

Yasuo Sakuma

Brief Bibliographical Sketch

Yasuo Sakuma was born in Kamakura, Japan, on December 3, 1946. He received an M.D. in 1971 and a Ph.D. in 1975, both from Yokohama City University. The Positions he held include Research Associate, Department of Physiology, Yokohama City University, Yokohama, 1975; Assistant Professor, Division of Physiology and Behavior, Behavior Research Institute, Gunma University School of Medicine, Maebashi, 1976; Postdoctoral Fellow, The Rockefeller University, New York, 1976; Visiting Associate Professor, The Rockefeller University, New York, 1978; Associate Professor, Department of Physiology, Niigata University School of Medicine, Niigata, 1981; Professor & Head, Department of Physiology, Hirosaki University School of Medicine, Hirosaki, 1988; Professor & Head, Department of Physiology, Nippon Medical School, Tokyo, 1993-2012. He is currently the President of The University of Tokyo Health Sciences, which nurtures promising physical and occupational therapists with a 4-year curriculum. He is a Professor Emeritus at Nippon Medical School, and an Adjunct Professor at The Rockefeller University. He served as a Councilor at the National Institutes of Natural Sciences Administration of Japan (2013-2014).

His main interests were initially reproductive neuroendocrinology; he has been involved in studies on brain circuitry for female rat reproductive behavior and then shifted to the study of the neural basis for sexual motivation. His research also focuses on cell physiology of GnRH neurons, mechanism for the onset of puberty, and neural actions of estrogen.

He is a member of The Physiological Society of Japan, Japan Endocrine Society, Japan Neuroscience Society, The Physiological Society (U.K.), American Physiological Society, Society for Neuroscience, International Society of Neuroendocrinology, and Society for Behavioral Neuroendocrinology. He served as the Editor-in-Chief of *The Journal of Physiological Sciences* (2005-2013), the organ of The Physiological Society of Japan <http://www.springer.com/12576>.

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Curriculum Vitae
Yasuo Sakuma
May 1, 2019

Born December 3, 1946, in Kamakura, Japan
Japanese National

EDUCATION:

Yokohama City University Graduate School, April 1971 to March 1975
Program on Medical Physiology, Ph.D., 1975

Yokohama City University School of Medicine, April 1965 to March 1971
M.D., 1971

PROFESSIONAL EXPERIENCE:

President Emeritus,
University of Tokyo Health Sciences, April 2019 to Present

President,
University of Tokyo Health Sciences, April 2012 to April 2019

Professor Emeritus, Nippon Medical School, April 2012 to Present

Adjunct Professor, April 2008 to Present
Department of Neurobiology and Behavior
The Rockefeller University

Professor & Department Head, May 1993 to March 2012
Department of Physiology
Nippon Medical School

Professor & Department Head, February 1988 to April 1993
Department of Physiology I
Hirosaki University School of Medicine

Associate Professor, April 1981 to January 1988
Department of Physiology II
Niigata University School of Medicine

Visiting Associate Professor, September 1978 to March 1980
Department of Neurobiology and Behavior
The Rockefeller University

Postdoctoral Fellow, September 1976 to September 1978
Department of Physiological Psychology
The Rockefeller University

Associate Professor, August 1976 to March 1981
(on leave, September, 1978 to March, 1980)

Gunma University School of Medicine

Assistant Professor, April 1976 to August 1976
Division of Physiology and Behavior
Behavior Research Institute
Gunma University School of Medicine

Research Associate, April 1975 to March 1976
Department of Physiology II
Yokohama City University School of Medicine

HONORS AND FELLOWSHIPS:

The Yoshimura Prize, Japan Society for Pituitary Research, 2010
Irisawa Prize for a publication in *The Journal of Physiological Sciences*, The Physiological Society of Japan, 2010
Irisawa Prize for a publication in *The Journal of Physiological Sciences*, The Physiological Society of Japan, 2009
Irisawa Prize for a publication in *The Journal of Physiological Sciences*, The Physiological Society of Japan, 2008
The 21st Naito Award for Science, March 1990
The 8th Karoji Memorial Award for Medical Research, January 1990
Brain Science Foundation Grant for Research, March 1989
Japan Medical Association Grant for Basic Medical Research, November 1988
Kanehara Memorial Award for Medical Research, October 1988
Mochida Award for Medical and Pharmaceutical Sciences, October 1986
The Narishige Grant for Neuroscience, October 1985
The 16th Naito Award for Science, March 1985
Research Award, Yokohama City University Medical Association, 1983

