•Field Physiology

•Name Choi, Kyu Hyun

•Title Associate Professor

•Office 3411

•Tel 033-248-2613

•Email kyuhyun@hallym.ac.kr

Educational background

2009-2016 Ph.D. Neuroscience, Department of Life and Nanopharmaceutical Science, Kyung Hee University

2003-2009 B.S. Biology, College of Science, Kyung Hee university

Major careers

2022-2024: Autism spectrum program of excellence (ASPE), Research associate

2021-2024: University of Pennsylvania, Research associate

2016-2021 : University of Pennsylvania, postdoctoral researcher

■ Publications

HCN channel activity-dependent modulation of inhibitory synaptic transmission in the rat basolateral amygdala. Biochemical and Biophysical Research Communications (2011)

Regional differences in acute corticosterone-induced dendritic remodeling in the rat brain and their behavioral consequences. BMC Neuroscience (2014)

Learning-induced synaptic potentiation in implanted neural precursor cell-derived neurons. Scientific Reports (2015)

Promotion of Cortical Neurogenesis from the Neural Stem Cells in the Adult Mouse Subcallosal Zone. STEM CELLS (2016)

Optogenetic activation of septal GABAergic afferents entrains neuronal firing in the medial habenula. Scientific Reports (2016)

Integrated anatomical and physiological mapping of striatal afferent projections. European Journal of

Neuroscience (2019)

Striatal Low-Threshold Spiking Interneurons Regulate Goal-Directed Learning. Neuron (2019)

Auditory fear conditioning facilitates neurotransmitter release at lateral amygdala to basal amygdala synapses. Biochemical and Biophysical Research Communications (2021)

Presynaptic HCN channel activity is required for the expression of long-term potentiation at lateral amygdala to basal amygdala synapses. Biochemical and Biophysical Research Communications (2022)

Distributed processing for action control by prelimbic circuits targeting anterior-posterior dorsal striatal subregions in male mice. Nature Communications (2023)

Infralimbic activity during REM sleep facilitates fear extinction memory. Current Biology. (2024)

Histone variant H2BE enhances chromatin accessibility in neurons to promote synaptic gene expression and long-term memory. Molecular Cell. (2024)

Impaired pain in mice lacking first order posterior medial thalamic neurons. Accepted, Pain. (2024)

Involvement of posterior hypothalamic CaMKII-positive neurons in ADHD-like behaviors in mice. Mol. Brain (2024)