Meng Mao

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Address: Harbin Institute of Technology, Harbin, 150001, China

EDUCATION

- **College of Pharmacy, Harbin Medical University** **2015.09-2020.06**
  Ph.D. IN Pharmacology **Supervisor :** Jing Ai
- **College of Pharmacy, Harbin Medical University** **2010.09-2015.06**
  B.S.. IN Clinical Pharmacy

WORK EXPERIENCES

- **The Brain Cognition and Brain Disease Institute of Shenzhen Institute of Advanced Technology, Chinese Academy of Science** **2020.09-2023.02**
  Postdoctor IN Neurobiology **Supervisor :** Yu Chen
- **School of Medicine and Health, Harbin Institute of Technology** **2023.03-Present**
  Associate Researcher IN Biomedical Engineering **Supervisor :** Qiang He

RESEARCH INTEREST

- Preparation and applications of micro/nanomotors in brain diseases therapy.

PUBLICATIONS

- **Paper :**

[1] Gao,YY, **Mao,M**, Li,Y, Xuan,MJ, Wu,Y J, He,Q. A self-directed Trojanbot-enzymatic nanobot in neutrobot for active target therapy of glioblastoma. ***Nature Communication***, 2025, Accepted. DOI: 10.1038/s41467-025-60422-z. **(JCR Q1, IF=14.9)**

[2] **Mao,M**, Wu,Y J, He,Q. Breaking through physiological barriers: Nanorobotic strategies for active drug delivery. ***Bioconjugate Chemistry***, 2025, 36(1):1-14. **(JCR Q1, IF=4.0)**

[3] **Mao,M**, Wu,Y J, He,Q. Recent advances in targeted drug delivery for the treatment of glioblastoma. ***Nanoscale,*** 2024,16(18):8689-8707. **(JCR Q1, IF=5.8)**

[4] **Mao,M**, Yang,L, Jin,Z, et al. Impact of intrauterine hypoxia on adolescent and adult cognitive function in rat offspring: sexual differences and the effects of spermidine intervention. ***Acta Pharmacologica Sinica,*** 2021,42(3):361-369. **(JCR Q1, IF=6.9)**

[5] **Mao,M**, Xu,Y, Zhang, XY, et al. MicroRNA-195 prevents hippocampal microglial/macrophage polarization towards the M1 phenotype induced by chronic brain hypoperfusion through regulating CX3CL1/CX3CR1 signaling. ***Journal of Neuroinflammation,*** 2020,17(1):244. **(JCR Q1, IF=9.3)**

RESEARCH EXPERIENCE

China Postdoctoral Science Foundation Program (Grant No.2024CX12C02) **2025-01.-2028-12**
Active targeted drug delivery research for precision therapy of periodontitis. **Host**

Heilongjiang Provincial Natural Science Foundation of China (Grant No.2024M764205) **2025-01-2027.12**
Swimming nanorobots crossing the blood-brain barrier for active targeted drug delivery to glioma. **Host**

National Natural Science Foundation of China (Grant No.U23A20342) **2024.01-2027.12**
Research on key technologies of nanorobots based marsupial robotic system for brain glioma treatment. **Participate**

China Postdoctoral Science Foundation (Grant No. 2024M764205) **2024.05-2025.06**
Glucose-Driven Lipid Nanomotors for Active Targeted Drug Delivery to Glioma across the Blood-Brain Barrier. **Host**

Postdoctoral Fellowship Program of CPSF (Grant No.GZC20233468) **2023.12 -2025.12**
Key fundamental research on drug-delivering swimming nanorobots for glioma therapy. **Host**