Yujia Feng

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Research Objective

- Licensed practical doctor with 1 year of internship and 3 years of residency training experience providing treatment protocols to patients in hospitals, aspiring to pursue doctoral research with the aim of employing scientific inquiry to more effectively address clinical challenges, thereby advancing proficiency as a clinician.
- Passionate researcher with 6 years of experience in bioinformatics analysis, cohort studies, clinical randomized controlled trials, latent class analysis, and clinical database mining. In the future, the plan is to deepen the cultivation of research thinking, acquire additional research methods and skills, and lay a robust foundation for the career goal of becoming a physician-scientist.

Education

Wuhan University (197 (QS) / 164 (Times))

09/2020 - 06/2023

Second School of Clinical Medicine

Master of Internal Medicine (Major in Cardiovascular Medicine)

GPA: 91.97/100 (3.68/4.00)

Wuhan University (197 (QS) / 164 (Times)) School of Medicine

09/2015 - 06/2020

Bachelor of Clinical Medicine GPA: 85.42/100 (3.42/4.00)

Honors & Awards

- 10/2023—Third Prize in the 3rd National College Student Translation Competition hosted by 'The World of English' Magazine
- 10/2022—Awarded the First Prize Graduate Excellent Academic Scholarship of Wuhan University, recognized as an Outstanding Graduate of Wuhan University
- 06/2022—Recognized as an Outstanding Student Leader by Wuhan University for the year 2021
- 02/2022—Annual Outstanding Resident Physician of Zhongnan Hospital of Wuhan University
- 12/2021—Second Prize in the Individual Category of the 3rd ECG Championship held by Zhongnan Hospital of Wuhan University
- 12/2021—Awarded the First Prize Graduate Excellent Academic Scholarship of Wuhan University, recognized as an Outstanding Graduate of Wuhan University
- 12/2020—Third Prize in the Team Category of the 2nd ECG Championship held by Zhongnan Hospital of Wuhan University
- 05/2020—Outstanding Bachelor Graduate of Wuhan University
- 12/2019—Third Prize in the 6th Clinical Skills Competition of the Wuhan University School of Medicine
- 12/2019—Awarded the First Prize Scholarship for Outstanding Students of Wuhan University, awarded

- the Huang Zhangren Special Scholarship, recognized as a Merit Student by Wuhan University
- 04/2019—First Prize in the 3rd Anatomy Illustration Competition held by the School of Medicine of Wuhan University
- 12/2018—Awarded the Second Prize Scholarship for Outstanding Students of Wuhan University, and recognized as a Merit Student by Wuhan University
- 10/2018—Outstanding Award in the 2nd National Internet Plus Smart Simulated Medical Clinical Skills Competition held by the Medical Education Specialty Committee of the China Association of Higher Education
- 12/2017—Awarded the Second Prize Scholarship for Outstanding Students of Wuhan University, and recognized as an Excellent Student by Wuhan University
- 09/2017—Active Participant in Student Social Activities of Wuhan University
- 04/2017—Second Prize in the 2nd Anatomy Illustration Competition held by the School of Basic Medical Sciences of Wuhan University
- 12/2016—Awarded the Third Prize Scholarship for Outstanding Students of Wuhan University, and recognized as an Excellent Student by Wuhan University
- 12/2016—Advanced Individual of Student Association Guidance Center of Wuhan University
- 05/2016—Third Prize in the Individual Category of the Inaugural Basic Experimental Skills Competition held by the School of Medicine of Wuhan University
- 11/2015—Third Prize in the Freshman Debate Tournament held by the School of Medicine of Wuhan University in 2015

Leadership & Volunteer Experience

Clinical Skills Competition, Captain

10/2019 - 12/2019

• Served as the team captain in the 6th Clinical Skills Competition of the Wuhan University School of Medicine, leading our team to achieve the third prize. This competition was aimed at selecting the team to represent Wuhan University at the 10th Chinese College Students Medical Technology Skills Competition. Our team was fortunate to be chosen as one of the two representative teams

Student Union Guidance Center, Vice President

09/2016 - 09/2017

 Participated in organizing the 7th Student Organization International Exchange Camp and the 'Top Ten Student Organizations of Wuhan University' Selection Evening for the 2015-2016 academic year

China Young Volunteers Association, Membership

11/2015 - present

- Providing pro bono consultation, guidance, and assistance to patients in need within the hospital outpatient department
- Conducting promotional and educational activities on hypertension, hyperlipidemia, and coronary heart disease for the elderly population in the community, while also offering complimentary consultations and assistance
- Volunteer to contribute blood donation to patients in need

Wuhan University Model United Nations Association, Vice President

09/2015 - 06/2016

 Participated in the National College Students Model United Nations Conference organized by Central China Normal University Third Prize in the Freshman Debate Tournament held by the School of Basic Medical Sciences of Wuhan University in 2015

