業績目録

氏名：小澤 貴明

a. 外国語による論文・著書（分担執筆を含む）

筆頭・責任著者論文の被引用数合計：412

（※主要業績）(*責任著者, #共同筆頭著者)

23. Matsui, S., Takahashi, Y., Morioka, S., **Ozawa, T.**, Kanayama, S., Iwama, H., Geng, L., U.memoto, K., Oguri, Y., Tsuzuki, S., Li, Y., Hikida, T., Sasaki, T.* (in press). Negative feedback regulation of alcohol ingestion through the FGF21-PVH oxytocin-VTA dopamine system. *Proceedings of the National Academy of Sciences of the United States of America.*
22. Fushimi, S., **Ozawa, T.**, Matsui, S., Tsuzuki, S., Hikida, T., Sasaki, T.* (2025) Prenatal Exposure to Bonito Broth Attenuates the Induction of Drd1 and Grin1 upon Corn Oil Ingestion in Offspring. *Journal of Nutritional Science and Vitaminology.* 71(6), 552-563. doi: 10.3177/jnsv.71.552.
21. ※**Ozawa, T.#***, Nakagawa, I#., Uchida, Y#., Abe, M., Macpherson, T., Yamashita, Y.*, & Hikida, T.* (2025). Flexible value coding in the mesolimbic dopamine system depending on internal water and sodium balance. *npj Science of Food*, 9(1), 197. https://doi.org/10.1038/s41538-025-00558-w **【被引用数 1】**
20. ※Aomine, Y., Shimo, Y., Sakurai, K., Abe, M., Macpherson, T., **Ozawa, T.***, & Hikida, T. * (2024). Sex-dependent differences in the ability of nicotine to modulate discrimination learning and cognitive flexibility in mice. *Journal of Neurochemistry*, 00, 1–17. https://doi.org/10.1111/JNC.16227**【被引用数 4】**
19. Aomine, Y., Oyama, Y., Sakurai, K., Macpherson, T., **Ozawa, T.***, & Hikida, T.* (2023). Clozapine N-oxide, compound 21, and JHU37160 do not influence effortful reward-seeking behavior in mice. *Psychopharmacology,* 241(1), 89-96. https://doi.org/10.1007/s00213-023-06465-w**【被引用数 8】**
18. Attachaipanich, S., **Ozawa, T.**, Macpherson, T., & Hikida, T.* (2023). Dual Roles for Nucleus Accumbens Core Dopamine D1-Expressing Neurons Projecting to the Substantia Nigra Pars Reticulata in Limbic and Motor Control in Male Mice. eNeuro, 10(6), ENEURO.0082-23.2023. https://doi.org/10.1523/ENEURO.0082-23.2023
17. Matsudaira, T., Nakano, S., Konishi, Y., Kawamoto, S., Uemura, K., Kondo, T., Sakurai, K., **Ozawa, T.**, Hikida, T., Komine, O., Yamanaka, K., Fujita, Y., Yamashita, T., Matsumoto, T., & Hara, E. * (2023). Cellular senescence in white matter microglia is induced during ageing

in mice and exacerbates the neuroinflammatory phenotype. *Communications Biology*, 6(1), 665. https://doi.org/10.1038/s42003-023-05027-2

