



長庚大學
CHANG GUNG UNIVERSITY

生物醫學研究所

Graduate Institute of Biomedical Sciences

博士學位論文口試

Doctoral Oral Defence Seminar

Speaker：張軒嘉

博士候選人

Hsuan-Chia Chang

Ph.D. Candidate

Host：郭敏玲 (Ming-Ling Kuo) 教授

Advisor：譚賢明 (Bertrand Tan) 教授

楊皇煜 (Huang-Yu Yang) 教授

Title：Asparagine deprivation enhances cytotoxic
T cell antitumor activity and immune
checkpoint inhibitor therapy by affecting
metabolic reprogramming

Time：2025/06/05

Place：0856生醫所會議室

※※※ 歡迎參加 Welcome ※※※

生物醫學研究所

Graduate Institute of
BioMedical Sciences

CURRICULUM VITAE

Name : 張軒嘉 (英文 : Hsuan-Chia Chang)

Education :

PhD in Biomedical Sciences

Chang Gung University (CGU), 2020–present

Dissertation: Asparagine Deprivation Enhances T Cell Anti-Tumor Response in Patients via ROS-Mediated Metabolic and Signal Adaptations

Advisor: Dr. Bertrand Tan and Dr. Huang-Yu Yang

Master of Science in Life Sciences

National Central University, 2015–2017

Dissertation: To investigate the physiological roles of PGC-1 α and Bhlhe40 interaction in muscle cells

Advisor: Dr. Shen-Liang Chen

Publication :

1. Chang HC, et al. Asparagine deprivation enhances T cell antitumour response in patients via ROS-mediated metabolic and signal adaptations. *Nature Metabolism*, 2025. (co-first author)
2. Chen YH, Wu YJ, Chen WC, Lee TS, Tsou TC, Chang HC, et al. MEHP interferes with mitochondrial functions and homeostasis in skeletal muscle cells. *Bioscience Reports*, 2020.

3. Su CY, Yan RL, Hsu WH, Chu CT, Chang HC, et al. Phosphorylation of adducin-1 by cyclin-dependent kinase 5 is important for epidermal growth factor-induced cell migration. *Scientific Reports*, 2019.
4. Yang CY, Chang PW, Hsu WH, Chang HC, et al. Src and SHP2 coordinately regulate the dynamics and organization of vimentin filaments during cell migration. *Oncogene*, 2019.
5. Chang HC, Kao CH, Chung SY, Chen WC, et al. Bhlhe40 differentially regulates the function and number of peroxisomes and mitochondria in myogenic cells. *Redox Biology*, 2019. (co-first author)
6. Chung SY, Kao CH, Villarroya F, Chang HC, et al. Bhlhe40 represses PGC-1 α activity on metabolic gene promoters in myogenic cells. *Molecular and Cellular Biology*, 2015.
7. Pan YC, Wang XW, Teng HF, Wu YJ, Chang HC, et al. Wnt3a signal pathways activate MyoD expression by targeting cis-elements inside and outside its distal enhancer. *Bioscience Reports*, 2015.

Posters:

1. Asparagine Deprivation Enhances CD8+ T Cell Antitumor Activity and ICB Immunotherapy via ROS-Mediated NFAT Nuclear Localization, AACR Annual Meeting, March 22, 2024

Oral presentation :

1. Asparagine Deprivation Enhances CD8+ T Cell Antitumor Activity and ICB Immunotherapy via ROS-Mediated NFAT Nuclear Localization, FISMA 2024

2. Same title, 39th Annual Biomedical Science Joint Conference, 2025

Awarded Outstanding Presentation Award (PhD Category) by the Taiwan Society of Immunology

Awards :

1. Outstanding Oral Presentation Award, Taiwan Society of Immunology, 2025
2. MOST PhD Scholarship (2021–2025)