

Juyoun Yoo

Ph.D. Candidate
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EDUCATION

Ph.D. candidate in Neuroscience	University of California, Los Angeles, United States Neuroscience Interdepartmental Program (NSIDP) Advisor: S. Lawrence Zipursky, PhD	2015 – present
M.S. in Biological Sciences	Seoul National University, Seoul, South Korea Department of Biological Sciences Advisor: Bong-Kiun Kaang, PhD	2012 - 2014
B.S. in Life Sciences	Ewha Womans University, Seoul, South Korea Major: Life Sciences / Minor: Cognitive Science	2008 - 2012

RESEARCH EXPERIENCE

Graduate Student	University of California, Los Angeles <i>Larry Zipursky Lab</i> I study neural circuit formation and the molecular mechanisms underlying synaptic specificity. I use single-cell RNA sequencing to explore gene expression patterns in developing nervous system, and use imaging techniques such as confocal microscopy in drosophila visual system.	Apr 2016 - Present
Graduate Rotation Student	University of California, Los Angeles <i>Carlos Portera-Cailliau Lab</i> Performed Intrinsic Optical Imaging through cranial window over barrel cortex to test various conditions of isofluorene anesthesia effect on piezo induced cortical activity in mice.	Jan 2016- Mar 2016
Intern Researcher	Korea Institute of Science and Technology (KIST) Center for Functional Connectomics, Seoul, South Korea <i>George J. Augustine Lab</i> Performed primary hippocampal neuron autapse culture of synapsin triple knock-out mice for <i>in vitro</i> electrophysiology.	Jun 2014- Dec 2014
Graduate Researcher	Seoul National University, Seoul, South Korea <i>Bong-Kiun Kaang Lab</i> Studied behaviors of autism spectrum disorder model mice Shank2 KO and CD38 KO. Tested learning&memory impairment and social behavior deficits. M.S. Thesis: Social Behavior Assay in Mouse model of Autism Spectrum Disorder.	Mar 2012 – Feb 2014
Undergraduate Researcher	Seoul National University, Seoul, South Korea <i>Bong-Kiun Kaang Lab</i> Performed mouse behavioral experiments to test learning and memory functions of hippocampus.	Jun 2011- Sep 2011

Undergraduate Ewha Womans University, Seoul, South Korea

Rotation Woojin Jeong lab

Student Participated in peroxiredoxins J14 derivative to test hyperoxidation reactions.

Dec 2010-

Feb 2011

PUBLICATIONS

Transcriptional programs of circuit assembly in the Drosophila visual system

Kurmangaliyev Y, **Yoo J**, Valdes-Aleman J, Sanfilippo P, Zipursky SL.

Neuron. 2020 Dec 23;108(6):1045-1057.e6. doi:10.1016/j.neuron.2020.10.006

Modular transcriptional program defines neuron subtype-specific connectivity.

Kurmangaliyev Y*, **Yoo J***, LoCascio SL*, Zipursky SL.

eLife. 2019 Nov 5;8:e50822 doi: 10.7554/eLife.50822

*equal contribution

Interactions between the Ig-Superfamily proteins DIP- α and Dpr6/10 Regulate Assembly of Neural Circuits.

Xu S, Xiao Q, Cosmanescu F, Sergeeva AP, **Yoo J**, Lin Y, Katsamba PS, Ahlsen G, Kaufman J, Linaval NT, Lee PT, Bellen HJ, Shapiro L, Honig B, Tan L, Zipursky SL.

Neuron. 2018 Nov 14. pii: S0896-6273(18)30992-9. doi: 10.1016/j.neuron.2018.11.001

PKC α -mediated phosphorylation of LSD1 is required for presynaptic plasticity and hippocampal learning and memory.

Lim CS, Nam HJ, Lee J, Kim D, Choi JE, Kang SJ, Kim S, Kim H, Kwak C, Shim KW, Kim S, Ko HG, Lee RU, Jang EH, **Yoo J**, Shim J, Islam MA, Lee YS, Lee JH, Baek SH, Kaang BK.

