

論文業績リスト

(本研究の背景、理解に参考となる授賞者の主要論文。下線は授賞者、責任者に「*」)

1. Mori, K. and *Sakano, H.: Olfactory circuitry and behavioral decisions. *Annu. Rev. Physiol.* 83, 231-256 (2021) DOI: <https://doi.org/10.1146/annurev-physiol-031820-092824>.
2. Inoue, N. Nishizumi, H. Ooyama, R. Mogi, K. Nishimori, K. Kikusui, T. and *Sakano, H.: The olfactory critical period is determined by activity-dependent Sema7A/PlxnC1 signaling within glomeruli. *eLife* 10, e65078 (2021) DOI: <https://doi.org/10.7554/eLife.65078>.
3. Nishizumi, H. and *Sakano, H.: Circuit formation and synaptic plasticity in the mouse olfactory system. In “The Senses (2nd Ed.): A Comprehensive Reference” Vol. 3-31, pp624-639 (Ed. by B. Fritzsche, Academic Press/Elsevier) (2020) DOI: <https://doi.org/10.1016/B978-0-12-805408-6.23829-3>.
4. *Sakano, H.: Developmental regulation of olfactory circuit formation in mice. *Dev. Growth Differ.* 62, 199-213 (2020) DOI: 10.1111/dgd.12657.
5. Nishizumi, H. Miyashita, A. Inoue, N. Inokuchi, K. Aoki, M. and *Sakano, H.: Primary dendrites of mitral cells synapse onto neighboring glomeruli independent of their odorant receptor identity. *Commun. Biol.* 2, 14 (2019) DOI: 10.1038/s42003-018-0252-y.
6. Inoue, N. Nishizumi, H. Naritsuka, H. Kiyonari, H. and *Sakano, H.: Sema7A/PlxnC1 signaling triggers the activity-dependent olfactory synapse formation. *Nat. Commun.* 9, 1842 (2018) DOI: 10.1038/s41467-018-04239-z.
7. Saito, H. Nishizumi, H. Suzuki, S. Matsumoto, H. Ieki, N. Abe, T. Kiyonari, H. Morita, M. Yokota, H. Hirayama, N. Yamazaki, T. Kikusui, T. Mori, K. *Sakano, H.: Immobility responses are induced by photoactivation of a single glomerular species responsive to fox odor TMT. *Nat. Commun.* 8, 16011 (2017) DOI: 10.1038/ncomms16011.
8. Inokuchi, K. Imamura, F. Takeuchi, H. Kim, R. Okuno, H. Nishizumi, H. Bito, H. Kikusui, T. and *Sakano, H.: Nrp2 is sufficient to instruct circuit formation of mitral-cells to mediate odor-induced attractive social responses. *Nat. Commun.* 8, 15977 (2017) DOI: 10.1038/ncomms15977.
9. Nishizumi, H. and *Sakano, H.: Developmental regulation of neural map formation in the mouse olfactory system. *Dev. Neurobiol.*, 75, 594-607 (2015) DOI: 10.1002/dneu.22268.
10. Nakashima, A. Takeuchi, H. Imai, T. Saito, H. Kiyonari, H. Abe, T. Chen, M. Weinstein L.S. Yu, C.R. Storm, D.R. Nishizumi, H. and *Sakano, H.: Agonist-independent GPCR activity regulates axon targeting of olfactory sensory neurons. *Cell* 154, 1314-1325 (2013) DOI: 10.1016/j.cell.2013.08.033.
11. Aoki, M. Takeuchi, H. Nakashima, A. Nishizumi, H. and *Sakano, H.: Possible roles of Robo1+ ensheathing cells in guiding dorsal-zone olfactory sensory neurons in mouse. *Dev. Neurobiol.* 73, 828-840 (2013) DOI:10.1002/dneu.22103.
12. Mori, K. and *Sakano, H.: How is the olfactory map formed and interpreted in the mammalian brain? *Annu. Rev. Neurosci.* 34, 465-497 (2011) DOI: 10.1146/annurev-neuro-112210-112917.
13. Takeuchi, H. Inokuchi, K. Aoki, M. Suto, F. Tsuboi, A. Matsuda, I. Suzuki, M. Aiba, A. Serizawa, S. Yoshihara, Y. Fujisawa, H. and *Sakano, H.: Sequential arrival and graded secretion of Sema3F by olfactory neuron axons specify map topography at the bulb. *Cell* 141, 1056-1067 (2010) DOI:10.1016/j.cell.2010.04.041.
14. Imai, T. Yamazaki, T. Kobayakawa, R. Kobayakawa, K. Takeuchi, H. Abe, T. Suzuki, M. and *Sakano, H.: Pre-target axon sorting establishes the neural map topography. *Science* 325, 585-590 (2009) DOI:10.1126/science.1173596.

15. Nishizumi, H. Kumasaka, K. Inoue, N. Nakashima, A. and *Sakano, H: Deletion of the core-H region in mice abolishes the expression of three proximal odorant receptor genes in cis. *Proc. Natl. Acad. Sci. USA* 104, 20067-20072 (2007) DOI: 10.1073/pnas.0706544105.
16. Kobayakawa, K. Kobayakawa, R. Matsumoto, H. Oka, Y. Imai, T. Ikawa, M., Okabe, M., Ikeda, T., Itohara, S., Kikusui, T., Mori, K., and *Sakano, H: Innate versus learned odor processing in the mouse olfactory bulb. *Nature* 450, 503-508 (2007) DOI: 10.1038/nature06281.
17. Serizawa, S. Miyamichi, K. Takeuchi, H. Yamagishi, Y. Suzuki, M. and *Sakano, H: A neuronal identity code for the odorant receptor-specific and activity-dependent axon sorting. *Cell* 127, 1057-1069 (2006) DOI: 10.1016/j.cell.2006.10.031.
18. Imai, T. Suzuki, M. and *Sakano, H: Odorant receptor-derived cAMP signals direct axonal targeting. *Science* 314, 657-661 (2006) DOI: 10.1126/science.1131794.
19. Miyamichi, K. Serizawa, S. Kimura, H.M. and *Sakano, H: Continuous and overlapping expression domains of odorant receptor genes in the olfactory epithelium determine the dorsal/ventral positioning of glomeruli in the olfactory bulb. *J. Neurosci.* 25, 3486-3592 (2005) DOI: 10.1523/JNEUROSCI.0324-05.2005.
20. Serizawa, S. Miyamichi, K. Nakatani, H. Suzuki, M. Saito, M. Yoshihara, Y. and *Sakano, H: Negative feedback regulation ensures one receptor - one olfactory neuron rule in mouse. *Science* 302, 2088-2094 (2003) DOI: 10.1126/science.1089122.
21. Serizawa, S. Ishii, T. Nakatani, H. Tsuboi, A. Nagawa, N. Asano, M. Sudo, K. Sakagami, J. Sakano, H. Ijiri, T. Matsuda, Y. Suzuki, M. Yamamori, T. Iwakura, Y. and *Sakano, H: Mutually exclusive expression of odorant receptor transgenes. *Nat. Neurosci.* 3, 687-693 (2000) DOI: 10.1038/76641.