

List of Publications FY 2017

A. WPI papers

(1) Original Articles

1. Honjoh S, Ihara A, Kajiwara Y, Yamamoto T, Nishida E (2017) The Sexual Dimorphism of Dietary Restriction Responsiveness in *Caenorhabditis elegans*. *Cell Rep* **21**(13): 3646–3652. doi:10.1016/j.celrep.2017.11.108
2. Liu J, Zhang MQ, Wu X, Lazarus M, Cherasse Y, Yuan MY, Huang ZL, Li RX (2017) Activation of Parvalbumin Neurons in the Rostro-Dorsal Sector of the Thalamic Reticular Nucleus Promotes Sensitivity to Pain in Mice. *Neuroscience* **16**(366): 113-123. doi:10.1016/j.neuroscience.2017.10.013
3. Maeda S, Nakamura T, Harada H, Tachibana Y, Aritake K, Shimosawa T, Yatomi Y, Murata T (2017) Prostaglandin D-2 metabolite in urine is an index of food allergy. *Sci Rep* **7**(1): 17687. doi:10.1038/s41598-017-17798-w
4. Ogawa Y, Kanda T, Vogt K, Yanagisawa M (2017) Anatomical and electrophysiological development of the hypothalamic orexin neurons from embryos to neonates. *J. Comp. Neurol.* **525**(18): 3809-3820. doi:10.1002/cne.24261
5. Kaur S, Wang JL, Ferrari L, Thankachan S, Kroeger D, Venner A, Lazarus M, Wellman A, Arrigoni E, Fuller PM, Saper CB (2017) A Genetically Defined Circuit for Arousal from Sleep during Hypercapnia. *Neuron* **96**(5): 1153-1167. doi:10.1016/j.neuron.2017.10.009
6. Kobayashi M, Takeda K, Narita T, Nagai K, Okita N, Sudo Y, Miura Y, Tsumoto H, Nakagawa Y, Shimano H, Higami Y (2017) Mitochondrial intermediate peptidase is a novel regulator of sirtuin-3 activation by caloric restriction. *FEBS Lett.* **591**(24): 4067-4073. doi:10.1002/1873-3468.12914
7. Tran MTN, Hamada M, Jeon H, Shiraishi R, Asano K, Hattori M, Nakamura M, Imamura Y, Tsunakawa Y, Fujii R, Usui T, Kulathunga K, Andrea CS, Koshida R, Kamei R, Matsunaga Y, Kobayashi M, Oishi H, Kudo T, Takahashi S (2017) MafB is a critical regulator of complement component C1q. *Nat. Commun.* **8**(1): 1700. doi:10.1038/s41467-017-01711-0
8. Soya S, Takahashi TM, McHugh TJ, Maejima T, Herlitze S, Abe M, Sakimura K, Sakurai T (2017) Orexin modulates behavioral fear expression through the locus coeruleus. *Nat. Commun.* **8**(1): 1606. doi:10.1038/s41467-017-01782-z
9. Shinagawa S, Okazaki T, Ikeda M, Yudoh K, Kisanuki YY, Yanagisawa M, Kawahata K, Ozaki S (2017) T cells upon activation promote endothelin 1 production in monocytes via IFN-gamma and TNF-alpha. *Sci Rep* **7**(1): 14500. doi:10.1038/s41598-017-14202-5
10. Um MY, Kim S, Jin YH, Yoon M, Yang H, Lee J, Jung J, Urade Y, Huang ZL, Kwon S, Cho S (2017) A novel neurological function of rice bran: a standardized rice bran supplement promotes non-rapid eye movement sleep in mice through histamine H-1 receptors. *Mol. Nutr. Food. Res.* **61**(11). doi:10.1002/mnfr.201700316
11. Kutsumura N, Shibuya K, Yamaguchi H, Saito T (2017) *n*-Butyllithium-promoted regioselective elimination of vicinal bis-triflate having an adjacent ether oxygen. *Tetrahedron Lett.* **58**(43): 4099–4102. doi:10.1016/j.tetlet.2017.09.036
12. Azami T, Waku T, Matsumoto K, Jeon H, Muratani M, Kawashima A, Yanagisawa J, Manabe I, Nagai R, Kunath T, Nakamura T, Kurimoto K, Saitou M, Takahashi S, Ema M (2017) Klf5 maintains the balance of primitive endoderm versus epiblast specification during mouse embryonic development by suppression of Fgf4. *Development* **144**(20): 3706-3718. doi:10.1242/dev.150755