PROFESSIONAL SOCIETIES:

Physiological Society of Japan (Councilor)
Japan Neuroendocrine Society (Councilor)
Japanese Society for Reproductive Endocrinology (Councilor)
The Japan Endocrine Society
The Japan Neuroscience Society
Society for Neuroscience
Endocrine Society
Society for Behavioral Neuroendocrinology (Program Committee Member)
American Society for Neuroendocrinology
The Physiological Society

COMITTEES AND OTHER ACTIVITIES:

Councilor, National Institutes of Natural Sciences Administration (April 2013-March 2014);
Advisory Board, National Institute of Physiological Sciences (April 2008-March 2013); Group Leader, Study section on sexual differentiation of the brain, supported by Grant-in-Aid for Specially Promoted Research on the Mechanism of Sexual Differentiation, Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT)(2004-2008); Past President, The 33rd Annual Meeting of Japan Neuroendocrine Society, 2006, Yokohama; Past President, The 84th Annual Meeting of Physiological Society of Japan, Tokyo, 2008; International Program

Committee, XXXVI International Congress of Physiological Sciences, Kyoto, 2009; Program Committee, 6th International Congress of Neuroendocrinology, 2006, Pittsburgh

JOURNAL REVIEWS:

Ad Hoc reviewer for *Brain Research*; *Endocrinology*; *European Journal of Neuroscience*; *Hormones and Behavior*; *Journal of Sexual Medicine*; *Journal of Neuroendocrinology*; *Journal of Neuroscience*; *Neuroendocrinology*; *NeuroReport*; *Neuroscience*; *Neuroscience Letters*; *Neuroscience Research*; *Physiology and Behavior*

EDITORIAL BOARD:

2013-present, *NeuroReport*

2013-present, *Endocrinology*

2005-2013, Editor-in-Chief, *Journal of Physiological Sciences*

2000-present, *Journal of Physiological Sciences* (formerly *Japanese Journal of Physiology*)

1998-2002, *Hormones and Behavior*

PEER REVIEW PARTICIPATION:

Ad Hoc reviewer for NSF

Scientific Advisory Board for Japan-US Brain Research Collaboration, Japan Society for the Promotion of Science (JSPS), MEXT

Environmental Physiology Panel, JSPS

CORPORATE CONSULTING:

Matsushita Electric Works, Ltd (Panasonic)

Yamaha Corp

Ajinomoto Co, Inc.

