

Zhang Y, Kaneko R, Yanagawa Y, **Saito Y*** (2014) The vestibulo- and preposito-cerebellar cholinergic neurons of a ChAT-tdTomato transgenic rat exhibit heterogeneous firing properties and the expression of various neurotransmitter receptors. *Eur J Neurosci* 39: 1294-1313.

Nakada, T, Hagino-Yamagishi, K, Nakanishi, K, Yokosuka M, Saito, TR, **Toyoda, F**, Hasunuma I, Nakakura, T, Kikuyama, S (2014) Expression of G proteins in the olfactory receptor neurons of the newt, *Cynops pyrrhogaster*: Their unique projection into the olfactory bulbs. *J Comp Neurol*, 522 : 3501-3519.

Saito Y* and Yanagawa Y (2013) Ca^{2+} -activated ion currents triggered by ryanodine receptor-mediated Ca^{2+} release control the firing of inhibitory neurons in the prepositus hypoglossi nucleus. *J Neurophysiol* 109: 389-404.

Iwata, T, Nakada, T, **Toyoda, F**, Yada, T, Shioda, S, Kikuyama, S (2013) Responsiveness of vomeronasal cells to a newt peptide pheromone, sodefrin as monitored by changes of intracellular calcium concentrations. *Peptides*, 45: 15-21.

Hasunuma, I, **Toyoda, F**, Okada, R, Yamamoto, K, Kadono, Y, Kikuyama, S (2013) Roles of arginine vasotocin receptors in the brain and pituitary of submammalian vertebrates. *Int Rev Cell Mol Biol*, 304: 191-225.

Saito Y*, Shino M, and Yanagawa Y (2012) Characterization of ionic channels underlying the specific firing pattern of a novel neuronal subtype in the rat prepositus hypoglossi nucleus. *Neurosci Res* 73: 32-41.

Toyoda, F, Hasunuma, I, Nakada, T, Haraguchi, S, Tsutsui, K, Kikuyama, S (2012) Involvement of the neurosteroid 7α -hydroxypregnenolone in the courtship behavior of the male newt *Cynops pyrrhogaster*. *Hormones and Behavior*, 62: 375-380.

Shino M, Kaneko R, Yanagawa Y, Kawaguchi Y, and **Saito Y*** (2011) Electrophysiological characteristics of inhibitory neurons of the prepositus hypoglossi nucleus as analyzed in Venus-expressing transgenic rats. *Neuroscience* 197: 89-98.

Saito Y* and Yanagawa Y (2010) Synaptic mechanism for the sustained activation of oculomotor integrator circuits in the rat prepositus hypoglossi nucleus: Contribution of Ca^{2+} -permeable AMPA receptors. *J Neurosci* 30: 15735-15746.

Hasunuma, I, **Toyoda, F.** Kadono, Y, Yamamoto, K, Namiki, H, Kikuyama, S (2010) Localization of three types of arginine vasotocin receptors in the brain and pituitary of the newt *Cynops pyrrhogaster*. *Cell Tissue Res.*, 342: 437-457.

Wang Y, Kakizaki T, Sakagami H, Saito K, Ebihara S, Kato M, Hirabayashi M, **Saito Y.** Furuya N, and Yanagawa Y (2009) Fluorescent labeling of both GABAergic and glycinergic neurons in VGAT-Venus transgenic mouse. *Neuroscience* 164: 1031-1043.

Kikuyama, S., Hasunuma, I., **Toyoda, F.** Haraguchi, S., Tsutsui, K (2009) Hormone-mediated reproductive behavior in the newt. *Ann. N. Y. Acad. Sci.*, 1163: 179-186.

Saito Y*, Takazawa T, and Ozawa S (2008) Relationship between afterhyperpolarization profiles and the regularity of spontaneous firings in rat medial vestibular nucleus neurons. *Eur J Neurosci* 28: 288-298

Shino M, Ozawa S, Furuya N, and **Saito Y*** (2008) Membrane properties of excitatory and inhibitory neurons in the rat prepositus hypoglossi nucleus. *Eur J Neurosci* 27: 2413-2424.

Saito Y* and Ozawa S (2007) Membrane properties of rat medial vestibular nucleus neurons in vivo. *Neurosci Res* 59: 215-223.

