

## BIOGRAPHICAL SKETCH



**Name:** Yi-Jen Wu 吳怡真

**Position & Affiliation:** Assistant Professor, Institute of Clinical Medicine, National Cheng Kung University. **Attending Neurologist**, Department of Neurology, National Cheng Kung University Hospital.

**Email:** [wuyj@mail.ncku.edu.tw](mailto:wuyj@mail.ncku.edu.tw), **Website:** <http://wuyj.weebly.com/>

**Contact Information:** Institute of Clinical Medicine, College of Medicine, National Cheng Kung University, No. 35, Xiaodong Rd., Tainan 70457, Taiwan.

### Education

B.S., Occupational Therapy, National Taiwan University

M.D., Medicine, Kaohsiung Medical University

Ph.D., Institute of Clinical Medicine, National Cheng Kung University

### Clinical Specialty & Research Interests

Epilepsy, Neurology

Brain Stimulation, Neuroelectrophysiology, Cognitive Neuroscience, Neuronal Excitability, Seizure & Epileptology.

### Personal Statement

I am a physician scientist with clinical subspecialty in epilepsy and research interest in neuromodulation and neuroelectrophysiology. Our lab has been devoted to investigating the electrophysiological underpinnings how neuromodulation affects the brain electrophysiology by means of electric, optogenetic and ultrasound stimulations, particularly for the brain disorders with aberrant hyperexcitability such as seizures and epilepsy.

### Clinical Training/ Appointment

2014-Present Attending Neurologist, Dept. Neurology, National Cheng Kung University Hospital

2012-2015 Attending Neurologist, Div. Neurology, National Cheng Kung University Hospital, Dou-Liou Branch, Taiwan

2011-2012 Fellow, Dept. Neurology, National Cheng Kung University Hospital, Taiwan

2007-2011 Resident, Dept. Neurology, National Cheng Kung University Hospital, Taiwan

### Academic Training/ Appointment

2020/2-Present Assistant Professor, Institute of Clinical Medicine, College of Medicine, National Cheng Kung University, Taiwan

2018/2-2020/2 Clinical Assistant Professor of Neurology, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University

2019/3-5 Visiting Assistant Professor, Department of Biomedical Engineering, Case Western Reserve University, Cleveland, USA

2012-2013 Visiting Research Member, Sobell Department of Motor Neuroscience and Movement Disorders, Institute of Neurology, UCL, Queen Square, London, UK

2011-2012 Visiting Research Member, Institute of Cognitive Neuroscience, National Central University

## Awards and Honors

- 2022 Taiwan Epilepsy Society Research Paper Honorable Mention Award 癲癇學會論文獎
- 2021 Innovative Research and Development Awards for Young Scholars, Honorable Mention Award, Taiwan Comprehensive University System 臺灣綜合大學系統年輕學者創新研發成果選拔佳作
- 2021 Taiwan Epilepsy Society Research Paper Honorable Mention Award 癲癇學會論文獎
- 2021 NCKU Medical College Teaching Innovativeness Honorable Mention Award 成大醫學院教學創新團體佳作
- 2019 Ministry of Science and Technology Research Grant 科技部優秀年輕學者研究計畫
- 2018 Academic Paper Award, Cheng-Hsing Medical Foundation 成杏優秀論文獎
- 2017 The Phi Tau Phi Scholastic Honor Society Honorary Membership
- 2017 Ph.D. Dissertation Competition Award of Medical College, National Cheng Kung University
- 2017 National Cheng Kung University Hospital Research Project Competition Award (First Prize)
- 2016 Poster Award, Annual Conference of Taiwan Neurological Society
- 2016 National Cheng Kung University Hospital Research Project Competition Award (Clinical/Basic Research, 2016 First Prize, 2015 Second Prize)
- 2016 Ministry of Science and Technology Research Grant, 科技部傑出學者養成計畫
- 2015 Poster Award, Annual Conference of Taiwan Neurological Society
- 2015 International Conference Travel Fellowship Award, TIGP INS, Neuroscience Program in Academia Sinica (NPAS)