Yasuo Sakuma Publications

1. Dhungel S, Rai D, Terada M, Orikasa C, Nishimori K, Sakuma Y, Kondo Y: Oxytocin is indispensable for conspecific-odor preference and controls the initiation of female, but not male, sexual behavior in mice. *Neuroscience Research* **148**: 34–41, 2019. Epub 28 November 2018. doi: [10.1016/j.neures.2018.11.008](https://doi.org/10.1016/j.neures.2018.11.008)
2. Tsunoda M, Miyamichi K, Eguchi R, Sakuma Y, Yoshihara Y, Kikusui T, Kuwahara M, Touhara K: Identification of an intra- and inter-specific tear protein signal in rodents. *Current Biology* **28**, 1–11, April 23, 2018. doi: [10.1016/j.cub.2018.02.060](https://doi.org/10.1016/j.cub.2018.02.060)
3. Ishii H, Hattori Y, Munetomo A, Watanabe H, Sakuma Y, Ozawa H: Characterization of rodent constitutively active estrogen receptor α variants and their constitutive transactivation mechanisms. *General and Comparative Endocrinology* **248**: 16-26, 1 July 2017. pii: S0016-6480(16)30315-X. doi: [10.1016/j.ygcen.2017.04.009](https://doi.org/10.1016/j.ygcen.2017.04.009). Epub 13 April 2017
4. Orikasa C, Kondo Y, Katsumata H, Terada M, Akimoto T, Sakuma Y, Minami S: Vomeronasal signal deficiency enhances parental behavior in socially isolated male mice. *Physiology & Behavior* **168**: 98-102, 2017. doi: [10.1016/j.physbeh.2016.11.004](https://doi.org/10.1016/j.physbeh.2016.11.004). Epub 10 November 2016
5. Hattori Y, Ishii H, Munetomo A, Watanabe H, Morita A, Sakuma Y, Ozawa H: Human C-terminally truncated ER α variants resulting from the use of alternative exons in the ligand-binding domain. *Molecular and Cellular Endocrinology* **425**: 111-122, 15 April 2016. doi: [10.1016/j.mce.2016.01.026](https://doi.org/10.1016/j.mce.2016.01.026). Epub 4 Feb 2016
6. Futagami H, Sakuma Y, Kondo Y: Oxytocin mediates copulation-induced hypoalgesia of male rats. *Neuroscience Letters* **618**: 122-126, 8 April 2016. doi: [10.1016/j.neulet.2016.03.007](https://doi.org/10.1016/j.neulet.2016.03.007).
7. Munetomo A, Ishii H, Miyamoto T, Sakuma Y, Kondo Y: Puerperal and parental experiences alter rat preferences for pup odors via changes in the oxytocin system. *Journal of Reproduction and Development* **62**(1): 17-27, 2016. doi: [10.1262/jrd.2015-046](https://doi.org/10.1262/jrd.2015-046) (Open Access).
8. Xiao K, Chiba A, Sakuma Y, Kondo Y: Transient reversal of olfactory preference following castration in male rats: Implication for estrogen receptor involvement. *Physiology & Behavior* **152**(Pt A): 161-167, 1 Dec 2015. doi: [10.1016/j.physbeh.2015.09.016](https://doi.org/10.1016/j.physbeh.2015.09.016).
9. Orikasa C, Nagaoka K, Katsumata H, Sato M, Kondo Y, Minami S, Sakuma Y: Social isolation prompts maternal behavior in sexually naive male ddN mice. *Physiology & Behavior* **151**: 9-15, 1 Nov 2015. doi: [10.1016/j.physbeh.2015.07.007](https://doi.org/10.1016/j.physbeh.2015.07.007). Epub 10 Jul 2015.
10. Hattori Y, Ishii H, Morita A, Sakuma Y, Ozawa H: Characterization of the fundamental properties of the N-terminal 3 truncation (Δ exon 1) variant of estrogen receptor α in the rat. *Gene* **571**(1): 117-125, 15 Oct 2015. doi: [10.1016/j.gene.2015.06.086](https://doi.org/10.1016/j.gene.2015.06.086). Epub 2015 Jul 4.
11. Nagasawa M, Mitsui S, En S, Ohtani N, Ohta M, Sakuma Y, Onaka T, Mogi K, Kikusui T: Oxytocin-gaze positive loop and the coevolution of human-dog bonds. *Science* **348** (6232) 333-336, 17 April 2015. doi: [10.1126/science.1261022](https://doi.org/10.1126/science.1261022) (Open Access) with a NEWS by Grimm D: Dawn of the dog. *Science* **348** (6232): 274-279, 17 April 2015, doi: [10.1126/science.348.6232.274](https://doi.org/10.1126/science.348.6232.274) and an Insights article by MacLean EL, Hare B: Dogs hijack the human bonding pathway: Oxytocin facilitates social connections between humans and dogs. *Science* **348** (6232) 280-281, 17 April 2015, doi: [10.1126/science.aab1200](https://doi.org/10.1126/science.aab1200)
12. Sakuma Y: Estradiol-sensitive projection neurons in the female rat preoptic area. *Frontiers in Neuroscience (Topics on Reproductive Neuroendocrinology and Social Behavior)* **9**: 67, 24 March 2015. doi: [10.3389/fnins.2015.00067](https://doi.org/10.3389/fnins.2015.00067) (Open Access)
13. Shimogawa Y, Sakuma Y, Yamanouchi K: Efferent and afferent connections of the ventromedial hypothalamic nucleus determined by neural tracer analysis: Implications for lordosis regulation in female rats. *Neuroscience Research* **91**: 19–33, February 2015, doi: [10.1016/j.neures.2014.10.016](https://doi.org/10.1016/j.neures.2014.10.016)
14. Urakawa S, Mitsushima D, Shimozuru M, Sakuma Y, Kondo Y: An enriched rearing environment calms adult male rat sexual activity: implication for distinct serotonergic and

