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EDUCATION

Yokohama City University, Japan 2006-2011
Ph.D., Molecular Biology

Aoyama Gakuin University, Japan 2002-2006
B.Sc., Chemistry

RESEARCH EXPERIENCE

Postdoctoral Fellow, Cold Spring Harbor Laboratory, New York, NY May 2011-present
Advisor: Dr. Hiro Furukawa
Mechanistic studies of NMDA receptors

Ph.D. Student, Yokohama City University, Japan 2006-2011
Advisor: Dr. Jeremy Tame
Dissertation title: Structural studies of the autotransporter protein Hemoglobin-binding protein

TEACHING AND MENTORING EXPERIENCE

1. Teaching assistant, Yokohama City University 2008-2009
Assisted, supervised, and evaluated of the laboratory practical of a 2nd year graduate X-ray crystallography course
2. Mentoring of the master student, Atushi Kurihara, Yokohama City University 2009-2011
Taught preparation of biological samples and X-ray diffraction methods
3. Mentoring the undergraduate student, Yitong Li, Cold Spring Harbor Laboratory 2013
Taught gene cloning, expression and purification of membrane proteins, and biochemical analysis of intramembrane proteases

HONORS AND AWARDS

- Postdoctoral fellowship from the Japanese society for the promotion of science, 2012-2014
- Travel award from the Japanese society for biochemistry and molecular biology, 2015

PUBLICATIONS

1. **Tajima N**, Karakas E, Grant T, Simorowski N, Diaz-Avalos R, Grigorieff N and Furukawa H. Activation of NMDA receptors and the mechanism of inhibition by ifenprodil. *Nature* 2016 Jun;534:63-68. doi: 10.1038/nature17679
2. Jespersen A*, **Tajima N***, Fernandez-Cuervo G, Garnier-Amblard EC, and Furukawa H. Structural Insights into Competitive Antagonism in NMDA Receptors. *Neuron* 2014 Jan;81(2):366-378. doi: 10.1016/j.neuron.2013.11.033
* These authors contributed equally to this work
3. Hansen KB, **Tajima N**, Risgaard R, Perszyk RE, Jørgensen L, Vance KM, Ogden KK, Clausen RP, Furukawa H, and Traynelis SF. Structural determinants of agonist efficacy at the glutamate binding site of N-methyl-D-aspartate receptors. *Mol Pharmacol.* 2013 Jul;84(1):114-27. doi: 10.1124/mol.113.085803.
4. **Tajima N**, Kawai F, Park SY, and Tame JR. A novel intein-like autoproteolytic mechanism in autotransporter proteins. *J Mol Biol.* 2010 Oct;402(4):645-56. doi: 10.1016/j.jmb.2010.06.068.
5. Nishimura K, **Tajima N**, Yoon YH, Park SY, and Tame JR. Autotransporter passenger proteins: virulence factors with common structural themes. *J Mol Med.* 2010 May;88(5):451-8. doi: 10.1007/s00109-010-0600-y.

ORAL PRESENTATIONS

1. **Tajima N**, Furukawa H. (2015) Mechanism of NMDA receptor regulation by the amino terminal domain, *Biochemistry and molecular biology conference*, Japan
2. **Tajima N**, Furukawa H. (2016) Structural basis of NMDA receptors, *Cold Spring Harbor Neuroscience in-house seminar*, New York, NY, USA
3. **Tajima N**, Karakas E, Grant T, Simorowski N, Diaz-Avalos R, Grigorieff N, and Furukawa H. (2017) Molecular mechanisms of NMDA receptor function and regulation, Emory University, *Invited seminar*, Atlanta, GA, USA

REFERENCES

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Dr. Nikolaus Grigorieff, Ph.D.

Group leader/ Professor of Biochemistry

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Dr. Jeremy Tame, Ph.D.

Professor of Medical Life Science

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