Siqi, Liu

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EDUCATION

University of Kentucky **Lexington, KY, USA**

IBS program *08/2024-07/2025*

MIMG *08/2025*

Institute of Materia Medica (IMM) **Beijing, China**

Chinese Academy of Medical Sciences & Peking Union Medical College

Master of Pharmacy ***09/2021-07/2024***

- Major: Pharmacy GPA: 3.74/4.0
- Relevant Coursework: *Medical Immunology, New Drug Pharmacology, Molecular Pharmacology, Pathology Technology, Pharmacological Models of Human Diseases and the Drug Efficacy Evaluation*

China Pharmaceutical University (CPU) **Nanjing, China**

Bachelor of Science ***09/2017-06/2021***

- Major: Pharmacy GPA: 3.82/4.0
- Relevant Coursework: *Pharmacology, Computer-Aided Drug Design, Synthetic Reaction of Drugs, Medicinal Chemistry, Medicinal Chemistry of Natural Products, Pharmaceutics, Pharmaceutical Analysis; Anatomical Physiology, Biochemistry, Cell Biology, Molecular Biology, Microbiology; Mathematical Statistics; Elementary Chemistry, Organic Chemistry, Instrumental Analysis, Physical Chemistry*

PUBLICATION

ZHENG Kai-lu, TANG Mei, DENG Hai-dong, **LIU Si-qi**, LIU Xiao-yu, LI Yan*. *The antitumor activity and mechanisms of action caffeic acid phenethyl ester derivative PEC01 in mouse G422 glioma*. Acta Pharmaceutica Sinica, 2022, 57(4): 1063-1072.

DENG Haidong[1], **LIU Siqi**[1], LI Didi Li, WANG Weiping, YE Ling, XU Shaofeng, WANG Xiaoliang*, LI Yan*. *Investigating the Pharmacological Mechanism of Zhengyuan Jiaonang for Treating Colorectal Cancer via Network Pharmacology Analysis and Experimental Verification.* Journal of Ethnopharmacology. 2024 Mar 25:322:117607.

DENG Haidong[1], LEI Ting[1], **LIU Siqi**, HAO Wenzhe, HU Mengqing, XIANG Xin, YE Ling, CHEN Dongting, LI Yan*, LIU Fangjun*. *Proteomics study of primary and recurrent adamantinomatous craniopharyngiomas.* Clinical Proteomics. 2024 Apr 9;21(1):29.

PROFESSIONAL SKILLS

- **Languages**: Native Mandarin, English
- **Computer Skills:** Proficient in Office Suite (Word, PowerPoint, Excel); able to apply Photoshop to accomplish scientific mapping
- **Professional Skills:** Cell apoptosis analysis, cell cycle analysis, Western Blot, MTT assay, tumor cell culture, blood cell count, flow cytometry, primary cell culture, single-cell clone, QPCR, PCR, agarose gel electrophoresis, experiment of mice (administration of subcutaneous tumor and orthotopic tumor, intragastric administration, subcutaneous injection, intraperitoneal injection, tail intravenous injection); the sample preparation of single-cell sequencing; simple analysis of proteomics and transcriptomics data; bioinformatics analysis (GEO2R, STRING, Cytoscape, GEPIA2, UCSC Xena, HPA, cBioPortal, DAVID, TTD, TCMSP, Swiss target prediction); data statistics by SPSS, data charting by GraphPad Prism

RESEARCH

Establishment of Subcutaneous Tumor Model of Drug-resistance of Pancreatic Cancer in Mice, Study on Drug-resistant Mechanism and Anti-drug-resistant Mechanism **Beijing, China**

Member| Advisor: Prof. Li Yan from IMM ***09/2021-07/2024***

Key Insights: The *in vivo* model of pancreatic cancer resistant to GEM was established. Explored drugs against tumor drug

resistance by studying the mechanisms of drug resistance in pancreatic cancer. Ccr5 and its ligand Ccl5 were found to be highly expressed in drug-resistant tumor through proteomics and transcriptomics, respectively. Then the efficacy of the anti-Ccr5 drug was verified, and the mechanisms of the drug were explored.

Bioinformatics-based Exploration of New Drugs for Pancreatic Cancer **Beijing, China**

Member| Advisor: Prof. Li Yan from IMM ***01/2022-12/2022***

Key Insights: Through bioinformatics analysis, the expression of hub genes was significantly elevated in cancer tissues and correlated with poor prognosis. Targeted inhibition of these genes affected cell cycle regulation and tumor proliferation, suggesting their potential as therapeutic targets in pancreatic cancer.

Network Pharmacological Analysis and Experimental Verification of Pharmacological Mechanism of Zhengyuan Jiaonang in Treating Colorectal Cancer **Beijing, China**

Member| Advisor: Prof. Li Yan from IMM ***07/2021-12/2023***

Objective: To expand the application scope of the drug, verify the anti-tumor efficacy of it, and explain the mechanism of drug action

Publication: *Investigating the Pharmacological Mechanism of Zhengyuan Jiaonang for Treating Colorectal Cancer via Network Pharmacology Analysis and Experimental Verification.* Journal of Ethnopharmacology. 2024 Mar 25:322:117607.

Exploration of Adamantinomatous Craniopharyngiomas (ACPs) **Beijing, China**

Member| Advisor: Prof. Li Yan from IMM, Ms. Yi Lili from Liaocheng People's Hospital ***07/2022-07/2024***

Objective: To elaborate on the mechanism of action of Adamantinomatous craniopharyngiomas (ACPs)

Publication: *Proteomics study of primary and recurrent adamantinomatous craniopharyngiomas.* Clinical Proteomics. 2024 Apr 9;21(1):29.

Key Technology Tool System and Application Demonstration for Pharmaceutical Big Data Standardization **Beijing, China**

Member| Advisor: Researcher Li Yan from IMM ***12/2021-07/2024***

Responsibilities:

- Participated in the formulation of group standards for pharmaceutical data sets
- Participated in the production and testing of raw data verification, proteomics data analysis, transcriptomic data analysis websites; asked for experts' professional modification opinions; and responsible for all meeting minutes

ADDITIONAL INFORMATION

- **Volunteer (30 hours+):** Hospital volunteer service; volunteer services at a nursing home, library, and medicinal garden; relief supplies distribution during the Covid-19 pandemic
- **Interests:** Badminton, Photography.