- hormonal responses to females. *PLoS ONE* **9**(2): e87911, 5 February 2014, [doi: 10.1371/journal.pone.0087911](https://doi.org/10.1371/journal.pone.0087911) (Open Access)
- 15. Wada-Kiyama Y, Suzuki C, Hamada T, Rai D, Kiyama R, Kaneda M, Sakuma Y: Estrogen-induced cell signaling in the sexually dimorphic nucleus of the rat preoptic area: potential involvement of cofilin in actin dynamics for cell migration. *Biochem Biophys Res Commun.* **434**(2): 287-292, 3 May 2013, [doi: 10.1016/j.bbrc.2013.02.117](https://doi.org/10.1016/j.bbrc.2013.02.117). Epub 26 Mar 2013
 - 16. Ishii H, Kobayashi M, Munetomo A, Miyamaoto T, Sakuma Y: Novel splicing events and post-transcriptional regulation of human estrogen receptor α E isoforms. *Journal of Steroid Biochemistry and Molecular Biology* **133**: 120-128, January 2013, [doi: 10.1016/j.jsbmb.2012.09.027](https://doi.org/10.1016/j.jsbmb.2012.09.027)
 - 17. Matsumoto J, Urakawa S, Hori E, de Araujo M, Sakuma Y, Ono T, Nishijo H: Neuronal responses in the nucleus accumbens shell during sexual behavior in male rats. *Journal of Neuroscience* **32**(5): 1672-1686, February 1, 2012. Accepted for publication on 19 December 2011. [doi: 10.1523/JNEUROSCI.5140-11.2012](https://doi.org/10.1523/JNEUROSCI.5140-11.2012) (Open Access)
 - 18. Koyama M, Yin C, Ishii H, Sakuma Y, Kato M: Somatostatin inhibition of GnRH neuronal activity and the morphological relationship between GnRH and somatostatin neurons in rats. *Endocrinology* **153**(2): 806-814, February 2012. Published online on 6 December 2011 as [doi: 10.1210/en.2011-1374](https://doi.org/10.1210/en.2011-1374) Editorial Comment on this article by Suter KJ: *Endocrinology* **153**(2): 552-553, February 2012 [doi: 10.1210/en.2011-2076](https://doi.org/10.1210/en.2011-2076) (Open Access)
 - 19. Dhungel S, Masaoka M, Rai D, Kondo Y, Sakuma Y: Both olfactory epithelial and vomeronasal inputs are essential for activation of the medial amygdala and preoptic neurons of male rats. *Neuroscience* **199**: 225-234, 29 December 2011. Accepted for publication on 27 September 2011. [doi: 10.1016/j.neuroscience.2011.09.051](https://doi.org/10.1016/j.neuroscience.2011.09.051)
 - 20. Ishii H, Sakuma Y: Complex organization of the 5'-untranslated region of the mouse estrogen receptor alpha gene: Identification of numerous mRNA transcripts with distinct 5'-ends. *Journal of Steroid Biochemistry and Molecular Biology* **125**(3/5): 211-218, July 2011. Accepted for publication on 4 March 2011. [doi: 10.1016/j.jsbmb.2011.03.004](https://doi.org/10.1016/j.jsbmb.2011.03.004)
 - 21. Ishii H, Shoda Y, Yomogida K, Hamada T, Sakuma Y: Identification of C-terminally and N-terminally truncated estrogen receptor α variants in the mouse. *Journal of Steroid Biochemistry and Molecular Biology* **124**(1/2): 38-46, March 2011. Accepted for publication on 12 January 2011. [doi: 10.1016/j.jsbmb.2011.01.003](https://doi.org/10.1016/j.jsbmb.2011.01.003)
 - 22. Kobayashi M, Ishii H, Sakuma Y: Identification of novel splicing events and post-transcriptional regulation of human estrogen receptor α F isoforms. *Molecular and Cellular Endocrinology* **333**(1): 55-61, February 2011. Accepted for publication on 3 December 2010. [doi: 10.1016/j.mce.2010.12.003](https://doi.org/10.1016/j.mce.2010.12.003)
 - 23. Dhungel S, Urakawa S, Kondo Y, Sakuma Y: Olfactory preference in the male rat depends on multiple chemosensory inputs converging on the preoptic area. *Hormones and Behavior* **59**(1): 193-199, January 2011. Published online on 20 November 2010 as [doi: 10.1016/j.yhbeh.2010.11.011](https://doi.org/10.1016/j.yhbeh.2010.11.011)
 - 24. Orikasa C, Kondo Y, Usui S, Sakuma Y: Similar numbers of neurons are generated in the male and female rat preoptic area in utero. *Neuroscience Research* **68**(1): 9-14, 10 September 2010. Published online on 9 June 2010 as [doi: 10.1016/j.neures.2010.05.008](https://doi.org/10.1016/j.neures.2010.05.008)
 - 25. Orikasa C, Sakuma Y: Estrogen configures the sexual dimorphism in the preoptic area of C57/BL6J and ddN strains of mice. *Journal of Comparative Neurology* **518**(17): 3618-3629, 1 September 2010. Online on 20 May 2010 as [doi: 10.1002/cne.22419](https://doi.org/10.1002/cne.22419)
 - 26. Hamada T, Sakuma Y: Estrogen receptor α gene promoter 0/B usage in the rat sexually dimorphic nucleus of the preoptic area. *Endocrinology* **151**(4): 1923-1928, April 2010. Published online on 25 February 2010 as [doi: 10.1210/en.2009-1022](https://doi.org/10.1210/en.2009-1022)
 - 27. Tanaka N, Ishii H, Yin C, Koyama M, Sakuma Y, Kato M: Voltage-gated Ca²⁺ channel mRNAs and T-type Ca²⁺ currents in rat gonadotropin-releasing hormone neurons. *Journal of Physiological Sciences* **60**(3): 195-204, May 2010. Published online on 26 January 2010 as [doi: 10.1007/s12576-010-0085-z](https://doi.org/10.1007/s12576-010-0085-z) Awardee of 2010 Irisawa Prize, The Physiological Society of Japan
 - 28. Ishii H, Kobayashi M, Sakuma Y: Alternative promoter usage and alternative splicing of the

