

## List of Publications FY 2015

### A. WPI papers

#### 1.) Original articles

01. Mito T, Ishizaki H, Suzuki M, Morishima H, Ota A, Ishikawa K, Nakada K, Maeno A, Shiroishi T, Hayashi J. Transmitochondrial mito-mice $\Delta$  and mtDNA mutator mice, but not aged mice, share the same spectrum of musculoskeletal disorders. *Biochem Biophys Res Commun*. 2014 Dec 12. pii: S0006-291X(14)02174-3.
02. Yamanashi H, Hashizume O, Yonekawa H, Nakada K, Hayashi JI. Administration of an Antioxidant Prevents Lymphoma Development in Transmitochondrial Mice Overproducing Reactive Oxygen Species. *Exp Anim*. 2014 Jul 22.
03. Shimizu A, Mito T, Hayashi C, Ogasawara E, Koba R, Negishi I, Takenaga K, Nakada K, Hayashi J. Transmitochondrial mice as models for primary prevention of diseases caused by mutation in the tRNALys gene. *Proc Natl Acad Sci U S A*. 2014 Feb 25;111(8):3104-9.
04. Oishi Y, Yoshida K, Scammell TE, Urade Y, Lazarus M, Saper CB. The roles of prostaglandin E(2) and D(2) in lipopolysaccharide-mediated changes in sleep. *Brain Behav Immun*. 2014 Dec 20. pii: S0889-1591(14)00564-9.
05. Kaneko K, Mizushige T, Miyazaki Y, Lazarus M, Urade Y, Yoshikawa M, Kanamoto R, Ohinata K.  $\delta$  Opioid receptor activation stimulates normal diet intake but conversely suppresses high-fat diet intake in mice. *Am J Physiol Regul Integr Comp Physiol*. 2014 Feb 15;306(4):R265-72.
06. Kaushik MK, Aritake K, Kamauchi S, Hayaishi O, Huang ZL, Lazarus M, Urade Y. Prostaglandin D2 is crucial for seizure suppression and postictal sleep. *Exp Neurol*. 2014 Mar;253:82-90.
07. Xu Q, Xu XH, Qu WM, Lazarus M, Urade Y, Huang ZL. A mouse model mimicking human first night effect for the evaluation of hypnotics. *Pharmacol Biochem Behav*. 2014 Jan;116:129-36.
08. Oda S, Funato H, Sato F, Adachi-Akahane S, Ito M, Takase K, Kuroda M. A subset of thalamocortical projections to the retrosplenial cortex possesses two vesicular glutamate transporter isoforms, VGluT1 and VGluT2, in axon terminals and somata. *J Comp Neurol*. 2014 Jun 15;522(9):2089-106.
09. Takase K, Kikuchi K, Tsuneoka Y, Oda S, Kuroda M, Funato H. Meta-analysis of melanin-concentrating hormone signaling-deficient mice on behavioral and metabolic phenotypes. *PLoS One*. 2014 Jun 12;9(6):e99961.
10. Nakagawa Y, Satoh A, Yabe S, Furusawa M, Tokushige N, Tezuka H, Mikami M, Iwata W, Shingyouchi A, Matsuzaka T, Kiwata S, Fujimoto Y, Shimizu H, Danno H, Yamamoto T, Ishii K, Karasawa T, Takeuchi Y, Iwasaki H, Shimada M, Kawakami Y, Urayama O, Sone H, Takekoshi K, Kobayashi K, Yatoh S, Takahashi A, Yahagi N, Suzuki H, Yamada N, Shimano H. Hepatic CREB3L3 controls whole-body energy homeostasis and improves obesity and diabetes. *Endocrinology*. 2014 Dec;155(12):4706-19.
11. Fujihara K, Suzuki H, Sato A, Ishizu T, Kodama S, Heianza Y, Saito K, Iwasaki H, Kobayashi K, Yatoh S, Takahashi A, Yahagi N, Sone H, Shimano H. Comparison of the Framingham risk score, UK Prospective Diabetes Study (UKPDS) Risk Engine, Japanese Atherosclerosis Longitudinal Study-Existing Cohorts Combine (JALS-ECC) and maximum carotid intima-media thickness for predicting coronary artery stenosis in patients with asymptomatic type 2 diabetes. *J Atheroscler Thromb*. 2014 Aug 26;21(8):799-815.
12. Horie T, Nishino T, Baba O, Kuwabara Y, Nakao T, Nishiga M, Usami S, Izuhara M, Nakazeki F, Ide Y, Koyama S, Sowa N, Yahagi N, Shimano H, Nakamura T, Hasegawa K, Kume N, Yokode M, Kita T, Kimura T, Ono K. MicroRNA-33b knock-in mice for an intron of sterol regulatory element-binding factor 1 (Srebf1) exhibit reduced HDL-C in vivo. *Sci Rep*. 2014 Jun 16;4:5312.

