

Education

- 2024.5- **Visiting scholar** , *National University of Singapore*, Singapore, Singapore
2024.10 Bioinformatics & AI, Structure biology
2020.9- **PhD Student**, *Tsinghua University*, Beijing, China
present Bioinformatics & AI
2018.3- **Exchange Student**, *Shanghai Jiao Tong University*, Shanghai, China
2018.8 Automation
2016.9- **Bachelor's Degree**, *Harbin Institute of Technology*, Harbin, China
2020.8 Automation

Publications

- 2023 **Exploring the effect of Weifuchun capsule on the toll-like receptor pathway mediated HES6 and immune regulation against chronic atrophic gastritis**
Wang B#, Zhou W#, Zhang H#, Wang W, Zhang B, Li S*.
Journal of Ethnopharmacology, 2023 Mar 1; 303:115930. (IF=5.4, published)
- 2023 **Uncovering the mechanisms of Yi Qi Tong Qiao Pill in the treatment of allergic rhinitis based on Network target analysis**
Wang B, Zhang D, Zhang T, Sutcharitchan C, Hua J, Hua D*, Zhang B*, Li S*.
Chinese Medicine, 2023 Jul 24; 18(1):88. (IF=4.9, published)
- 2024 **Biological mechanism of Traditional Chinese Medicine Formula and Herbs in Treating Diseases from the perspective of Cold and Hot**
Wang B, Chen P, Zhang P, Li S*.
World Journal of Traditional Chinese Medicine, February 29, 2024.
10.4103/wjtc.wjtc_41_23. (IF=4.4, published)
- 2023 **Network-based cancer precision prevention with artificial intelligence and multi-omics**
Zhang P, **Wang B**, Li S*.
Science Bulletin (Beijing), 2023 Jun 30; 68(12):1219-1222. (IF=18.9, published)
- 2023 **Network pharmacology: towards the artificial intelligence-based precision traditional Chinese medicine**
Zhang P#, Zhang D#, Zhou W#, Wang L, **Wang B**, Zhang T, Li S*.
Briefings in Bioinformatics, 2023 Nov 22; 25(1):bbad518. (IF=9.5, published)
- 2024 **Cold and Hot syndromes in traditional Chinese medicine: Insights from the perspective of immunometabolic homeostasis**
Chen P, **Wang B**, Zhang P, Li S*.
World Journal of Traditional Chinese Medicine, March 05, 2024.
10.4103/wjtc.wjtc_53_23. (IF=4.4, published)
- 2022 **Network Target Theory, Key Techniques and Applications in Traditional Chinese Medicine**
Shao Li*, Peng Zhang, Xin Wang, Bo Zhang, **Boyang Wang**.
Modernization of Traditional Chinese Medicine and Materia Medica-World Science and Technology, 2022 (09), 3261-3269. (cover paper, published)

- 2023 **Research and development practice of traditional Chinese medicine based on network target theory and technology**
Shao Li*, Boyang Wang, et al.
China Journal of Chinese Materia Medica, 2023, 48(22):5965-5976. (cover paper, published)

