Miyamoto R, Ota L, Abe T, Suzuki Y, Kawana F, Kokubo T, Yanagisawa M, Kitagawa H (2024) An ensemble method for improving robustness against the electrode contact problems in automated sleep stage scoring (vol 14 21894 2024). *Sci. Rep.* **15**(1). doi:10.1038/s41598-025-85854-x
76. Kumar D (2024) Sleep-memory relationships during brain aging. *Aging Brain* **6**. doi:10.1016/j.nbas.2024.100127
77. Sakurai K (2024) Rethinking c-Fos for understanding drug action in the brain. *J. Biochem.* **175**(4):377-381. doi:10.1093/jb/mvad110
78. Kajino K, Tokuda A, Saitoh T (2024) Morphinan Evolution: The Impact of Advances in Biochemistry and Molecular Biology. *J. Biochem.* **175**(4):337-355. doi:10.1093/jb/mvae021
79. Omichi C, Kaminishi Y, Kadotani H, Sumi Y, Ubara A, Nishikawa K, Matsuda A, Ozeki Y (2024) Limited (vol 10 981592 2022). *Front. Public Health* **12**. doi:10.3389/fpubh.2024.1449081

## (3) Proceedings

80. Tsumoto S, Masaki M, Seol J, Hiei T, Morishima A, Kawana F, Nishida K, Tominaga M, Tani A, Kitagawa H, Horie K, Miyanishi K, Amemiya T, Matsubara M, Yanagisawa M (2024) Automated University of Tsukuba-6

Generation of Narrative Sleep Reports Utilizing Portable Electroencephalogram Data through ChatGPT. *IEEE12Th International Conference on Healthcare Informatics Ichi 2024* 376-385. doi:10.1109/ICHI61247.2024.00055

81. Almanza JCN, Ota L, Horie K, Kawana F, Kokubo T, Yanagisawa M, Kitagawa H (2024) Sleep and Arousal Scoring for In-home EEG Signals: A Multitask Learning Approach. *IEEE12Th International Conference on Healthcare Informatics Ichi 2024* 147-156. doi:10.1109/ICHI61247.2024.00027
82. Koyama K, Sakaguchi M, Ohnishi T (2024) A noise-robust approach to estimate dimension of sleep EEG in mice using permutation entropy. *IEEE International Conference on Fuzzy Systems Fuzz-IEEE 2024*. doi:10.1109/FUZZ-IEEE60900.2024.10611847
83. Shaikh SA, Kitagawa H, Matono A (2024) Distributed Continuous and Real-time Trajectory Similarity Search. *23rd International Symposium on Parallel and Distributed Computing Ispdc 2024*. doi:10.1109/ISPDC62236.2024.10705397
84. Murakami Y, Oketani R, Leproux P, Nuriya M, Honjoh S, Kano H (2024) Molecular identification of second harmonic generation (SHG) sources in mouse brain by multimodal imaging with ultra-broadband multiplex coherent anti Stokes Raman scattering (CARS). *Advanced Chemical Microscopy for Life Science and Translational Medicine* 12855. doi:10.1117/12.2692336

## WPI-related papers

### (1) Original Articles

85. Ishitsuka M, Muroi K, Hachisuka T, Shibata I, Hori D, Doki S, Takahashi T, Sasahara S, Matsuzaki I (2024) Sense of coherence on the relationship between COVID-19-related stress and sleep quality among nurses. *Japan Journal of Nursing Science* **21**(4). doi:10.1111/jjns.12618
86. Iwagami M, Odani K, Saito T (2024) Estimating and Predicting the Rate of Kidney Function Decline over 10 Years in the General Population. *Kidney* **3605**(12):1862-1870. doi:10.34067/KID.0000000608
87. Iwagami M, Ishimaru M, Takeuchi Y, Shinozaki T (2025) When and how to split the follow-up time in the analysis of epidemiological or clinical studies with follow-ups. *J. Epidemiol.* **35**(4):161-169. doi:10.2188/jea.JE20240245
88. Motomura K, Matsuzaka T, Shichino S, Ogawa T, Pan H, Nakajima T, Asano Y, Okayama T, Takeuchi T, Ohno H, Han Si, Miyamoto T, Takeuchi Y, Sekiya M, Sone H, Yahagi N, Nakagawa Y, Oda T, Ueha S, Ikeo K, Ogura A, Matsushima K, Shimano H (2024) Single-Cell Transcriptome Profiling of Pancreatic Islets From Early Diabetic Mice Identifies Anxa10 for Ca<sup>2+</sup> Allostasis Toward  $\beta$ -Cell Failure. *Diabetes* **73**(1):75-92. doi:10.2337/db23-0212
89. Yonemochi N, Nagase H, Waddington JL, Ikeda H (2024) Stimulation of kappa opioid receptors in the nucleus accumbens promotes feeding behavior in mice: Acute restoration of feeding during anorexia induced by 5-fluorouracil. *Eur. J. Pharmacol.* 984. doi:10.1016/j.ejphar.2024.177023
90. Yadav MK, Ishida M, Gogoleva N, Liao CW, Salim FN, Kanai M, Kuno A, Hayashi T, Shahri ZJ, Kulathunga K, Samir O, Lyu WX, Olivia O, Mbanefo EC, Takahashi S, Hamada M (2024) MAFB in macrophages regulates cold-induced neuronal density in brown adipose tissue. *Cell Rep.* **43**(4). doi:10.1016/j.celrep.2024.113978
91. Doki S, Hori D, Takahashi T, Muroi K, Ishitsuka M, Matsuura A, Tsukada H, Migaki W, Kanai N, Ikeda Y, Takao S, Matsuzaki I, Sasahara SI (2024) Designing a test battery for workers' well-being the first wave of the Tsukuba Salutogenic Occupational Cohort Study. *Environ. Health Preventative Med.* **29**. doi:10.1265/ehpm.23-00372
92. Diercks AH, Podolskaia IS, Murray TA, Jahn AN, Mai D, Liu D, Amon LM, Nakagawa Y, Shimano H,

Aderem A, Gold ES (2024) Oxysterol binding protein regulates the resolution of TLR- induced cytokine production in macrophages. *PNAS* **121**(33). doi:10.1073/pnas.2406492121

93. Takashima S, Okamura E, Ichiyama Y, Nishi K, Shimizu A, Watanabe C, Muto M, Matsumoto S, Tsukiyama-fujii S, Tsukiyama T, Ogita H, Nishi E, Ohji M, Sugiyama F, Takahashi S, Mizuno S, Mizutani KI, Ema M (2024) Null mutation of exocyst complex component 3-like does not affect vascular development in mice. *Exp. Anim.* **73**(1):93-100. doi:10.1538/expanim.23-0105
94. Cao Y, Araki M, Nakagawa Y, Deisen L, Lundsgaard A, Kanta JM, Holm S, Johann K, Jacobsen JCB, Jähnert M, Schürmann A, Kiens B, Clemmensen C, Shimano H, Fritzen AM, Kleinert M (2024) Dietary medium-chain fatty acids reduce hepatic fat accumulation via activation of a CREBH-FGF21 axis. *Mol. Metab.* **87**. doi:10.1016/j.molmet.2024.101991