Hang Liu

Correspondence address: No. 1120 Lianhua Road, Futian District, Shenzhen, Guangdong
Phone: (+86) 185-7568-7685
Email: 17839331557@163.com

EDUCATION

M.S. in Neurology (09/2022 – Present)   **Peking University, China**
Research under Prof. Li Yi
GPA: 3.11/4.0
Relevant Coursework: Neurobiology (A-), Introduction to Immunology (A+), Advanced Reading in English for Graduate Students (A-)

Bachelor of Medicine (09/2017 – 07/2022)   **Xinxiang Medical University, China**
GPA: 3.31/4.0
Neurology (93/100), Physiology (80/100), Biochemistry (89/100), Medical Cell Biology (87/100)

PUBLICATIONS

1. Cheng Y, Chen W, Xu J, **Liu H**, Chen T, Hu J. (2023). Genetic analysis of potential biomarkers and therapeutic targets in age-related hearing loss. Hearing Research, 439, 108894. https://doi.org/10.1016/j.heares.2023.108894 Indexed in PubMed (PMID: 37844444)
2. Song Y, Jiao H, Weng Q, **Liu H**, Yi L. (2024). Serum neurofilament light chain levels are associated with depression among US adults: a cross-sectional analysis. BMC Psychiatry, 24(1), 527. https://doi.org/10.1186/s12888-024-05964-0 Indexed in PubMed (PMID: 39049062, PMCID: PMC11267666)
3. **Liu H**, Yi L. (2024). Cognitive impairment in asymptomatic carotid artery stenosis: mechanisms and interventions. International Journal of Cerebrovascular Diseases, 32(4), 291-296. https://doi.org/10.3760/cma.j.issn.1673-4165.2024.04.009 (In Chinese)
4. Zhang Q, Guo Z, Zhang J, **Liu H**, Yi L. (2024). Effects of multiple fluid intake on urolithiasis: A Mendelian randomization study. Scientific Reports, 14(1), 23682. https://doi.org/10.1038/s41598-024-73891-x Indexed in PubMed (PMID: 39390048, PMCID: PMC11467323)

RESEARCH INTERSTS

1. Neurology & Stroke: Investigating the mechanisms, biomarkers, and therapeutic targets of neurological disorders, with a focus on stroke and cognitive impairment.
2. Cognitive Impairment: Exploring the relationship between cerebrovascular diseases (e.g., asymptomatic carotid artery stenosis) and cognitive dysfunction, as well as potential interventions.
3. Clinical Medical Skills Training & Research: Enhancing clinical education methodologies and training techniques to improve medical practice and patient outcomes.
4. Proficient in the full-process management of common diseases in neurology, including cerebrovascular disease (intravenous thrombolytic therapy, risk assessment of cerebral infarction hematoma expansion), dementia (MMSE/MoCA scale stratified diagnosis and treatment and Aβ/Tau protein biomarker interpretation), epilepsy (video EEG seizure classification and anti-epileptic drug blood concentration titration), Parkinson's disease (UPDRS scoring system and dopamine hydrazine dose optimization), central nervous system demyelinating disease (McDonald standard and oligoclonal band detection interpretation) and peripheral neuropathy (nerve conduction velocity analysis and glucose metabolism regulation program)
5. Independently complete 6 lumbar punctures per year 0 cases (complication rate <3%), 120 cases of benign paroxysmal positional vertigo treated with otolith manipulation (Epley/Semont method resetting success rate >92%), standardized installation of 128-lead EEG electrodes and identification of epileptiform discharge characteristics; at the same time, he participated in the diagnosis and treatment of rare neurological diseases, completed NOTCH3 gene detection in CADASIL families and 14-3-3 protein detection in more than 10 cases of Creutzfeldt-Jakob disease, and established clinical-imaging-pathology-gene multi-dimensional diagnostic thinking;
6. Systematically build a closed loop of clinical research capabilities in the field of scientific research, skillfully use UK Biobank, NHANES and CHARLS cohorts to carry out multi-center data mining, complete Mendelian randomization causal inference, and lead R language programming to realize the whole process from data cleaning, statistical modeling to visualization. Passed the first stage examination of the postgraduate degree of clinical medicine of Peking University Health Science Center. At present, he has published several articles outstandingly, published one article in Chinese core journals as the first author, and published three articles in SCI journals as a co-author.

RESEARCH EXPERIENCE

Resident Doctor Standardized Training | Peking University Shenzhen Hospital
Advisor: Prof. Li Yi, Peking University   (09/2022 – Present)

1. Completed clinical rotations in **Cardiology, Emergency Medicine, ICU, and Respiratory Medicine** at Peking University Shenzhen Hospital.
2. Output:
    - *Co-author*, "Genetic Analysis of Potential Biomarkers and Therapeutic Targets in Age-related Hearing Loss," published in *Hearing Research* (Oct 2023).
    - *First author*, "Cognitive Impairment in Patients with Asymptomatic Carotid Stenosis: Mechanisms and Interventions," published in *International Journal of Cerebrovascular Diseases* (Apr 2024, Chinese Core Journal).
    - *Co-author*, "Serum Neurofilament Light Chain Levels Are Associated with Depression Among US Adults," published in *BMC Psychiatry* (Jul 2024).

Internship | Puyang People's Hospital (Grade 3A), Henan Province   (09/2020 – 07/2022)

1. Rotated through Neurology, Emergency Medicine, Gynecology, General Practice, and Neurosurgery.
2. Competed in the "Teacher Group" Skills Competition at Xinxiang Medical University.
3. Assisted faculty in the "Teaching Rounds" project, contributing to medical education development.

Monitor | Xinxiang Medical University   (09/2017 – 07/2020)

1. **Studied foundational courses in** Anatomy, Physiology, and Immunology **with strong performance in experimental courses.**
2. **Active member of the** Clinical Skills Training Center, **where I honed medical skills and served as a** junior instructor, **mentoring fellow students.**
3. **Independently arranged an** internship in Neurology at Nanshi Hospital (Grade 3A, affiliated with Henan University), **gaining early exposure to the field of Neurology.**

SKILLS

Languages: Mandarin, English(CET-6)

Techniques: Medical practitioner qualification certificate, proficient clinical medical skills training and research (lumbar puncture, otolithiasis reduction, EEG electrode installation, diagnosis and treatment of stroke patients, etc.), good doctor-patient communication skills, and a certain level of scientific research ability