Sci Rep. 2017 Jul 7;7(1):4912. doi: 10.1038/s41598-017-05239-7

The role of nuclear PKM ζ in memory maintenance.

Ko HG, Kim JI, Sim SE, Kim T, **Yoo J**, Choi SL, Baek SH, Yu WJ, Yoon JB, Sacktor TC, Kaang BK.

Neurobiol Learn Mem. 2016 Jun 14. pii: S1074-7427(16)30085-5. doi: 10.1016/j.nlm.2016.06.010

A transducible nuclear/nucleolar protein, mLLP, regulates neuronal morphogenesis and synaptic transmission.

Yu NK, Kim HF, Shim J, Kim S, Kim DW, Kwak C, Sim SE, Choi JH, Ahn S, **Yoo J**, Choi SL, Jang DJ, Lim CS, Lee YS, Kang C, Choi SY, Kaang BK.

Sci Rep. 2016, Mar 10;6:22892, doi: 10.1038/srep22892

Impaired learning and memory in CD38 null mutant mice

Kim S, Kim T, Lee HR, Jang EH, Ryu HH, Kang M, Rah SY, **Yoo J**, Lee B, Kim JI, Lim CS, Kim SJ, Kim UH, Lee YS, Kaang BK.

Mol Brain. 2016 Feb 9, doi: 10.1186/s13041-016-0195-5

Shank Mutant Mice as an Animal Model of Autism

Yoo J, Bakes J, Bradley C, Collingridge GL, Kaang BK.

Philos Trans R Soc Lond B Biol Sci. 2013 Dec 2; 369(1633):20130143, doi: 10.1098/rstb.2013.0143

CONFERENCE PRESENTATIONS

Cold Spring Harbor Laboratory Meeting: Neurobiology of Drosophila (Poster)	2021
Title: Cell type and subcellular synaptic specificity in the visual system	
Society for Neuroscience, Chicago, United States (Oral)	2019
Nanosymposium: Molecular Mechanisms of Synaptogenesis and Connectivity	
Title: Modular transcriptional programs define neuron subtype-specific connectivity	
Society for Neuroscience, San Diego, United States (Poster)	2013
Title: Disrupted social behaviors of CD38 Knock-out mice assayed via three-chamber test and pup retrieval test	

COURSE/WORKSHOP PARTICIPATIONS

Janelia Junior Scientist Workshop on Mechanistic Cognitive Neuroscience	Janelia Research Campus, VA, United States (Online)	2021
Gene Regulatory Networks for Development course	Marine Biology Laboratory, Woods Hole, MA, United States.	2018

HONORS AND SCHOLARSHIPS

Research Fellowship	UCLA Graduate Division Dissertation Year Fellowship	2020
Graduate Student Travel Award	UCLA Brain Research Institute and Semel Institute for Neuroscience & Human Behavior.	2019
Student Research Fellowship	Brain Korea 21 Fellowship. Seoul National University, Seoul, South Korea	2012 - 2013
Student Poster Award	Undergraduate Lab Rotation Research Program. Ewha Womans University Korea	2011
Academic Excellence Scholarship	School of Natural Science Scholarship. Ewha Womans University, Seoul South Korea	2011
Honors Scholarship	Department of Life Sciences, Ewha Womans University, Seoul, South Korea	2008 - 2009
Dean's List	Department of Life Sciences, Ewha Womans University, Seoul, South Korea	2008

TEACHING EXPERIENCE

Graduate Course TA	M201 Cell, Developmental and Molecular Neurobiology UCLA	2018
Research TA	Korea Science Academy of KAIST, Busan and Seoul, South Korea (Science high school for gifted students) Research & Education Program. 1 st prize in National Highschool R&E Awards.	2013
Undergraduate Lab TA	Seoul National University, Seoul, South Korea 010.322 Experimental Biology I	2013