## Publications (\*corresponding author)

1. Yi-Ting Fang, Tsung-Lin Lee, Yi-Hsien Tu, Sheng-Hsiang Lin, Miao-Er Chien, Chin-Wei Huang, Kuei-Sen Hsu, **Yi-Jen Wu**\* (2022, May, Accepted). Factors associated with mortality in patients with super-refractory status epilepticus. **Scientific Reports**. (IF 4.38, SCI, Multidisciplinary Sciences 17/72, 77.08%)
2. **Yi-Jen Wu**\*, Miao-Er Chien, Chia-Chu Chiang, Ying-Zu Huang, Dominique M Durand, Kuei-Sen Hsu\* (2021, Jul-Aug). Delta oscillation underlies the interictal spike changes after repeated transcranial direct current stimulation in a rat model of chronic seizures. **Brain Stimulation**, 14(4): 771-779. (IF 8.955, SCI, Clinical Neurology 13/208, 93.99%; Neurosciences 19/273, 93.22%)
3. **Yi-Jen Wu**\*, Miao-Er Chien, Chih-Hsu Huang, Chia-Chu Chiang, Chou-Ching Lin, Chin-Wei Huang, Dominique M Durand, Kuei-Sen Hsu\*(2020 Jun). Transcranial direct current stimulation alleviates seizure severity in kainic acid-induced status epilepticus rats. **Experimental Neurology**, 328:113264. (IF 5.33, SCI, Neurosciences 70/273, 74.54%)
4. Ting-Hsuan Yu, **Yi-Jen Wu**, Miao-Er Chien, Kuei-Sen Hsu\* (2019, Jan). Transcranial direct current stimulation induces hippocampal metaplasticity mediated by brain-derived neurotrophic factor. **Neuropharmacology**, 144:358-367. (IF 5.251, SCI, Pharmacology & Pharmacy 54/276, 80.62%; Neurosciences 72/273, 73.81%)
5. Han-Wei Huang, Jing-Jane Tsai, Pei-Fang Su, Yu-Lin Mau, **Yi-Jen Wu**, Wen-Chi Wang, Chou-Ching K Lin\*(2020, Apr). Cortical Excitability by Transcranial Magnetic Stimulation as Biomarkers for Seizure Controllability in Temporal Lobe Epilepsy, **Neuromodulation**, 23(3): 399-406. (IF 4.722, SCI, Clinical Neurology 54/208, 74.28%)