13. Han SI, Komatsu Y, Murayama A, Steffensen KR, Nakagawa Y, Nakajima Y, Suzuki M, Oie S, Parini P, Vedin LL, Kishimoto H, Shimano H, Gustafsson JÅ, Yanagisawa J. Estrogen receptor ligands ameliorate fatty liver through a nonclassical estrogen receptor/Liver X receptor pathway in mice. *Hepatology*. 2014 May;59(5):1791-802.
14. Nakakuki M, Kawano H, Notsu T, Imada K, Mizuguchi K, Shimano H. A novel processing system of sterol regulatory element-binding protein-1c regulated by polyunsaturated fatty acid. *J Biochem*. 2014 May;155(5):301-13.
15. Schöne C, Aperia-Schoute J, Sakurai T, Adamantidis A, Burdakov D. Coreleased orexin and glutamate evoke nonredundant spike outputs and computations in histamine neurons. *Cell Rep*. 2014 May 8;7(3):697-704.
16. Hasegawa E, Yanagisawa M, Sakurai T, Mieda M. Orexin neurons suppress narcolepsy via 2 distinct efferent pathways. *J Clin Invest*. 2014 Feb 3;124(2):604-16.
17. Watanabe Y, Kitazawa S, Fujii H, Nemoto T, Hirayama S, Iwai T, Gouda H, Hirono S, Nagase H. Design, synthesis, and structure-activity relationship of novel opioid  $\kappa$  receptor selective agonists:  $\alpha$ -iminoamide derivatives with an azabicyclo[2.2.2]octene skeleton. *Bioorg Med Chem Lett*. 2014 Nov 1;24(21):4980-3.
18. Hirayama S, Wada N, Kuroda N, Iwai T, Yamaotsu N, Hirono S, Fujii H, Nagase H. Synthesis of a novel universal opioid receptor agonist with the 1,3,5-trioxazatriquinane skeleton and its pharmacologies. *Bioorg Med Chem Lett*. 2014 Oct 15;24(20):4895-8.
19. Nozaki C, Nagase H, Nemoto T, Matifas A, Kieffer BL, Gaveriaux-Ruff C. In vivo properties of KNT-127, a novel delta opioid agonist: receptor internalisation, antihyperalgesia and antidepressant effects in mice. *Br J Pharmacol*. 2014 Jul 22.
20. Nagase H, Nakajima R, Yamamoto N, Hirayama S, Iwai T, Nemoto T, Gouda H, Hirono S, Fujii H. Design and synthesis of quinolinopropellane derivatives with selective  $\delta$  opioid receptor agonism. *Bioorg Med Chem Lett*. 2014 Jul 1;24(13):2851-4.
21. Kardon AP, Polgár E, Hachisuka J, Snyder LM, Cameron D, Savage S, Cai X, Karnup S, Fan CR, Hemenway GM, Bernard CS, Schwartz ES, Nagase H, Schwarzer C, Watanabe M, Furuta T, Kaneko T, Koerber HR, Todd AJ, Ross SE. Dynorphin acts as a neuromodulator to inhibit itch in the dorsal horn of the spinal cord. *Neuron*. 2014 May 7;82(3):573-86.
22. Sugiyama A, Nagase H, Oka JI, Yamada M, Saitoh A. DOR(2)-selective but not DOR(1) selective antagonist abolishes anxiolytic-like effects of the  $\delta$  opioid receptor agonist KNT-127. *Neuropharmacology*. 2014 Apr;79C:314-320.
23. Ishikawa K, Tomatsu M, Nagase H, Fujii H. Zinc-Acetic Acid Promoted Reductive Carbon-Nitrogen Bond Cleavage Reaction of  $\alpha$ -Aminoketons. *HETEROCYCLES*. 2014 Jan 1;88(2):1051-1063.
24. Roh JH, Jiang H, Finn MB, Stewart FR, Mahan TE, Cirrito JR, Heda A, Snider BJ, Li M, Yanagisawa M, de Lecea L, Holtzman DM. Potential role of orexin and sleep modulation in the pathogenesis of Alzheimer's disease. *J Exp Med*. 2014 Dec 22.
25. Emoto N, Kasuya Y, Yanagisawa M. The Second Tomoh Masaki Award (2013). *Life Sci*. 2014 Nov 24;118(2):87-90.
26. Emoto N, Vignon-Zellweger N, Lopes RA, Cacioppo J, Desbiens L, Kamato D, Leurgans T, Moorhouse R, Straube J, Wurm R, Heiden S, Ergul A, Yanagisawa M, Barton M. 25 years of endothelin research: the next generation. *Life Sci*. 2014 Nov 24;118(2):77-86.
27. Emoto N, Yanagisawa M. The Thirteenth International Conference on Endothelin (ET-13), Tokyo, 2013. *Life Sci*. 2014 Nov 24;118(2):70-6.