- rat estrogen receptor α gene generate numerous mRNA variants with distinct 5'-ends. *Journal of Steroid Biochemistry and Molecular Biology* **118**(1/2): 59-69, January 2010. Published online on October 13, 2009 as [doi: 10.1016/j.jsbmb.2009.10.001](https://doi.org/10.1016/j.jsbmb.2009.10.001)
- 29. Watanabe M, Sakuma Y, Kato M: GABA_A receptors mediate excitation in adult rat GnRH neurons. *Biology of Reproduction* **81**(2): 327-332, August 1, 2009. E-Pub on April 8, 2009 as [doi: 10.1095/biolreprod.108.074583](https://doi.org/10.1095/biolreprod.108.074583)
 - 30. Ishii H, Sato S, Yin C, Sakuma Y, Kato M: Gonadotropin-releasing hormone antagonist, cetrorelix, induces the expression of melatonin receptor 1a (MT1) in the GnRH neuronal cell line GT1-7. *Neuroendocrinology* **90**(3):251-259, September 2009. Published online on July 30, 2009 as [doi: 10.1159/000231993](https://doi.org/10.1159/000231993) *Cover of this issue features a figure in this article.*
 - 31. Sakuma Y: Gonadal steroid action and brain sex differentiation in the rat. *Journal of Neuroendocrinology* **21**(4):410-414, April 2009. [doi: 10.1111/j.1365-2826.2009.01856.x](https://doi.org/10.1111/j.1365-2826.2009.01856.x)
 - 32. Kato M, Tanaka N, Ishii H, Yin C, Sakuma Y: Ca²⁺ channels and Ca²⁺-activated K⁺ channels in adult rat gonadotropin-releasing hormone neurones. *Journal of Neuroendocrinology* **21**(4):312-315, April 2009. [doi: 10.1111/j.1365-2826.2009.01849.x](https://doi.org/10.1111/j.1365-2826.2009.01849.x)
 - 33. Ishii H, Tanaka N, Kobayashi M, Kato M, Sakuma Y: Gene structures, biochemical characterization and distribution of rat melatonin receptors. *Journal of Physiological Sciences* **59**(1): 37-47, January 2009. E-pub on December 6, 2008 as [doi: 10.1007/s12576-008-0003-9](https://doi.org/10.1007/s12576-008-0003-9) Awardee of 2009 Irisawa Prize, The Physiological Society of Japan
 - 34. Sato S, Yin C, Teramoto A, Sakuma Y, Kato M: Sexually dimorphic modulation of GABA_A receptor currents by melatonin in rat gonadotropin-releasing hormone neurons. *Journal of Physiological Sciences* **58**(5): 317-322, November 2008. Epub 2008 Oct 7. [doi: 10.2170/physiolsci.RP006208](https://doi.org/10.2170/physiolsci.RP006208) Awardee of 2008 Irisawa Prize, The Physiological Society of Japan
 - 35. Xu Q, Hamada T, Kiyama R, Sakuma Y, Wada-Kiyama Y: Site-specific regulation of gene expression by estrogen in the hypothalamus of adult female rats. *Neuroscience Letters* **436**(1): 35-39, 2 May 2008. Published online 29 February 2008 as [doi: 10.1016/j.neulet.2008.02.054](https://doi.org/10.1016/j.neulet.2008.02.054)
