**醫師研究員介紹**

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**Profile**

Dr Meng-Han Tsai is currently a Professor and the Director of the Department of Medical Research and the Genomics & Proteomics Core Laboratory of Kaohsiung Chang Gung Memorial Hospital. He is also the Director of the Department of Neurology of Kaohsiung Chang Gung Memorial Hospital. He also served as a board member of Taiwan Epilepsy Society, Taiwan Rare Neurological Disorder Society and the current President of the Kaohsiung Epilepsy Association.

Dr Tsai acquired his medical degree (MD) at Kaohsiung Medical University in 2003, and received neurology training at the Department of Neurology of Kaohsiung Chang Gung Memorial Hospital. In 2009, Dr. Tsai joined the research team at the Epilepsy Research Center and Florey Institute of Neuroscience and Mental Health, Melbourne, Australia. He obtained his PhD degree at the University of Melbourne, Australia, under the supervision of two distinguished professors, Prof. Samuel F. Berkovic, and Prof. Ingrid E. Scheffer in the field of “Genetics of Epilepsy”. After returning to Taiwan, Dr. Tsai continues his clinical and research interests in the field of epilepsy genetics. He received several research grants from the National Health Research Institute, Chang Gung Medical Research Found and the Ministry of Science and Technology Research Project about familial and genetic epilepsy. He also actively participates in international research collaborations, such as Epi25K consortium. He published many research articles in Nature Genetics, Neuron, Neurology, Epilepsia, Acta Neuropathologica Communication, Clinical Genetics, and Frontiers in Genetics…etc. He recently identified a novel gene for lissencephaly and published the result in Neuron IF=18.6 (in collaboration with US, Australia, and Malaysia).

Dr. Tsai has received several research awards and travel grants from the Taiwan Neurology Society, Epilepsy Society of Australia, Taiwan Epilepsy Society, American Epilepsy Society and International League against Epilepsy, including the Excellent Epilepsy Research Award of Taiwan Epilepsy Society in 2014 and 2021.

**Research Interests**

Precision Medicine, Neurogenetics, Epilepsy, Neuroinflammation, Autoimmune Neurological Disorders, Status Epilepticus

**簡介**

蔡孟翰醫師(教授)現任高雄長庚醫院醫學研究部主任,兼基因組學與蛋白質組學核心實驗室主任。他亦是高雄長庚醫院腦神經部副部長。同時曾擔任台灣癲癇醫學會、台灣罕見神經疾病學會的理事和高雄超越顛峰關懷協會的現任理事長。

蔡博士於2003年在高雄醫科大學取得醫學學位（MD），並在高雄長庚醫院神經內科接受神經內科住院醫師訓練。 2009 年，蔡醫師加入了位於澳大利亞墨爾本的癲癇研究中心和弗洛里神經科學與心理健康研究所的研究團隊。 他在澳大利亞墨爾本大學獲得博士學位，師從“癲癇遺傳學”領域的兩位傑出教授Samuel F. Berkovic教授和Ingrid E. Scheffer教授。 回到台灣後，蔡博士繼續他在癲癇基因學領域的臨床和研究興趣。 先後獲得國家衛生研究院、長庚醫學研究基金會、科技部關於家族性和遺傳性癲癇研究項目的多項研究計畫經費支持。 他還積極參與國際研究合作，例如 Epi25K 聯盟。 在Nature Genetics、Neuron、Neurology、Epilepsia、Acta Neuropathologica Communication、Clinical Genetics、Frontiers in Genetics等發表多篇學術研究文章。 他最近發現了一個新的平腦畸形基因CEP85L，並在 Neuron IF=18.6 上發表了結果（與美國、澳大利亞和馬來西亞合作）。

蔡博士曾獲得台灣神經學會、澳大利亞癲癇學會、台灣癲癇學會、美國癲癇學會和國際抗癲癇聯盟的多項研究獎項和旅行資助，包括2014年和2021年台灣癲癇學會優秀癲癇研究獎。

研究興趣

精準醫療、神經遺傳學、癲癇、基因體醫學、自身免疫性神經系統疾病、癲癇重積症

**Selected publication (2019-2021)**

1. **Meng-Han Tsai**, Alison M Muir, Won-Jing Wang, Yi-Ning Kang, Kun-Chuan Yang, Nian-Hsin Chao, Mei-Feng Wu, Ying-Chao Chang, Brenda E Porter, Laura A Jansen, Guillaume Sebire, Nicolas Deconinck, Wen-Lang Fan, Shih-Chi Su, Wen-Hung Chung, Edith P Almanza Fuerte, Michele G Mehaffey, Ching-Ching Ng, Chung-Kin Chan, Kheng-Seang Lim, Richard J Leventer, Paul J Lockhart, Kate Riney, John A Damiano, Michael S Hildebrand, Ghayda M Mirzaa, William B Dobyns, Samuel F Berkovic, Ingrid E Scheffer, Jin-Wu Tsai\*, Heather C Mefford\*, University of Washington Center for Mendelian Genomics. Pathogenic Variants in CEP85L Cause Sporadic and Familial Posterior Predominant Lissencephaly. Neuron 106(2):237-245. (SCI, Impact Factor: 17.173, Neurosciences: 6/271=2.2%)

