CURRICULUM VITAE

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NAME	POSITION TITLE
Li, Yu-Jui	Research Assistant

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
National Changhua University of Education, Taiwan	B.S.	2017-2021	Biology
National Yang Ming Chiao Tu..'ng University, Taiwan	RA	2021-2021	Neuroscience (Mentor: Cheng-Chang Lien)
National Yang Ming Chiao Tung University, Taiwan	M.S.	2021-2024	Neuroscience (Mentor: Cheng-Chang Lien)

A. Personal statement (Research narrative)

I am interested in understanding the impact of cannabinoid modulation in the hippocampal circuit on cognitive and emotional changes observed in cannabis consumption. Specifically, I investigate how activating cannabinoid receptors on GABAergic interneurons influences information processing within the dentate gyrus. Using *ex vivo* local field recordings and whole-cell patch-clamp recordings in acute mouse brain slices, I dissect the circuit's input-output transformations and uncover the mechanisms underlying cannabinoid-induced effects. To isolate the distinct contributions of these key cell types, I employ a pharmacologic approach and integrate it with chemogenetic and optogenetic tools. Furthermore, I characterize the morpho-physiological diversity of these interneurons, and aim to establish correlations between their unique properties, circuit activity, and observed behavioral changes. This comprehensive approach ultimately aims to elucidate the neurocircuitry basis of cannabis-induced cognitive and emotional alterations.

B. SKILLS

1. *ex vivo* electrophysiology

2. Stereotaxic surgery, perfusion, cryosection

3. Immunohistochemistry

4. Two-photon and confocal microscopy

5. Morphological reconstruction

6. Animal behavior test

7. Animal management and genotyping

C. PUBLICATIONS & CONFERENCE ABSTRACTS

Huang TH, Lin YS, Hsiao CW, Wang LY, Ajibola MI, Abdulmajeed W, Lin YL, **Li YJ**, Chen CY, Lien CC, Chiu CD, Cheng HJ. Differential expression of GABAA receptor subunits δ and α6 mediates tonic inhibition in parvalbumin and somatostatin interneurons in the mouse hippocampus. ***Frontiers in Cellular Neuroscience.*** 2023 July 20. doi:10.3389/fncel.2023.1146278. (2022 IF: 5.3; R/C: 62/272 in Neurosciences)

Devina T, Wong YH, Hsiao CW, **Li YJ**, Lien CC, Cheng HJ. Endoplasmic reticulum stress induces Alzheimer disease-like phenotypes in the neuron derived from the induced pluripotent stem cell with D678H mutation on amyloid precursor protein. ***Journal of Neurochemistry.*** 2022 August 09. doi: 10.1111/jnc.15687. (2022 IF: 4.7; R/C: 85/272 in Neurosciences)

Li YJ, Abdulmajeed W, Lin YL, Yeh CW, Ajibola MI and Lien CC. On morpho-physiological features, circuit, and behavioral functions of cholecystokinin-expressing interneurons in the mouse dentate gyrus. Poster session presented at the 2023 GRC on Inhibition in the CNS, Les Diablerets, Switzerland (2023)

Li YJ, Yeh CW, Lien CC. Circuit mechanisms underlying CB1R mediated suppression of dentate granule cell recruitment by cortical input. Poster session presented at the 2022 EMBO Neural Development and Neurodegeneration Workshop, Taipei, Taiwan (2022).

D. HONORS AND ACADEMIC ACTIVITIES

2021 **College Student Research Creativity Award**

Ministry of Science and Technology (MOST), Taiwan.

2020 **Excellence Award**

Oral Presentation at Summer Internship of Neuroscience Program of Academia Sinica (NPAS), Taiwan

2020 **College Student Research Scholarship**

Ministry of Science and Technology (MOST), Taiwan.

2023 Host the visiting scholar, Dr. Claudia Schmuckermair, Department of Pharmacology, Medical University of Innsbruck, Austria.

2023 Poster session presented at the 2023 GRC on Inhibition in the CNS, Les Diablerets, Switzerland

2023 Helping *ex vivo* electrophysiology experiment at the Department of Pharmacology, Medical University of Innsbruck, Austria

2022 Poster session presented at the 2022 EMBO Neural Development and Neurodegeneration Workshop, Taipei, Taiwan