JEONG JUN KIM

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Education

Johns Hopkins University, MSTP — Baltimore, MD
MD/PhD student, Neuroscience — Expected 2027

Harvard University — Cambridge, MA
AB, *summa cum laude*, Chemical and Physical Biology. — 2018
Phi Beta Kappa

Awards

American College of Physicians Medical Student Conference — 2021
Student Dilemma Contest, 1st Place
Harvard College Research Program — 2016-17
Herchel Smith Research Fellowship, Harvard University — 2016
Microbial Sciences Initiative Research Fellowship, Harvard University — 2016
PRISE Research Fellowship, Harvard University — 2015
Clark Scholars, Texas Tech University — 2014

Research Experience

HHMI Janelia Research Campus — Ashburn, VA
Research Technician — 2018-19
Advisors: Kaspar Podgorski & Karel Svoboda
Mapping in vivo thalamocortical synapses with dendritic glutamate imaging.

- Applied two-photon glutamate imaging to map anatomically defined synapses.
- Developed expansion microscopy protocols for synapse validation.
- Wrote analysis code for kilohertz two-photon tomography.

Harvard University — Cambridge, MA
Undergraduate Researcher — 2014-18
Advisor: Adam E. Cohen
Voltage imaging and optogenetics in mouse hippocampus during behavior.

- Devised optics for two-photon activation of channelrhodopsin.
- Characterized photophysics of opsin voltage reporters.
- Developed computational methods for structured illumination microscopy.

Teaching Experience

Harvard University — Cambridge, MA
Teaching Fellow, Structural Biology — 2018
Wrote exams and taught small group sessions for graduate-level biophysics course.

MIT Educational Studies Program — Cambridge, MA
Instructor, Anatomy & Physiology — 2018
Designed and taught a high school summer class on basic anatomy and physiology.

Extracurriculars

Student Interest Group in Neurology — Baltimore, MD
President — 2020-21
Organized research talks, resident chats, and clinical demos.

Mayor's Office of Immigrant Affairs — Baltimore, MD
Volunteer - Translation Services — 2020
Translated weekly newsletters and COVID announcements for Korean immigrants.

Harvard Square Homeless Shelter — Cambridge, MA
Finance Director — 2015-18
Oversaw the operating budget and spending of a student-run shelter.
Served on the board of Harvard Square Homeless Shelter Corporation.

Publications

1. Mohr A, Bushey D, Aggarwal A, Marvin JS, **Kim JJ**, Marquez EJ, Liang Y, Patel R, Macklin JJ, Lee CY, Tsang A, Tsegaye G, Ahrens A, Chen J, Kim DS, Wong AM, Looger LL, Schreiter ER, Podgorski K. jYCaMP: An optimized calcium indicator for two-photon imaging at fiber laser wavelengths. *Nature Methods*, 25 May 2020. doi:10.1038/s41592-020-0835-7
2. Kazemipour A, Novak O, Flickinger D, Marvin J, King J, Borden P, Druckmann S, Svoboda K, Looger L, Abdelfattah A, **Kim JJ**, Abdullatif S, Deal P, Miller E, Schreiter E, Podgorski K. Kilohertz frame-rate two-photon tomography. *Nature Methods*, 29 July 2019. doi:10.1038/s41592-019-0493-9
3. Adam Y, **Kim JJ**, Lou S, Zhao Y, Xie ME, Brinks D, Wu H, Mostajo Raji MA, Kheifets S, Parot V, Chettih S, Williams KJ, Gmeiner B, Farhi SL, Madisen L, Buchanan EK, Kinsella I, Zhou D, Paninski L, Harvey CD, Zeng H, Arlotta P, Campbell RE, Cohen AE. Voltage imaging and optogenetics reveal behaviour-dependent changes in hippocampal dynamics. *Nature*, 01 May 2019. doi:10.1038/s41586-019-1166-7
4. Farhi S, Parot V, Grama A, Yamagata M, Abdelfattah A, Adam Y, Lou S, **Kim JJ**, Campbell RE, Cox DD, Cohen AE. Wide-Area All-Optical Neurophysiology in Acute Brain Slices. *Journal of Neuroscience*, 19 June 2019. doi:10.1523/JNEUROSCI.0168-19.2019