28. Mohammed M, Ootsuka Y, Yanagisawa M, Blessing W. Reduced brown adipose tissue thermogenesis during environmental interactions in transgenic rats with ataxin-3-mediated ablation of hypothalamic orexin neurons. *Am J Physiol Regul Integr Comp Physiol*. 2014 Oct 15;307(8):R978-89.
29. Lehmann LH, Rostovsky JS, Buss SJ, Kreusser MM, Krebs J, Mier W, Enseleit F, Spiger K, Hardt SE, Wieland T, Haass M, Lüscher TF, Schneider MD, Parlato R, Gröne HJ, Haberkorn U, Yanagisawa M, Katus HA, Backs J. Essential role of sympathetic endothelin A receptors for adverse cardiac remodeling. *Proc Natl Acad Sci U S A*. 2014 Sep 16;111(37):13499-504.
30. Wei W, Motoike T, Krzeszinski JY, Jin Z, Xie XJ, Dechow PC, Yanagisawa M, Wan Y. Orexin Regulates Bone Remodeling via a Dominant Positive Central Action and a Subordinate Negative Peripheral Action. *Cell Metab*. 2014 Jun 3;19(6):927-40.
31. Makino K, Jinnin M, Aoi J, Kajihara I, Makino T, Fukushima S, Sakai K, Nakayama K, Emoto N, Yanagisawa M, Ihn H. Knockout of endothelial cell-derived endothelin-1 attenuates skin fibrosis but accelerates cutaneous wound healing. *PLoS One*. 2014 May 22;9(5):e97972.
32. Hamada M, Nakamura M, Tran MT, Moriguchi T, Hong C, Ohsumi T, Dinh TT, Kusakabe M, Hattori M, Katsumata T, Arai S, Nakashima K, Kudo T, Kuroda E, Wu CH, Kao PH, Sakai M, Shimano H, Miyazaki T, Tontonoz P, Takahashi S. MafB promotes atherosclerosis by inhibiting foam-cell apoptosis. *Nat Commun*. 2014 Jan 20;5:3147.
33. Nagasaki H, Katsumata T, Oishi H, Tai PH, Sekiguchi Y, Koshida R, Jung Y, Kudo T, Takahashi S. Generation of Insulin-Producing Cells from the Mouse Liver Using  $\beta$  Cell-Related Gene Transfer Including Mafa and Mafb. *PLoS One*. 2014 Nov 14;9(11):e113022.
34. Martinez NE, Sato F, Omura S, Kawai E, Takahashi S, Yoh K, Tsunoda I. ROR $\gamma$ t, but not T-bet, overexpression exacerbates an autoimmune model for multiple sclerosis. *J Neuroimmunol*. 2014 Nov 15;276(1-2):142-9.
35. Morito N, Yoh K, Ojima M, Okamura M, Nakamura M, Hamada M, Shimohata H, Moriguchi T, Yamagata K, Takahashi S. Overexpression of Mafb in podocytes protects against diabetic nephropathy. *J Am Soc Nephrol*. 2014 Nov;25(11):2546-57.
36. Tran MT, Tanaka J, Hamada M, Sugiyama Y, Sakaguchi S, Nakamura M, Takahashi S, Miwa Y. In vivo image analysis using iRFP transgenic mice. *Exp Anim*. 2014;63(3):311-9.
37. Martinez NE, Sato F, Kawai E, Omura S, Takahashi S, Yoh K, Tsunoda I. Th17-biased ROR $\gamma$ t transgenic mice become susceptible to a viral model for multiple sclerosis. *Brain Behav Immun*. 2014 Jul 18. pii: S0889-1591(14)00400-0.
38. Okamura M, Yoh K, Ojima M, Morito N, Takahashi S. Overexpression of GATA-3 in T cells accelerates dextran sulfate sodium-induced colitis. *Exp Anim*. 2014;63(2):133-40.
39. Kihara M, Ito K, Nakata J, Otani M, Tran NL, Morito N, Takahashi S, Wada Y, Izui S. O-linked glycosylation determines the nephritogenic potential of IgA rheumatoid factor. *J Am Soc Nephrol*. 2014 Jun;25(6):1282-90.
40. Daussy C, Faure F, Mayol K, Viel S, Gasteiger G, Charrier E, Bienvenu J, Henry T, Debien E, Hasan UA, Marvel J, Yoh K, Takahashi S, Prinz I, de Bernard S, Buffat L, Walzer T. T-bet and Eomes instruct the development of two distinct natural killer cell lineages in the liver and in the bone marrow. *J Exp Med*. 2014 Mar 10;211(3):563-77.
41. Fernando V, Omura S, Sato F, Kawai E, Martinez NE, Elliott SF, Yoh K, Takahashi S, Tsunoda I. Regulation of an autoimmune model for multiple sclerosis in Th2-biased GATA3 transgenic mice. *Int J Mol Sci*. 2014 Jan 23;15(2):1700-18.

