

Sung Eun “Samuel” Kwon

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Current Appointment

Assistant Professor, University of Michigan (3 years 10 months) 2018-present
Department of Molecular, Cellular, Developmental Biology

Education

Ph.D. in Physiology, **University of Wisconsin-Madison** 2011
B.Sc. (Honors) in Neuroscience, **Australian National University** 2004

Previous Appointments

Johns Hopkins University 2012-2017
Postdoctoral Fellow (5 years)
Advisor: Dr. Daniel H. O'Connor

Publications

* *equal contribution*

Chang C, Zhao M, Grudzien S, Oginsky MF, Yang Y and **Kwon SE**. (2021) A cortico-cortical pathway targets inhibitory interneurons and modulates paw movement during locomotion in mice, *Journal of Neuroscience (in press)*. <http://doi.org/10.1101/2021.09.23.461507>

Kwon SE. (2021). Preview: Delay tactics for action in the cortex. *Neuron* 109 (13): 2045-2046.

Zhang M, **Kwon SE**, Ben-Johny M, O'Connor DH, Issa JB. (2020) Spectral hallmark of auditory-tactile interactions in somatosensory cortex. *Communications Biology* 3(1): 64.

Kwon SE. (2018) Interplay between cortical state and perceptual learning: a focused review, *Frontiers in Systems Neuroscience* 09 Oct: fnsys.2018.00047.

Minamisawa G, **Kwon SE**, Chevee M, Brown SP and O'Connor DH. (2018) A non-canonical feedback circuit for rapid interactions between somatosensory cortices, *Cell Reports* 23(9): 2718-2731.

***Kwon SE**, *Tsytarev V, Erzurumlu RS and O'Connor DH. (2018) Organization of orientation-specific whisker deflection responses in layer 2/3 of mouse somatosensory cortex, *Neuroscience* 368: 46-56.

Kwon SE, Yang H, Minamisawa G and O'Connor DH. (2016) Propagation of sensory and decision-related activity in a cortical feedback loop during touch perception, *Nature Neuroscience* 19(9): 1243-9.

*Yang H, ***Kwon SE**, Severson KS and O'Connor DH. (2016) Origins of choice-related activity in mouse somatosensory cortex, *Nature Neuroscience* 19(1): 127-34.

Liu H, Bai H, Hui E, Yang L, Evans C, Wang Z, **Kwon SE**, and Chapman ER. (2014) Synaptotagmin 7 functions as a Ca²⁺-sensor for synaptic vesicle replenishment, *eLife* 3: e01524.

Kwon SE and Chapman ER. (2012) Glycosylation is dispensable for sorting of synaptotagmin 1, but is critical for targeting of synaptophysin and SV2 to recycling synaptic vesicles, *Journal of Biological Chemistry* 287(42): 35658-68.

*Yao J, ***Kwon SE**, Gaffaney JD, Dunning FM, and Chapman ER. (2012) Uncoupling the roles of synaptotagmin I as a dual Ca^{2+} sensor during endo- and exocytosis of synaptic vesicles, *Nature Neuroscience* 15(2): 243-9. Highlighted by F1000.

*Yao J, *Gaffaney JD, **Kwon SE**, and Chapman ER. (2011) Doc2 is a Ca^{2+} sensor required for asynchronous neurotransmitter release, *Cell* 147(3): 666-77. Highlighted by F1000.

Kwon SE and Chapman ER. (2011) Synaptophysin regulates the kinetics of synaptic vesicle endocytosis in central neurons, *Neuron* 70 (5): 847-54. Highlighted by F1000.

Presentations (since 2018)

Invited Seminars

Society for Neuroscience annual satellite event, Barrels meeting, Nov. 2021.

Neural Networks Club, UMich, Nov. 2019.

SFARI BTI meeting, New York City, May. 2019.

Department of Pharmacology, Wayne State University, Apr. 2019.

MCDB department retreat, UMich, Oct. 2018.

Neuroscience graduate program retreat, UMich, Oct. 2018.

Kavli Neuroscience Innovators meeting, UMich, Mar. 2018.

Kresge Hearing Institute, UMich, Mar. 2018.

Neural Networks Club, UMich, Jan. 2018.

Teaching and Mentoring (since 2018)

Courses

BIO 222, Winter 2020, Winter 2021, Fall 2021.

MCDB 600, Fall 2019.

MCDB 421, Winter 2019, Fall 2020.

MCDB 614, Fall 2018.

Research Training

Current

Yexin Yang, MCDB PhD Student, May. 2019 – present

Meiling Zhao, MCDB PhD Student, May. 2019 – present

Avery Heo, Undergraduate Research Student, May. 2021 – present

External Service

Consultation

GRIN2B Foundation, Science Director, Jul. 2019 – Oct. 2020

GRIN2B Foundation, Medical Advisory Board, Oct. 2020 – present

Scientific Review

Ad hoc reviewer: COSYNE meeting, Journal of Neuroscience, Plos Biology

Review editor: Frontiers in Cellular Neuroscience, Jul. 2021 – present