CURRICULUM VITAE – YOSHIKO KOJIMA

11/01/2020

1. Personal Data:

Place of birth: Tokyo, Japan.

2. Education:

2002 B.S., Occupational Therapy.

Department of Occupational Therapy, School of Health Sciences, Ibaraki Prefectural University of Health Sciences, Japan.

2004 M.S., Neuroscience.

Brain Science, Kansei Cognition and Neuroscience, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan.

2006 Ph.D., Neuroscience.

Brain Science, Kansei Cognition and Neuroscience, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan.

3. Postgraduate Training:

2002 - 2006 Graduate Student

Brain Science, Kansei Cognition and Neuroscience, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan.

2004 – 2006 Research Fellow (Graduate student)

Brain Science, Kansei Cognition and Neuroscience, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan. Japan Society for the Promotion of Science support recipient.

2006 – 2007 Research Fellow (Postdoctoral fellow)

Brain Science, Kansei Cognition and Neuroscience, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan. Japan Society for the Promotion of Science support recipient.

2006 – 2007 Research Fellow (Visiting Scholar)

Japan-U.S. Science and Technology Cooperation, University of Tsukuba, Japan - University of Washington, Dept. Physiology and Biophysics, Washington National Primate Research Center, USA.

2006 – 2011 Senior Research Fellow

Department of Physiology and Biophysics, Washington National Primate Research Center, University of Washington, USA.

2011 – 2012 Postdoctoral Fellow

Department of Physiology and Biophysics, Washington National Primate Research Center, University of Washington, USA. Vision Training Grant recipient.

2012 – 2013 Research Scientist

Department of Physiology and Biophysics, Washington National Primate Research Center, University of Washington, USA.

Faculty/Research Positions Held:

2013 – 2017 Acting Instructor

Department of Physiology and Biophysics, Washington National Primate Research Center, University of Washington, USA.

2017 – 2020 Research Scientist – Principal

Washington National Primate Research Center, University of Washington, USA.

2020 - Present Research Assistant Professor

Department of Otolaryngology-Head and Neck Surgery, University of Washington, USA.

4. Hospital Positions Held:

2001 – 2001 Occupational Therapy Internship. Psychiatric clinic, Ibaraki Prefectural University of Health Sciences Hospital, Japan.

2001 – 2001 Occupational Therapy Internship. Division of Rehabilitation, Kandatsu Hospital, Japan.

2002 – 2005 Occupational Therapist. Tsukuba Memorial Hospital, Japan.

5. Honors:

2002 Excellent Dissertation Award. Brain Science, Kansei Cognition and Neuroscience, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan.

6. Board Certification:

Occupational Therapist (Japan)

7. Current License(s) to Practice:

Occupational Therapist (Japan)

8. Professional Organizations:

Society for Neuroscience, Washington, DC, USA.

American Physiological Association, Bethesda, MD, USA.

The Japan Neuroscience Society, Tokyo, Japan.

The Physiological Society of Japan, Tokyo, Japan.

9. Teaching Responsibilities: Neurophysiology, TA.
10. Editorial Responsibilities: None.
11. Special National Responsibilities: None.
12. Special Local Responsibilities: None.

13. Research Funding:

NIH R01 (PI), NEI, EY023277, 08/01/2013 - 7/31/2022

UW Royalty Research Fund, A148416, 3/16/2020 – 3/15/2022

NSF – Collaborative Research in Computational Neuroscience (co-PI), BCS-1724176, 09/01/2017-08/31/2020

NIH R01 (co-PI), NINDS, NS078311, 6/1/2017-2/28/2022.

NIH Vision Training Grant, Postdoctoral level, EY07031, 01/15/2011 - 01/14/2012.

Meiji Yasuda life foundation of health and welfare, 01/01/2009 - 12/31/2009

Research Fellow of Japan-U.S. Science and Technology Cooperation, 6/20/2006 - 3/19/2007.

Research Fellow of the Japan Society for the Promotion of Science (Postdoctoral), 4/1/2006 - 3/31/2007.

Research Fellow of the Japan Society for the Promotion of Science (Predoctoral), 4/1/2004 - 3/31/2006.

15. Bibliography:

Kojima Y. A neuronal process for adaptive control of primate saccadic system.

Prog Brain Res. 2019, 249: 169-181. Review.

Soetedjo R, Kojima Y, Fuchs AF. How cerebellar motor learning keeps saccades accurate.
J Neurophysiol. 2019, 121: 2153-2162. Review.

Kojima Y, Soetedjo R. Elimination of the error signal in the superior colliculus impairs saccade motor learning.

PNAS. 2018, 115: E8987-E8995.

Herzfeld D, Kojima Y, Soetedjo R, Shadmehr R.

Encoding of error and learning to correct that error by the Purkinje cells of the cerebellum.

Nat Neurosci. 2018, 21: 736-743.

Kojima Y, Soetedjo R. Change in sensitivity to visual error in superior colliculus during saccade adaptation.

Sci Rep. 2017; 7: 9566.

El-Shamayleh Y, Kojima Y, Soetedjo R, Horwitz GD. Selective optogenetic control of Purkinje cells in monkey cerebellum.
Neuron. 2017; 95: 51-62

Kojima Y, Soetedjo R. Selective reward affects the rate of saccade adaptation.

Neuroscience. 2017; 355: 113-125.

Kojima Y. Role of saccade and the neural mechanisms.

Journal of Health, Physical Education and Recreation. 2015;65: 862-867. Review.