6. Ming-Chi Lai, Te-Yu Hung, Kao-Min Lin, Pi-Shan Sung, Shyh-Jong Wu, Chih-Sheng Yang, **Yi-Jen Wu**, Jing-Jane Tsai, Sheng-Nan Wu\*, Chin-Wei Huang\* (2018, Jul). Sodium Metabisulfite: Effects on Ionic Currents and Excitotoxicity. **Neurotoxicity Research**, 34(1):1-15. (IF 3.911, SCI, Neurosciences 123/273, 55.13%)
7. **Yi-Jen Wu**, Chou-Ching Lin, Che-Ming Yeh, Miao-Er Chien, Ming-Chung Tsao, Philip Tseng, Chin-Wei Huang, Kuei-Sen Hsu\* (2017, Nov). Repeated transcranial direct current stimulation improves cognitive dysfunction and synaptic plasticity deficit in the prefrontal cortex of streptozotocin-induced diabetic rats. **Brain Stimulation**, 10(6):1079-1087. (IF 8.955, SCI, Clinical Neurology 13/208, 93.99%; Neurosciences 19/273, 93.22%).
8. **Yi-Jen Wu**, Philip Tseng, Han-Wei Huang, Jon-Fan Hu, Chi-Hung Juan, Kuei-Sen Hsu, Chou-Ching Lin\* (2016, Sep). The Facilitative Effect of Transcranial Direct Current Stimulation on Visuospatial Working Memory in Patients with Diabetic Polyneuropathy: A Pre– post Sham-Controlled Study. **Frontiers in Human Neuroscience**, 2016;10:479- 489. (IF 3.169, SCI, Psychology 27/77, 65.58%).
9. Ming-Chi Lai, Kao-Min Lin, Jing-Jane Tsai, **Yi-Jen Wu**, Chin-Wei Huang \*. (2016, Dec). Dupuytren’s contracture: subacute onset after long-term antiepileptic drug use. **Neuropsychiatry**, 6(6), 366-368. (IF 1.456)
10. **Yi-Jen Wu**, Philip Tseng, Chi-Fu Chang, Ming-Chyi Pai, Kuei-Sen Hsu, Chou-Ching Lin\*, Chi-Hung Juan\* (2014, Nov). Modulating the interference effect on spatial working memory by applying transcranial direct current stimulation over the right dorsolateral prefrontal cortex. **Brain and Cognition**, 91:87-94. (IF 2.310, SCI, Psychology, Experimental 51/91, 44.51%).
11. **Yi-Jen Wu**, Chou-Ching Lin\* (2013, Feb). Cold-induced eyelid myotonia. **Neurology**, 80(8):e81. (IF 9.910, SCI, Clinical Neurology 12/208, 94.47%).
12. Julie Chi Chow, Chin-Wei Huang\*, Chen-Wen Fang, **Yi-Jen Wu**, Jing-Jane Tsai (2013, Jan). Lamotrigine induced hypersensitivity syndrome in a Han Chinese patient with the HLAB\*5801 genotype. **Neurological Sciences**, 34(1):117-9. (IF 3.307, SCI, Clinical Neurology 103/208, 50.72%).
13. **Yi-Jen Wu**, Ming-Chyi\* (2012, Jul). Two gloves and one sock syndrome after a pontine hemorrhage. **Neurologist**, 18(4):196-8. (IF 1.398, SCI, Clinical Neurology 190/208, 8.89%).
14. **Yi-Jen Wu**, Tzu-Tung Tsai, Chin-Wei Huang\* (2011, Sep). Conjugate eye deviation shifting in hemispheric stroke indicates an emerging mass effect. **Journal of Clinical Neuroscience**, 18(9):1276-8. (IF 1.961, SCI, Clinical Neurology 167/208, 19.95%).
15. Cheng-Yang Hsieh, Nan-Jin Chiou, **Yi-Jen Wu**, Jing-Jane Tsai, Chin-Wei Huang\* (2011, Apr). Somatosensory rub evoked reflex epilepsy of a temporal lobe origin. **Neurological Sciences**, 32(2):297-9. (IF 3.307, SCI, Clinical Neurology 103/208, 50.72%).
16. Chin-Wei Huang, **Yi-Jen Wu**, Sheng-Nan Wu\* (2011, Mar). Modification of activation kinetics of delayed rectifier K<sup>+</sup> currents and neuronal excitability by methyl- $\beta$ -cyclodextrin. **Neuroscience**, 176:431-41. (IF 3.590, SCI, Neurosciences 141/273, 48.53%).
17. **Yi-Jen Wu**, Ming-Chi Lai, Chin-Wei Huang\* (2010, Dec). Reversible postvaccination paraneoplastic encephalomyelitis in a patient with lung adenocarcinoma. **International Journal of Neuroscience**, 120(12):792-5. (IF 2.292, SCI, Neurosciences 219/273, 19.96%).
18. **Yi-Jen Wu**, Jing-Jane Tsai, Chin-Wei Huang\* (2010, Nov). Nonketotic hyperglycemia-related reflex epileptic seizures induced by Mah-Jong playing. **Epilepsy & Behavior**, 19(3):533-5. (IF 2.937, SCI, Behavioral Sciences 26/53, 51.89%)

## **Journal and Grant Reviewer**

- Journal Review Editor: Frontiers in Integrative Neuroscience
- Journal Review: Journal of Biomedical Science, Experimental Neurology, Scientific Reports, Frontiers in Neuroscience, Frontiers in Human Neuroscience, Journal of Medical and Biological Engineering
- Grant Proposal Review: Ministry of Science and Technology (MOST) Taiwan, Veterans General Hospitals and University System of Taiwan Joint Research Program, NYMCTU&FEMH Joint Research Program, National Cheng Kung University Hospital Research Grants.

## **Grant Support**

- 2015-2016 National Cheng Kung University Hospital (NCKUH-10408016, PI)
- 2015-2016 Ministry of Science and Technology, Taiwan (MOST-104-2314-B-006-006, PI)
- 2016-2017 National Cheng Kung University Hospital (NCKUH-10507024, PI)
- 2016-2018 Ministry of Science and Technology, Taiwan (MOST-105-2628-B-006-009-MY2, PI)
- 2017-2018 National Cheng Kung University Hospital (NCKUH-10602005, PI)
- 2018-2019 Ministry of Science and Technology, Taiwan (MOST-107-2314-B-006-052, PI)
- 2018-2019 Ministry of Science and Technology, Taiwan (MOST- 108-2918-I-006-005, PI)  
科技部補助科學與技術人員國外短期研究/ BME, CWRU, USA
- 2019-2020 National Cheng Kung University Hospital (NCKUH-10802012, PI)
- 2019-2022 Ministry of Science and Technology, Taiwan (MOST-108-2628-B-006 -011, PI)