13. Yuan XS, Wang L, Dong H, Qu WM, Yang SR, Cherasse Y, Lazarus M, Schiffmann SN, d'Exaerde AD, Li RX, Huang ZL (2017) Striatal adenosine A(2A) receptor neurons control active-period sleep via parvalbumin neurons in external globus pallidus. *eLife* **6**: e29055. doi:10.7554/eLife.29055
14. Suda H, Kanbayashi T, Ito SU, Sagawa Y, Imanishi A, Tsutsui K, Takahashi J, Kikuchi Y, Takahashi Y, Shimizu T (2017) Residual effects of eszopiclone on daytime alertness, psychomotor, physical performance and subjective evaluations. *Sleep Biol Rhythms* **15**(4): 311–316. doi:10.1007/s41105-017-0112-z
15. Oishi Y, Xu Q, Wang L, Zhang BJ, Takahashi K, Takata Y, Luo YJ, Cherasse Y, Schiffmann SN, d'Exaerde AD, Urade Y, Qu WM, Huang ZL, Lazarus M (2017) Slow-wave sleep is controlled by a subset of nucleus accumbens core neurons in mice. *Nat. Commun.* **8**(1): 734. doi:10.1038/s41467-017-00781-4
16. Yamamoto N, Okada T, Harada Y, Kutsumura N, Imaide S, Saitoh T, Fujii H, Nagase H (2017) The application of a specific morphinan template to the synthesis of galanthamine. *Tetrahedron*. **73**(39): 5751-5758. doi:10.1016/j.tet.2017.08.014
17. Fujii H, Shimada N, Ohtawa M, Karaki F, Koshizuka M, Hayashida K, Kamimura M, Makino K, Nagamitsu T, Nagase H (2017) Deprotection of silyl ethers by using SO₃H silica gel: Application to sugar, nucleoside, and alkaloid derivatives. *Tetrahedron* **73**(36): 5425-5429. doi:10.1016/j.tet.2017.07.047
18. Malyshevskaya O, Aritake K, Kaushik MK, Uchiyama N, Cherasse Y, Kikura-Hanajiri R, Urade Y (2017) Natural (Delta(9)-THC) and synthetic (JWH-018) cannabinoids induce seizures by acting through the cannabinoid CB1 receptor. *Sci Rep* **7**(1): 10516. doi:10.1038/s41598-017-10447-2
19. Yamamoto N, Ohru S, Okada T, Yata M, Saitoh T, Kutsumura N, Nagumo Y, Irukayama-Tomobe Y, Ogawa Y, Ishikawa Y, Watanabe Y, Hayakawa D, Gouda H, Yanagisawa M, Nagase H (2017) Essential structure of orexin 1 receptor antagonist YNT-707, Part I: Role of the 4,5-epoxy ring for binding with orexin 1 receptor. *Bioorg. Med. Chem. Lett.* **27**(17): 4176-4179. doi:10.1016/j.bmcl.2017.07.011
20. Tsuneoka Y, Yoshida S, Takase K, Oda S, Kuroda M, Funato H (2017) Neurotransmitters and neuropeptides in gonadal steroid receptor-expressing cells in medial preoptic area subregions of the male mouse. *Sci Rep* **7**(1): 9809. doi:10.1038/s41598-017-10213-4
21. Kutsumura N, Ohshita R, Horiuchi J, Tateno K, Yamamoto N, Saitoh T, Nagumo Y, Kawai H, Nagase H (2017) Synthesis of heterocyclic compounds with adamantane-like cage structures consisting of phosphorus, sulfur, and carbon. *Tetrahedron* **73**(34): 5214-5219. doi:10.1016/j.tet.2017.07.016
22. Kaushik MK, Aritake K, Takeuchi A, Yanagisawa M, Urade Y (2017) Octacosanol restores stress-affected sleep in mice by alleviating stress. *Sci Rep* **7**(1): 8892. doi:10.1038/s41598-017-08874-2
23. Wakai E, Aritake K, Urade Y, Fujimori K (2017) Prostaglandin D-2 enhances lipid accumulation through suppression of lipolysis via DP2 (CRTH2) receptors in adipocytes. *Biochem. Biophys. Res. Commun.* **490**(2): 393-399. doi:10.1016/j.bbrc.2017.06.053
24. Kutsumura N, Koyama Y, Nagumo Y, Nakajima R, Miyata Y, Yamamoto N, Saitoh T, Yoshida N, Iwata S, Nagase H (2017) Antitrichomonal activity of delta opioid receptor antagonists, 7-benzylidenenaltrexone derivatives. *Bioorg. Med. Chem.* **25**(16): 4375-4383. doi:10.1016/j.bmc.2017.06.026
25. Nakamura T, Fujiwara Y, Yamada R, Fujii W, Hamabata T, Lee MY, Maeda S, Aritake K, Roers A, Sessa WC, Nakamura M, Urade Y, Murata T (2017) Mast cell-derived prostaglandin D-2 attenuates anaphylactic reactions in mice. *J. Allergy Clin. Immunol.* **140**(2): 630–632.e9. doi:10.1016/j.jaci.2017.02.030
26. Oishi Y, Suzuki Y, Takahashi K, Yonezawa T, Kanda T, Takata Y, Cherasse Y, Lazarus M (2017) Activation of ventral tegmental area dopamine neurons produces wakefulness through dopamine D-2-like receptors in mice. *Brain Struct. Funct.* **222**(6): 2907-2915. doi:10.1007/s00429-017-1365-7

