Chun-Che Hung

hung.ch@ufl.edu | Phone: 201-484-6569

https://orcid.org/0009-0004-1856-0652

Education

Ph.D., Psychology   Aug. 2024

Specialization: Developmental Psychology

University of Florida (UF), Gainesville, FL, USA

Ph.D., Psychology   Aug. 2023 – present

Specialization: Cognitive and Brain Sciences

University of Alabama (UA), Tuscaloosa, AL, USA

M.S., Behavioral Sciences   2022

Chang Gung University (CGU), Taoyuan, Taiwan

> *Thesis: Gut microbiota changes in patients with mild cognitive impairment due to Alzheimer's disease and their relations with white matter integrity*

B.S., Occupational Therapy   2020

Chung Shan Medical University (CSMU), Taichung, Taiwan

Medical Licensure & Certification

Occupational Therapy Licensure, Ministry of Health and Welfare, Taipei, Taiwan   Sep. 2020 – present

Honors & Awards

- Graduate Student Opportunity Award (total value: $100,000), UF   2024 – 2028
- Graduate Council Fellowship (total value: $54,492), UA   2023 – 2024
- Award for Outstanding Research Performance (ranked top 5% in university), CSMU   Spring 2020
- Honorable Mention Award (3rd place in poster presentation), TOTA   Nov. 2019
- Award for Outstanding Research Performance (ranked top 5% in university), CSMU   Fall 2019
- Award for Outstanding Research Performance (ranked top 5% in university), CSMU   Spring 2019
- High Distinction Award (1st place in poster presentation), TOTA   Nov. 2018

Publications

1. **Hung, C.C.**, Li, Y.C., Tsai, Y.C. & Cheng, C.H. (Under Review). Aberrant error monitoring in traumatic brain injuries: A meta-analysis of event-related potential studies. *International Journal of Psychophysiology*.

2. **Hung, C.C.**, Hsiao, F.J., Wang, P.N., & Cheng, C.H. (In Revision). Disconnection of alpha oscillations within default mode network associated with delayed memory dysfunction in amnestic MCI. *Clinical Neurophysiology*.

3. **Hung, C. C.**, Chao, Y. P., Lee, Y., Huang, C. W., Huang, S. H., Chang, C. C., & Cheng, C. H. (2023). Cingulate white matter mediates the effects of fecal Ruminococcus on neuropsychiatric symptoms in

patients with amyloid-positive amnestic mild cognitive impairment. *BMC geriatrics, 23*(1), 720. (Impact factor: 4.1, Ranking: Q1 in Gerontology)

4. Cheng, C. H., **Hung, C. C.**, Chao, Y. P., Nouchi, R., & Wang, P. N. (2023). Subjective cognitive decline exhibits alterations of resting-state phase-amplitude coupling in precuneus. *Clinical neurophysiology : official journal of the International Federation of Clinical Neurophysiology, 156*, 281–289. (Impact factor: 4.7, Ranking: Q1 in Clinical Neurology)

5. **Hung, C. C.**, Crowe-White, K. M., & McDonough, I. M. (2023). A seed and soil model of gut dysbiosis in Alzheimer's disease. [Editorial] *Aging, 15*(12), 5235–5237. (Impact factor: 5.955, Ranking: Q2 in Geriatrics & Gerontology)

6. **Hung, C.C.**, Chang, C.C., Huang, C.W., Nouchi, R., & Cheng, C.H. (2022). Gut microbiota in patients with Alzheimer's disease spectrum: a systematic review and meta-analysis. *Aging, 14*(1), 477–496. (Impact factor: 5.682, Ranking: Q1 in Geriatrics & Gerontology)

Presentations

1. *Effects of ball throwing strategies on weight shift and stability for patients with stroke*. Poster presented at the 38th Annual Congress of the Taiwan Occupational Therapy Association (TOTA), Taipei, Taiwan; Nov. 2019.

2. *Effect of whole-body vibration for patients with neurodegenerative disease: A systematic review and meta-analysis*. Poster presented at the Annual Congress of the Occupational Therapists Union of The Republic of China, Taichung, Taiwan; Jun. 2019.

3. *Image software QTRODAT for automatic analysis of Tc-99m Trodat-1 SPECT to assess Parkinson's disease: A practical validation*. Poster presented at the 37th Annual Congress of the TOTA, Kaohsiung, Taiwan; Nov. 2018.

Related Skills

•   Neuroimaging analysis: Explore DTI, Pipeline for Analyzing braiN Diffusion imAges (PANDA), Computational Anatomy Toolbox, SPM, AFNI, CONN, FreeSurfer
•   Electrophysiological analysis: BrainVision Analyzer, Brainstorm, BrainVISA
•   Programming language: MATLAB, Python, R
•   Statistical analysis: SPSS, Stata
•   Meta-analysis: Comprehensive Meta-Analysis software, GingerALE

Research Experiences

Doctoral Student Aug. 2023 – present
Cognitive Neuroimaging Lab Jan. 2024 – present
Principal Investigator: Sharlene Newman, Ph.D.
Department of Psychology, UA
-   Project: *The role of traumatic brain injury and psychosocial stress in cognitive aging*.
    ▪   **Responsibilities** include analyzing magnetic resonance imaging data, communicating with research collaborators, and writing research papers.

Cognition, Brain & Autism Lab   Aug. 2023 – Dec. 2023

Principal Investigator: Rajesh Kana, Ph.D.

Department of Psychology, UA

- Project: *The differences of language and reading networks between autistic children and typically developing controls using data from the Autism Brain Imaging Data Exchange.*
  - **Responsibilities** included analyzing resting-state functional magnetic resonance imaging data and writing research papers.
- Project: *Activation likelihood estimation meta-analysis of facial emotion perception in autism.*
  - **Responsibilities** included assisting with teaching a lab member to perform meta-analysis and writing research papers.

Research Assistant   Sep. 2022 – Jul. 2023

Laboratory of Brain Imaging and Neural Dynamics

Principal Investigator: Chia-Hsiung Cheng, Ph.D.

Department of Occupational Therapy, CGU

- Project: *The effects of gut dysbiosis on gray matter volume and cognitive performance in patients with Alzheimer's disease continuum.*
  - **Responsibilities** included analyzing structural magnetic resonance imaging data, communicating with research collaborators, and writing research papers.
- Project: *The association of default mode network connectivity with episodic memory performance in amnestic mild cognitive impairment.*
  - **Responsibilities** included analyzing magnetoencephalographic data, communicating with research collaborators, and writing research papers.

Master's Student   Sep. 2020 – Jul. 2022

Laboratory of Brain Imaging and Neural Dynamics

Principal Investigator: Chia-Hsiung Cheng, Ph.D.

Graduate Institute of Behavioral Sciences, CGU

- Project: *The effects of gut dysbiosis on white matter integrity and cognitive performance/ neuropsychiatric symptoms in patients with amyloid-positive amnestic mild cognitive impairment.*
  - **Responsibilities** included assisting with writing grant proposals (successfully received 34,000 USD), scoring psychological measuring, analyzing diffusion tensor imaging data, gut microbial data analysis, and identifying novel research findings with elaborate data interpretation and presentation.

Teaching Experiences

- Teaching Assistant for Biology Laboratory, CGU   Spring 2022
- Teaching Assistant for Practical Anatomy, CGU   Spring 2021
- Teaching Assistant for Introduction to Occupational Therapy, CGU   Fall 2020