

Asami Tanimura

Department of Biomedicine

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Education

04/1999-03/2003 B.Sc. in Health Sciences with Medicine
University of Kobe, Hyogo, JAPAN

04/2007-03/2009 M.S. in Neurophysiology
Endocannabinoid mediated signaling in CNS.
University of Osaka, Osaka, JAPAN

04/2009-03/2013 Ph.D. in Neurophysiology
Endocannabinoid mediated signaling in CNS.
University of Tokyo, Tokyo, JAPAN

Research Positions

04/2013-03/2015 Postdoctoral research fellow
Northwestern University, Chicago, USA
Team leader: Dalton James Surmeier

04/2015-10/2020 Research Associate
Northwestern University, Chicago, USA
Team leader: Dalton James Surmeier

11/2020-present Associate professor
Aarhus University, Aarhus, Denmark
Team leader: Jelena Radulovic

Positions and Employment

2003-2006 Occupational therapist, Aijimkai rehabilitation hospital, Osaka, JAPAN

2006-2007 Technical assistant, Department of Neurophysiology, University of Osaka, Osaka, JAPAN

2010-2013 Grant-in-Aid for Japan Society for the Promotion of Science (JSPS) fellow,
Department of Neurophysiology, University of Tokyo, Tokyo, JAPAN

2013-2015 JSPS postdoctoral fellow, Department of Physiology, Northwestern University, Chicago, USA

2015-2020 Research Associate, Department of Physiology, Northwestern University, Chicago, USA

2020-present Associate professor, Department of Biomedicine, Aarhus University, Aarhus, Denmark

Academic and Professional Honors

2007-2009 Scholarship from Japan Student Service Organization

2009 The Young Researcher Study Encouragement Award, Physiological Society of Japan

2011 Best Poster Award, Global COE retreat symposium

2010-2013 JSPS Fellows (\$66,972.70/ 3years)

2013-2015 JSPS postdoctoral Fellow for Research Abroad (\$132,000/ 2years)

2016-2018 Parkinson's disease foundation postdoctoral fellowship (\$100,000/ 2years)

