Seung Hyun Ryu

Graduate Student, Interdisciplinary Program in Neuroscience
Seoul National University

CONTACT INFORMATION

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EDUCATION

2021 - 2023 M.S. in Interdisciplinary Program in Neuroscience,
Seoul National University (Advisor: Dr. Sunghoe Chang)

2016 - 2020 B.E. in Department of Control and Instrumentation Engineering and
Department of Biomedical Engineering (double major), Korea University

PROFESSIONAL EXPERIENCE

2021 - 2023 ***Graduate student***, Interdisciplinary Program in Neuroscience M.S. Program,
Seoul National University

2020 - 2021 ***Researcher***, Department of Physiology and Biomedical Sciences,
Seoul National University College of Medicine

HONORS & AWARDS

2022 - 2023 Research Grant of Basic Science Research Program,
Seoul National University

2018 Poster Award, Annual Capstone Design Conference, Korea University
(Poster: Image Based Doorlock System)

2017 Poster Award, Annual Academic Conference on Electro-Mechanical
Systems Engineering, Korea University
(Poster: Self Healthcare Device Using EOG Measurement)

2016 Poster Award, Annual Academic Conference on Control and Instrumentation
Engineering, Korea University
(Poster: Sound Activated Multi Color LED Cube)

2016 Academic Excellence Award, Korea University

PUBLICATIONS

3. Lee YH, Suh BK, Lee U, Ryu SH, Shin SR, Chang S, Park SK, Chung KC. DYRK3 phosphorylates SNAPIN to regulate axonal retrograde transport and neurotransmitter release. *Cell Death Discov*. 8, 503 (2022).

2. Lee U, Ryu SH, Chang S. SCAMP5 mediates activity-dependent enhancement of NHE6 recruitment to synaptic vesicles during synaptic plasticity. *Mol Brain*. 14(1):47 (2021).

1. Lee U, Choi C, Ryu SH, Park D, Lee S-E, Kim K, Kim Y, Chang S. SCAMP5 plays a critical role in axonal trafficking and synaptic localization of NHE6 to adjust quantal size at glutamatergic synapses. *Proc Natl Acad Sci U S A.* 118(82):1–81 (2021).

POSTER PRESENTATIONS

4. Lee U, Ryu SH, Lee J, Chang S. Presynaptic localization of ATG-9 is regulated by

SCAMP5 associated with AP-4 complex.
The Federation of European Neuroscience Societies Forum 2022. July 9th, 2022
3. **Ryu SH**, Lee U, Lee J, Kim K, Chang S. TurboID-based proximity labelling reveals different interaction proteomes between SCAMP5 WT and G180W mutant
The 25th Annual Meeting of the Korean Society for Brain and Neural Sciences. May 19th, 2022
2. Lee U, Ryu SH, Lee J, Chang S. Presynaptic localization of ATG-9 for presynaptic autophagy is regulated by the interaction between SCAMP5 and AP-4 complex.
The 25th Annual Meeting of the Korean Society for Brain and Neural Sciences. May 19th, 2022
1. Lee U, Ryu SH, Chang S. SCAMP5 mediates activity-dependent enhancement of NHE6 recruitment to synaptic vesicles during synaptic plasticity.
The 24th Annual Meeting of the Korean Society for Brain and Neural Sciences. May 20th, 2021

TEACHING

2022 *Teaching Assistant.* Principles of Neuroscience 2, Seoul National University
2022 *Teaching Assistant.* Seminars in Neuroscience 2, Seoul National University
2022 *Teaching Assistant.* Principles of Neuroscience 1, Seoul National University
2022 *Teaching Assistant.* Seminars in Neuroscience 1, Seoul National University
2017 *Teaching Assistant.* General Physics, Korea University