27. Watanabe Y, Hayashida K, Saito D, Takahashi T, Sakai J, Nakata E, Kanda T, Iwai T, Hirayama S, Fujii H, Yamakawa T, Nagase H (2017) Design and synthesis of novel delta opioid receptor agonists with an azatricyclodecane skeleton for improving blood-brain barrier penetration. *Bioorg. Med. Chem. Lett.* **27**(15): 3495-3498. doi:10.1016/j.bmcl.2017.05.072
28. Shitara H, Cao LQ, Yamaguchi M, Yonekawa H, Taya C (2017) Establishment of a heteroplasmic mouse strain with interspecific mitochondrial DNA haplotypes and improvement of a PCR-RFLP-based measurement system for estimation of mitochondrial DNA heteroplasmy. *Transgenic Res.* **26**(4): 559-565. doi:10.1007/s11248-017-0009-2
29. Kodani S, Soya S, Sakurai T (2017) Excitation of GABAergic Neurons in the Bed Nucleus of the Stria Terminalis Triggers Immediate Transition from Non-Rapid Eye Movement Sleep to Wakefulness in Mice. *J. Neurosci.* **37**(30): 7164-7176. doi:10.1523/JNEUROSCI.0245-17.2017
30. Iwayama K, Kawabuchi R, Nabekura Y, Kurihara R, Park I, Kobayashi M, Ogata H, Kayaba M, Omi N, Satoh M, Tokuyama K (2017) Exercise before breakfast increases 24-h fat oxidation in female subjects. *PLoS One* **12**(7): e0180472. doi:10.1371/journal.pone.0180472
31. Takahashi J, Kanbayashi T, Uemura SI, Sagawa Y, Tsutsui K, Takahashi Y, Omori Y, Imanishi A, Takeshima M, Satake M, Shimizu T (2017) Residual effects of eszopiclone and placebo in healthy elderly subjects: a randomized double-blind study. *Sleep Biol. Rhythms* **15**(3): 235-241. doi:10.1007/s41105-017-0101-2
32. Takei K, Han S, Murayama Y, Satoh A, Oikawa F, Ohno H, Osaki Y, Matsuzaka T, Sekiya M, Iwasaki H, Yatoh S, Yahagi N, Suzuki H, Yamada N, Nakagawa Y, Shimano H (2017) Selective peroxisome proliferator-activated receptor-alpha modulator K-877 efficiently activates the peroxisome proliferator-activated receptor-alpha pathway and improves lipid metabolism in mice. *J. Diabetes. Investig.* **8**(4): 446-452. doi:10.1111/jdi.12621