Teaching and Mentoring Experiences

2017 Co-Mentor (Northwestern University), MD/Ph.D. student, NUIN program

2021 Supervisor (Aarhus University), 4th years medical student, Neuroscience bachelor thesis program

Other academic duty

2021 Assessment committee of postdoc candidates (Aarhus University)

Publications

1. **Tanimura A**, Du Y, Kondapalli J, Wokosin DL, Surmeier DJ. (2019) Cholinergic interneurons amplify thalamostriatal excitation of striatal indirect pathway neurons in Parkinson's disease. *Neuron*, Feb 6;101(3): 444-458 (Highlighted by Jay Li. and William Dauer. (2019) in *Movement disorders*. April; 34(5): 682)
2. **Tanimura A**, Pancani T, Lim SAO, Tubert C, Melendez AE, Shen W, Surmeier DJ. (2018) Striatal Cholinergic interneurons and Parkinson's disease. *Eur J Neurosci*, May;47(10):1148-1158
3. Zhai S, **Tanimura A**, Graves SM, Shen W, Surmeier DJ. (2017) Striatal synapses, circuits, and Parkinson's disease. *Curr Opin Neurobiol*, Feb;48: 9-16
4. Choo M, Miyazaki T, Yamazaki M, Kawamura M, Nakazawa T, Zhang J, **Tanimura A**, Uesaka N, Watanabe M, Sakimura K, Kano M. (2017) Retrograde BDNF to TrkB signaling promotes synapse elimination in the developing cerebellum. *Nat Commun*, Aug 4;8(1): 195
5. **Tanimura A**, Lim SA, Aceves Buendia JJ, Goldberg JA, Surmeier DJ. (2016) Cholinergic interneurons amplify corticostriatal synaptic responses in the Q175 model of Huntington's disease. *Front Syst Neurosci*, Dec 16;10:102
6. Nakazawa T, Hashimoto R, Sakoori K, Sugaya Y, **Tanimura A**, Hashimotodani Y, Ohi K, Yamamori H, Yasuda Y, Umeda-Yano S, Kiyama Y, Konno K, Inoue T, Yokoyama K, Inoue T, Numata S, Ohnuma T, Iwata N, Ozaki N, Hashimoto H, Watanabe M, Manabe T, Yamamoto T, Takeda M, Kano M. (2016) Emerging roles of ARHGAP33 in intracellular trafficking of TrkB and pathophysiology of neuropsychiatric disorders. *Nat Commun*. Feb 3;7:10594
7. Rafalovich IV, Melendez AE, Plotkin JL, **Tanimura A**, Zhai S, Surmeier DJ. (2015) Interneuronal nitric oxide signaling post-synaptic long-term depression of striatal glutamatergic synapses. *Cell Rep*, Nov 17;13(7):1336-1342
8. Aida T, Yoshida J, Nomura M, **Tanimura A**, Iino Y, Soma M, Bai N, Ito Y, Cui W, Aizawa H, Yanagisawa M, Nagai T, Takata N, Tanaka KF, Takayanagi R, Kano M, Gotz M, Hirase H, Tanaka K. (2015) Astroglia glutamate transporter deficiency increases synaptic excitability and leads to pathological repetitive behaviors in mice. *Neuropsychopharmacology*. Jun;40(7):1569-79
9. Hashimotodani Y, Ohno-Shosaku T, **Tanimura A**, Kita Y, Sano Y, Shimizu T, Di Marzo V, Kano M. (2013) Acute inhibition of diacylglycerol lipase blocks endocannabinoid-mediated retrograde signaling: evidence for on-demand biosynthesis of 2-arachidonoylglycerol. *J Physiol*. Oct 1;591(19):4765-76
10. Hoshina N, **Tanimura A**, Yamasaki M, Inoue T, Fukabori R, Kuroda T, Yokoyama K, Tezuka T, Sagara H, Hirano S, Kiyonari H, Takada M, Kobayashi K, Watanabe M, Kano M, Nakazawa T, Yamamoto T. (2013) Protocadherin 17 regulates presynaptic assembly in topographic corticobasal ganglia circuits. *Neuron*. Jun 5;78(5):839-54
11. **Tanimura A**, Uchigashima M, Yamazaki M, Uesaka N, Mikuni T, Abe M, Hashimoto K, Watanabe M, Sakimura K, Kano M. (2012) Synapse type-independent degradation of the endocannabinoid 2-arachidonoylglycerol after retrograde synaptic suppression. *Proc Natl Acad Sci USA*. Jul 24;109(30):12195-200
12. Uchigashima M, Yamazaki M, Yamazaki M, **Tanimura A**, Sakimura K, Kano M, Watanabe M. (2011) Molecular and morphological configuration for 2-arachidonoylglycerol-mediated retrograde signaling at mossy cell-granule cell synapses in the dentate gyrus. *J Neurosci*, May 25;31(21):7700-14

13. Ohno-Shosaku T, **Tanimura A**, Hashimotodani Y, Kano M. (2012) Endocannabinoids and retrograde modulation of synaptic transmission. *Neuroscientist*, Apr;18(2):119-32
14. Ludanyi A, Hu SS, Yamazaki M, **Tanimura A**, Piomelli D, Watanabe M, Kano M, Sakimura K, Magloczky Z, Mackie K, Freund TF, Katona I. (2011) Complementary synaptic distribution of enzymes responsible for synthesis and inactivation of the endocannabinoid 2-arachidonoylglycerol in the human hippocampus. *Neuroscience*, Feb 3;174:50-63
15. **Tanimura A**, Yamazaki M, Hashimotodani Y, Uchigashima M, Kawata S, Abe M, Kita Y, Hashimoto K, Shimizu T, Watanabe M, Sakimura K, Kano M. (2010) The endocannabinoid 2-arachidonoylglycerol produced by diacylglycerol lipase alpha mediates retrograde suppression of synaptic transmission. *Neuron*, Feb 11;65(3):320-7 (Highlighted by Welberg L. (2010) in *Nature review Neuroscience*. March 11, 224-225, and by Regehr WG. (2010) in *Neuron*. Feb 11.65(3). 291-2)
16. Taniguchi S, Nakazawa T, **Tanimura A**, Kiyama Y, Tezuka T, Watabe AM, Katayama N, Yokoyama K, Inoue T, Izumi-Nakaseko H, Kakuta S, Sudo K, Iwakura Y, Umemori H, Inoue T, Murphy NP, Hashimoto K, Kano M, Manabe T, Yamamoto T. (2009) Involvement of NMDAR2A tyrosine phosphorylation in depression-related behavior. *EMBO*, Dec 2;28(23):3717-29
17. **Tanimura A**, Kawata S, Hashimoto K, Kano M. (2009) Not glutamate but endocannabinoids mediate retrograde suppression of cerebellar parallel fiber to Purkinje cell synaptic transmission in young adult rodents. *Neuropharmacology*, Aug;57(2):157-63