

HONGHAO LAI

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EDUCATION

PhD in Public Health and Preventive Medicine *Sep 2024 - Jun 2028 (Expected)*

Lanzhou University, School of Public Health | Lanzhou, Gansu, China

- Master-PhD Combined Program
- Research Focus: AI-Enhanced Evidence-Based Medicine

Master of Science in Social Medicine and Health Service Management *Sep 2021 - Jun 2024*

Lanzhou University, School of Public Health | Lanzhou, Gansu, China

Bachelor of Management in Health Service Management *Sep 2017 - Jun 2021*

Lanzhou University, School of Public Health | Lanzhou, Gansu, China

RESEARCH INTERESTS

AI-Enhanced Evidence-Based Medicine • Evidence-Based Traditional Chinese Medicine • Large Language Models in Systematic Reviews • Clinical Practice Guideline Development • Intelligent Clinical Decision Support Systems

RESEARCH EXPERIENCE

Key Researcher & Developer *2021 - Present*

WHO Collaborating Centre for Guideline Implementation and Knowledge Translation, Lanzhou University

- Leading research on applying large language models to systematic review automation, including risk of bias assessment and data extraction
- Developed **ChatCPM** (Chinese Patent Medicine Recommendation Assistant): An intelligent clinical decision support system based on clinical practice guidelines and Retrieval-Augmented Generation (RAG) technology (Software Copyright Registered)
- Developed **SmartEBM Platform**: An AI-assisted automated platform for systematic review and meta-analysis, improving efficiency by 80% and accuracy by 30% compared to traditional methods
- Conducted systematic reviews and clinical practice guidelines in evidence-based medicine and public health

RESEARCH PROJECTS

Key Researcher | National Key R&D Program of China

"Demonstration and Application of Clinical Guideline Development for 10 Advantageous Diseases in Traditional Chinese Medicine" - Contributed to guideline methodology and evidence synthesis

Key Researcher | National Natural Science Foundation of China (Youth Program)

"Framework Construction for Rapid Recommendation Guideline Methodology in Integrated Traditional Chinese and Western Medicine" - Developed methodological framework for rapid guideline development

Key Researcher | China Academy of Chinese Medical Sciences

"Construction of Integrated Evidence Ecosystem for Advantageous Diseases in Integrated Medicine" - Built evidence chain for clinical decision-making

Key Researcher | China Association of Chinese Medicine (CACM) Project

"Development of Evaluation Indicators and Standards for TCM Clinical Research Achievements" - Established evaluation criteria for TCM research outcomes

Key Researcher | National Cancer Center

"Development of Clinical Practice Guidelines for Breast Cancer Screening" - Participated in guideline development and evidence synthesis

REPRESENTATIVE PUBLICATIONS

1. **Lai H**, Liu J, Bai C, et al. Language models for data extraction and risk of bias assessment in complementary medicine. *NPJ Digit Med*. 2025;8(1):74. **[Q1, IF=15.8]**

2. **Lai H**, Ge L, Sun M, et al. Assessing the Risk of Bias in Randomized Clinical Trials With Large Language Models. *JAMA Netw Open*. 2024;7(5):e2412687. **[Q1, IF=13.8]**

3. **Lai H**, Yang M, Sun M, et al. Risk of incident diabetes after COVID-19 infection: A systematic review and meta-analysis. *Metabolism*. 2022;137:155330. **[Q1, IF=13.934]**

Publication Summary: *First author on 8 papers with impact factor >10 in Q1 journals; Co-author on over 70 SCI papers*
ResearchGate Profile: https://www.researchgate.net/profile/Honghao-Lai

CONFERENCE PRESENTATIONS

Global Evidence Summit (GES) 2024

Presented research on AI-enhanced evidence synthesis

Guidelines International Network (GIN) Conference 2025

Presented work on large language models in guideline development

SKILLS

Technical Skills:

Systematic Review & Meta-Analysis • Large Language Model Application (Prompt Engineering, RAG, Multi-Agent Systems) • Clinical Practice Guideline Development • Statistical Analysis (STATA, R, Python)

Languages:

Chinese (Native) • English