33. Zhao H, Matsuzaka T, Nakano Y, Motomura K, Tang N, Yokoo T, Okajima Y, Han S, Takeuchi Y, Aita Y, Iwasaki H, Yatoh S, Suzuki H, Sekiya M, Yahagi N, Nakagawa Y, Sone H, Yamada N, Shimano H (2017) Elovl6 Deficiency Improves Glycemic Control in Diabetic db/db Mice by Expanding beta-Cell Mass and Increasing Insulin Secretory Capacity. *Diabetes* **66**(7): 1833-1846. doi:10.2337/db16-1277
34. Hayashida K, Hirayama S, Iwai T, Watanabe Y, Takahashi T, Sakai J, Nakata E, Yamakawa T, Fujii H, Nagase H (2017) Novel delta opioid receptor agonists with oxazatricyclodecane structure showing potent agonistic activities. *Bioorg. Med. Chem. Lett.* **27**(12): 2742-2745. doi:10.1016/j.bmcl.2017.04.059
35. Ku CJ, Sekiguchi JM, Panwar B, Guan YF, Takahashi S, Yoh K, Maillard I, Hosoya T, Engel JD (2017) GATA3 Abundance Is a Critical Determinant of T Cell Receptor beta Allelic Exclusion. *Mol. Cell. Biol.* **37**(12): e00052-17. doi:10.1128/MCB.00052-17
36. Irukayama-Tomobe Y, Ogawa Y, Tominaga H, Ishikawa Y, Hosokawa N, Ambai S, Kawabe Y, Uchida S, Nakajima R, Saitoh T, Kanda T, Vogt K, Sakurai T, Nagase H, Yanagisawa M (2017) Nonpeptide orexin type-2 receptor agonist ameliorates narcolepsy-cataplexy symptoms in mouse models. *Proc. Natl. Acad. Sci. U.S.A.* **114**(22): 5731-5736. doi:10.1073/pnas.1700499114
37. Saito H, Cherasse Y, Suzuki R, Mitarai M, Ueda F, Urade Y (2017) Zinc-rich oysters as well as zinc-yeast- and astaxanthin-enriched food improved sleep efficiency and sleep onset in a randomized controlled trial of healthy individuals. *Mol. Nutr. Food. Res.* **61**(5). doi:10.1002/mnfr.201600882
38. Toyama T, Saitoh T, Takahashi Y, Oka K, Citterio D, Suzuki K, Nishiyama S (2017) Click Reaction Based on the Biosynthesis of Firefly Luciferin. *Chem. Lett.* **46**(5): 753-755. doi:10.1246/cl.170094
39. Li JJ, Kong DP, Wang Q, Wu W, Tang YP, Bai TT, Guo L, Wei LM, Zhang QQ, Yu Y, Qian YT, Zuo SK, Liu, GZ, Liu, Q, Wu, S, Zang, Y, Zhu, Q, Jia DL, Wang YY, Yao WY, Ji Y, Yin HY, Nakamura M, Lazarus M, Breyer

