Jian-Lin Wu PhD



Positon: Professor

Faculty: State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology Email: jlwu@must.edu.mo Tel.: (853) 8897-2406; Fax No.: (853) 2882-5886 Office: R505 Address: R505, Avenida Wai Long, Taipa, Macau University of Science and Technology, Macau

Research Areas:

Problem Oriented Multi-omics Integrated analysis technology based on Mass Spectrometry (POMIMS) and its application in biomedicine.

Teaching subjects

Teaching subjects: Instrumental Analysis, Pharmaceutical Analysis, Pharmaceutical Analysis-Laboratory, Analytical Chemistry, Analytical Chemistry-Laboratory, Fundamental Chemistry for Pharmaceutics-Laboratory, Advanced Methodology in Pharmacy, and Modern Biotechnology.

Personal profile

Jian-Lin Wu is currently a professor at the State Key Laboratory for Quality Research in Chinese Medicines (Macau University of Science and Technology). He is Committee Member of "The China Association for Instrumental Analysis (CAIA)", Executive Committee Member of "The Committee for Fundamental Immunity, Asia-Pacific Association of Medicine and Bio-Immunology", Committee Member of "The Pharmaceutical Analysis Professional Committee, Chinese Pharmaceutical Association", Committee Member of "Development of Food and Medicine Continuum Industry, Chinese Nutrition Society". He also serves as an editorial board member of journals such as the *Journal of Pharmaceutical Analysis, Current Research in Food Science, Phytochemical Analysis, Allergy Medicine, Microbiota & Diseases,* and *Health and Metabolism.*

His research team established Problem Oriented Multi-omics Integrated analysis technology based on Mass Spectrometry (POMIMS) including Carboxylomics, Metabolic Flux, Microbiomics, Peptidomics, and Proteomics. On this basis, he has developed some original analysis methods and applied them in many fields of biomedicine, including clinical disease diagnosis and mechanism studies, Key technologies of Comprehensive Components Analyses of Complex Systems (CCACS) for "Food and Medicine Continuum" as well as product development.

So far, he has published over 150 SCI papers with a total impact factor of more

than 1000 points. Since 2019, he has published 105 SCI papers as the first or corresponding author in Q1 Top journals, such as *Cell Research, Gastroenterology, Journal of Pharmaceutical Analysis, Psychiatry and Clinical Neurosciences, Pediatric Allergy and Immunology, Environmental Science & Technology, Journal of Hazardous Materials, Environment International, Medicinal Research Reviews, TrAC Trends in Analytical Chemistry, Journal of Analysis and Testing, Food Hydrocolloids, Metabolism, International Journal of Biological Macromolecules, Current Opinion in Food Science, Food Chemistry, Food Chemistry X, Food Research International, Current Research in Food Science, Journal of Agricultural and Food Chemistry, BioScience Trends, Ecotoxicology and Environmental Safety. As well as collaboration with other research groups published in journals such as <i>Gut, Nature Communications, Proceedings of the National Academy of Sciences, Signal Transduction and Targeted Therapy* and so on. The total number of citations is over 6,200 and the H-index is 41 (Google Scholar), there are four top 1% Highly Cited Papers (Web of Science). Authorized and applied for 5 international patents and 23 domestic patents.

Among the eleven graduate students who graduated from his research team, four have won the Scientific and Technological R&D Award for Postgraduates, issued by the Macao government. He has authorized and applied for 5 international patents and 25 domestic patents. He has also received 16 funds as PI and Co-PI, with a total funding of more than MOP 45,000,000. In terms of product development, his research team has developed more than 10 kinds of medicinal and edible products with multiple active ingredients, including jellies, oral liquids, beverages, and granules.

Education

- 2005.11-2009.09 Department of Chemistry, Hong Kong Baptist University, *Doctor of Philosophy* in Analytical Chemistry.
- 2002.09-2004.07 Faculty of Engineering, Niigata University, Japan, *Master of Engineering* in Natural Products Chemistry.

Work experience

- 2011.11-now Assistant Professor, Associate Professor, Professor, Macau University of Science and Technology
- 2010.04-2011.11 *Postdoctoral Fellow*, Department of Pathology, Li Ka Shing School of Medicine, The University of Hong Kong.