Nakada, T., Ishizuka, Y., Iwata, T., **Toyoda, F.** Kato, T., Conlon, J.M., Kikuyama, S. (2007) Evidence for processing enzymes in the abdominal gland of the newt, *Cynops pyrrhogaster* that generate sodefrin from its biosynthetic precursor. *Zool. Sci.*, 24: 521-524.

Nakada, T, **Toyoda, F.** Iwata, T, Yamamoto, K, Conlon, JM, Kato, T, Kikuyama, S (2007) Isolation, characterization and bioactivity of a region-specific pheromone, [Val⁸]sodefrin from the newt *Cynops pyrrhogaster*. *Peptides*, 28: 774-780.

Hasunuma, I, Sakai, T, Nakada, T, **Toyoda, F.** Namiki, H, Kikuyama, S (2007) Molecular cloning of three types of arginine vasotocin receptor in the newt, *Cynops pyrrhogaster*. *Gen. Comp. Endocrinol.*, 151: 252-258.

Yamashita M, **Sugioka M.** **Ogawa Y** (2006) Voltage- and Ca²⁺-activated potassium channels in Ca²⁺ store control Ca²⁺ release. *FEBS J.* 273(15):3585-3597.

Noriyama Y, **Ogawa Y**, Yoshino H, Yamashita M, Kishimoto T (2006) Dopamine profoundly suppresses excitatory transmission in neonatal rat hippocampus via phosphatidylinositol-linked D1-like receptor. *Neuroscience*.138:475-485.

Sooksawat T, **Saito Y**, and Isa T (2005) Electrophysiological and morphological properties of identified crossed tecto-reticular neurons in the rat superior colliculus. *Neurosci Res* 52: 174-184.

Saito Y and Isa T (2005) Organization of interlaminar interactions in the rat superior colliculus. *J Neurophysiol* 93: 2898-2907.

Toyoda, F, Hasunuma, I, Yamamoto, K, Yamashita, M, Kikuyama, S (2005) Prolactin acts centrally to enhance newt courtship behavior. *Gen. Comp. Endocrinol.*, 141: 172-177.

Iwata, T, Ishizuka, Y, Nakada, T, **Toyoda, F**, Yamamoto, K, Conlon, JM, Kikuyama, S (2005) Regionally specific occurrence of an active sodefrin variant in the red-bellied newt. *Ann. N. Y. Acad. Sci.*, 1040: 351-353.

Hasunuma, I, **Toyoda, F**, Yamamoto, K, Kikuyama, S (2005) Localization of prolactin receptor in the newt brain. *Cell Tissue Res.*, 320: 477-485.

Kikuyama, S, Nakada, T, **Toyoda, F**, Iwata, T, Yamamoto, K, Conlon, JM (2005) Amphibian pheromones and endocrine control of their secretion. *Ann NY Acad Sci*, 1040: 123-130.

Saito Y and Isa T (2004) Laminar specific distribution of lateral excitatory connections in the rat superior colliculus. *J Neurophysiol* 92: 3500-3510.

Takazawa T, **Saito Y***, Tsuzuki K, and Ozawa S (2004) Membrane and firing properties of glutamatergic and GABAergic neurons in the rat medial vestibular nucleus. *J Neurophysiol* 92: 3106-3120.

Iwata, T, Conlon, JM, Nakada, T, **Toyoda, F**, Yamamoto, K, Kikuyama, S (2004) Processing of multiple forms of preprosodefrin in the abdominal gland of the red-bellied newt *Cynops pyrrhogaster*: regional and individual differences in preprosodefrin gene expression. *Peptides*, 25: 1537-1543.

Ohnishi K, **Ogawa Y**, Takahashi A, Yamashita M, and Ohnishi T (2004) Comparative study of otolith organs between two species of upside-down swimming catfish *Synodontis nigriventris* showing converse swimming postures. *Acta Zoologica (Stockholm)* 85: 201–209.

Toyoda, F, Yamamoto, K, Iwata, T, Hasunuma, I, Cardinali, M, Mosconi, G, Polzonetti-Magni, AM, Kikuyama, S (2004) Peptide pheromones in newts. *Peptides* 25: 1531-1536.

Saito Y and Isa T (2003) Local excitatory network and NMDA receptor activation generate a synchronous and bursting command from the superior colliculus. *J Neurosci* 23: 5854-5864.