- RM, Wang LF, Yu Y (2017) Niacin ameliorates ulcerative colitis via prostaglandin D-2-mediated D prostanoid receptor 1 activation. *EMBO Mol. Med.* **9**(5): 571-588. doi:10.15252/emmm.201606987
40. Lansu K, Karpiak J, Liu J, Huang XP, McCorvy JD, Kroeze WK, Che T, Nagase H, Carroll FI, Jin J, Shoichet BK, Roth BL (2017) In silico design of novel probes for the atypical opioid receptor MRGPRX2. *Nat. Chem. Biol.* **13**(5): 529-536. doi:10.1038/nchembio.2334
 41. Hasegawa E, Maejima T, Yoshida T, Masseck OA, Herlitz S, Yoshioka M, Sakurai T, Mieda M (2017) Serotonin neurons in the dorsal raphe mediate the anticataplectic action of orexin neurons by reducing amygdala activity. *Proc. Natl. Acad. Sci. U.S.A.* **114**(17): E3526-E3535. doi:10.1073/pnas.1614552114
 42. Matsushita J, Inagaki S, Nishie T, Sakasai T, Tanaka J, Watanabe C, Mizutani K, Miwa Y, Matsumoto K, Takara K, Naito H, Kidoya H, Takakura N, Nagai T, Takahashi S, Ema M (2017) Fluorescence and Bioluminescence Imaging of Angiogenesis in Flk1-Nano-lantern Transgenic Mice. *Sci Rep* **7**: 46597. doi:10.1038/srep46597
 43. Gotoh L, Saitoh A, Yamada M, Fujii H, Nagase H, Yamada M (2017) Effects of repeated treatment with a delta opioid receptor agonist KNT-127 on hyperemotionality in olfactory-bulbectomized rats. *Behav. Brain Res.* **323**: 11-14. doi:10.1016/j.bbr.2016.11.008
 44. Purple RJ, Sakurai T, Sakaguchi M (2017) Auditory conditioned stimulus presentation during NREM sleep impairs fear memory in mice. *Sci Rep* **7**: 46247. doi:10.1038/srep46247
 45. Nagata N, Iwanari H, Kumagai H, Kusano-Arai O, Ikeda Y, Aritake K, Hamakubo T, Urade Y (2017) Generation and characterization of an antagonistic monoclonal antibody against an extracellular domain of mouse DP2 (CRTH2/GPR44) receptors for prostaglandin D2. *PLoS One* **12**(4): e0175452. doi:10.1371/journal.pone.0175452
 46. Takei K, Nakagawa Y, Wang Y, Han S, Satoh A, Sekiya M, Matsuzaka T, Shimano H (2017) Effects of K-877, a novel selective PPAR alpha modulator, on small intestine contribute to the amelioration of hyperlipidemia in low-density lipoprotein receptor knockout mice. *J. Pharmacol. Sci.* **133**(4): 214-222. doi:10.1016/j.jphs.2017.02.003
 47. Park I, Ochiai R, Ogata H, Kayaba M, Hari S, Hibi M, Katsuragi Y, Satoh M, Tokuyama K (2017) Effects of subacute ingestion of chlorogenic acids on sleep architecture and energy metabolism through activity of the autonomic nervous system: a randomised, placebo-controlled, double-blinded cross-over trial. *Br. J. Nutr.* **117**(7): 979-984. doi:10.1017/S0007114517000587
 48. Wang YQ, Li R, Wang DR, Cherasse Y, Zhang Z, Zhang MQ, Lavielle O, McEown K, Schiffmann SN, d'Exaerde AD, Qu WM, Lazarus M, Huang ZL (2017) Adenosine A(2A) receptors in the olfactory bulb suppress rapid eye movement sleep in rodents. *Brain Struct. Funct.* **222**(3): 1351-1366. doi:10.1007/s00429-016-1281-2
 49. Zhang BJ, Huang ZL, Chen JF, Urade Y, Qu WM (2017) Adenosine A(2A) receptor deficiency attenuates the somnogenic effect of prostaglandin D-2 in mice. *Acta Pharmacol. Sin.* **38**(4): 469-476. doi:10.1038/aps.2016.140
 50. Yokosawa M, Kondo Y, Tahara M, Iizuka-Koga M, Segawa S, Kaneko S, Tsuboi H, Yoh K, Takahashi S, Matsumoto I, Sumida T (2017) T-bet over-expression regulates aryl hydrocarbon receptor-mediated T helper type 17 differentiation through an interferon (IFN)-independent pathway. *Clin. Exp. Immunol.* **188**(1): 22-35. doi:10.1111/cei.12912
 51. Kayaba M, Park I, Iwayama K, Seya Y, Ogata H, Yajima K, Satoh M, Tokuyama K (2017) Energy metabolism differs between sleep stages and begins to increase prior to awakening. *Metab. Clin. Exp.* **69**: 14-23. doi:10.1016/j.metabol.2016.12.016

