## ZHENXUAN MA

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### **EDUCATION**

Fudan UniversityShanghai, ChinaMaster of Internal Medicine (Infectious Disease)2018 - 2021Bachelor of Clinical Medicine2013 - 2018London School of Economics and Political ScienceLondon, United KingdomEnglish for Academic Purposes (EAP) Pre-sessional Programme, LN909Jul 2015 - Aug 2015

#### WORK EXPERIENCE

### Huashan Hospital affiliated to Fudan University Geriatric Specialist

Shanghai, China

Jul 2021 - Present

- Engaged in specialized geriatric training programs, demonstrating a high level of expertise in providing comprehensive care for elderly patients.
- Engaged in clinical responsibilities of various positions, including outpatient, inpatient, and emergency department duties.
- Implemented and oversaw enduring chronic disease management protocols for geriatric patients, meticulously
  capturing critical data for clinical research endeavors.
- Focused on aging-related factors in the elderly population, contributing to a comprehensive understanding of human aging mechanism.

Resident Jul 2018 – Jul 2021

- Completed a rigorous standardized training program for internal medicine residents, gaining proficiency in the diagnosis, treatment, and management of a wide range of medical conditions.
- Delivered patient-centered care, applying evidence-based approaches and participating in complex case discussions to enhance clinical decision-making skills.
- Proficient in diagnosing and treating prevalent infectious diseases, including hepatitis B, tuberculosis, and rational antibiotic utilization.
- Contributed to research initiatives, including data collection, analysis, and presentation of findings at conferences and in publications.

Internship

Jul 2017 – Jul 2018

- Conducted internships within various specialty departments, cultivating a diverse skill set and valuable clinical
  experience.
- Actively engaged in patient education and communication, fostering trust and ensuring clear understanding of treatment plans.

### RESEARCH EXPERIENCE

#### • Shibo Jiang's Lab, Fudan University

Shanghai, China

Research intern, supervised by Prof. Shibo Jiang

Aug 2015 – May 2018

Conducted in-depth research focusing on the mechanism and refinement of peptide-based fusion inhibitors, with the aim of advancing potential antiviral treatments.

**Project**: Creating an artificial tail-anchor as a novel strategy to enhance the potency of peptide-based HIV fusion inhibitors

- Pioneered the identification of an artificial structural component that amplifies the anti-HIV effect of fusion inhibitors.
- Successfully secured and completed the National Basic Science Personnel Training Fund (Project ID: J1210041) Capacity Improvement Project
- Mastered foundational techniques in molecular biology and immunology through rigorous laboratory work.

### • **Jiming Zhang**'s Lab, Fudan University

Shanghai, China

Master student, supervised by Prof. Jiming Zhang

Aug 2017 – Present

Engaged in advanced studies under the mentorship of Prof. Jiming Zhang, focusing on the clinical treatment and fundamental research of chronic hepatitis B.

**Project**: Thyroid dysfunction incidence and risk factors in Chinese chronic hepatitis B patients treated with pegylated interferon alpha: a long-term follow-up study

- Implemented a retrospective observational approach to assess clinical outcomes, leading to the establishment of a predictive model for thyroid dysfunction incidence in pre-treatment patients.
- Attained proficiency in clinical research design, follow-up study, and advanced statistical analysis methodologies, augmenting expertise in evidence-based medical research.
- National Clinical Research Center for Aging and Medicine, Fudan University

Shanghai, China

Research assistant Jul 2021 – Present

Contribute to pioneering research at the National Clinical Research Center for Aging and Medicine, with a primary focus on understanding the clinical characteristics of prevalent diseases in elderly populations and optimizing their healthcare.

**Project**: A pivotal study evaluating the efficacy and safety of Paxlovid in super-elderly patients infected with the Omicron variant.

- Established and managed a clinical cohort study comprising elderly individuals, demonstrating expertise in designing and executing comprehensive research protocols.
- Specialized in the treatment of severe COVID-19 cases in elderly patients, while prioritizing the management of chronic comorbidities, exemplifying proficiency in geriatric healthcare.

#### **PUBLICATIONS**

\* indicates corresponding authors

Comparison of Pegylated Interferon Alfa Therapy in Combination with Tenofovir Alafenamide Fumarate or Tenofovir Disoproxil Fumarate for Treatment of Chronic Hepatitis B Patients.

[Jun,2023]

Jingjing He, Yifei Guo, Yao Zhang, Jiajia Han, Jingwen Chen, Yidi Jia, **Zhenxuan Ma**, Jingwen Wu, Shenyan Zhang, Fahong Li, Richeng Mao\*, Jiming Zhang\*.