Toyoda, F, Yamamoto, K, Ito, Y, Tanaka, S, Yamashita, M, Kikuyama, S (2003) Involvement of arginine vasotocin in reproductive events in the male newt *Cynops pyrrhogaster*. *Hormones and Behavior*, 44:346-353.

Nakagawa I, **Ogawa Y**, Noriyama Y, Nakase H, Yamashita M, Sakaki T (2003) Chemical preconditioning prevents paradoxical increase in glutamate release during ischemia by activating ATP-dependent potassium channels in gerbil hippocampus. *Exp Neurol*. 183(1):180-187.

Sugioka, M, Yamashita, M (2003) Calcium signaling to nucleus via store-operated system during cell cycle in retinal neuroepithelium. *Neurosci Res* 45: 447-458.

Inoue S, Kita T, Yamanaka T, **Ogawa Y**, Nakashima T, Hosoi H (2002) Measurement of 5-hydroxytryptamine release in the rat medial vestibular nucleus using in vivo microdialysis *Neurosci Lett* 323(3):234-238.

Ohnishi K, Yamamoto T, **Ogawa Y**, Takahashi A, Yamashita M, Ohnishi T (2002) High transmittance of X-rays in the utricular otolith of upside-down swimming catfish, *Synodontis nigriventris*. *Biol Sci Space*. 16(1):18-21.

Kikuyama, S, Yamamoto, K, Iwata, T, **Toyoda, F** (2002) Peptide and protein pheromones in amphibians. *Comp Biochem Physiol B*, 132: 69-74.

Saito Y, Katsumaru H, Wilson C J, and Murakami F (2001) Light and electron microscopic study of corticorubral synapses in adult cat: Evidence for extensive synaptic remodeling during

postnatal development. *J Comp Neurol* 440: 236-244.

Isa T and **Saito Y** (2001) The direct visuo-motor pathway in mammalian superior colliculus; novel perspective on the interlaminar connection. *Neurosci Res* 41: 107-113.

Kobayashi Y, **Saito Y**, and Isa T (2001) Facilitation of saccade initiation by brainstem cholinergic system. *Brain & Development* 23 Suppl. 1: S24-S27

Saito Y* and Isa T (2000) Voltage-gated transient outward currents in neurons with different firing patterns in rat superior colliculus. *J Physiol* 528: 91-105.

Toyoda, F, Kikuyama S (2000) Hormonal influence on the olfactory response to a female-attracting pheromone, sodefrin, in the newt, *Cynops pyrrhogaster*. *Comp. Biochem. Physiol. B*, 126: 239-245.

Yamamoto, K, Kawai, Y, Hayashi, T, Ohe, Y, Hayashi, H, Kawahara, G, **Toyoda, F**, Iwata, T, Kikuyama, S (2000) Silefrin a sodefrin-like pheromone in the abdominal gland of the sword-tailed newt, *Cynops ensicauda*. *FEBS Letters*, 472: 267-270.

Iwata, T, **Toyoda, F**, Yamamoto, K, Kikuyama, S (2000) Hormonal control of urodele reproductive behavior. *Comp Biochem Physiol B* 126: 221-229.

Toyoda, F, Kikuyama, S (2000) Endocrine regulation of reproductive behavior in the newt *Cynops pyrrhogaster*. *Zool Sci* 17: 561-570.

Alstermark B, Isa T, Ohki Y, and **Saito, Y** (1999) Disynaptic pyramidal excitation in forelimb motoneurons mediated via C(3)-C(4) propriospinal neurons in the *Macaca fuscata*. *J Neurophysiol* 82: 3580-3585.

Saito Y and Isa T (1999) Electrophysiological and morphological properties of neurons in the rat superior colliculus. I. Neurons in the intermediate layer. *J Neurophysiol* 82: 754-767.

Iwata, T, Umezawa, F, **Toyoda, F**, Takahashi, N, Matsukawa, K, Yamamoto, K, Miura, S, Hayashi, H, Kikuyama, S (1999) Molecular cloning of newt sex pheromone precursor cDNAs: evidence for the existence of species-specific forms of pheromones. *FEBS Letters*, 457: 400-404.

Sugioka, M, Zhou, W-L, Hofmann, H.-D, Yamashita, M (1999) Ca²⁺ mobilization and capacitative Ca²⁺ entry regulate DNA synthesis in cultured chick retinal neuroepithelial cells. *Int. J. Dev. Neurosci.* 17: 163-172.