Research Experiences

Research Assistant | Zhongnan Hospital of Wuhan University

06/2023 - present

 Planned to fulfill the objectives of the Hubei Province hyperlipidemia project using latent class analysis (LCA) and bioinformatics analysis and to enhance the comprehensiveness of the previously conducted cohort study data

MMed Researcher | Wuhan University

09/2020 - 06/2023

- Project: utilized R, Cytoscape and Mplus software for latent class analysis (LCA) and bioinformatics analysis of the association between serum biomarkers, genes, and diseases.
- Project: utilized Navicat software to conduct analysis on the MIMIC-III database, the main objective is to reveal the relationship between patients' serum biomarkers, medication, and prognosis.
- Responsible for the latent class analysis (LCA) and bioinformatics analysis of the project aimed
 at establishing and applying an assessment and management framework for hyperlipidemia in Hubei
 Province. Conducted bioinformatics analysis and LCA sections for the grant proposal under the
 guidance of my supervisor.
- Project: employed the R, SPSS, and STATA software for network meta-analysis and retrospective cohort study on the optimal timing of non-culprit coronary artery intervention.
- Designed and performed a network meta-analysis to compare the three intervention strategies (i.e., complete revascularization (CR), staged revascularization (SR), and culprit-only revascularization (COR)). Systematically reviewed more than 5000 articles, including 17 Randomized Controlled Trials (RCTs) in the analysis, conducting statistical analysis with R and STATA. Independently executed all phases of the research. Ultimately published one paper as the first author.
- Designed and led a retrospective cohort study that enrolled 980 patients with ST-segment elevation myocardial infarction (STEMI) who underwent primary percutaneous coronary intervention (PPCI). Follow-up was completed for 364 patients. The study aimed to compare the impact of four strategies of non-culprit coronary artery intervention (i.e., CR, staged revascularization during hospitalization (SR-in), staged complete revascularization after discharge (SR-out), COR) on the long-term prognosis of patients. Statistical analysis was conducted using the SPSS software. Independently conducted the study, including research design, patient data collection, statistical analysis, and manuscript writing. This also serves as my master's thesis.
- Project: employed the R, SPSS, and STATA software for retrospective cohort study on the relationship between blood lipid indicators and cardiovascular diseases.
- Led two retrospective cohort studies focusing on the relationship between blood lipid indicators and the severity of CAD and the degree of collateral circulation formation in patients with chronic total occlusion (CTO). Two studies included a total of 2491 and 1010 patients, respectively. Data curation and analysis were executed employing R, SPSS, and STATA software, ultimately culminating in the drafting, and revision of the manuscript. Independently conducted data analysis, manuscript writing, and revisions for these two studies. Ultimately published two papers as co-first author.

- Project: Utilizing R for the GEO datasets for bioinformatics analysis of bladder cancer.
- Led a bioinformatics analysis project, primarily investigating the relationship between the KIF2C gene and bladder cancer incidence, staging (i.e., TNM staging), and patient prognosis (i.e., tumor-specific survival and overall survival). Analyzed GEO datasets using R and conducted patient information analysis using SPSS software. Independently conducted the research design, data analysis, manuscript writing, and revision processes for this study. Ultimately published one paper as the first author.
- Participated as a principal analyst in two studies, revealing the relationships between the MMP-11 gene, TPX2 gene, and bladder cancer, respectively. Participated significantly in the data set analysis for both studies using R and STATA software. Ultimately published two papers as a co-author.
- Participated as a principal analyst in studies utilizing gene co-expression networks for the analysis of bladder cancer biomarkers. The objective of this research was to investigate the potential of four core genes (CCNB1, KIF4A, TPX2, and TRIP13) as novel drug targets for bladder cancer and as potential biomarkers for predicting patient prognosis. Primarily responsible for the gene ontology (GO) and kyoto encyclopedia of genes and genomes (KEGG) pathway enrichment analysis using R. Ultimately published one paper as co-author.