42. Trimarco A, Forese MG, Alfieri V, Lucente A, Brambilla P, Dina G, Pieragostino D, Sacchetta P, Urade Y, Boizet-Bonhoure B, Martinelli Boneschi F, Quattrini A, Taveggia C. Prostaglandin D2 synthase/GPR44: a signaling axis in PNS myelination. *Nat Neurosci*. 2014 Dec;17(12):1682-92.
43. Fujimori K, Urade Y. Transcriptional regulation in adipogenesis through PPAR $\gamma$ -dependent and -independent mechanisms by prostaglandins. *Methods Mol Biol*. 2014;1164:177-96.
44. Nakahara K, Fujiwara Y, Tsukahara T, Yamagami H, Tanigawa T, Shiba M, Tominaga K, Watanabe T, Urade Y, Arakawa T. Acid reflux directly causes sleep disturbances in rat with chronic esophagitis. *PLoS One*. 2014 Sep 12;9(9):e106969.
45. Cho S, Yoon M, Pae AN, Jin YH, Cho NC, Takata Y, Urade Y, Kim S, Kim JS, Yang H, Kim J, Kim J, Han JK, Shimizu M, Huang ZL. Marine polyphenol phlorotannins promote non-rapid eye movement sleep in mice via the benzodiazepine site of the GABAA receptor. *Psychopharmacology (Berl)*. 2014 Jul;231(14):2825-37.
46. Nishida N, Nagata N, Toda H, Jingami N, Uemura K, Ozaki A, Mase M, Urade Y, Matsumoto S, Iwasaki K, Ishikawa M. Association of lipocalin-type prostaglandin D synthase with disproportionately enlarged subarachnoid-space in idiopathic normal pressure hydrocephalus. *Fluids Barriers CNS*. 2014 Apr 15;11(1):9.
47. Yamaguchi H, Maruyama T, Urade Y, Nagata S. Immunosuppression via adenosine receptor activation by adenosine monophosphate released from apoptotic cells. *Elife*. 2014 Mar 25;3:e02172.
48. Inutsuka A, Inui A, Tabuchi S, Tsunematsu T, Lazarus M, Yamanaka A. Concurrent and robust regulation of feeding behaviors and metabolism by orexin neurons. *Neuropharmacology*. 2014 Oct;85:451-60.
49. Mogk S, Meiwes A, Shtopel S, Schraermeyer U, Lazarus M, Kubata B, Wolburg H, Duszenko M. Cyclical appearance of African trypanosomes in the cerebrospinal fluid: new insights in how trypanosomes enter the CNS. *PLoS One*. 2014 Mar 11;9(3):e91372.
50. Wang Z, Liu S, Kakizaki M, Hirose Y, Ishikawa Y, Funato H, Yanagisawa M, Yu Y, Liu Q. Orexin/hypocretin activates mTOR complex 1 (mTORC1) via an Erk/Akt-independent and calcium-stimulated lysosome v-ATPase pathway. *J Biol Chem*. 2014 Nov 14;289(46):31950-9.
51. Willadt S, Canepari M, Yan P, Loew LM, Vogt KE. Combined optogenetics and voltage sensitive dye imaging at single cell resolution. *Front Cell Neurosci*. 2014 Oct 8;8:311.
52. Marowsky A, Vogt KE. Delta-subunit-containing GABAA-receptors mediate tonic inhibition in paracapsular cells of the mouse amygdala. *Front Neural Circuits*. 2014 Mar 25;8:27.
53. Doki S, Sasahara S, Matsuzaki I. Psychological approach of occupational health service to sick leave due to mental problems: a systematic review and meta-analysis. *Int Arch Occup Environ Health*. 2014 Nov 8.
54. Noriki Kutsumura, Shohei Toguchi, Masatoshi Iijima, Osamu Tanaka, Izumi Iwakura, Takao Saito, DBU-promoted regioselective HBr-elimination of vicinal dibromides: effects of the adjacent oxygen and/or other heterofunctional groups, *Tetrahedron*, Volume 70, Issue 43, 28 October 2014, Pages 8004-8009.
55. Saito T, Sonoki Y, Otani T, Kutsumura N. Triflic acid-promoted cycloisomerization of 2-alkynylphenyl isothiocyanates and isocyanates: a novel synthetic method for a variety of indole derivatives. *Org Biomol Chem*. 2014 Oct 9;12(42):8398-407.

## 2.) Review articles

56. Lazarus M, Chen J, Urade Y, Huang Z. Role of the basal ganglia in the control of sleep and wakefulness. *Current Opinion in Neurobiology*. 2013 Oct;23(5):780-785.
57. Emoto N, Vignon-Zellweger N, Lopes RA, Cacioppo J, Desbiens L, Kamato D, Leurgans T,

Moorhouse R, Straube J, Wurm R, Heiden S, Ergul A, Yanagisawa M, Barton M. 25years of endothelin research: The next generation. *Life Sci.* 2014 Aug 15.

### 3.) Proceedings

None.

### 4.) Other English articles

(Editorials)

58. Emoto N, Masaki T, Goto K, Vanhoutte PM, Yanagisawa M. Endothelin XIII. *Life Sci.* 2014 Nov 24;118(2):47-50.

### 5.) Articles written in other than English

(Japanese)

59. Kanbayashi T, Tsutsui K, Tanaka K, Omori Y, Takaki M, Omokawa M, Mori A, Kusanagi H, Nishino S, Shimizu T. [Anti-NMDA encephalitis in psychiatry; malignant catatonia, atypical psychosis and ECT]. *Rinsho Shinkeigaku.* 2014;54(12):1103-6.

## B. WPI-related papers

### 1.) Original articles

60. Suzuki K, Numata T, Suzuki H, Raga DD, Ipulan LA, Yokoyama C, Matsushita S, Hamada M, Nakagata N, Nishinakamura R, Kume S, Takahashi S, Yamada G. Sexually dimorphic expression of *Mafb* regulates masculinization of the embryonic urethral formation. *Proc Natl Acad Sci U S A.* 2014 Nov 18;111(46):16407-12.

61. Tahara M, Kondo Y, Yokosawa M, Tsuboi H, Takahashi S, Shibayama S, Matsumoto I, Sumida T. T-bet regulates differentiation of Foxp3(+) regulatory T cells in programmed cell death-1-deficient mice. *Clin Exp Immunol.* 2014 Sep 15.

62. Mizuno S, Dinh TT, Kato K, Mizuno-Iijima S, Tanimoto Y, Daitoku Y, Hoshino Y, Ikawa M, Takahashi S, Sugiyama F, Yagami K. Simple generation of albino C57BL/6J mice with G291T mutation in the tyrosinase gene by the CRISPR/Cas9 system. *Mamm Genome.* 2014 Aug;25(7-8):327-34.

63. Eto K, Nishimura W, Oishi H, Udagawa H, Kawaguchi M, Hiramoto M, Fujiwara T, Takahashi S, Yasuda K. *MafA* is required for postnatal proliferation of pancreatic  $\beta$ -cells. *PLoS One.* 2014 Aug 15;9(8):e104184.

