
CURRICULUM VITAE

Jei-Wei Wu, B.S.
National Yang-Ming Chiao Tung University
Institute of Neuroscience
No. 155, Section 2, LiNong Street, Beitou District
Taipei City 112, Taiwan
Work: +886 (02) 2826-7000#66090; Fax: +886 (02) 2821-5307; E-mail: kokingjk@gmail.com

NAME Wu, Jei-Wei		POSITION TITLE PhD student of Neuroscience	
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
National Yang-Ming University, Taiwan	B.S.	2015-2019	Department of Life Science
	R.A.	2019.08-2020.02	Institute of Neuroscience
	M.S.	2020.02-2020.09	
	Ph.D.	2020.09-present	

A. Personal statement.

My study focuses on decoding the circuit of memory in the brain. On behavioral level, the contextual fear memory was enhanced by the activation of hilar commissural pathway (COM) in dentate gyrus (DG). The major corresponding cell type in COM is mossy cells (MC). It is known that MCs provide monosynaptic excitation and feed-forward inhibition to regulate GCs. They comprise of the predominant hilar cell population projecting to the contralateral DG. However, it's still unclear that how the MCs mediate the downstream Hippocampus cells in long term MC manipulation. My study focuses on Investigating how the MCs regulates the activity of downstream Hippocampal cells. In this study, I use optical-tetrode to record different types of neurons in the DG in combination with juxta-cellular recording to study how the MCs play their role in the circuit.

B. Experience.

Undergraduate period

I majored in Life-Science at Yang-Ming University, where the programing immersed into my life. In the sophomore year, I cooperate with Dr. Cheng-Chang Lien and M.S. student Yu-Ting Wei to classify different subtypes of VIP interneurons in the DG by a computational method, which under the supervised of Dr. Kun-Pin Wu. This cooperated project cultured me to have the sense of doing science and sparked me to persuade the further research program.

Research assistant and Master program

To provide different perspectives in data interpretations, I analyze the data from other Ph.D. students Kai-Yi Wang, Wahab Imam Abdulmajeed, and Musa Iyiola Ajibola (under the guidance of Dr. Cheng-Chang Lien and Dr. Chun-Chung Chen). In this stage, I correlated the behavioral performance and neuronal activity. From visualizing the electrophysiological data, I got the chance to appreciate the elegance of doing science and drove me to learn the technique of juxta-cellular recording and tetrode.

C. Peer-reviewed publications (in reversed chronological order).

1. Ajibola MI, **Wu JW**, Abdulmajeed W, Lien CC. Hypothalamic glutamate/GABA co-transmission modulates hippocampal circuits and supports long-term potentiation. *J. Neurosci.* 2021 (Accepted).
2. Wang KY, **Wu JW**, Cheng JK, Chen CC, Wong WY, Averkin RG, Tamás G, Nakazawa K, Lien CC. Elevation of hilar mossy cell activity suppresses hippocampal excitability and avoidance behavior. *Cell Rep.* 2021 (Accepted).
3. Wei YT, **Wu JW**, Yeh CW, Shen HC, Wu KP, Vida Imre, Lien CC. Morpho-physiological properties and connectivity of vasoactive intestinal polypeptide-expressing interneurons in the mouse hippocampal dentate gyrus. *J. Comp. Neurol.* 2021 Jul 1;529(10):2658-2675. doi: 10.1002/cne.25116.