Herzfeld D, Kojima Y, Soetedjo R, Shadmehr R. Encoding of action by the Purkinje cells of the cerebellum.

Nature. 2015; 526(7573):439-42.

Kojima Y, Fuchs AF, Soetedjo R.

Adaptation and adaptation transfer characteristics of five different saccade types in the monkey.

J Neurophysiol. 2015; 114(1):125-37.

Kojima Y, Robinson FR, Soetedjo R. Cerebellar fastigial nucleus influence on ipsilateral abducens activity during saccades.

J Neurophysiol. 2014; 111(8):1553-63.

Kojima Y. The neural mechanism of the cerebellum and brainstem for saccade adaptation.
J. Japan Neural Network. 2012;19: 126-134. Review.

Kojima Y, Soetedjo R, Fuchs AF. Effect of inactivation and disinhibition of the oculomotor vermis on saccade adaptation.

Brain research 2011;1401:30-9.

Kojima Y, Soetedjo R, Fuchs AF.

Effects of GABA agonist and antagonist injections into the oculomotor vermis on horizontal saccades.

Brain research 2010;17;1366:93-100.

Kojima Y, Soetedjo R, Fuchs AF. Behavior of the Oculomotor Vermis for Five Different Types of Saccade.
J Neurophysiol. 2010;104(6):3667-76

Kojima Y, Soetedjo R, Fuchs AF.

Changes in simple spike activity of some Purkinje cells in the oculomotor vermis during saccade adaptation are appropriate to participate in motor learning.

J Neurosci. 2010;30(10):3715-27.

Soetedjo R, Fuchs AF, Kojima Y. Subthreshold activation of the superior colliculus drives saccade motor learning.

J Neurosci. 2009;29(48):15213-22.

Soetedjo R, Kojima Y, Fuchs AF.

Complex spike activity in the oculomotor vermis of the cerebellum: a vectorial error signal for saccade motor learning? J Neurophysiol. 2008;100(4):1949-66.

Soetedjo R, Kojima Y, Fuchs AF. Complex spike activity signals the direction and size of dysmetric saccade errors.
Prog Brain Res. 2008;171:153-9.

Kojima Y, Iwamoto Y, Robinson FR, Noto CT, Yoshida K.
Premotor inhibitory neurons carry signals related to saccade adaptation in the monkey.
J Neurophysiol. 2008;99(1):220-30.

Kojima Y, Iwamoto Y, Yoshida K.
Microstimulation of the midbrain tegmentum creates learning signals for saccade adaptation.
J Neurosci. 2007;27(14):3759-67.

Kojima Y, Iwamoto Y, Yoshida K.
Effect of saccadic amplitude adaptation on subsequent adaptation of saccades in different directions.
Neurosci Res. 2005;53(4):404-12.

Kojima Y, Iwamoto Y, Yoshida K. Memory of learning facilitates saccadic adaptation in the monkey.
J Neurosci. 2004;24(34):7531-9.

16. Invited Talks

2019, The annual conference of Motor Control Society, Basal ganglia influence on the error sensitivity of cerebellar dependent motor learning.

2017, Tokyo Metropolitan Institute of Medical Science, Basal ganglia influence on the error sensitivity of cerebellar dependent motor learning.

2017, Tamagawa University, International Symposium, Basal ganglia influence on the error sensitivity of cerebellar dependent motor learning.

2017, The annual meeting of the Japan Neuroscience Society, Basal ganglia influence on the error sensitivity of cerebellar dependent motor learning.

2017, Johns Hopkins university, An instructive signal that drives saccade adaptation.

2016, The Bernstein conference satellite workshop on Learning at the interface of vision and oculomotor control.
Neural circuit of the instructive signal for saccade adaptation.

2015, The University of Electro-Communications, Japanese Neural Network Society Workshop: Data-driven approach for understanding cerebellar mechanisms on eye movement control, Substantia nigra pars reticulata influences the error signals for the saccade adaptation.

2015, The annual meeting of the Japan Neuroscience Society, Superior colliculus provides the error signals for the saccade adaptation.

2012, National Institute of Advanced Industrial Science and Technology, Cerebellar Influences on Agonist and Antagonist Motoneuron Activity during Saccades.

2012, The annual meeting of the Japan Neuroscience Society, Is a cerebellar error signal required for saccade adaptation?

2012, National Institute for Physiological Sciences, Cerebellar Influences on Agonist and Antagonist Motoneuron Activity during Saccades.

2012, Chubu University College of Engineering, Cerebellar Influences on Agonist and Antagonist Motoneuron Activity during Saccades.

2011, RIKEN Brain Science Institute, Neural Circuits With Saccade Adaptation.

2009, Hokkaido University, Neural circuits involved with saccade adaptation.

2009, Kyoto University, Neural circuits involved with saccade adaptation.

2009, National Institute for Physiological Sciences, Neural circuits involved with saccade adaptation.

2009, Tamagawa University, International Symposium: New Perspectives on Neural Mechanisms of Cognition and Action, Neural circuits involved with saccade adaptation.

2009, Stanford University, Neural circuits involved with saccade adaptation.

2009 University of California, Neural circuits involved with saccade adaptation.

2009, Salk Institute, Neural circuits involved with saccade adaptation.

2008, Biomedical Engineering Seminar Series, Johns Hopkins university, Neural Circuits with Saccade Adaptation.

2008, NIH Laboratory of Sensory Motor Research, Neural Circuits with Saccade Adaptation.

2008, University of Tsukuba, Neural Circuits with Saccade Adaptation.