64. Hasegawa Y, Daitoku Y, Mizuno S, Tanimoto Y, Mizuno-Iijima S, Matsuo M, Kajiwara N, Ema M, Oishi H, Miwa Y, Mekada K, Yoshiki A, Takahashi S, Sugiyama F, Yagami K. Generation and characterization of *Ins1-cre-driver* C57BL/6N for exclusive pancreatic beta cell-specific Cre-loxP recombination. *Exp Anim.* 2014;63(2):183-91.

65. Matsuyama M, Ishii Y, Yageta Y, Ohtsuka S, Ano S, Matsuno Y, Morishima Y, Yoh K, Takahashi S, Ogawa K, Hogaboam CM, Hizawa N. Role of Th1/Th17 balance regulated by T-bet in a mouse model of *Mycobacterium Avium* complex disease. *J Immunol.* 192, 1707-1717, 2014.

66. Shinagawa T, Takagi T, Tsukamoto D, Tomaru C, Huynh LM, Sivaraman P, Kumarevel T, Inoue K, Nakato R, Katou Y, Sado T, Takahashi S, Ogura A, Shirahige K, Ishii. Histone variants enriched in oocytes enhance reprogramming to induced pluripotent stem cells. *Cell Stem Cell*. 14, 217-227, 2014.
67. Nishikawa Y, Nishijima H, Matsumoto M, Morimoto J, Hirota F, Takahashi S, Luche H, Fehling HJ, Mouri Y, Matsumoto M. Temporal lineage tracing of Aire-expressing cells reveals a requirement for Aire in their maturation program. *J Immunol*. 192, 2585-2592, 2014.
68. Yoshizawa S, Heianza Y, Arase Y, Saito K, Hsieh SD, Tsuji H, Hanyu O, Suzuki A, Tanaka S, Kodama S, Shimano H, Hara S, Sone H. Comparison of different aspects of BMI history to identify undiagnosed diabetes in Japanese men and women: Toranomon Hospital Health Management Center Study 12 (TOPICS 12). *Diabet Med*. 2014 Nov;31(11):1378-86.
69. Horikawa C, Kodama S, Fujihara K, Hirasawa R, Yachi Y, Suzuki A, Hanyu O, Shimano H, Sone H. High risk of failing eradication of *Helicobacter pylori* in patients with diabetes: A meta-analysis. *Diabetes Res Clin Pract*. 2014 Oct;106(1):81-7.
70. Tang N, Matsuzaka T, Suzuki M, Nakano Y, Zao H, Yokoo T, Suzuki-Kemuriyama N, Kuba M, Okajima Y, Takeuchi Y, Kobayashi K, Iwasaki H, Yatoh S, Takahashi A, Suzuki H, Sone H, Shimada M, Nakagawa Y, Yahagi N, Yamada N, Shimano H. Ablation of Elovl6 protects pancreatic islets from high-fat diet-induced impairment of insulin secretion. *Biochem Biophys Res Commun*. 2014 Jul 18;450(1):318-23.
71. Fujihara K, Sugawara A, Heianza Y, Sairenchi T, Irie F, Iso H, Doi M, Shimano H, Watanabe H, Sone H, Ota H. Utility of the Triglyceride Level for Predicting Incident Diabetes Mellitus According to the Fasting Status and Body Mass Index Category: The Ibaraki Prefectural Health Study. *J Atheroscler Thromb*. 2014 Jul 16.
72. Tanaka Y, Isobe K, Ma E, Imai T, Kikumori T, Matsuda T, Maeda Y, Sakurai A, Midorikawa S, Hataya Y, Kato T, Kamide K, Ikeda Y, Okada Y, Adachi M, Yanase T, Takahashi H, Yokoyama C, Arai Y, Hashimoto K, Shimano H, Hara H, Kawakami Y, Takekoshi K. Plasma free metanephrines in the diagnosis of pheochromocytoma: diagnostic accuracy and strategies for Japanese patients. *Endocr J*. 2014;61(7):667-73.
73. Matsuzaka T, Shimano H. New liver- $\beta$ -cell axis that controls insulin secretory capacity. *J Diabetes Investig*. 2014 May 4;5(3):276-7.
74. Horikawa C, Kodama S, Fujihara K, Hirasawa R, Yachi Y, Suzuki A, Hanyu O, Shimano H, Sone H. High risk of failing eradication of *Helicobacter pylori* in patients with diabetes: a meta-analysis. *Diabetes Res Clin Pract*. 2014 Oct;106(1):81-7.
75. Sato M, Sagawa Y, Hirai N, Sato S, Okuro M, Kumar S, Kanbayashi T, Shimizu T, Sakai N, Nishino S. Noninvasive detection of sleep/wake changes and cataplexy-like behaviors in orexin/ataxin-3 transgenic narcoleptic mice across the disease onset. *Exp Neurol*. 2014 Nov;261:744-51.
76. Kondo H, Ozone M, Ohki N, Sagawa Y, Yamamichi K, Fukuju M, Yoshida T, Nishi C, Kawasaki A, Mori K, Kanbayashi T, Izumi M, Hishikawa Y, Nishino S, Shimizu T. Association between heart rate variability, blood pressure and autonomic activity in cyclic alternating pattern during sleep. *Sleep*. 2014 Jan 1;37(1):187-94.