 - 36. Sakuma Y: Neural substrates for sexual preference and motivation in the female and male rat. *Annals of New York Academy of Sciences* **1129**: 55-60, 2008. Published online as [doi: 10.1196/annals.1417.009](https://doi.org/10.1196/annals.1417.009)
 - 37. Yin C, Ishii H, Tanaka N, Sakuma Y, Kato M: Activation of A-type γ -amino butyric acid receptors (GABA_{ARs}) excites gonadotropin-releasing hormone (GnRH) neurons isolated from adult rats. *Journal of Neuroendocrinology* **20**(5): 566-575, May 2008. Published online on Mar 17, 2008 as [doi: 10.1111/j.1365-2826.2008.01697.x](https://doi.org/10.1111/j.1365-2826.2008.01697.x)
 - 38. Hiraizumi Y, Nishimura I, Ishii H, Tanaka N, Takeshita T, Sakuma Y, Kato M: Rat GnRH neurons exhibit large conductance voltage- and Ca²⁺-activated K⁺ (BK) currents and express BK channel mRNAs. *Journal of Physiological Sciences* **58**(1): 21-29, Feb 2008. Published online ahead of print on January 8, 2008 as [doi: 10.2170/physiolsci.RP013207](https://doi.org/10.2170/physiolsci.RP013207)
 - 39. Nishimura I, Ui-Tei K, Saigo K, Ishii H, Sakuma Y, Kato M: 17 β -estradiol at physiological concentrations augments BK currents via estrogen receptor β in the GnRH neuronal cell line GT1-7. *Endocrinology* **149**(2): 774-782, Feb 2008. Published online on October 25, 2007 as [doi: 10.1210/en.2007-0759](https://doi.org/10.1210/en.2007-0759) (FreePMC)
 - 40. Kitahashi T, Ogawa S, Soga T, Sakuma Y, Parhar IS: Sexual maturation modulates co-expression of multiple nuclear receptor types in laser captured single endocrine cells of the cichlid pituitary. *Endocrinology* **148**(12): 5822-5830, Dec 2007. Published online on September 6, 2007, as [doi: 10.1210/en.2007-0311](https://doi.org/10.1210/en.2007-0311)
 - 41. Orikasa C, Kondo Y, Sakuma Y: Transient transcription of the somatostatin gene at the time of estrogen-dependent organization of the sexually dimorphic nucleus of the rat preoptic area. *Endocrinology* **148**(3): 1144-1149, Mar 2007. Published online on November 30, 2006 as [doi: 10.1210/en.2006-1214](https://doi.org/10.1210/en.2006-1214)
 - 42. Takenoya F, Guan JL, Kato M, Sakuma Y, Kintaka Y, Kitamura Y, Kitamura S, Okuda H, Takeuchi M, Kageyama H, Shioda S: Neural interaction between galanin-like peptide (GALP)- and luteinizing hormone-releasing hormone (LHRH)-containing neurons. *Peptides*