52. Grewe BF, Grundemann J, Kitch LJ, Lecoq JA, Parker JG, Marshall JD, Larkin MC, Jercog PE, Grenier F, Li JZ, Luthi A, Schnitzer MJ (2017) Neural ensemble dynamics underlying a long-term associative memory. *Nature* **543**(7647): 670-675. doi:10.1038/nature21682
53. Tsuneoka Y, Tsukahara S, Yoshida S, Takase K, Oda S, Kuroda M, Funato H (2017) Moxd1 Is a Marker for Sexual Dimorphism in the Medial Preoptic Area, Bed Nucleus of the Stria Terminalis and Medial Amygdala. *Front. Neuroanat.* **11**: 26. doi:10.3389/fnana.2017.00026
54. Tang J, Shen YJ, Chen GL, Wan QY, Wang K, Zhang J, Qin J, Liu GZ, Zuo SK, Tao B, Yu Y, Wang JW, Lazarus M, Yu Y (2017) Activation of E-prostanoid 3 receptor in macrophages facilitates cardiac healing after myocardial infarction. *Nat. Commun.* **8**: 14656. doi:10.1038/ncomms14656
55. Kong DP, Li JJ, Shen YJ, Liu GZ, Zuo SK, Tao B, Ji Y, Lu AK, Lazarus M, Breyer RM, Yu Y (2017) Niacin Promotes Cardiac Healing after Myocardial Infarction through Activation of the Myeloid Prostaglandin D-2 Receptor Subtype 1. *J. Pharmacol. Exp. Ther.* **360**(3): 435-444. doi:10.1124/jpet.116.238261
56. Yasuda K, Hayashi Y, Yoshida T, Kashiwagi M, Nakagawa N, Michikawa T, Tanaka M, Ando R, Huang A, Hosoya T, McHugh TJ, Kuwahara M, Itohara S (2017) Schizophrenia-like phenotypes in mice with NMDA receptor ablation in intralaminar thalamic nucleus cells and gene therapy-based reversal in adults. *Transl. Psychiatry* **7**(2): e1047. doi:10.1038/tp.2017.19
57. Kaushik MK, Kaul SC, Wadhwa R, Yanagisawa M, Urade Y (2017) Triethylene glycol, an active component of Ashwagandha (*Withania somnifera*) leaves, is responsible for sleep induction. *PLoS One* **12**(2): e0172508. doi:10.1371/journal.pone.0172508
58. Nagase H, Yamamoto N, Yata M, Ohru S, Okada T, Saitoh T, Kutsumura N, Nagumo Y, Irukayama-Tomobe Y, Ishikawa Y, Ogawa Y, Hirayama S, Kuroda D, Watanabe Y, Gouda H, Yanagisawa M (2017) Design and Synthesis of Potent and Highly Selective Orexin 1 Receptor Antagonists with a Morphinan Skeleton and Their Pharmacologies. *J. Med. Chem.* **60**(3): 1018-1040. doi:10.1021/acs.jmedchem.6b01418
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60. Oishi Y, Spann NJ, Link VM, Muse ED, Strid T, Edillor C, Kolar MJ, Matsuzaka T, Hayakawa S, Tao JH, Kaikkonen MU, Carlin AF, Lam MT, Manabe I, Shimano H, Saghatelian A, Glass CK (2017) SREBP1 Contributes to Resolution of Pro-inflammatory TLR4 Signaling by Reprogramming Fatty Acid Metabolism. *Cell Metab.* **25**(2): 412-427. doi:10.1016/j.cmet.2016.11.009
61. Ohtaki Y, Oi Y, Doki S, Kaneko H, Usami K, Sasahara S, Matsuzaki I (2017) Characteristics of Telephone Crisis Hotline Callers with Suicidal Ideation in Japan. *Suicide Life Threat. Behav.* **47**(1): 54-66. doi:10.1111/sltb.12264
62. Garcia SV, Libourel PA, Lazarus M, Grassi D, Luppi PH, Fort P (2017) Genetic inactivation of glutamate neurons in the rat sublateral dorsal tegmental nucleus recapitulates REM sleep behaviour disorder. *Brain* **140**(2): 414-428. doi:10.1093/brain/aww310
63. Zhang BJ, Shag SR, Aritake K, Takeuchi A, Urade Y, Huang, ZL, Lazarus M, Qu WM (2017) Interleukin-1 β induces sleep independent of prostaglandin D2 in rats and mice. *Neuroscience* **340**: 258-267. doi:10.1016/j.neuroscience.2016.09.053
64. Korkutata M, Saitoh T, Feng D, Murakoshi N, Sugiyama F, Cherasse Y, Nagase H, Lazarus M (2017) Allosteric modulation of adenosine A2A receptors in mice induces slow-wave sleep without cardiovascular effects. *Sleep Medicine* **40**: e181. doi:10.1016/j.sleep.2017.11.530
65. Shinohara R, Taniguchi M, Ehrlich AT, Yokogawa K, Deguchi Y, Cherasse Y, Lazarus M, Urade Y, Ogawa A, Kitaoka S, Sawa A, Narumiya S, Furuyashiki T (2017) Dopamine D1 receptor subtype mediates acute stress-induced dendritic growth in excitatory neurons of the medial prefrontal cortex and contributes to suppression of stress susceptibility in mice. *Mol Psychiatry*. doi:10.1038/mp.2017.177