16. **Ozawa, T.#***, Kaseda, K.#, Ichitani, Y., & Yamada, K. (2022). Caffeine facilitates extinction of auditory fear conditioning in rats. *Neuropsychopharmacology* Reports, 42(4), 521-525. https://doi.org/10.1002/npr2.12287【被引用数 5】
15. Aomine, Y., Sakurai, K., Macpherson, T., **Ozawa, T.**, Miyamoto, Y., Yoneda, Y., Oka, M., & Hikida, T. * (2022). Importin α3 (KPNA3) Deficiency Augments Effortful Reward-Seeking Behavior in Mice. *Frontiers in Neuroscience*, 16, 905991. https://doi.org/10.3389/fnins.2022.905991
14. Sakurai, K., Itou, T., Morita, M., Kasahara, E., Moriyama, T., Macpherson, T., **Ozawa, T.**, Miyamoto, Y., Yoneda, Y., Sekiyama, A., Oka, M., & Hikida, T.* (2021). Effects of Importin α1/KPNA1 deletion and adolescent social isolation stress on psychiatric disorder-associated behaviors in mice. *PLOS ONE*, 16(11), e0258364. https://doi.org/10.1371/journal.pone.0258364
13. **Ozawa, T.#**, Itokazu, T.#, Ichitani, Y., & Yamada, K.* (2021). Pharmacologically induced N-methyl-D-aspartate receptor hypofunction impairs goal-directed food seeking in rats. *Neuropsychopharmacology Reports*, 41(4), 526-531. https://doi.org/10.1002/npr2.12209 【被引用数 2】
12. ※Yeh, L.-F.#, **Ozawa, T. #**, & Johansen, J. P.* (2021). Functional organization of the midbrain periaqueductal gray for regulating aversive memory formation. *Molecular Brain*, 14(1), 136. https://doi.org/10.1186/s13041-021-00844-0【被引用数 35】
11. Simmler, L. D., & **Ozawa, T.*** (2019). Neural circuits in goal-directed and habitual behavior: Implications for circuit dysfunction in obsessive-compulsive disorder. *Neurochemistry International*, 129, 104464. https://doi.org/10.1016/j.neuint.2019.104464 【被引用数 46】
10. Shimoda, S., **Ozawa, T.**, Ichitani, Y., & Yamada, K.* (2021). Long-term associative memory in rats: Effects of familiarization period in object-place-context recognition test. *PLOS ONE*, 16(7), e0254570. https://doi.org/10.1371/journal.pone.0254570
9. **Ozawa, T.**, Yamada, K., & Ichitani, Y.* (2019). D-Cycloserine reverses scopolamine-induced object and place memory deficits in a spontaneous recognition paradigm in rats. *Pharmacology Biochemistry and Behavior,* 187, 172798. https://doi.org/10.1016/j.pbb.2019.172798【被引用数 12】
8. **Ozawa, T.**, & Johansen, J. P.* (2018). Learning rules for aversive associative memory formation. *Current Opinion in Neurobiology*, 49, 148–157. https://doi.org/10.1016/j.conb.2018.02.010【被引用数 32】
7. ※**Ozawa, T.**, Ycu, E. A., Kumar, A., Yeh, L.-F., Ahmed, T., Koivumaa, J., & Johansen, J. P.*

(2017). A feedback neural circuit for calibrating aversive memory strength. *Nature Neuroscience*, 20(1), 90–97. https://doi.org/10.1038/nn.4439【被引用数 **136**】

6. **Ozawa, T.**, Yamada, K., & Ichitani, Y.* (2017). Differential requirements of hippocampal de novo protein and mRNA synthesis in two long-term spatial memory tests: Spontaneous place recognition and delay-interposed radial maze performance in rats. *PLoS ONE*, 12(2), e0171629. https://doi.org/10.1371/journal.pone.0171629【被引用数 **16**】
5. Johansen, J. P., Diaz-Mataix, L., Hamanaka, H., **Ozawa, T.**, Ycu, E., Koivumaa, J., Kumar, A., Hou, M., Deisseroth, K., Boyden, E. S., & LeDoux, J. E.* (2014). Hebbian and neuromodulatory mechanisms interact to trigger associative memory formation. *Proceedings of the National Academy of Sciences of the United States of America*, 111(51), E5584–E5592. https://doi.org/10.1073/pnas.1421304111
4. **Ozawa, T.**, & Johansen, J. P.* (2014). Neural circuits: Interacting interneurons regulate fear learning. *Current Biology,* 24(15), R690-3. https://doi.org/10.1016/j.cub.2014.06.050【被引用数 **4**】
3. ※**Ozawa, T.**, Yamada, K., & Ichitani, Y.* (2014). Hippocampal BDNF treatment facilitates consolidation of spatial memory in spontaneous place recognition in rats. *Behavioural Brain Research*, 263, 210–216. https://doi.org/10.1016/j.bbr.2014.01.034【被引用数 **47**】
2. **Ozawa, T.**, Kumeji, M., Yamada, K., & Ichitani, Y.* (2012). D-Cycloserine enhances spatial memory in spontaneous place recognition in rats. *Neuroscience Letters*, 509(1), 13–16. https://doi.org/10.1016/j.neulet.2011.12.031【被引用数 **15**】
1. **Ozawa, T.**, Yamada, K., & Ichitani, Y.* (2011). Long-term object location memory in rats: Effects of sample phase and delay length in spontaneous place recognition test. *Neuroscience Letters*, 497(1), 37–41. https://doi.org/10.1016/j.neulet.2011.04.022【被引用数 **49**】