77. Takeshima M, Echizenya M, Inomata Y, Shimizu K. and Shimizu T. (2014), Comparison of sleep estimation using wrist actigraphy and waist actigraphy in healthy young adults. *Sleep Biol. Rhythms*. 2014. 12:62–68.
78. Roh JH, Jiang H, Finn MB, Stewart FR, Mahan TE, Cirrito JR, Heda A, Snider BJ, Li M, Yanagisawa M, de Lecea L, Holtzman DM. Potential role of orexin and sleep modulation in the pathogenesis of Alzheimer's disease. *J Exp Med*. 2014 Dec 15;211(13):2487-96.
79. Cacioppo JA, Oh SW, Kim HY, Cho J, Lin PC, Yanagisawa M, Ko C. Loss of function of endothelin-2 leads to reduced ovulation and CL formation. *PLoS One*. 2014 Apr 24;9(4):e96115.
80. Heiden S, Vignon-Zellweger N, Masuda S, Yagi K, Nakayama K, Yanagisawa M, Emoto N. Vascular endothelium derived endothelin-1 is required for normal heart function after chronic pressure overload in mice. *PLoS One*. 2014 Feb 11;9(2):e88730.
81. Sephton CF, Tang AA, Kulkarni A, West J, Brooks M, Stubblefield JJ, Liu Y, Zhang MQ, Green CB, Huber KM, Huang EJ, Herz J, Yu G. Activity-dependent FUS dysregulation disrupts synaptic homeostasis. *Proc Natl Acad Sci U S A*. 2014 Oct 16.
82. Nangle SN, Rosensweig C, Koike N, Tei H, Takahashi JS, Green CB, Zheng N. Molecular assembly of the period-cryptochrome circadian transcriptional repressor complex. *Elife*. 2014 Aug 15;3:e03674.
83. Partch CL, Green CB, Takahashi JS. Molecular architecture of the mammalian circadian clock. *Trends Cell Biol*. 2014 Feb;24(2):90-99.
84. Uchiyama N, Matsuda S, Kawamura M, Shimokawa Y, Kikura-Hanajiri R, Aritake K, Urade Y, Goda Y. Characterization of four new designer drugs, 5-chloro-NNEI, NNEI indazole analog,  $\alpha$ -PHPP and  $\alpha$ -POP, with 11 newly distributed designer drugs in illegal products. *Forensic Sci Int*. 2014 Oct;243:1-13.
85. Liu YY, Yin D, Chen L, Qu WM, Chen CR, Laudon M, Cheng NN, Urade Y, Huang ZL. Piromelatine exerts antinociceptive effect via melatonin, opioid, and 5HT1A receptors and hypnotic effect via melatonin receptors in a mouse model of neuropathic pain. *Psychopharmacology (Berl)*. 2014 Oct;231(20):3973-85.
86. Moniot B, Ujjan S, Champagne J, Hirai H, Aritake K, Nagata K, Dubois E, Nidelet S, Nakamura M, Urade Y, Poulat F, Boizet-Bonhoure B. Prostaglandin D2 acts through the Dp2 receptor to influence male germ cell differentiation in the foetal mouse testis. *Development*. 2014 Sep;141(18):3561-71.
87. Inui T, Mase M, Shirota R, Nagashima M, Okada T, Urade Y. Lipocalin-type prostaglandin D synthase scavenges biliverdin in the cerebrospinal fluid of patients with aneurysmal subarachnoid hemorrhage. *J Cereb Blood Flow Metab*. 2014 Sep;34(9):1558-67.
88. Fujimori K, Urade Y. Transcriptional Regulation in Adipogenesis Through PPAR $\gamma$ -Dependent and -Independent Mechanisms by Prostaglandins. *Methods Mol Biol*. 2014;1164:177-96.
89. Iwanaga K, Nakamura T, Maeda S, Aritake K, Hori M, Urade Y, Ozaki H, Murata T. Mast cell-derived prostaglandin d2 inhibits colitis and colitis-associated colon cancer in mice. *Cancer Res*. 2014 Jun 1;74(11):3011-9.
90. Xu XH, Qiu MH, Dong H, Qu WM, Urade Y, Huang ZL. GABA transporter-1 inhibitor NO-711 alters the EEG power spectra and enhances non-rapid eye movement sleep during the active phase in mice. *Eur Neuropsychopharmacol*. 2014 Apr;24(4):585-94.

