Satoru K. MIURA, Ph.D.

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Oakland, CA 94602

Scanziani Lab
Department of Physiology and HHMI
University of California, San Francisco

RESEARCH TRAINING

2014 - present
Postdoctoral research
University of California, San Francisco | San Francisco, CA
Department of Physiology (2016 - present), Howard Hughes Medical Institute (2019 - present)
University of California, San Diego | San Diego, CA
Center for Neural Circuits and Behavior (2014 - 2015)
Advisor: Massimo Scanziani, Ph.D.

- Revealed how visual cortex distinguishes motion generated by saccades from external motion
- Identified the underlying computational and circuit mechanisms
- Note: Lab relocation from UCSD to UCSF

Preprint on bioRxiv and in review at Science. Funded through the Jane Coffin Childs Foundation for Medical Research postdoctoral fellowship and the Japan Society for the Promotion of Science.

2006 - 2013
Graduate research
University of California, Los Angeles | Los Angeles, CA
Department of Biological Chemistry
Advisor: S. Lawrence Zipursky, Ph.D.
Thesis committee: Kelsey C. Martin, M.D., Ph.D., Douglas L. Black, Ph.D., Siavash Kurdistani, M.D.

- Developed a genetic method to label alternatively spliced exons of *Dscam1* gene *in vivo*
- Discovered that *Dscam1* is alternatively spliced in a probabilistic manner throughout the nervous system at the level of single neurons, thus supporting its role in self-avoidance mechanism

Work resulted in a publication in Cell and was funded through the Nakajima Foundation and the UCLA Dissertation fellowship.

2005 - 2006
Undergraduate research
University of Tokyo | Tokyo, Japan
Department of Biophysics and Biochemistry
Advisor: Hitoshi Sakano, Ph.D.

- Generated transgenic constructs to suppress neuronal activity in a subset of olfactory sensory neurons to study its impact on the expression of axon guidance molecules

EDUCATION

2006 - 2013
University of California, Los Angeles | Los Angeles, CA
Department of Biological Chemistry
Doctor of Philosophy in Biological Chemistry, November 2013

2002 - 2006
University of Tokyo | Tokyo, Japan
Department of Biophysics and Biochemistry
Bachelor of Science in Biophysics and Biochemistry, March 2006

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FELLOWSHIPS

2016 - 2019	Jane Coffin Childs Memorial Fund - Genentech Fellow
2015 - 2016	Japan Society for the Promotion of Science
2012 - 2013	UCLA Dissertation Year Fellowship
2006 - 2011	The Nakajima Foundation - Study Abroad Scholarship

HONORS & AWARDS

2014	Samuel Eiduson Student Lectureship
2013	UCLA Doctoral Hooding Ceremony Student Marshal Nominee
2011	Departmental Retreat Best Poster Award
2007	UCLA Summer Research Mentorship Award
2006	UCLA Chancellor's Prize

PUBLICATIONS

Miura SK, Scanziani M. Erasing motion: Scrambling of direction selectivity in visual cortex during saccades. ***bioRxiv*** DOI: 10.1101/2021.03.30.437338 (pre-print, in review at *Science*)
http://www.biorxiv.org/content/10.1101/2021.03.30.437338v2.full

Miura SK, Martins A, Zhang KX, Graveley BR, Zipursky SL. Probabilistic splicing of *Dscam1* establishes identity at the level of single neurons. ***Cell***. 2013 Nov 21;155(5);1166-77.
https://www.cell.com/fulltext/S0092-8674(13)01294-4

Wang DO, Kim SM, Zhao Y, Hwang H, **Miura SK**, Sossin WS, Martin KC. Synapse- and stimulus-specific local translation during long-term neuronal plasticity. ***Science***. 2009 Jun 19;324(5934):1536-40.
https://www.science.org/doi/full/10.1126/science.1173205

INVITED TALKS (selected)

(Upcoming)
Miura SK, Scanziani M. And yet the world stands still - Accounting for eye movements during visual exploration. *Max Planck Florida Institute for Neuroscience*, Dec 16, 2021

Miura SK, Scanziani M. And yet the world stands still: Disregarding motion during eye movements. *University of Toronto*, Nov 19, 2021

Miura SK, Scanziani M. And yet the world stands still: Disregarding motion during saccades. *University of Ottawa*, Oct 26, 2021

(Past)
Miura SK, Scanziani M. And yet the world stands still: Disregarding motion during saccades. *University College London*, Online, 2021

Miura SK, Scanziani M. And yet the world stands still: Disregarding motion during eye movements. Synapse to Circuit Club, *University of California, Los Angeles*, Online, 2021

Miura SK, Martins A, Zhang KX, Graveley BR, Zipursky SL. No two neurons are the same: Unique identities for neural circuit assembly. Samuel Eiduson Student Lectureship, *University of California, Los Angeles*, 2014

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PRESENTATIONS (selected)

Miura SK, Scanziani M. Erasing motion: The scrambling of direction selectivity in visual cortex during saccades. *Computational and Systems Neuroscience (Cosyne)*, Online, 2021

Miura SK, Scanziani M. Erasing motion: Scrambling direction selectivity in visual cortex during saccades. *Society for Neuroscience Global C*onnectome*,* Online, 2021

Miura SK, Scanziani M. Pulvinar input to visual cortex scrambles direction selectivity during saccades. *Neuromatch 3.0*, Online, 2020 (*Oral presentation*)

Miura SK, Scanziani M. Thalamic input informs the primary visual cortex of the direction of upcoming saccades. *Gordon Research Conference, Thalamocortical Interactions*, Ventura, CA, 2020

Miura SK, Scanziani M. Thalamic input informs the primary visual cortex of the direction of upcoming saccades. *Research in Progress, University of California, San Francisco*, CA, 2020 (*Oral presentation*)

Miura SK, Scanziani M. Eye movement information reaches mouse primary visual cortex via feedback pathway. *Society for Neuroscience Annual Meeting*, Chicago, IL, 2019

Miura SK, Scanziani M. Pathway for saccade related activity in mouse primary visual cortex. *Society for Neuroscience Annual Meeting*, San Diego, CA, 2018

Miura SK, Scanziani M. Pathway for saccade related activity in mouse primary visual cortex. *HHMI Science Meeting*, Janelia Research Camplus, Ashburn, VA, 2018

Miura SK, Martins A, Zhang KX, Graveley BR, Zipursky SL. Probabilistic splicing of *Dscam1* establishes identity at the level of single neurons. *Cell Symposium*, San Diego, CA, 2013 (Selected for poster preview)

Miura SK, Martins A, Zhang KX, Graveley BR, Zipursky SL. Visualizing *Dscam1* splicing *in vivo. Gordon Research Conference, Neural Development*, Newport, RI, 2012

TEACHING AND MENTORING EXPERIENCE

2021
High School Student Mentor | University of California, San Francisco
Scanziani Lab: Haley Yedra (Mission High School)

2019
Rotation Student Mentor | University of California, San Francisco
Scanziani Lab: Scott Harris (Currently in Dunn Lab, UCSF)

2012
Graduate Student Mentor | University of California, Los Angeles
Zipursky Lab: Andre Martins

2007, 2008
Teaching Assistant | University of California, Los Angeles
Genetics, Life Sciences Core Curriculum