Wooyeon Shin

Contact

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Education

2017 ~ present | **Integrated MS/PhD student in the program of Brain and Cognitive Engineering**
Korea Advanced Institute of Science and Technology (KAIST), Daejeon, South Korea
(Prof. Se-bum Paik)

2017 | **B.S., Major in Biological science, Minor in Computer science**
Korea Advanced Institute of Science and Technology (KAIST), Daejeon, South Korea

Research Experiences

2017.09 ~ present | **Research Trainee**
Center for Brain Disorders, Brain Science Institute, Korea Institute of Science and Technology (KIST), Seoul, South Korea (Dr. Jeongjin Kim)

2017.03 ~ 2017.08 | **Internship**
Center for neuroscience, Korea Institute of Science and Technology (KIST), Seoul, South Korea (Dr. Jeongjin Kim)

2016.03 ~ 2016.06 | **Graduate research program**
Cellular and Developmental Biology laboratory, Dept. of Biological sciences, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, South Korea (Prof. Kyung Ok Cho)

2014.12 ~ 2015.02 | **Individual research program**
Behavioral Genetics laboratory, Dept. of Biological sciences, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, South Korea (Prof. Daesoo Kim)

Honors & Awards

Best Poster Award
Miami Winter Symposium 2023-Molecular Neuroscience: Focus on Sensory Disorders, 2023. 01.

National Science and Engineering Undergraduate Scholarship
Full tuition scholarship for academic excellence, 2015 fall

KAIST Support Scholarship (Merit-Based)
Full tuition scholarship for academic excellence, 7 semesters in 2012-2016

Publications

(*, co-first authors)

1. Shin, A.*, Park, S*, Shin, W.*, Woo, J, Jeong, M., Kim, J.†, and Kim, D.†, “A brainstem-to-mediodorsal thalamic pathway mediates arousal from slow-wave sleep”, *Current Biology*, 2023

   **Nature* & *Nature Review Neuroscience* research highlight

2. Park, G.*, Shin, W.*, Park, Y., Chung, S., Kim, D., & Kim, J., “Neural correlates of multidimensional motor outputs in an excitatory parafascicular-zona incerta circuit”, *Biochemical and Biophysical Research Communications*, vol. 591, pp. 102-109., 2022

3. Martisishevskam, I.*, Kim, H.J.*, Song, B., Steshenko, Y., Lee S.E., Jeong, Y., Yang, E., Shin, W., Park, H., Park, G., Kim, H., Lee, C., Kim, C.H., Oh, U., Kim, J., 2022 *Submitted*

Patents

1. 김정진, 김혜진, 율리아 스테첸코, 전세진, 박현수, 신우연, 자폐 스펙트럼 장애의 치료방법, 자폐 스펙트럼 장애 모니터링용 마우스, 및 자폐 스펙트럼 장애 예방 또는 치료용 후보물질의 스크리닝 방법, 특허등록 번호 10-2018-0138603, (Application, 2019-11-13/2018-11-13/Enrolled, 2022-06-20)

Posters

1. Shin, W., Park, G., Jung, D., Kim, J., Paik, S., Kim, J., Neural correlates of auditory perceptual decision-making in the mesencephalic locomotor region, Poster presented at: 2023 Miami Winter Symposium; January 2023; Miami, Florida, USA

2. Park, G.*, Shin, W.*, Kim, J., Mobility state maintenance by a novel thalamo-basal ganglia circuit through STN, Poster presented at: 2019 IBRO; September 2019; Daegu, Republic of Korea

3. Shin, W., & Kim, J., Neural mechanisms of motives for exploration in the brainstem, Poster presented at: 2018 Society for neuroscience; November 2018; San Diego, CA, USA