



Education and Professional Appointments:

1960	Born in Tokyo, Japan
1985	M.D. (summa cum laude), 1985, University of Tsukuba
1988	Ph.D. in Medical Sciences, 1988, University of Tsukuba
1988 – 1989	Postdoctoral fellow, Department of Pharmacology, University of Tsukuba
1989 – 1991	Assistant Professor of Pharmacology, University of Tsukuba
1991 – 1991	Assistant Professor of Pharmacology, Kyoto University School of Medicine
1991 – 1996	Associate Professor of Molecular Genetics; Associate Investigator, Howard Hughes Medical Institute University of Texas Southwestern Medical Center at Dallas (UTSW)
1996 – 2014	Professor of Molecular Genetics, UTSW; Investigator, HHMI
1998 – 2014	The Patrick E. Haggerty Distinguished Chair in Basic Biomedical Science, UTSW
2001 – 2007	Director, Yanagisawa Orphan Receptor Project (JST/ERATO)
2010 – 2014	Professor and Director, FIRST program, University of Tsukuba
2012 – Present	Director, International Institute for Integrative Sleep Medicine (WPI-IIIS), University of Tsukuba
2014 – Present	Adjunct Professor of Molecular Genetics, UTSW

Honors/Awards:

1990	Tsukuba Award, The Science and Technology Promotion Foundation of Ibaraki
1997	Medical Research Award, Robert J. and Claire Pasarow Foundation
1998	The Donald Seldin Award, International Society of Nephrology
1998	The J. J. Abel Award, American Society of Pharmacology and Experimental Therapeutics
1998	The Novartis Award, American Heart Association
1998	The Kilby Award, The Kilby Awards Foundation
1999	The Amgen Award, American Society of Biochemistry and Molecular Biology
2000	The Tsukahara Memorial Award, The Brain Science Foundation
2000	Gold Medal Award, Tokyo Techno-Forum
2001	The Jacobæus Award, The Nordisk Insulin Foundation
2001	Special Recognition Award, The Sleep Research Society
2003	<u>Elected Member, National Academy of Sciences</u>
2003	Bristol-Myers Squibb Achievement Award in Cardiovascular Research
2006	Outstanding Scientific Achievement Award, Sleep Research Society
2012	The Ulf von Euler Lecture, Karolinska Institutet
2013	Jokichi Takamine Memorial Award, The Society of Cardiovascular Endocrinology and Metabolism
2015	Walter B. Canon Award, The American Physiological Society
2016	Medal with Purple Ribbon, Government of Japan
2016	Matsuo Award, The Hormone Station of Japan (certified NPO organization)

Important Publications:

- 1) Yanagisawa, M., Kurihara, H., Kimura, S., Tomobe, Y., Kobayashi, M., Mitsui, Y., Yazaki, Y., Goto, K., Masaki, T. A novel potent vasoconstrictor peptide produced by vascular endothelial cells. *Nature* 332: 411-415, 1988
- 2) Sakurai, T., Yanagisawa, M., Takawa, Y., Miyazaki, H., Kimura, S., Goto, K., Masaki, T. Cloning of a cDNA encoding a non-isopeptide selective subtype of the endothelin receptor. *Nature* 348: 732-735, 1990
- 3) Xu, D., Emoto, N., Giaid, A., Slaughter, C., Kaw, S., deWit, D., Yanagisawa, M. ECE-1: A membrane-bound metalloprotease that catalyzes the proteolytic activation of big endothelin-1. *Cell* 78: 473-485, 1994
- 4) Baynash, A.G., Hosoda, K., Giaid, A., Richardson, J.A., Emoto, N., Hammer, R.E., Yanagisawa, M. Interaction of endothelin-3 with endothelin-B receptor is essential for development of epidermal melanocytes and enteric neurons. *Cell* 79: 1277-1285, 1994
- 5) Sakurai, T., Amemiya, A., Ishii, M., Matsuzaki, I., Chemelli, R.M., Tanaka, H., Williams, S.C., Richardson, J.A., Kozlowski, G.P., Wilson, S., Arch, J.R.S., Buckingham, R.E., Haynes, A.C., Carr, S.A., Annan, R.S., McNulty, D.E., Liu, W.S., Terrett, J.A., Elshourbagy, N.A., Bergsma, D.J., Yanagisawa, M. Orexins and orexin receptors: A family of hypothalamic neuropeptides and G protein-coupled receptors that regulate feeding behavior. *Cell* 92: 573-585, 1998
- 6) Chemelli, R.M., Willie, J.T., Sinton, C.M., Elmquist, J.K., Scammell, T., Lee, C., Richardson, J.A., Williams, S.C., Xiong, Y., Kisanuki, Y., Fitch, T.E., Nakazato, M., Hammer, R.E., Saper, C.B., Yanagisawa, M. Narcolepsy in orexin knockout mice: Molecular genetics of sleep regulation. *Cell* 98: 437-451, 1999
- 7) Ikeda, Y., Kumagai, H., Skach, A., Sato, M., Yanagisawa, M. Modulation of circadian glucocorticoid oscillation through adrenal opioid-CXCR7 signaling alters emotional behavior. *Cell* 155:1323-1336, 2013.
- 8) Lee, I.T., Chang, A.S., Manandhar, M., Shan, Y., Fan, J., Izumo, M., Ikeda, Y., Motoike, T., Dixon, S., Seinfeld, E.J., Takahashi, S.J., Yanagisawa, M. Neuromedin S-Producing Neurons Act as Essential Pacemakers in the Suprachiasmatic Nucleus to Couple Clock Neurons and Dictate Circadian Rhythms. *Neuron* 85:1086-1102, 2015.
- 9) Nagahara, T., Saitoh, T., Kutsamura, N., Irukayama-Tomobe, Y., Ogawa, Y., Kuroda, D., Gouda, H., Kumagai, H., Fujii, H., Yanagisawa, M., Nagase, H. Design and Synthesis of Non-Peptide, Selective Orexin Receptor 2 Agonists. *J. Med. Chem.* 58: 7931-7937, 2015.
- 10) Funato H., Miyoshi C., Fujiyama T., Kanda T., Sato M., Wang Z., Ma J., Nakane S., Tomita J., Ikkyu A., Kakizaki M., Hotta N., Kanno S., Komiya H., Asano F., Honda T., Kim J.S., Harano K., Muramoto H., Yonezawa T., Mizuno S., Miyazaki S., Connor L., Kumar V., Miura I., Suzuki T., Watanabe A., Abe M., Sugiyama F., Takahashi S., Sakimura K., Hayashi Y., Liu Q., Kume K., Wakana S., Takahashi J.S., Yanagisawa M. Forward genetic analysis of sleep in randomly mutagenized mice. *Nature* 539: 378-383, 2016