Sugioka, M, Zhou, W-L, Hofmann, H-D, Yamashita, M (1999) Involvement of P2 purinoceptors in the regulation of DNA synthesis in the neural retina of chick embryo. *Int. J. Dev. Neurosci.* 17: 135-144.

Zhou, W-L, **Sugioka, M**, Yamashita, M (1999) Lysophosphatidic acid-induced Ca²⁺ mobilization in the neural retina of chick embryo. *J Neurobiol.* 41: 495-504.

Zhou, W-L, **Sugioka, M**, Sakaki, Y, Yamashita, M (1999) Regulation of capacitative Ca²⁺ entry by tyrosine phosphorylation in the neural retina of chick embryo. *Neurosci. Lett.* 272: 123-126.

Miyoshi, T, Watanabe, M, Sawai, H, Rasminsky, M, **Sugioka, M**, Ohde, H, Fukuda, Y (1999) Receptive-field properties of adult cat's retinal ganglion cells with regenerated axons. *Exp Brain Res* 124: 383-390.

Kikuyama, S, **Toyoda, F** (1999) Sodefrin, a novel sex pheromone in a newt. *Rev Reprod* 4: 5-10.

Toyoda, F, Hayakawa, Y, Ichikawa, M, Kikuyama, S (1999) Olfactory responses to a female-attracting pheromone in the newt. *Advances in Chemical Signals in Vertebrates* 8: 607-615.

Kikuyama, S, **Toyoda, F**, Iwata, T, Takahashi, N, Yamamoto, K, Hayashi, H, Miura, S, Tanaka, S (1999) Female-attracting peptide pheromone in newt cloacal glands. *Advances in Chemical Signals in Vertebrates* 8: 127-136.

Isa T, Endo T, and **Saito Y** (1998) The visuo-motor pathway in the local circuit of the rat superior colliculus. *J Neurosci* 18: 8496-8504.

Kikuyama, S, **Toyoda, F**, Iwata, T, Umezawa, K, Takahashi, N, Matsukawa, H, Miura, S (1998) Sodefrin, a novel peptide pheromone in the newt cloacal gland. *Ann NY Acad Sci* 839: 60-65.

Ogawa Y (1998) Firing properties of olfactory bulb neurons during sniffing in rats. *Physiol Behav.* 64: 755-764.

Sugioka, M, Fukuda, Y, Yamashita, M (1998) Development of glutamate-induced intracellular Ca²⁺ rise in the embryonic chick retina. *J Neurobiol.* 34: 113-125.

Yamashita, M, **Sugioka, M** (1998) Calcium mobilization systems during neurogenesis. *News Physiol Sci* 13: 75-79.

Saito Y, Song W-J, and Murakami F (1997) Preferential Termination of Corticorubral Axons on Spine-like Dendritic Protrusions in Developing Cat. *J Neurosci* 17: 8792-8803.

Matsumoto, A, **Toyoda, F**, Kouki T, Kikuyama, S (1997) Hormonal alteration of synaptic input to Mauthner cells of the adult male red-bellied newts. *Zool. Sci.*, 14: 651-657.

Kikuyama, S, **Toyoda, F**, Yamamoto, K, Tanaka, S, Hayashi, H (1997) Female-attracting pheromone in newt cloacal glands. *Brain Res Bull* 44: 415-422.

Motokizawa F, **Ogawa Y** (1997) Discharge properties of mitral/tufted cells in the olfactory bulb of cats. *Brain Res* 763: 285-287.

Sakaki, Y, **Sugioka, M**, Fukuda, Y, Yamashita, M (1997) Capacitative Ca²⁺ influx in the neural retina of chick embryo. *J Neurobiol.* 32: 62-68.

Murakami F, Nagisa Y, **Saito Y**, Higashi S, Katsumaru H, Kanda M, and Song W-J (1996) Morphology of individual axons in crossed corticorubral projections in developing cats and effects of partial denervation. *Dev Neurosci* 18: 162-173.

Toyoda, F, Matsuda, K, Yamamoto, K, Kikuyama, S (1996) Involvement of endogenous prolactin in the expression of courtship behavior in the newts, *Cynops pyrrhogaster*. *Gen. Comp. Endocrinol.*, 102: 191- 196.