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67. Owada Y, Tamura T, Tanoi T, Ozawa Y, Shimizu Y, Hisakura K, Matsuzaka T, Shimano H, Nakano N, Sakashita S, Matsukawa T, Isoda H, Ohkohchi N (2017) Novel non-alcoholic steatohepatitis model with histopathological and insulin-resistant features. *Pathol Int.* **68**(1): 12-22. doi:10.1111/pin.12612
68. Hamada Y, Tasaki Y, Morita K, Yamamizu K, Narita M, Matsuyama F, Suzuki M, Ikegami D, Arakawa K, Nagumo Y, Kawata M, Uezono Y, Nagase H, Aoki K, Yamashita JK, Kuzumaki N, Narita M (2017) The κ -opioid receptor agonist nalfurafine enhances the chemotherapy-induced survival advantage in pancreatic cancer-bearing mice. *Jpn. J. Pharm. Palliat. Care Sci* **10**: 7-12

(2) Review articles

69. Shimano H, Sato R (2017) SREBP-regulated lipid metabolism: convergent physiology — divergent pathophysiology. *Nat. Rev. Endocrinol.* **13**(12):710-730. doi:10.1038/nrendo.2017.91
70. Cherasse Y, Urade Y (2017) Dietary Zinc Acts as a Sleep Modulator *Int. J. Mol. Sci.* **18**(11), 2334. doi:10.3390/ijms18112334
71. Leprince J, Bagnol D, Bureau R, Fukusumi S, Granata R, Hinuma S, Larhammar D, Primeaux S, Santos JSD, Tsutsui K, Ukena K, Vaudry H (2017) The Arg-Phe-amide peptide 26RFa/glutamine RF-amide peptide and its receptor: IUPHAR Review 24. *Br. J. Pharmacol.* **174**(20):3573-3607. doi:10.1111/bph.13907
72. Greene RW, Bjorness TE, Suzuki A (2017) The adenosine-mediated, neuronal-glia, homeostatic sleep response. *Curr. Opin. Neurobiol.* **44**:236-242. doi:10.1016/j.conb.2017.05.015
73. Miyazaki S, Liu CY, Hayashi Y (2017) Sleep in vertebrate and invertebrate animals, and insights into the function and evolution of sleep. *Neurosci. Res.* **118**: 3-12. doi:10.1016/j.neures.2017.04.017
74. Oishi Y, Lazarus M (2017) The control of sleep and wakefulness by mesolimbic dopamine systems. *Neurosci. Res.* **118**: 66-73. doi:10.1016/j.neures.2017.04.008
75. Kanda T, Ohyama K, Muramoto H, Kitajima N, Sekiya H (2017) Promising techniques to illuminate neuromodulatory control of the cerebral cortex in sleeping and waking states. *Neurosci. Res.* **118**: 92-103. doi:10.1016/j.neures.2017.04.009

(3) Proceedings

76. Asada K, Shimamoto S, Oonoki T, Maruno T, Kobayashi Y, Aritake K, Urade Y, Hidaka Y (2017) Molecular Recognition Mechanism of Hematopoietic Prostaglandin D Synthase with its Cofactor and Substrate. *Biophys. J.* **112**(3): 494a. doi:10.1016/j.bpj.2016.11.2675
77. Nakamura T, Maeda S, Harada H, Aritake K, Shimosawa T, Urade Y, Yatomi Y, Murata T (2017) Urinary Prostaglandin D2 Metabolite Is a Novel Biomarker of Food Allergy. *J. Allergy Clin. Immunol.* **139**(2): AB190. doi:10.1016/j.jaci.2016.12.618
78. Hsiao Y, Tsai C, Lin H, Yu L, Tsai F (2017) Untangling kinase-based signaling interactions in endothelial cell migration and angiogenesis. *Molecular Biology of the Cell*

(4) Other English articles

79. Hayashi Y, Itohara S (2017) Cutting-edge approaches to unwrapping the mysteries of sleep. *Neurosci. Res.* **118**: 1-2. doi:10.1016/j.neures.2017.04.014
80. Lazarus M, Chen JF, Huang ZL, Urade Y, Fredholm BB (2017) Adenosine and sleep. *Handb. Exp/Pharmacol.* doi:10.1007/164_2017_36

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