Works In Progress

- Gao Z#, Wang B#, et al. **Uncovering the metabolic reprogramming of macrophages for Gegen Qinlian Decoction in alleviating meta-inflammation of T2DM.**
(Signal Transduction and Targeted Therapy, in revision)
- Fan Q#, Wu C#, Du Y#, Wang B#, et al. **Comparison of Jinzhen Oral Liquid and Ambroxol Hydrochloride and Clenbuterol Hydrochloride Oral Solution in the Treatment of Acute Bronchitis in Children: A Multicenter, Non-inferiority, Prospective, Randomized Controlled trial.**
(Acta Pharmaceutica Sinica B, in revision)
- Zhao W#, Wang B#, et al. **Clinical multi-omics reveals the role of Tuomin Zhiti Decoction Intervention in Allergic Rhinitis from the perspective of biological network.**
(Phytomedicine, under review)
- Wang B#, Xiao L#, et al. **Uncovering the mechanism of traditional Chinese medicine in treating gastritis based on the classification of Cold and Hot ZHENG.**
(Chinese Medicine, under review)
- Wang B#, Zhang T#, Zhang D, et al. **A Phenotype-Molecular Transfer Learning Model: Clinical Analysis and Mechanistic Insights of Yinqiao Qingre Pill in Wind-Heat Cold Intervention**
(Briefings in Bioinformatics, under review)
- Liu Q#, Wang B#, Chen Z#, et al. **Leveraging Network Target Theory for Efficient Prediction of Drug-Disease Interactions: A Few-shot Learning Approach.**
(Briefings in Bioinformatics, under review)
- Zhong C#, Guo S#, Liu Q#, Sun D#, Wang B#, et al. **A computational based new treatment strategy with randomized, double-blind, three-armed, parallel-controlled, multicenter clinical trials on Mycoplasma pneumoniae pneumonia in children.**
(Chinese Medical Journal, under review)
- Wang B#, Liu Q#, Zhang T#, et al. **Elucidate the Role of Artificial Intelligence in Drug Development from the Perspective of Drug-Target interactions.**
(Journal of Pharmaceutical Analysis, under review)
- Wang B#, Chen P#, Zhao W, et al. **Regulation of Cell Cycle by Pien Tze Huang in preventing Hepatocellular carcinoma progression.**
(Phytomedicine, under review)
- Zhao W, Wang B, Li S. **Network Pharmacology for Traditional Chinese Medicine in the Era of Artificial Intelligence.**
(Chinese Herbal Medicine, under review)

Preprints

- 2023 **A network-based biomarkers discovery of Cold/Hot ZHENG chronic gastritis and Cold/Hot herbs of formulae**
Wang B, Chen P, Zhang P, Li S.
arXiv:2302.05450 (2023).

- 2024 **Clinical multi-omics reveals the role of Tuomin Zhiti Decoction Intervention in Allergic Rhinitis from the perspective of biological network**
Zhao W#, **Wang B**#, Kong L, Wang Q, Li S.
medRxiv 2024.03.10.24303911 (2024).
- 2024 **Capsaicin acts as a novel NRF2 agonist to suppress ethanol induced gastric mucosa oxidative damage by directly disrupting the KEAP1-NRF2 interaction**
Gao X, Zhang B, Liu P, Yuwen M, Liu Z, Tan R, **Wang B**, Liu K, Yang Z, Ba J, Bai X, Shama S, Tang C, Liu L, Zhu C, Wang T, Li S, Kang J.
bioRxiv 2024.01.06.574490 (2024).
- 2024 **The regulatory role of JZOL on TRP channels in the treatment of Acute Bronchitis based on the combination of clinical trials, computational analysis and in vivo experiments**
Qinhua Fan#, Chongming Wu#, Yawei Du#, **Boyang Wang**#, et al.
medRxiv, 2024.05.07.24306993 (2024).
- 2024 **Unveil the mechanism of Jinzhen Oral Liquid combined with Azithromycin in the treatment of Mycoplasma pneumoniae pneumonia based on Network pharmacology and clinical trials**
Chengliang Zhong#, Shengxuan Guo#, Qingyuan Liu#, Deyang Sun#, **Boyang Wang**#, et al.
medRxiv, 2024.06.27.24309347 (2024).

Awards and Honors

- 2024 Highest prize in 49th International Exhibition of Inventions Geneva (**Gold with congratulations of the Jury**, the 3rd author)
- 2022 Jiukun Scholarship 2nd Prize in Tsinghua University
- 2021 National Scholarship in HIT
- 2018–2021 People's Scholarship 1st Prize in HIT (4 times)
- 2019 "AVIC" 2nd Class Scholarship in HIT
- 2020 College Student Science and Technology Innovation Project 1st Prize in HIT
- 2020 Merit Student in HIT
- 2020 Outstanding Youth League Cadre in Automation Department in HIT