Matsumoto, A, Arai, Y, **Toyoda, F**, Kikuyama, S, Prins, GS (1996) Immunohistochemical analysis of androgen receptor in the abdominal glands of the cloaca of male red-bellied newts, *Cynops pyrrhogaster*. *Zool. Sci.*, 13: 429-433.

Yamamoto, K, **Toyoda, F**, Tanaka, S, Hayashi, H, Kikuyama, S (1996) Radioimmunoassay of a newt sex pheromone, sodefrin and the influence of hormones on its level in the abdominal gland.

Gen. Comp. Endocrinol., 104: 356-363.

Sugioka, M, Fukuda, Y, Yamashita, M (1996) Ca²⁺ responses to ATP via purinoceptors in the early embryonic chick retina. J Physiol. (Lond.) 493: 855-863.

Sawai, H, **Sugioka, M**, Morigiwa, K, Sasaki, H, So, K-F, Fukuda, Y (1996) Functional and morphological restoration of intracranial brachial lesion of the retinocollicular pathway by peripheral nerve autografts in adult hamsters. Exp Neurol 137: 94-104.

Toyoda, F. Hayashi, H., Ohmiya, Y., Tanaka, S., Mochida, H., Matsuda, K., Kikuyama, S (1995) Une nouvelle pheromone sexuelle isolee a partir des glandes abdominales du Triton male, *Cynops pyrrhogaster*. C.R. Soc. Biol., 189: 1143-1148.

Kikuyama, S, **Toyoda, F**, Ohmiya, Y, Tanaka, S, Matsuda, K, Hayashi, H (1995) A sex-attractant in the cloacal gland of the newt, *Cynops pyrrhogaster*. Netherlands J. Zool., 45: 160-162.

Kikuyama, S., **Toyoda, F.** Ohmiya, Y., Matsuda, K., Tanaka, S., Hayashi, H (1995) Sodefrin: A female-attracting peptide pheromone in newt cloacal glands. Science, 267: 1643-1645.

Toyoda, F, Kikuyama, S (1995) Hormonal induction of male-like courtship behavior in the female newt, *Cynops pyrrhogaster*. Zool. Sci., 12: 815-818.

Sugioka, M, Sawai, H, Adachi, E, Fukuda, Y (1995) Changes of compound action potentials in retrograde axonal degeneration of rat optic nerve. Exp Neurol. 132: 262-270.

Toyoda, F, Tanaka, S, Matsuda, K, Kikuyama, S (1994) Hormonal control of response to and secretion of sex attractant in Japanese newts. Physiol. Behav., 55: 569-576.

Fukuda, Y, Miyoshi, T, **Sugioka, M**, Sawai, H, Watanabe, M (1994) Axonal regeneration of cat's retinal ganglion cells by peripheral nerve transplant. Biomed Res 15: 123-125.

Toyoda, F, Ito, M, Tanaka, S, Kikuyama, S (1993) Hormonal induction of male courtship

behavior in the Japanese newt, *Cynops pyrrhogaster*. *Hormones and Behavior*, 27: 511-522.

Saito Y, Murakami F, Song W-J, Okawa K, Shimono K, and Katsumaru H (1992) Developing corticorubral axons of the cat form synapses on filopodial dendritic protrusions *Neurosci Lett* 147: 81-84.

Murakami F, **Saito Y**, Higashi S, and Oikawa H (1991) Synapses formed by ectopic corticofugal axons: an electron microscopic study of crossed corticorubral projections in kittens. *Neurosci Lett* 131: 49-52.

Hirano Y, **Ogawa Y**, Motokizawa F (1989) A morphometric right-left comparison of the cat olfactory bulb. *Okajimas Folia Anat Jpn* 66(5): 265-269.

Motokizawa, F, Yasuda, N, **Shimomura, F** (1988) The piriform cortex is not a direct olfactory relay to the mediodorsal thalamic nucleus in cats and rabbits. *Neurosci Lett* 84: 41-45.

Ogawa, Y, Kawamura, H (1988) Increase of multiple unit activity during slow wave sleep in the cat preoptic area. *Brain Res Bull* 20(6):897-902.

Shimomura, F, Takagi, Y (1985) Commitment to sexual and asexual phases in *Paramecium multimicronucleatum*. *J. Exp. Zool.*, 233: 317-326.

Shimomura, F, Takagi, Y (1984) Chemical induction of autogamy in *Paramecium multimicronucleatum*, syngen 2. *Journal of Protozoology*, 31: 360-362.