91. Tippin BL, Kwong AM, Inadomi MJ, Lee OJ, Park JM, Materi AM, Buslon VS, Lin AM, Kudo LC, Karsten SL, French SW, Narumiya S, Urade Y, Salido E, Lin HJ. Intestinal tumor suppression in *Apc(Min/+)* mice by prostaglandin D(2) receptor PTGDR. *Cancer Med.* 2014 Apr 12.
92. Uchiyama N, Matsuda S, Kawamura M, Shimokawa Y, Kikura-Hanajiri R, Aritake K, Urade Y, Goda Y. Characterization of four new designer drugs, 5-chloro-NNEI, NNEI indazole analog,  $\alpha$ -PHPP and  $\alpha$ -POP, with 11 newly distributed designer drugs in illegal products. *Forensic Sci Int.* 2014 Mar 27;243C:1-13.
93. Yamaguchi H, Maruyama T, Urade Y, Nagata S. Immunosuppression via adenosine receptor activation by adenosine monophosphate released from apoptotic cells. *Elife.* 2014 Mar 25;3:e02172.
94. Izumi Y, Aritake K, Urade Y, Fukusaki E. Practical evaluation of liquid chromatography/tandem mass spectrometry and enzyme immunoassay method for the accurate quantitative analysis of prostaglandins. *J Biosci Bioeng.* 2014 Feb 14. pii: S1389-1723(13)00480-5.
95. Katsumata Y, Shinmura K, Sugiura Y, Tohyama S, Matsuhashi T, Ito H, Yan X, Ito K, Yuasa S, Ieda M, Urade Y, Suematsu M, Fukuda K, Sano M. Endogenous prostaglandin D2 and its metabolites protect the heart against ischemia-reperfusion injury by activating Nrf2. *Hypertension.* 2014 Jan;63(1):80-7.
96. Tabuchi S, Tsunematsu T, Black SW, Tominaga M, Maruyama M, Takagi K, Minokoshi Y, Sakurai T, Kilduff TS, Yamanaka A. Conditional ablation of orexin/hypocretin neurons: a new mouse model for the study of narcolepsy and orexin system function. *J Neurosci.* 2014 May 7;34(19):6495-509.
97. Enkhtuya R, Sato T, Wakasugi M, Tuvshintugs B, Miyata H, Sakurai T, Matsunaga T, Yoshioka K. The scaffold protein JLP plays a key role in regulating ultraviolet B-induced apoptosis in mice. *Genes Cells.* 2014 Apr;19(4):350-8.
98. Etori K, Saito YC, Tsujino N, Sakurai T. Effects of a newly developed potent orexin-2 receptor-selective antagonist, compound 1 m, on sleep/wakefulness states in mice. *Front Neurosci.* 2014 Jan 31;8:8.
99. Izumo M, Pejchal M, Schook AC, Lange RP, Walisser JA, Sato TR, Wang X, Bradfield CA, Takahashi JS. Differential effects of light and feeding on circadian organization of peripheral clocks in a forebrain *Bmal1* mutant. *Elife.* 2014 Dec 19;3.
100. Johnson BP, Walisser JA, Liu Y, Shen AL, McDearmon EL, Moran SM, McIntosh BE, Vollrath AL, Schook AC, Takahashi JS, Bradfield CA. Hepatocyte circadian clock controls acetaminophen bioactivation through NADPH-cytochrome P450 oxidoreductase. *Proc Natl Acad Sci U S A.* 2014 Dec 30;111(52):18757-62.
101. Umemura Y, Koike N, Matsumoto T, Yoo SH, Chen Z, Yasuhara N, Takahashi JS, Yagita K. Transcriptional program of *Kpna2/Importin- $\alpha$ 2* regulates cellular differentiation-coupled circadian clock development in mammalian cells. *Proc Natl Acad Sci U S A.* 2014 Nov 25;111(47):E5039-48.
102. Hirayama S, Wada N, Nemoto T, Iwai T, Fujii H, Nagase H. Synthesis and Pharmacology of a Novel  $\kappa$  Opioid Receptor (KOR) Agonist with a 1,3,5-Trioxazatriquinane Skeleton. *ACS Med Chem Lett.* 2014 Jun 26;5(8):868-72.
103. Fujii H, Hayashida K, Saitoh A, Yokoyama A, Hirayama S, Iwai T, Nakata E, Nemoto T, Sudo Y, Uezono Y, Yamada M, Nagase H. Novel delta opioid receptor agonists with oxazatricyclodecane structure. *ACS Med Chem Lett.* 2014 Jan 27;5(4):368-72.
104. Uehara N, Mori M, Tokuzawa Y, Mizuno Y, Tamaru S, Kohda M, Moriyama Y, Nakachi Y, Matoba