b. 国際学会・海外学会での発表・講演等

招待講演

3. **Ozawa, T.** (2025) Brain region-specific dopamine dynamics during fear learning in mice. *11th Annual Neuroscience Conference: Pakistan Society of Basic & Applied Neuroscience.* Islamabad, Pakistan. September 24.
2. **Ozawa, T.** (2013) A neural circuit mechanism for setting the strength of fear memories. *12th Annual MCCS (The Molecular and Cellular Cognition Society) meeting.* San Diego, CA, USA. November 7.
1. **Ozawa, T.** (2013) Prediction error coding of aversive information in LA pyramidal neurons sets the strength of fear learning. *Gordon Research Seminar Amygdala in Health & Disease.* North Easton, MA, USA, July 27.

ポスター発表

14. Aomine, Y., Sakurai, K., MacPherson, T., **Ozawa, T.**, Miyamoto, Y., Oka, M., Yoneda, Y., Hikida, T. (2022) Motivational increase and brain network variation based on functional connectivity in Importin α3 (KPNA3) deficient mice. *Annual meeting of Society for Neuroscience.* San Diego, CA, USA. November 12-16.
13. Sakurai, K., Kasahara, E., **Ozawa, T.**, MacPherson, T., Miyamoto, Y., Yoneda, Y., Sekiyama, A., Oka, M., Hikida, T. (2022) Effects of Importin α1(KPNA1) depletion and adolescent social stress on psychiatric disorder-associated behaviors in mice. *Annual meeting of Society for Neuroscience.* San Diego, CA, USA. November 12-16.
12. Nakazawa, S., **Ozawa, T.**, Ichitani, Y., Yamada, K. (2019) The effects of serotonergic lesion of dorsal raphe nucleus (DRN) and median raphe necleus (MRN) on fear extinction in rats. *Annual meeting of Society for Neuroscience.* Chicago, IL, USA. October 19-23.
11. **Ozawa, T.**, Ycu, E. A., Kumar, A., Ahmed, T., Yeh, L.-F., Koivumaa, J., & Johansen, J. P. (2015) A distributed neural circuit mechanism for setting the strength of fear memories. *Annual meeting of Society for Neuroscience.* Chicago, IL, USA. November 12-16.
10. **Ozawa, T.**, Ycu, E. A., Kumar, A., Ahmed, T., Yeh, L.-F., Koivumaa, J., & Johansen, J. P. (2015) A distributed neural circuit mechanism for setting the strength of fear memories. *14th Annual Molecular and Cellular Cognition Society Meeting & Annual Meeting of Society for Neuroscience.* Chicago, IL, USA. October 10.
9. **Ozawa, T.**, Ycu, E. A., Kumar, A., Ahmed, T., Yeh, L.-F., Koivumaa, J., & Johansen, J. P. (2015) A distributed circuit mechanism for setting the strength of aversive memories. *Gordon Research Conference Amygdala in Health & Disease*. North Easton, MA, USA, August 2-7.
8. **Ozawa, T.**, Ycu, E. A., Kumar, A., Ahmed, T., Yeh, L.-F., Koivumaa, J., & Johansen, J. P. (2014) An amygdala-periaqueductal gray circuit for calculating prediction errors in amygdala neurons and setting the strength of fear memories. *Annual meeting of Society for Neuroscience.* Washington, DC, USA. November 15-19.
7. **Ozawa, T.**, Ycu, E. A., Kumar, A., Ahmed, T., Yeh, L.-F., Koivumaa, J., & Johansen, J. P. (2014) An amygdala-periaqueductal gray circuit for calculating prediction errors in amygdala neurons and setting the strength of fear memories. *13th Annual Molecular and Cellular Cognition Society Meeting & Annual Meeting of Society for Neuroscience.* November 13.
6. **Ozawa, T.**, Ycu, E. A., Kumar, A., Ahmed, T., Yeh, L.-F., Koivumaa, J., & Johansen, J. P. (2014) Circuit interactions between amygdala and periaqueductal gray set the strength of fear memories. *6th EMCCS-FENS meeting & 9th The Federation of all European Neuroscience Societies meeting.* Milan, Italy. July 5-9. ※ポスター賞