2. **Meng-Han Tsai**, Haw-Yuan Cheng, Fang-Shin Nian, Chen Liu, Nian-Hsin Chao, Kuo-Liang Chiang, Shu-Fang Chen, Jin-Wu Tsai\*. Impairment in dynein-mediated nuclear translocation by BICD2 C-terminal truncation leads to neuronal migration defect and human brain malformation. Acta Neuropathologica Communications 2020 8(1):1-17, (SCI, Impact Factor: 6.270, Neurosciences: 28/271=10.3%)

3. **Meng‐Han Tsai**, Fang‐Shin Nian, Mei‐Hsin Hsu, Wei‐Szu Liu, Yo‐Tsen Liu, Chen Liu, Po‐Hsi Lin, Daw‐Yang Hwang, Yao‐Chung Chuang, Jin‐Wu Tsai\*. PRRT2 missense mutations cluster near C-terminus and frequently lead to protein mislocalization. Epilepsia. May 2019 60(5):807-817. (SCI, Impact Factor: 6.040, Clinical Neurology: 20/204=9.8%)

4. **Meng-Han Tsai**, Chih-Hsiang Lin, Kuo-Wang Tsai, Ming-Hong Lin, Chen-Jui Ho, Yan-Ting Lu, Ken-Pen Weng, Yuyu Lin, Pei-Hsien Lin, Sung-Chou Li\*. S100A6 Promotes B Lymphocyte Penetration Through the Blood–Brain Barrier in Autoimmune Encephalitis. Frontiers in Genetics 10:1188. (SCI, Impact Factor: 3.258, Genetics & Heredity:73/177=40.1%)

5. Chia-Wei Lee, Jun-Jun Lee, Yen-Feng Lee, Pei-Wen Wang, Tai-Long Pan, Wen-Neng Chang, **Meng-Han Tsai**\*. Clinical and molecular genetic features of cerebrotendinous xanthomatosis in Taiwan: Report of a novel CYP27A1 mutation and literature review. Journal of Clinical Lipidology. 2019 13(6):954-959. (SCI, Impact Factor: 3.860, Pharmacology & Pharmacy: 66/270=24.4%)

6. **Meng-Han Tsai**, Chung-Wen Kuo, Tsu-Kung Lin, Chen-Jui Ho, Pei-Wen Wang, Jiin-Haur Chuang, Chia-Wei Liou. Ischemic Stroke Risk Associated with Mitochondrial Haplogroup F in the Asian Population. Cells 2020 9(8):1885. (SCI, IF=4.366, Cell Biology:70/195=35.9%)

7. Yu-Ju Huang, Jun Jun Lee, Wen-Lan Fan, Che-Wei Hsu, Nai-Wen Tsai, Cheng-Hsien Lu, Wen-Neng Chang, **Meng-Han Tsai\*.** A CD33 frameshift variant is associated with neuromyelitis optica spectrum disorders. Biomedical Journal. 2020 epub (SCI, IF=3.697, Medicine: 55/138=39.9%)

8. Shang-Der Chen, Hsiu-Yung Pan, Jyun-Bin Huang, Xuan-Ping Liu, Jie-Hau Li, Chen-Jui Ho, **Meng-Han Tsai**, Jenq-Lin Yang, Shu-Fang Chen, Nai-Ching Chen, Yao-Chung Chuang. Circulating MicroRNAs from Serum Exosomes May Serve as a Putative Biomarker in the Diagnosis and Treatment of Patients with Focal Cortical Dysplasia. Cells 2020 9(8):1867. (SCI, IF=4.366, Cell Biology:70/195=35.9%)

9. Chen-Jui Ho, Chih-Hsiang Lin, Yan-Ting Lu, Fu-Yuan Shih, Che-Wei Hsu, Wan-Chen Tsai, **Meng-Han Tsai**\*. Perampanel treatment for refractory status epilepticus in a neurological intensive care unit. Neurocritical Care 31(1):24-29. (SCI, Impact Factor: 2.72, Clinical Neurology: 97/204=47.5%)

10. Chih-Hsiang Lin, Chen-Jui Ho, Yan-Ting Lu, Fu-Yuan Shih, Yao-Chung Chuang, **Meng-Han Tsai\***. Predicting the Functional Outcome of Adult Patients with Status Epilepticus. Journal of Clinical Medicine 8(7):992. (SCI, Impact Factor: 3.303, Medicine: 36/165=21.8%)

11. Chang-Chun Wu, **Meng-Han Tsai\***, Yen-Ju Chu, Wen-Chin Weng, Pi-Chuan Fan, Wang-Tso Lee\*. The role of targeted gene panel in pediatric drug-resistant epilepsy. Epilepsy & Behavior 2020 16:107003 (SCI, Impact Factor: 2.508, Behaviour Science: 24/52=46.1%)

12. Jun-Jun Lee, **Meng-Han Tsai**, Chia-Yi Lien, Yu-Ju Huang, Wen-Neng Chang\*. Intra-family phenotype variations in familial neuromyelitis optica spectrum disoders. Multiple Sclerosis and Related Disorders. May 2019 30:57-62. (SCI, Impact factor: 2.889, Clinical Neurology: 92/204=44.6%)

13. Tzu-Jou Wang, Kai-Shen Hsieh, Jui-Pin Lai, **Meng-Han Tsai**, Yi-Chih Liang, Yen-Hsun Chang. Novel mutations of IRF6 gene in Taiwanese Van der Woude syndrome patients. Pediatrics & Neonatology 60 (2), 218-220. (SCI, Impact Factor: 1.773, Pediatrics:63/128=49.2%)