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Education

2002-2006 Ph. D. in University of Illinois at Urbana-Champaign
2000-2002 M.S. in Seoul National University
1993-2000 B.S. in Seoul National University (with mandatory military service)

Professional Experience

2016-current Adjunct Professor
Division of Integrative Biosciences and Biotechnology
Pohang University of Science Technology (POSTECH), Republic of Korea
2014-current Assistant Professor
Division of Life Science and Department of Physics
Hong Kong University of Science and Technology
2007- 2013 Postdoctoral Research Fellow (under Dr. Richard W. Tsien or Dr. Michael Z. Lin)
Department of Molecular and Cellular Physiology or Bioengineering
Stanford University
2007-2007 Postdoctoral Research Fellow (under Dr. Paul R. Selvin)
Department of Physics and Center for Biophysics and Computational Biology
University of Illinois at Urbana-Champaign

Publication Records

1. Alsina Alsina, Wu Ming Lai, Wai Kin Wong, Xianan Qin, Min Zhang & **Hyokeyun Park**, Real-time subpixel-accuracy tracking of single mitochondria in neurons reveals heterogeneous mitochondrial motion, *Biochemical and Biophysical Research Communications* (in press)
2. Chenglong Yu, Min Zhang, Xianan Qin, Xiaofeng Yang & **Hyokeyun Park**, Real-time imaging of single synaptic vesicles in live neurons, *Frontiers in Biology*, **11**, 109-118 (2016) (# of citation: 1).

Selected as a Journal Cover.

3. Virginie Ropar, Zhaohui Yang, Tatiana Isabet, Florian Blanc, Kaifeng Zhou, Tianming Lin, Xiaoyan Liu, Pascale Hissier, Frédéric Samazan, Béatrice Amigues, Eric D. Yang, **Hyokeyun Park**, Olena Pylypenko, Marco Cecchini, Charles Sindelar, H. Lee Sweeney & Anne Houdusse, The myosin X motor is optimized for movement on actin bundles, *Nature Communications*, **7**, 12456 (2016) (# of citation: 4).
4. **Hyokeyun Park**, Yulong Li & Richard W. Tsien, Influence of synaptic vesicle position on release probability and exocytotic fusion mode. *Science* **335**, 1362-1366 (2012) (# of citation: 51).

Highlighted in *Nature Reviews Neuroscience* **13, 222-223 (2012)**

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5. Paul R. Selvin, Tyler Loughheed, Mindy Tonks Hoffman, **Hyokeun Park**, Hamza Balci, Benjamine H. Blehm & Erdal Toprak. In vitro and in vivo FIONA and other acronyms for watching molecular motors walk, *Single-Molecule Techniques: A Laboratory Manual*, 37-71 (2008) (# of citation: 13)
6. **Hyokeun Park**, Erdal Toprak, & Paul R. Selvin. Single-molecule fluorescence to study molecular motors. *Quarterly Review of Biophysics*, **40**, 87-111, (2007) (# of citation: 63)
7. H. Lee Sweeney, **Hyokeun Park**, Alan B. Zong, Paul R. Selvin, & Steven S. Rosenfeld. How myosin VI coordinates its heads during processive movement. *EMBO J.* **26**, 2682-2692. (2007) (# of citation: 59)
8. **Hyokeun Park**, Anna Li, Li-Qiong Chen, Anne Houdusse, Paul R. Selvin, & H. Lee Sweeney. The unique inset at the end of the myosin VI motor is the sole determinant of directionality. *PNAS USA*, **104**, 778-783 (2007) (# of citation: 71)
9. **Hyokeun Park**, Bugs Ramamurthy, Dan Safer, Mirko Travaglia, Li-Qiong Chen, Clara Franzini-Armstrong, Paul R. Selvin & H. Lee Sweeney. Full-length myosin VI dimerizes and moves processively along actin filaments upon monomer clustering. *Mol. Cell*, **21**, 331-336 (2006) (# of citation: 112)

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10. **Hyokeun Park**, George Hanson, Steven Duff & Paul R. Selvin. Nanometer localization of single ReAsH molecules. *J Microsc*, **216**, 199-205 (2004) (# of citation: 28)
11. Ahmet Yildiz*, **Hyokeun Park***, Dan Safer, Zhaohui Yang, Li-Qiong Chen, Paul R. Selvin & H. Lee Sweeney. Myosin VI steps via a hand-over-hand mechanism with its lever arm undergoing fluctuations when attached to actin. *J. Biol. Chem.*, 279, 37223-37226 (2004). (* - Equal contribution) (# of citation: 160)

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12. Jeong Hyun Kim, Jae Kyu Song, **Hyokeun Park**, Sang Hak Lee, Sang Yun Han, & Seong Keun Kim. Photoelectron Spectroscopy of s-Triazine Anion Clusters: Polarization-induced Electron Binding in Aza-aromatic Molecule, *J. Chem. Phys.*, **119**, 4320-4327(2003) (# of citation: 9)

Section B – Others (Manuscript in submission)

1. Chenglong Yu*, Sidong Chen*, Min Zhang, Li Rong, Xianan Qin, & **Hyokeun Park**, Increased neurotransmission and presynaptic Ca²⁺ influx in cortical neurons in a Huntington's disease mouse model (In submission)

Presentations

Abnormal release of neurotransmitter and Ca²⁺ influx in presynaptic terminals in cortical neurons of a Huntington's disease mouse(Q175) model, EPFL, Lausanne, Swiss, 30 Aug 2017

Abnormal release of neurotransmitter and Ca²⁺ influx in presynaptic terminals in cortical neurons of a Huntington's disease mouse model, Seoul National University, Seoul, Korea, 20 Jul 2017

Observation of Dynamic Heterogeneity of Orai and STIM molecules before and after Store-Operated Ca²⁺ Entry, The 20th Conference of the Physical Society of Hong Kong, 16 Jun 2017

Altered Exocytosis of Synaptic Vesicles in Huntington's Disease studied with Real-time Imaging of Single Presynaptic Terminals, State Key lab meeting, Shanghai, China, 15 Dec 2016

Alteration in exocytosis of synaptic vesicles in a Q175 knock-in mouse model of Huntington disease, Pohang University of Science and Technology, Pohang, Korea, 10 Aug 2016

Relation of Vesicle Positioning to Pool Identity and Exocytotic Fusion Mode: Insight from Real-time Three-dimensional Tracking of Single Synaptic Vesicles in Live Neurons
39th Annual meeting of Japanese neuroscience meeting, Yokohama, Japan, 22 Jul 2016

Relationship of Vesicle Positioning to Pool Identity and Exocytotic Fusion Mode: Insight from Real-time Three-dimensional, Nanometer-Accuracy Tracking of Single Synaptic Vesicles in Live Hippocampal Neurons, National University of Singapore, Singapore, 10 May 2016

Synaptic Dysfunction in a Huntington's disease, Annual Scientific Conference of the Hong Kong Society of Neurosciences, Hong Kong, 18 May 2016

Excitotoxicity caused by mutant Huntingtin protein in knock-in mouse model of Huntington's disease and stem cell from human patients, Chinese Huntington's Disease Network Conference, Beijing, China, 06 May 2016

Real-time Three-dimensional, Nanometer-Accuracy Tracking of Single Synaptic Vesicles in Live Hippocampal Neurons, Department of Biomedical Engineering at the Hong Kong Polytechnic University, Hong Kong, 24 Feb 2016