Publications

Published over 150 academic papers, of which the selected papers from 2019 to present are as follows:

 Y. Ge, L. Zhang, W. Miao, S. Gong, L. Zhng, W. Bai, J.L. Wu^{*}, N. Li^{*}. FPS_P/N: A two-dimensional mass spectrometry utilization program with precursor ion determination for accurately distinguishing anthocyanin from other flavonoids. *J Pharm Anal.* 2025, doi.org/10.1016/j.jpha.2025.101385. (2024 Impact factor: 8.9, **Q1 top**, 14/352).

- X. Hu, J. Liu, J.L. Wu^{*}, Z. Xiong, N. Li^{*}. Chemical Proteomics Unraveling the Contribution of Covalent Protein. Modifications to Antidepressant Effects of Ketamine. *J Anal Test.* 2025, doi.org/10.1007/s41664-025-00369-8. (2024 Impact factor: 7.0, Q1 top, 9/111).
- X. Bian^{*}, Y. Zhuo, L. Zhou, Y. Zhu, N. Li, J.L. Wu^{*}. Carboxylic acid metabolism in cancer: Mechanisms, microenvironment interactions, and therapeutic opportunities. *Metabolism* 2025, *171*, 156334. (2024 Impact factor: 11.9, Q1 top, 9/191).
- L. Zhang, S. Gong, Y. Zuo, L. Zhang, J. Chen, Y. Xu, Y. Wu, Y. Zhao, J.L. Wu^{*}, N. Li^{*}. Soybean fermentation drives the production of native neuroprotective peptides based on a peptidomics strategy. *Curr Res Food Sci.* 2025, *10*, 101082. (2024 Impact factor: 7.0, Q1 top, 18/181).
- 5. X. Wang, T. Tian, N. Li^{*}, L. Zheng, Y. Wu, W. Bian, **J.L. Wu**^{*}, T. Zhou^{*}. Characterization and gelling properties of pectin extracted from Gardenia fruit. *Food Hydrocolloid*. **2025**, *163*, 111055. (2024 Impact factor: 12.4, **Q1 top**, 4/181).
- Y. Gao, T. Tian, X. Liu, Y. Zhang, P. Hai, W. Zhang, Y. Zhai, .C Wang^{*}, J.L. Wu^{*}, J. Wen^{*}, T. Zhou^{*}. Spatial metabolomics and feature-based molecular networking to unveiling in-situ quality markers landscape and reflecting geographic origins of pomegranate seeds. *Food Chem.* 2025, 471, 142761. (2024 Impact factor: 9.8, Q1 top, 4/112).
- J. Chen, W. Yuan, W. Miao, S. Gong, J. Zhou, Y. Liu, J.L. Wu^{*}, N. Li^{*}. In vitro and in vivo immune-enhancing effects of polysaccharides with different molecular weights and structural characteristics from Gastrodia elata Blume. *Int J Biol Macromol.* 2025, 295, 139526. (2024 Impact factor: 8.5, Q1 top, 6/94).
- 8. S. Gong, G Bai, Y. Ban, M. Liu, Y. Liu, Y. Wu, N Li^{*}, **J.L. Wu**^{*}. The underappreciated diversity of furanocoumarins in grapefruits revealed by MassQL filtered molecular networking. *Food Chem X* **2025**, *25*, 102233. (2024 Impact factor: 8.2, **Q1 top**, 11/181).
- W. Miao, N. Li^{*} J. Chen, J.L. Wu^{*}. Composition-dependent MRM transitions and structure-indicative elution segments (CMTSES)-based LC-MS strategy for disaccharide profiling and isomer differentiation. *Anal Chim Acta* 2025, *1337*, 343562. (2024 Impact factor: 6.0, Q1).
- X. Hu, J.L. Wu^{*}, Q. He, Z. Xiong, N. Li^{*}. Strategy for Cysteine-Targeting Covalent Inhibitors Screening using In-house Database based LC-MS/MS and Drug Repurposing. *J Pharm Anal.* 2025, *15*, 101045. (2024 Impact factor: 8.9, Q1 top, 14/352).
- J. Han, Q. Yang, Z. Zhi, N. Li^{*}, J.L. Wu^{*}. Bromine signature coded derivatization LC-MS for specific profiling of carboxyl or carbonyl-containing metabolites in Mycoplasma pneumoniae infection. *Talanta* 2025, 285, 127345. (2024 Impact

factor: 6.1, Q1).

- M. Liu, Z. Ning, Y. Cheng, Z. Zheng, X. Yang, T. Zheng, N. Li^{*}, J.L. Wu^{*}. The key to 2, 6-dichloro-1, 4-benzoquinone reproductive toxicity and green tea detoxification: Covalent binding and competitive binding. *Ecotoxicol Environ Saf.* 2024, 286, 117239. (2024 Impact factor: 6.1, Q1 top, 10/106).
- W. Li, Q. Zhou, B. Lv, N. Li, X. Bian, L. Chen, M. Kong, Y. Shen, W. Zheng, J. Zhang, F. Luo, Z. Luo, J. Liu^{*}, J.L. Wu^{*}. Ganoderma lucidum Polysaccharide Supplementation Significantly Activates T-Cell-Mediated Antitumor Immunity and Enhances Anti-PD-1 Immunotherapy Efficacy in Colorectal Cancer. *J Agric Food Chem.* 2024, 72, 12072. (2024 Impact factor: 6.2, Q1 top, 7/94).
- J. Chen, W. Miao, Y. Liu, J. Zhou, J. Han, L. Zhang, X. Bian, T. Zhong, J.L. Wu^{*}, N. Li^{*}. Structural characterization, molecular dynamic simulation, and conformational visualization of a water-soluble glucan with high molecular weight from Gastrodia elata Blume. *Int J Biol Macromol.* 2024, 263, 130207. (2024 Impact factor: 8.5, Q1 top, 6/94).
- X. Wang, X. Bian, P. Dong, L. Zhang, L. Zhang, C. Gao, H. Zeng, N. Li^{*}, J.L. Wu^{*}. Food processing drives the toxic lectin reduction and bioactive peptide enhancement in Pinellia ternate. *Curr Res Food Sci.* 2024, *9*, 100895. (2024 Impact factor: 7.0, Q1 top, 18/181).
- J. Zhou, J. Chen, S. Gong, Y. Ban, L. Zhang, Y. Liu, J.L. Wu^{*}, N. Li^{*}. Isolation, Bioactivity, and Molecular Docking of a Rare Gastrodin Isocitrate and Diverse Parishin Derivatives from Gastrodia elata Blume. *ACS Omega* 2024, *9*, 14520. (2024 Impact factor: 4.3, Q2).
- Y. Zuo, S. Gong, L. Zhang, J. Zhou, J.L. Wu^{*}, N. Li^{*}. A Deep Mining Strategy for Peptide Rapid Identification in Lactobacillus reuteri Based on LC–MS/MS Integrated with FBMN and De Novo Sequencing. *Metabolites* 2024, 14, 467. (2024 Impact factor: 3.7, Q2).
- X. Hu, S. Gong, Q. He, J.L. Wu^{*}, N. Li^{*}. Less is More: A New Perspective for Toxicity of Emerging Contaminants by Structures, Protein Adducts and Proteomics. *Trends Anal Chem.* 2023, *167*, 117289. (2024 Impact factor: 12.0, Q1 top, 2/111).
- J. Han, S. Gong, X. Bian, Y. Qian, G. Wang, N. Li^{*}, J.L. Wu^{*}. Polarity-regulated derivatization-assisted LC-MS method for amino-containing metabolites profiling in gastric cancer. *J Pharm Anal.* 2023, *13*, 1353. (2024 Impact factor: 8.9, Q1 top, 14/352).
- Y. Gao, Y. Fu, N Li, Y. Jiang, X. Liu, C Gao, L. Wang, J.L. Wu^{*}, T. Zhou^{*}. Carboxyl-containing Components Delineation via Feature-based Molecular Networking: A Key to Processing Conditions of Fermentation Soybean. *Food Chem.* 2023, 423, 136321. (2024 Impact factor: 9.8, Q1 top, 4/112).
- 21. Y. Ge, X. Li, M. Huang, Z Huang, M. Wu, B. Sun, L. Wang, J.L. Wu^{*}, N. Li^{*}.

Aroma correlation assisted volatilome coupled network analysis strategy to unveil main aroma-active volatiles of Rosa roxburghii. *Food Res Int.* **2023**, *169*, 112869. (2024 Impact factor: 8.0, **Q1 top**, 13/181).

- X. Bian, Y. Zhang, N. Li, M. Shi, X. Chen, H. Zhang, J. Liu^{*}, J.L. Wu^{*}. Ultrasensitive quantification of trace amines based on N-phosphorylation labeling chip 2D LC-QQQ/MS. *J Pharm Anal.* 2023, *13*, 315. (2024 Impact factor: 8.9, Q1 top, 14/352).
- X. Bian, N. Zhou, Y. Zhao, Y. Fang, N. Li, X. Zhang, X. Wang, Y. Zhang, J.L. Wu^{*}, T. Zhou^{*}. Identification of proline, 1-pyrroline-5-carboxylate and glutamic acid as biomarkers of depression reflecting brain metabolism using carboxylomics, a new metabolomics method. *Psychiat Clin Neuros*. 2023, 77, 196. (2024 Impact factor: 6.2, Q1 top, 21/288). Editor's Choice Article
- A. Serag, M.A. Salem, S. Gong, J.L. Wu^{*} M.A. Farag^{*}. Decoding Metabolic Reprogramming in Plants under Pathogen Attacks, a Comprehensive Review of Emerging Metabolomics Technologies to Maximize Their Applications. *Metabolites* 2023, 13, 424. (2024 Impact factor: 3.7, Q2).
- W. Miao, X. Liu, N. Li, X. Bian, Y. Zhao, J. He, T. Zhou^{*}, J.L. Wu^{*}. Polarityextended composition profiling via LC-MS-based metabolomics approaches: A key to functional investigation of Citrus aurantium L. *Food Chem.* 2023, 405, 134988. (2024 Impact factor: 9.8, Q1 top, 4/112).
- Y. Zhang, X. Bian, G. Yan, B. Sun, W. Miao, M. Huang, N. Li^{*}, J.L. Wu^{*}. Discovery of novel ascorbic acid derivatives and other metabolites in fruit of Rosa Roxburghii Tratt through untargeted metabolomics and feature-based molecular networking. *Food Chem.* 2023, 405, 134807. (2024 Impact factor: 9.8, Q1 top, 4/112).
- L. Zhang, N. Li^{*}, S. Chen., X. Bian., M.A. Farag., Y. Ge., J. Xiao, J.L. Wu^{*}. Carboxyl-containing compounds in food: Category, functions, and analysis with chemical derivatization-based LC-MS. *Trends Anal Chem.* 2022, *157*, 116818. (2024 Impact factor: 12.0, Q1 top, 2/111).
- X. Hu, J.L. Wu^{*}, W. Miao, F. Long, H. Pan, T. Peng, X. Yao, N. Li^{*}. Covalent Protein Modification: An Unignorable Factor for Bisphenol A-induced Hepatotoxicity. *Environ Sci Tech.* 2022, *56*, 9536. (2024 Impact factor: 11.3, Q1 top, 19/374).
- S. Gong, X. Hu, S. Chen, B. Sun, J.L. Wu^{*}, N Li^{*}. Dual roles of drug or its metabolite protein conjugate (DMPC): cutting-edge strategy of drug discovery using shotgun proteomics. *Med Res Rev.* 2022, 42, 1704. (2024 Impact factor: 11.6, Q1 top, 1/72).
- W. Miao, N. Li, J.L. Wu^{*}. Food-polysaccharide utilization via in vitro fermentation: microbiota, structure, and function. *Curr Opin Food Sci.* 2022, 48, 100911. (2024 Impact factor 9.1 Q1 top, 9/181).

- MS-FINDER Assisted Understanding the Flavonoids Profile in Temporal Dimension during Fermentation of Pu-erh Tea. X. Wang, N. Li^{*}, S. Chen1, Y. Ge, Y. Xiao, M. Zhao, J.L. Wu^{*}. *J Agric Food Chem.* 2022, *70*, 7085. (2024 Impact factor: 6.2, Q1 top, 7/94). <u>Front Cover</u>
- Q. Zhu, Y. Ge, N. An, N. Li, Y. Xiao, G. Huang, L. Zhang, Y. Feng^{*}, J.L. Wu^{*}. Profiling of Branched Fatty Acid Esters of Hydroxy Fatty Acids in Teas and Their Potential Sources in Fermented Tea. *J Agric Food Chem.* 2022, *70*, 5369. (2024 Impact factor: 6.2, Q1 top, 7/94). <u>Supplementary Cover</u>
- L. Zhang, J.L. Wu^{*}, P. Xu, S. Guo, T. Zhou, N. Li^{*}. Soy protein degradation drives diversity of amino-containing compounds via Bacillus subtilis natto fermentation. *Food Chem.* 2022, *388*, 133034. (2024 Impact factor: 9.8, Q1 top, 4/112).
- X. Bian, W. Miao, M. Zhao, Y. Zhao, Y. Xiao, N. Li^{*}, J.L. Wu^{*}. Microbiota Drive Insoluble Polysaccharides Utilization via Microbiome-Metabolome Interplay during Pu-erh Tea Fermentation. *Food Chem.* 2022, *377*, 132007. (2024 Impact factor: 9.8, Q1 top, 4/112)..
- 35. X. Bian, X. Xie, Y. Zhao, W. Miao, X. Chen, Y. Xiao, N. Li^{*}, J.L. Wu^{*}. Dynamic Changes of Phenolic Acids and Antioxidant Activity of Citri Reticulatae Pericarpium during Aging Processes. *Food Chem.* 2022, *373*, 131399. (2024 Impact factor: 9.8, Q1 top, 4/112).
- 36. S. Chen, Y. Fu, X. Bian, M. Zhao, Y. Zuo, Y. Ge, Y. Xiao, J. Xiao, N. Li^{*}, J.L. Wu^{*}. Investigation and dynamic profiling of oligopeptides, free amino acids and derivatives during Pu-erh tea fermentation by ultra-high performance liquid chromatography tandem mass spectrometry. *Food Chem.* 2022, *371*, 131176. (2024 Impact factor: 9.8, Q1 top, 4/112).
- 37. Q. Li, W. Hu, W.X. Liu, L.Y. Zhao, D. Huang, X. Liu, H. Chan, Y. Zhang, J. Zeng, O.O. Coker, W. Kang, S.S.M. Ng, L. Zhang, S.H. Wong, T. Gin, M.V. Chan^{*}, J.L. Wu^{*}, J. Yu^{*}, W.K.K. Wu^{*}. *Streptococcus thermophilus* inhibits colorectal tumorigenesis through secreting β-galactosidase. *Gastroenterology* 2021, *160*, 1179. (2024 Impact factor: 25.1, Q1 top, 5/147). <u>Top 1% Highly Cited Paper (143 Citations).</u>
- P. Zheng, X. Bian, Y. Zhai, C. Li, C. Hao, H. Huang, W. Luo, Z. Huang, C. Liao, M. Xue, N. Li, M.Q. Guo, B. Sun^{*}, J.L. Wu^{*}. Metabolomics reveals a correlation between hydroxyeicosatetraenoic acids (HETEs) and allergic asthma: evidence from three years' immunotherapy. *Pediatr Allergy Immunol.* 2021, *32*, 1654. (2024 Impact factor: 4.5, Q1 top, 9/191). Editor's Choice Article
- 39. Y. Ge, N. Li, Y. Fu, X. Yu, Y. Xiao, Z. Tang, J. Xiao, J.L. Wu^{*}, Z.H. Jiang^{*}. Deciphering superior quality of Pu-erh tea from thousands of years' old trees based on chemical profile. *Food Chem.* 2021, 358, 129602. (2024 Impact factor: 9.8, Q1 top, 4/112).
- 40. S. Chen, G. Huang, W. Liao, S. Gong, J.B. Xiao, J. Bai, W.L.W. Hsiao, N. Li*,

J.L. Wu^{*}. Discovery of the bioactive peptides secreted by Bifidobacterium using integrated MCX coupled with LC-MS and feature-based molecular networking. *Food Chem.* **2021**, *347*, 129008. (2024 Impact factor: 9.8, **Q1 top**, 4/112).

- Y. Zhuo, Y. Zhang, M. Li, H. Wu, S. Gong, X. Hu, Y. Fu, X. Shen, B. Sun, J.L. Wu^{*}, N. Li^{*}. Hepatotoxic Evaluation of Toosendanin via Biomarker Quantification and Pathway Mapping of Large-Scale Chemical Proteomics. *Food Chem Toxicol.* 2021, *153*, 112257. (2024 Impact factor: 3.5, Q2).
- 42. Y. Luo, F. Gao, R. Chang, X. Zhang, J. Zhong, J. Wen^{*}, J.L. Wu^{*}, T. Zhou^{*}. Metabolomics based comprehensive investigation of Gardeniae Fructus induced hepatotoxicity. *Food Chem Toxicol.* 2021, *153*, 112250. (2024 Impact factor: 3.5, Q2).
- X. Hu, X. Bian, W.Y. Gu, B. Sun, X. Gao, J.L. Wu^{*}, N. Li^{*}. Stand out from matrix: Ultra-sensitive LC–MS/MS method for determination of histamine in complex biological samples using derivatization and solid phase extraction. *Talanta* 2021, 225, 122056. (2024 Impact factor: 6.1, Q1).
- P. Zheng, G. Yan, Y. Zhang, H. Huang, W. Luo, M. Xue, N. Li, J.L. Wu^{*}, B. Sun^{*}. Metabolomics reveals process of allergic rhinitis patients with 2 single-and double-species mite subcutaneous immunotherapy. *Metabolites* 2021, *11*, 613. (2024 Impact factor: 3.7, Q2).
- S. Gong, Y. Zhuo, S.S. Chen, X. Hu, X.X. Fan, J.L. Wu^{*}, N. Li^{*}. Quantification of Osimertinib and Metabolite-Protein Modification Reveals its High Potency and Long Duration of Effects on Target Organ. *Chem Res Toxicol.* 2021, *34*, 2309. (2024 Impact factor: 3.8, Q2).
- 46. K. Li[#], J.L. Wu[#], B. Qin, Z. Fan, Q. Tang, W. Lu, H. Zhang, F. Xing, M. Meng, S. Zou, W. Wei, H. Chen, J. Cai, H. Wang, H. Zhang, J. Cai, L. Fang, X. Bian, C. Chen, P. Lan, B. Ghesquière, L. Fang^{*}, M.H. Lee^{*}. ILF3 is a substrate of SPOP for regulating serine biosynthesis in colorectal cancer. *Cell Res.* 2020, *30*, 163-178. ([#]These authors contributed equally to this work). (2024 Impact factor: 25.9, Q1 top, 7/204).
- 47. M. Liu, N. Li^{*}, Y. Zhang, Z. Zheng, Y. Zhuo, B. Sun, L.P. Bai, M. Zhang, M.Q. Guo, J.L. Wu^{*}. Characterization of Covalent Protein Modification by Triclosan in vivo and in vitro via Three-Dimensional Liquid Chromatography-Mass Spectrometry: New Insight into Its Adverse Effects. *Environ Int.* 2020, *136*, 105423. (2024 Impact factor: 9.7, Q1 top, 25/374).
- M.Z. Zhu, N. Li, F. Zhou, J. Ouyang, D.M. Lu, W. Xu, J. Li, H.Y. Lin, Z. Zhang, J.B. Xiao, K.B. Wang, J.A. Huang, Z.H. Liu^{*}, J.L. Wu^{*}. Microbial bioconversion of the chemical components in dark tea. *Food Chem.* 2020, *312*, 126043. (2024 Impact factor: 9.8, Q1 top, 4/112). <u>Top 1% Highly Cited Paper (257 Citations).</u>
- 49. X. Bian, Y. Qian, B. Tan, K. Li, X. Hong, C.C. Wong, L. Fu, J. Zhang, N. Li^{*}, J.L. Wu^{*}. In-depth Mapping Carboxylic Acid Metabolome Reveals the Potential

Biomarkers in Colorectal Cancer through Characteristic Fragment Ions and Metabolic Flux. *Anal Chim Acta* **2020**, *1128*, 62. (2024 Impact factor: 6.0, **Q1**).

- L. Li[#], J.L. Wu[#], X. Bian, G. Wu, P. Zheng, M. Xue, B. Sun. Analysis of serum polyunsaturated fatty acid metabolites in allergic bronchopulmonary aspergillosis. *Respir Res.* 2020, *21*, 205. ([#]These authors contributed equally to this work). (2024 Impact factor: 5.0, Q1).
- 51. M. Xue, P. Zheng, X. Bian, Z. Huang, H. Huang, Y. Zeng, H. Hu, Xiaoqing Liu, L. Zhou, B. Sun^{*}, J.L. Wu^{*}, N. Zhong^{*}. Exploration and correlation analysis of changes in Krebs von den Lungen-6 levels in COVID-19 patients with different types in China. *Biosci Trends* 2020, *14*, 290. (2024 Impact factor: 5.0, Q1 Top 9/107).
- J.L. Wu, F. Ji, H. Zhang, C. Hu, M.H. Wong, D. Hu, Z. Cai^{*}. Formation of dioxins from triclosan with active chlorine: A potential risk assessment. *J Hazard Mater*. 2019, *367*,128. (2024 Impact factor: 11.3, