# Yujia Feng

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## **Research Objective**

- Licensed practical doctor with 1 year of internship and 3 years of resident 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. The strategy for further study involves the utilization of bioinformatics methodologies to elucidate diverse disease-associated genes and biomarkers. Subsequently, animal models and clinical specimens will be employed for validation purposes. Meanwhile, conducting clinical investigations pertaining to novel therapeutic approaches and the evaluation of drug efficacy on short-term and long-term patient prognosis is well within my skill set.

#### **Education**

# Wuhan University (Top 10 Project 985) Second School of Clinical Medicine

09/2020 - 06/2023

Master of Internal Medicine (Major in Cardiovascular Medicine) GPA: 91.97/100 (3.68/4.00)

# Wuhan University (Top 10 Project 985) School of Medicine

09/2015 - 06/2020

Bachelor of Clinical Medicine GPA: 85/100 (3.42/4.00) (Ranking:1/40)

#### **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 for the year 2022
- 02/2022—Annual Outstanding Resident Physician of Zhongnan Hospital of Wuhan University
- 12/2021—Second Prize in the Team Category of the 3rd Clinical Thinking Competition held by 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
- 10/2021—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
- 10/2019—Outstanding Award in the Non-English Major Translation Category of the 5th Central and Western China Foreign Language Translation Competition
- 04/2019—First Prize in the 3rd Anatomy Illustration Competition held by the School of Basic Medical Sciences of Wuhan University
- 03/2019—Outstanding Award in the Non-English Major Translation Category of the 4th Central and Western China Foreign Language Translation Competition
- 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
- 12/2017—Awarded the Second Prize Scholarship for Outstanding Students of Wuhan University, and recognized as an Excellent Student by Wuhan University
- 12/2017—Outstanding Award in the Non-English Major Translation Category of the 3rd Central and Western China Foreign Language Translation Competition
- 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 Basic Medical Sciences of Wuhan University
- 11/2015—Third Prize in the Freshman Debate Tournament held by the School of Basic Medical Sciences 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. Unfortunately, the final event of this competition was canceled due to COVID-19.

## 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

#### Social Volunteers, Membership

- 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 Huazhong Normal University

#### Debate Team, Membership

09/2015 - 06/2016

 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 blood lipids and coronary atherosclerosis.
- Project: utilized Navicat software to conduct analysis on the MIMIC-III database, aiming to study the influence of blood lipids on the prognosis of patients with coronary heart disease (CAD).
- 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. The primary focus was on unraveling multimorbidity patterns and corresponding risk factors within the population of Hubei Province. Furthermore, the project also aims to utilize bioinformatics analysis to uncover genes and signaling pathways associated with coronary atherosclerosis, and validation is planned through the utilization of animal models and clinical patient specimens.
- 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)). The study aimed to determine the optimal strategy for revascularization in ST-segment elevation myocardial infarction (STEMI) patients with multivessel CAD.
- Designed and led a retrospective cohort study within the Department of Cardiovascular Medicine and enrolled 980 patients with STEMI who underwent primary percutaneous coronary intervention (PPCI) from January 1st, 2016 to December 31st, 2019. 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.
- Led a retrospective cohort study focusing on the relationship between blood lipid indicators and the severity of CAD. This research encompassed the categorization of a cohort exceeding 1,000 cases of CAD patients. Data curation and analysis were executed employing R, SPSS, and STATA software, ultimately culminating in the drafting, and revision of the manuscript.

### MBBS Researcher | Wuhan University

07/2017 - 06/2020

- 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). The objective was to explore the potential of the KIF2C gene as a biomarker for bladder cancer and as a predictor of patient prognosis.
- Participated as a principal analyst in two studies, each investigating the relationship between the MMP-11 gene and the TPX2 gene and their correlation with bladder cancer staging (i.e., TNM staging) and patient prognosis (i.e., tumor-specific survival and overall survival).
- Participated as a principal analyst in studies utilizing gene co-expression networks for the analysis of bladder cancer biomarkers. This study primarily employed the GSE19915 dataset to construct a protein-protein interaction network and identify core genes. Functional enrichment analysis was conducted to explore the main pathways associated with these core genes. Subsequently, the findings were validated using the GSE13507 and GSE31684 datasets. 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.

### **Publications**

- [1] 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**)
- [2] 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**)
- [3] 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.(In Chinese; Chinese Scientific and Technical Papers and Citation Database (CSTPCD))
- [4] **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. (Q2, IF 6.22, **first author**)
- [5] 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**)
- [6] 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)
- [7] 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**) [8] 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)
- [9] 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. (In Chinese; Core Journals of Peking University)
- [10] **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**)
- [11] 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)
- [12] 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)
- [13] 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*, Accepted. (In Chinese; Chinese Scientific and Technical Papers and Citation Database (CSTPCD))

## Internship & rotation

## Medical Translator, Shanghai BrightWay Information Technology Co., Ltd. 01/2023 - present

Providing translation services for clinical trial protocols and medical records

#### Resident training, Zhongnan Hospital of Wuhan University

09/2020 - 06/2023

- Resident training in Internal Medicine for 3 years, the hospital has 3,300 beds
- Obtained the certificate of completion for standardized resident training for Chinese physicians
- Obtained the certification as a licensed medical practitioner in China
- Annual Outstanding Resident 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
- Software & Toll: SPSS, STATA, R, Navicat, Rev Man, PASS, Cytoscape, Mplus, Office, Photoshop

#### Certificate

- Chinese Occupational Physician Qualification Certificate (Score: 481/600)
- Certificate of Completion for Standardized Resident Training for Chinese Physicians