5. **Ozawa, T.**, Ycu, E. A., Koivumaa, J., Johansen, J. P. (2013) Prediction error coding in amygdala pyramidal neurons sets the strength of fear memories. *Annual Meeting of Society for Neuroscience.* San Diego, CA, USA. November 9-13.
4. **Ozawa, T.**, Ycu, E. A., Koivumaa, J., Johansen, J. P. (2012) Setting associative learning levels through activation of amygdala pyramidal neurons. *Annual Meeting of Society for Neuroscience.* New Orleans, LA, USA. October 13-17.
3. **Ozawa, T.**, Yamada, K., Ichitani, Y. (2011) Increase of brain-derived neurotrophic factor in the hippocampus plays a key role in consolidation of spatial memory in spontaneous place recognition test in rats. *Annual Meeting of Society for Neuroscience.* Washington, DC, USA. November 12-16, 2011.
2. **Ozawa, T.**, Yamada, K., Ichitani, Y. (2010) Effects of intra-hippocampal administration of mRNA and protein synthesis inhibitors on performance in long-term spatial memory tasks in rats. *Annual Meeting of Society for Neuroscience.* San Diego, IL, USA. November 13-17.
1. **Ozawa, T.**, Yamada, K., Ichitani, Y. (2009) Role of intra-hippocampal de novo protein synthesis in the processes of long-term spatial memory in rats. *Annual Meeting of Society for Neuroscience.* Chicago, IL, USA. October 17-21.

c. その他の国際的な業績

国内における国際会議やシンポジウムでの発表
招待講演

7. **Ozawa, T.**, (2025) Top-down control on facilitative effect of umami on salt-seeking. *The 20th International Symposium on Molecular and Neural mechanisms of Taste and Olfactory Perception (ISMNTOP2024/25, YRUF2024/25, AISCRIB2024/25).* Okayama, Japan. March 2.
6. **Ozawa, T.**, (2024) Brain region-specific dopamine dynamics cooperatively control discriminative fear learning. *NEURO 2024/8th Federation of Asia and Oceania Neuroscience Societies.* Fukuoka, Japan. July 24-27.
5. **Ozawa, T.**, (2024) Brain region-specific dopamine dynamics cooperatively control discriminative fear learning. *2024 Taiwan-Japan Neuroscience Young Researcher Exchange Workshop.* Fukuoka, Japan. July 23.
4. **Ozawa, T.**, (2024) Brain region-specific dopamine dynamics cooperatively control discriminative fear learning in mice. *京都大学楽友会館 摂食障害・嗜癖性障害 国際シンポジウム 2024 International Symposium "Clacking the Code: Navigating Eating Disorders, Behavioral Addictions, and the Dopamine-Reward System for Translational Insight".* Kyoto, Japan. February 9.

3. **Ozawa, T.**, (2023) Neural circuit of salt and umami seeking behavior. *The 19th International Symposium on Molecular and Neural mechanisms of Taste and Olfactory Perception (ISMNTOP2022/23, YRUF2022/23, AISCRIB2022/23).* Okayama, Japan. March 18.
2. **Ozawa, T.**, (2022) Analysis of dopamine release during temporal reward expectation in mice. International. *Symposium on Chronogenesis: How the Mind Generates Time*. Okinawa, Japan. November 24.
1. **Ozawa, T.**, (2016) A feedback neural circuit for calibrating aversive memory strength. *Emerging Psychologists' Symposium: Emerging issues in global psychological research, ICP 2016: The 31st International Congress of Psychology.* Kanagawa, Japan. July 24-29.