Publications

- [1] Peng A†, Zhang B†, Wang S†, **Feng Y**, Liu S, Liu C, Li S, Li F, Peng Y and Wan J (2023) Comparison of the value of various complex indexes of blood cell types and lipid levels in coronary heart disease. Front. Cardiovasc. Med. 10:1284491. doi: 10.3389/fcvm.2023.1284491 (Q2, IF 3.6, **second author**)
- [2] Li Y†, **Feng Y**†, Li S, Ma Y, Lin J, Wan J, et al. The atherogenic index of plasma (AIP) is a predictor for the severity of coronary artery disease. *Front Cardiovasc Med.* (2023)10:1140215. doi:10.3389/fcvm.2023.1140215 (Q2, IF 6.22, **co-first author**)
- [3] Li Y†, **Feng Y**†, Zhong Y, Li S, Lin J, Wan J, et al. The Atherogenic Index of Plasma is a predictor for chronic total occlusion and coronary collateral circulation formation in CTOs patients. *Rev. Cardiovasc. Med.* 2023, 24(10), 305. doi: 10.31083/j.rcm2410305 (Q3, **co-first author**)
- [4] Liu C, Li Z, Zhao B, Dai Z, Wang R, **Feng Y**, et al. Ambient ozone exposure and the severity of coronary heart disease: a predicting role of aspartate aminotransferase. *Medical Journal of Wuhan University*,(2023):1-7. doi:10.14188/j.1671-8852.2023.0028. (In Chinese; Chinese Scientific and Technical Papers and Citation Database (CSTPCD))
- [5] **Feng Y**, Li S, Hu S, Wan J, Shao H. The optimal timing for non-culprit percutaneous coronary intervention in patients with multivessel coronary artery disease: A pairwise and network meta-analysis of randomized trials. *Front Cardiovasc Med.* (2022)9: 1000664. doi:10.3389/fcvm.2022.1000664. (Q2, IF 6.22, **first author**)
- [6] Feng Y, Li S, Hu S, Wan J. Performing latent class analysis using R poLCA package. *Chinese Journal of Health Statistics*, 2022 Accepted. (In Chinese; core journals of Peking University, **first author**)
- [7] Li J, Guo T, Dong D, Zhang X, Chen X, Feng Y, et al. Defining heart disease risk for death in COVID-19 infection. *QJM*. (2020)113(12): 876-82. doi:10.1093/qjmed/hcaa246. (Q1, IF 13.3)
- [8] **Feng Y**, Jiang J, Yan X, Guo Z, Li S, Meng X, et al. Analysis of clinical significance of expression of KIF2C in bladder cancer utilizing GEO datasets. *Translational Medicine Journal*, 2019,8(01):15-18.

- (In Chinese; Chinese Scientific and Technical Papers and Citation Database (CSTPCD), first author)
- [9] Yan X, Guo ZX, Liu XP, **Feng YJ**, Zhao YJ, Liu TZ, et al. Four novel biomarkers for bladder cancer identified by weighted gene coexpression network analysis. *J CELL PHYSIOL*. (2019)234(10):19073-87. doi:10.1002/jcp.28546. (Q1, IF 6.39)
- [10] Bi Y, Jiang J, Yan X, Yuan J, Guo Z, **Feng Y**, et al. Expression of MMP-11 in bladder cancer and its clinical significance. *J Clin Urology*, 2019,34(03):197-201. doi:10.13201/j.issn.1001-1420.2019.03.009 (In Chinese; Core Journals of Peking University)
- [11] **Feng Y**, Guo Z, Zeng X, Liu X. Performing robust variance estimate analysis using R robust package. *Chin J Evid Based Cardiovasc Med*, 2018,10(02):143-146. (In Chinese; Chinese Scientific and Technical Papers and Citation Database (CSTPCD), **first author**)
- [12] Guo Z, **Feng Y**, Wang Q, Zeng X, Liu X. How to implement meta-analysis using R package metaplus. *Chinese Journal of Evidence-based Medicine*, 2018,18(07):763-768. (In Chinese; Core Journals of Peking University)
- [13] Yan X, Guo Z, Yuan J, **Feng Y**, Li J, Li S. Expression of targeting protein for TPX2 in bladder cancer and its clinical significance. *Electron J Metab Nutr Cancer*,2018,5(03):292-296. (In Chinese; Chinese Science Citation Database)
- [14] Hu S, **Feng Y**, Liu S, Wan J. One year prognosis of chronic complete occlusive disease after percutaneous coronary intervention. *Medical Journal of Wuhan University*, 1-8. doi:10.14188/j.1671-8852.2023.0143 (In Chinese; Chinese Scientific and Technical Papers and Citation Database (CSTPCD))
- [15] Li Z, Wan J, Peng S, Wang R, Dai Z, Liu C, **Feng Y**, et al. Associations between cold spells of different time types and coronary heart disease severity. *ENVIRON POLLUT*. (2023)343:123100.doi:10.1016/j.envpol.2023.123100

Internship & rotation

Residency training, Zhongnan Hospital of Wuhan University

09/2020 - 06/2023

- Residency training in Internal Medicine for 3 years, the hospital has 3,300 beds
- Obtained the certificate of qualification for standardized training of Chinese resident physicians
- Obtained the certification as a licensed medical practitioner in China
- Annual Outstanding Residency Physician of Zhongnan Hospital of Wuhan University in 2021

Internship, Zhongnan Hospital of Wuhan University

06/2019 - 06/2020

 Completed internship rotations in the fields of Internal Medicine, Surgery, Obstetrics and Gynecology, and Pediatrics

Skills

- Computer languages: R, SQL
- Language: Chinese Mandarin (native), English (TOEFL: 100)
- Software & Toll: SPSS, STATA, R, Navicat, Rev Man, PASS, Cytoscape, Mplus, Office, Photoshop
- Experimental Skills: ELISA, Western Blot, PCR

Certificate

- Chinese Medical Practitioner Qualification Certificate (Score: 481/600)
- Certificate of Qualification for Standardized Training of Chinese Resident Physicians