- N, Sakai T, Yamazaki T, Harashima H, Murayama K, Hattori K, Hayashi J, Yamagata T, Fujita Y, Ito M, Tanaka M, Nibu K, Ohtake A, Okazaki Y. New MT-ND6 and NDUFA1 mutations in mitochondrial respiratory chain disorders. *Ann Clin Transl Neurol*. 2014 May;1(5):361-9.
105. Enoki S, Shimizu A, Hayashi C, Imanishi H, Hashizume O, Mekada K, Suzuki H, Hashimoto T, Nakada K, Hayashi J. Selection of rodent species appropriate for mtDNA transfer to generate transmitochondrial mito-mice expressing mitochondrial respiration defects. *Exp Anim*. 2014;63(1):21-30.
106. Sarashina H, Tsubosaka Y, Omori K, Aritake K, Nakagawa T, Hori M, Hirai H, Nakamura M, Narumiya S, Urade Y, Ozaki H, Murata T. Opposing immunomodulatory roles of prostaglandin D2 during the progression of skin inflammation. *J Immunol*. 2014 Jan 1;192(1):459-65.
107. Greene RW. A state dependence of the response to N-methyl-D-aspartate receptor antagonism. *Biol Psychiatry*. 2014 Dec 15;76(12):912-3.
108. Barth L, Sütterlin R, Nenniger M, Vogt KE. Reduced synaptic activity in neuronal networks derived from embryonic stem cells of murine Rett syndrome model. *Front Cell Neurosci*. 2014 Mar 26;8:79.
109. Barth L, Sütterlin R, Nenniger M, Vogt KE. Functional differentiation of stem cell-derived neurons from different murine backgrounds. *Front Cell Neurosci*. 2014 Feb 20;8:49.
110. Arakawa H, Suzuki A, Zhao S, Tsytsarev V, Lo FS, Hayashi Y, Itohara S, Iwasato T, Erzurumlu RS. Thalamic NMDA receptor function is necessary for patterning of the thalamocortical somatosensory map and for sensorimotor behaviors. *J Neurosci*. 2014 Sep 3;34(36):12001-14.
111. Park KE, Kim JD, Nagashima Y, Kako K, Daitoku H, Matsui M, Park GG, Fukamizu A. Detection of choline and phosphatidic acid (PA) catalyzed by phospholipase D (PLD) using MALDI-QIT-TOF/MS with 9-aminoacridine matrix. *Biosci Biotechnol Biochem*. 2014;78(6):981-8.
112. Tanimoto K, Kanafusa S, Ushiki A, Matsuzaki H, Ishida J, Sugiyama F, Fukamizu A. A mouse renin distal enhancer is essential for blood pressure homeostasis in BAC-rescued renin-null mutant mice. *J Recept Signal Transduct Res*. 2014 Oct;34(5):401-9.
113. Amano H, Murata K, Matsunaga H, Tanaka K, Yoshioka K, Kobayashi T, Ishida J, Fukamizu A, Sugiyama F, Sudo T, Kimura S, Tatsumi K, Kasuya Y. p38 Mitogen-activated protein kinase accelerates emphysema in mouse model of chronic obstructive pulmonary disease. *J Recept Signal Transduct Res*. 2014 Aug;34(4):299-306.
114. Hasegawa M, Toma-Fukai S, Kim JD, Fukamizu A, Shimizu T. Protein arginine methyltransferase 7 has a novel homodimer-like structure formed by tandem repeats. *FEBS Lett*. 2014 May 21;588(10):1942-8.
115. Mizuno S, Tra DT, Mizobuchi A, Iseki H, Mizuno-Iijima S, Kim JD, Ishida J, Matsuda Y, Kunita S, Fukamizu A, Sugiyama F, Yagami K. Truncated Cables1 causes agenesis of the corpus callosum in mice. *Lab Invest*. 2014 Mar;94(3):321-30.
116. Arruda-Carvalho M, Akers KG, Guskjolen A, Sakaguchi M, Josselyn SA, Frankland PW. Posttraining ablation of adult-generated olfactory granule cells degrades odor-reward memories. *J Neurosci*. 2014 Nov 19;34(47):15793-803.
117. Bochner DN, Sapp RW, Adelson JD, Zhang S, Lee H, Djurasic M, Syken J, Dan Y, Shatz CJ. Blocking PirB up-regulates spines and functional synapses to unlock visual cortical plasticity and facilitate recovery from amblyopia. *Sci Transl Med*. 2014 Oct 15;6(258):258ra140.
118. Zhang S, Xu M, Kamigaki T, Hoang Do JP, Chang WC, Jenvay S, Miyamichi K, Luo L, Dan Y. Selective attention. Long-range and local circuits for top-down modulation of visual cortex processing. *Science*. 2014 Aug 8;345(6197):660-5.

119. Lee SH, Kwan AC, Dan Y. Interneuron subtypes and orientation tuning. *Nature*. 2014 Apr 3;508(7494):E1-2.

120. Xu M, Zhang SY, Dan Y, Poo MM. Representation of interval timing by temporally scalable firing patterns in rat prefrontal cortex. *Proc Natl Acad Sci U S A*. 2014 Jan 7;111(1):480-5.

## 2.) Review articles

121. Sakurai T. Roles of orexins in the regulation of body weight homeostasis. *Obes Res Clin Pract*. 2014 September - October; 8(5):e414-e420.

122. Thompson MD, Xhaard H, Sakurai T, Rainero I, Kukkonen JP. OX(1) and OX(2) orexin/hypocretin receptor pharmacogenetics. *Front Neurosci*. 2014 May 6;8:57. eCollection 2014. Review.

123. Sakurai T. The role of orexin in motivated behaviours. *Nat Rev Neurosci*. 2014 Nov;15(11):719-31.

## 3.) Proceedings

None.

## 4.) Other English articles

(Letters)

124. Kikuchi YS, Ataka K, Yagisawa K, Omori Y, Kanbayashi T, Shimizu T. Clozapine administration and the risk of drug-related pure red cell aplasia: a novel case report. *J Clin Psychopharmacol*. 2014 Dec;34(6):763-4.

125. Kikuchi YS, Sato W, Ataka K, Yagisawa K, Omori Y, Kanbayashi T, Shimizu T. Clozapine-induced seizures, electroencephalography abnormalities, and clinical responses in Japanese patients with schizophrenia. *Neuropsychiatr Dis Treat*. 2014 Oct 15;10:1973-8.

126. Takeshima M, Echizenya M, Inomata Y, Shimizu T. Scurvy in an alcohol-dependent patient with a severely unbalanced diet. *Psychiatry Clin Neurosci*. 2014 Mar;68(3):242-3.

## 5.) Articles written in other than English

(Japanese)

127. Mukaino A, Kinoshita I, Fukushima N, Otsubo M, Kanbayashi T. A case of herpes simplex encephalitis with hypersomnia and low orexin level in the cerebrospinal fluid. *Rinsho Shinkeigaku*. 2014;54(3):207-11.

128. Sakai W, Matsui N, Fujita K, Izumi Y, Nishida Y, Takahashi T, Kanbayashi T, Kaji R. [A case of neuromyelitis optica spectrum disorder associated with central pontine and extrapontine myelinolysis preceded by syndrome of inappropriate antidiuretic hormone secretion]. *Rinsho Shinkeigaku*. 2014;54(7):556-60. Japanese.

129. Saito N, Inoue M, Hasuo K, Kanbayashi T, Murayama S, Takeuchi S. [A 39 years old woman responding to modafinil with bilateral hypothalamic lesion associated with hyperthermia and hypersomnia: a case report]. *Rinsho Shinkeigaku*. 2014;54(7):550-5. Japanese.