ZHENXUAN MA

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EDUCATION

Master of Internal Medicine   2018 – 2021
Fudan University   *Shanghai, China*
Relevant Coursework: *Medical Statistics, Preventive Medicine and Public Health, Evidence-based Medicine, Health-related Laws and Regulations, Clinical Thinking and Interpersonal Communication.*

Bachelor of Clinical Medicine   2013 – 2018
Fudan University   *Shanghai, China*
Relevant Coursework: *Advanced Mathematics, Preventive Medicine, Biostatistics, Programming, Physiology, Pharmacology, Biological Science, General Chemistry, General Physics, Biochemistry, Medical Immunology, Cytology and Genetics, Internal Medicine, Surgery, Clinical Oncology.*

English for Academic Purposes Pre-Sessional Programme (LN909)   2015
London School of Economics & Political Science   *London, UK*

RESEARCH EXPERIENCE

National Clinical Research Center for Aging & Medicine, Fudan University   Jul. 2021 – Present
Research Assistant   *Shanghai, China*
Project Title: *A pivotal study evaluating the efficacy and safety of Paxlovid in super-elderly patients infected with the Omicron variant.*

- 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.
- 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.

Dr. Jiming Zhang's Laboratory, Fudan University   Aug. 2017 – Present
Master's Student Researcher   *Shanghai, China*
Project Title: *Thyroid dysfunction incidence and risk factors in Chinese chronic hepatitis B patients treated with pegylated interferon alpha: A long-term follow-up study*.

- Engaged in advanced studies under the mentorship of Dr. Zhang, focusing on the clinical treatment and fundamental research of chronic hepatitis B.
- Developed and 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 advanced proficiency in clinical research design, follow-up study, and advanced statistical analysis methodologies, augmenting existing expertise in evidence-based medical research.

Dr. Shibo Jiang's Laboratory, Fudan University   Aug. 2015 – May 2018
Research Intern   *Shanghai, China*
Project Title: *Creating an artificial tail-anchor as a novel strategy to enhance the potency of peptide-based fusion inhibitors.*

- Conducted in-depth research on the mechanism and refinement of peptide-based fusion inhibitors to advance potential antiviral treatments.
- 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.

PUBLICATIONS

Y. Zhu, S. Su, L. Qin, Q. Wang, L. Shi, **Z. Ma,** J. Tang, S. Jiang, L. Lu*, S. Ye*, R. Zhang*. Rational improvement of gp41-targeting HIV-1 fusion inhibitors: an innovatively designed Ile-Asp-Leu tail with alternative conformations. *Scientific Reports,* 2016, 31983. PMID: 27666394.

S. Su, Y. Zhu, S. Ye, Q. Qi, S. Xia, **Z. Ma**, F. Yu, Q. Wang, R. Zhang, S. Jiang*, L. Lu*. Creating an artificial tail anchor as a novel strategy to enhance the potency of peptide-based HIV fusion inhibitors. *Journal of Virology,* 2016, e01445-16. PMID: 27795416.

S. Su, **Z. Ma**, C. Hua, W. Li, L. Lu*, S. Jiang*. Adding an artificial tail-anchor to a peptide-based HIV-1 fusion inhibitor for improvement of its potency and resistance profile. *Molecules,* 2017, 1996. PMID: 29156603.

F. Yang, X. Yu, C. Zhou, R. Mao, M. Zhu, H. Zhu, **Z. Ma**, B. Mitra, G. Zhao, Y. Huang, H. Guo*, B. Wang*, J. Zhang*. Hepatitis B e antigen induces the expansion of monocytic myeloid-derived suppressor cells to dampen T-cell function in chronic hepatitis B virus infection. *PLoS Pathogens,* 2019, e1007690. PMID: 30998767.

Z. Ma, Y. Qin, Y. Jia, Y. Xie, X. Qi, Y. Guo, J. He, Y. Zhang, F. Li, J. Yu, H. Zhu, F. Yang, Y. Zhang*, R. Mao*, J. Zhang*. Thyroid dysfunction incidence and risk factors in Chinese chronic hepatitis B patients treated with pegylated interferon alpha: A long-term follow-up study. *Journal of Viral Hepatitis,* 2022, 412-419. PMID: 35293082. (Recommended as cover article).

Y. Xie, H. Zhu, Yifei Guo, **Z. Ma**, X. Qi, F. Yang, R. Mao*, J. Zhang. 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. *Canadian Journal of Gastroenterology and Hepatology,* 2022, 4325352. PMID: 36531834.

J. He, Y. Guo, Y. Zhang, J. Han, J. Chen, Y. Jia, **Z. Ma**, J. Wu, S. Zhang, F. Li, R. Mao*, J. Zhang*. Comparison of pegylated interferon alfa therapy in Combination with tenofovir alafenamide fumarate or tenofovir disoproxil fumarate for treatment of chronic hepatitis b patients. *Infection and Drug Resistance,* 2023, 3929-3941. PMID: 37361938.

Indicates corresponding author.

PROFESSIONAL EXPERIENCE

Huashan Hospital, Fudan University   Jul. 2021 – Present
Geriatric Specialist   *Shanghai, China*

- Completed a specialized geriatric training program, developing and demonstrating a high level of expertise in providing comprehensive care for elderly patients.
- Managed 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.
- Conducted in-depth analysis of aging-related factors in the elderly population, contributing to a comprehensive understanding of the human aging mechanism.

Huashan Hospital, Fudan University   Jul. 2018 – Jul. 2021
Internal Medicine Resident   *Shanghai, China*

- Completed a rigorous standardized internal medicine resident training program, gaining proficiency in the diagnosis, treatment, and management of a wide range of medical conditions.
- Delivered patient-centered care, involving the application of evidence-based approaches and participation in complex case discussions to enhance clinical decision-making skills.
- Developed a high level of competence in diagnosing and treating prevalent infectious diseases, including hepatitis B, tuberculosis, central nervous system infection, fever of unknown origin, and rational antibiotic utilization.

- Contributed to department research initiatives, including data collection and analysis, conference presentations, and scientific publications.

Huashan Hospital, Fudan University   Jul. 2017 – Jul. 2018
Clinical Intern   *Shanghai, China*
- Completed internships within various specialty departments, cultivating a diverse skill set and valuable clinical experience.
- Actively engaged in patient education and communication, working to foster trust and ensure clear understanding of treatment plans.

SELECTED HONOURS & AWARDS

First Prize for Excellent Paper, Chinese Society of Hepatology Annual Conference   2020
Academic Excellence Scholarship, Fudan University   2014, 2017, 2018

JOURNAL REVIEW

International Journal of Peptide Research and Therapeutics   Nov. 2022
Reviewer

SELECTED ACTIVITIES & VOLUNTEERING

Assistant Organizer, *"Face to Face with Scientists" science popularization public activity* Nov. 2020
Compiler, *Shanghai Medical College Academician Alumnus Biography Project*   Sep. 2017
Bilingual Volunteer, *Cai Yuanpei's Former Residence*   Jun. 2015
Volunteer, *Shanghai Science & Technology Museum*   May 2014

SKILLS & INTERESTS

- **Academic Training:** 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.
- **Software & Programming:** R, SPSS, Microsoft Office, Photoshop.
- **Research:** Data Management, Analysis & Visualization, Laboratory Safety, Sample Collection & Storage.
- **Languages:** Mandarin (Native), English (Fluent).
- **Interests:** Rubik's Cube, Social History of Medicine, Swimming, Jogging, Badminton.