ポスター発表

9. Attachaipanich, S., MacPherson, T., **Ozawa, T.**, Hikida, T. (2025) Cooperative signaling by nucleus accumbens core D1- and D2-neuron subpopulations enables reward and aversion learning. *NEURO 2024/8th Federation of Asia and Oceania Neuroscience Societies.* Fukuoka, Japan. July 24-27.
8. Abe, M., **Ozawa, T.**, Oyama, Y., Goto, K., Hikida, T. (2025) Behavioral paradigm for the assessment of learning-dependent shift in food palatability induced by conditioned flavor. *NEURO 2024/8th Federation of Asia and Oceania Neuroscience Societies.* Fukuoka, Japan. July 24-27.
7. Oyama, Y., **Ozawa, T.**, MacPherson, T., Hikida, T. (2025) The effect of optogenetic activation of parabrachial nucleus to ventral tegmental area pathway on place preference and avoidance behavior in mice. *NEURO 2024/8th Federation of Asia and Oceania Neuroscience Societies.* Fukuoka, Japan. July 24-27.
6. Aomine, Y., Sakurai, K., MacPherson, T., **Ozawa, T.**, Miyamoto, Y., Yoneda, Y., Oka, M., Hikida, T. (2025) Nucleocytoplasmic transport controlling alcoholism-related behavior. *NEURO 2024/8th Federation of Asia and Oceania Neuroscience Societies.* Fukuoka, Japan. July 24-27.
5. Nakamura, M., **Ozawa, T.**, Shibata, T., MacPherson, T., Hikida, T. (2021) Analysis of striatal dopamine releases during differential fear conditioning in mice. *The 44th annual meeting of the Japan Neuroscience Society/The 1st CJK (China-Japan-Korea) International meeting.* Kobe, Japan. July 28-31.
4. Shibata, T., **Ozawa, T.**, Nakamura, M., MacPherson, T., Hikida, T. (2021) Expectation-modulated dynamics of striatal dopamine release during food seeking behavior in mice. *The 44th annual meeting of the Japan Neuroscience Society/The 1st CJK (China-Japan-Korea) International meeting.* Kobe, Japan. July 28-31.
3. Aomine, Y., Sakurai, K., MacPherson, T., **Ozawa, T.**, Miyamoto, Y., Yoneda, Y., Oka, M.,

Hikida, T. (2021) Analysis of alcohol-related behavior in importin α3 deficient mice. *The 44th annual meeting of the Japan Neuroscience Society/The 1st CJK (China-Japan-Korea) International meeting.* Kobe, Japan. July 28-31.

2. Shimoda, S., **Ozawa, T.**, Yamada, K. (2021) Role of the retrosplenial cortex in the retrieval of spatial context memory. *The 44th annual meeting of the Japan Neuroscience Society/The 1st CJK (China-Japan-Korea) International meeting.* Kobe, Japan. July 28-31.

1. Sakurai, K., Ito, T., Morita, M., MacPherson, T., **Ozawa, T.**, Miyamoto, Y., Yoneda, Y., Oka, M., Hikida, T. (2021) Adolescent social isolation stress exacerbates behavioral abnormalities seen in Importin α1/KPNA1 deficient mice. *The 44th annual meeting of the Japan Neuroscience Society/The 1st CJK (China-Japan-Korea) International meeting.* Kobe, Japan. July 28-31.

国際英文誌の編集委員

2022 年 6 月 - 現在　Frontiers in Psychology, Review Editor
2022 年 6 月 - 現在　Frontiers in Neuroscience, Review Editor
2020 年 5 月 - 現在　Frontiers in Behavioral Neuroscience, Review Editor

国際シンポジウム企画

2025 年 9 月　日本味と匂学会第 59 回大会 Asian International Symposium オーガナイザー・座長
2024 年 7 月　第 47 回日本神経科学大会/NEURO2024/8th Federation of Asia and Oceania Neuroscience Societies, 国際シンポジウム「Diverse dopaminergic neural circuit activities controlling aversive learning」オーガナイザー・座長
2021 年 7 月　第 44 回日本神経科学大会/第 1 回 CKJ 国際会議, CKJ シンポジウム共同オーガナイザー・座長

受賞

2025 年 5 月　Neuropsychopharmacology Reports (NPPR) Article Award, Caffeine facilitates extinction of auditory fear conditioning in rats, *Neuropsychopharmacology Reports*
2016 年 7 月　2016 Emerging Psychologists' Program (EPP) Award. *ICP 2016: The 31st International Congress of Psychology, International Congress of Psychology*
2014 年 7 月　Presentation Award/EMCCS-IBRO/PERC Travel Grants. *European Molecular and Cellular Cognition Society/The PanEuropean Regional Committee of International Brain Research Organization*
2014 年 6 月　JNS-SfN (Japan-USA) Exchange Travel Award Program. *Japan Neuroscience*

Society.

国際英文誌等における査読審査員

- Brain research
- Communications biology
- Experimental neurology
- Experimental brain research
- Frontiers in behavioral neuroscience
- Heliyon
- NeuroImage
- Neuroscience
- Neuroscience research
- The Human Frontier Science Program (HFSP) Long-Term fellowships