- 27(11): 2885-2893, Nov 2006. Published online ahead of print on Jun 19, 2006 as [doi: 10.1016/j.peptides.2006.05.012](https://doi.org/10.1016/j.peptides.2006.05.012)
43. Ogawa S, Akiyama G, Kato S, Soga T, Sakuma Y, Parhar IS: Immunoneutralization of gonadotropin-releasing hormone type-III suppresses male reproductive behavior of cichlids. *Neurosci Lett* 2006 Aug 7; **403**(3): 201-205, [doi: 10.1016/j.neulet.2006.02.041](https://doi.org/10.1016/j.neulet.2006.02.041)
44. Kato M, Tanaka N, Usui S, Sakuma Y: The SK channel blocker apamin inhibits slow afterhyperpolarization currents in rat gonadotropin-releasing hormone neurones. *Journal of Physiology* **574**(Pt 2):431-442, 15 Jul 2006. Published on line ahead of print on Apr 20, 2006 as [doi: 10.1113/jphysiol.2006.110155](https://doi.org/10.1113/jphysiol.2006.110155) (FreePMC)
45. Kondo Y, Sakuma Y: The medial amygdala controls the coital access of female rats: a possible involvement of emotional responsiveness. *Japanese Journal of Physiology* **55**(6):345-353, Dec 2005. Published on line ahead of print on Jan 17, 2006 as [doi: 10.2170/jphysiol.RP001105](https://doi.org/10.2170/jphysiol.RP001105)
46. Kitahashi T, Sato H, Sakuma Y, Parhar IS: Cloning and functional analysis of promoters of three GnRH genes in a cichlid. *Biochem Biophys Res Commun* 2005 Oct 21; **336**(2):536-43. Published on line ahead of print on August 25, 2005 as [doi: 10.1016/j.bbrc.2005.08.122](https://doi.org/10.1016/j.bbrc.2005.08.122)
47. Uchida H, Ogawa S, Harada M, Matsuhashita M, Iwata M, Sakuma Y, Parhar IS: The olfactory organ modulates gonadotropin-releasing hormone types and nest-building behavior in the tilapia Oreochromis niloticus. *J Neurobiol* 2005 Oct; **65**(1):1-11. Published on line as [doi: 10.1002/neu.20156](https://doi.org/10.1002/neu.20156)
48. Hamada T, Wada-Kiyama Y, Sakuma Y: Visualizing forebrain-specific usage of an estrogen receptor alpha promoter for receptor downregulation in the rat. *Mol Brain Res* 2005 Sep 13; **139**(1):42-51. Published on line ahead of print on June 13, 2005 as [doi: 10.1016/j.molbrainres.2005.05.019](https://doi.org/10.1016/j.molbrainres.2005.05.019)
49. Soga T, Ogawa S, Millar RP, Sakuma Y, Parhar IS: Localization of the three GnRH types and GnRH receptors in the brain of a cichlid fish: Insights into their neuroendocrine and neuromodulator functions. *J Comp Neurol* 2005 Jun 20; **487**(1):28-41. Published online before print on April 28, 2005 as [doi: 10.1002/cne.20519](https://doi.org/10.1002/cne.20519)
50. Parhar IS, Soga T, Ogawa S, Ogawa S, Pfaff DW, Sakuma Y: Nonmammalian gonadotropin-releasing hormone molecules in the brain of promoter transgenic rats. *Proc Natl Acad Sci USA* 2005 Apr 19; **102**(16):5880-5. Published online before print on April 11, 2005 as an Open Access Article with free access to full text, [doi: 10.1073/pnas.0501832102](https://doi.org/10.1073/pnas.0501832102)
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