Infection and Drug Resistance. PMID: 37361938

Reduction of Hepatitis B Surface Antigen May Be More Significant in PEGylated Interferon-Alpha Therapy Combined with Nucleotide Analogues than Combined with Nucleoside Analogues in Chronic Hepatitis B Patients: A Propensity Score Matching Study.

[Dec,2022]

Yiran Xie, Haoxiang Zhu, Yifei Guo, **Zhenxuan Ma**, Xun Qi, Feifei Yang, Richeng Mao\*, Jiming Zhang\*

Canadian Journal of Gastroenterology and Hepatology. PMID: 36531834

Thyroid dysfunction incidence and risk factors in Chinese chronic hepatitis B patients treated with pegylated interferon alpha: A long-term follow-up study. (**Recommended as a cover article**)

[Jun, 2022]

Zhenxuan Ma, Yanli Qin, Yidi Jia, Yiran Xie, Xun Qi, Yifei Guo, Jingjing He, Yongmei Zhang, Fahong Li, Jie Yu, Haoxiang Zhu, Feifei Yang, Yu Zhang\*, Richeng Mao\*, Jiming Zhang\*

Journal of Viral Hepatitis. PMID: 35293082

Hepatitis B e antigen induces the expansion of monocytic myeloid-derived suppressor cells to dampen T-cell function in chronic hepatitis B virus infection. [Apr,2019]

Feifei Yang, Xueping Yu, Chenliang Zhou, Richeng Mao, Mengqi Zhu, Haoxiang Zhu, **Zhenxuan Ma**, Bidisha Mitra, Gan Zhao, Yuxian Huang, Haitao Guo\*, Bin Wang\*, Jiming Zhang\*

PLoS Pathogens. PMID: 30998767

Adding an Artificial Tail—Anchor to a Peptide-Based HIV-1 Fusion Inhibitor for Improvement of Its Potency and Resistance Profile.

[Nov,2017]

Shan Su, **Zhenxuan Ma**, Chen Hua, Weihua Li, Lu Lu\*, Shibo Jiang\*

Molecules. PMID: 29156603

Creating an artificial tail anchor as a novel strategy to enhance the potency of peptide-based HIV fusion inhibitors.

[Dec,2016]

Shan Su, Yun Zhu, Sheng Ye, Qianqian Qi, Shuai Xia, <u>Zhenxuan Ma</u>, Fei Yu, Qian Wang, Rongguang Zhang, Shibo Jiang\*, Lu Lu\*

Journal of Virology. PMID: 27795416

Rational improvement of gp41-targeting HIV-1 fusion inhibitors: an innovatively designed Ile-Asp-Leu tail with alternative conformations.

[Sep,2016]

Yun Zhu, Shan Su, Lili Qin, Qian Wang, Lei Shi, <u>Zhenxuan Ma</u>, Jianchao Tang, Shibo Jiang, Lu Lu\*, Sheng Ye\*, Rongguang Zhang\*

Scientific Reports. PMID: 27666394

# SELECTED AWARDS AND HONORS

Academic Excellent Scholarship, Fudan University

2014/2017/2018

First prize for excellent paper, Chinese Society of Hepatology annual conference

Sep 2020

### **JOURNAL REVIEWERS**

• International Journal of Peptide Research and Therapeutics

Nov 2022

## COURSEWORK AND SKILLS

- **Curriculums**: Advanced Mathematics, Medical Immunology, Medical Microbiology, Internal Medicine, Surgery, Infectious Diseases, Preventive Medicine, Biostatistics, Programming
- Experiment: Cell culture, ELISA, PCR, Western blot, Pseudovirus, Transfection, Flow cytometry
- Statistics: Propensity-score matching, Clinical trials, Survival analysis, Logistic regression analysis
- Hobbies: Rubik's cube, social sciences, swimming, jogging, badminton
- Software: R programming, SPSS, Microsoft Office, Photoshop

## **ADDITIONAL ACTIVITIES**

| • | Volunteer work in Shanghai Science and Technology Museum                      | May 2014 |
|---|---|----------|
| • | Bilingual volunteer work in Cai Yuanpei's former residence                    | Jun 2015 |
| • | Compilation work of Shanghai Medical College academician alumnus biography    | Sep 2017 |
| • | Science popularization public welfare activity "Face to Face with Scientists" | Nov 2020 |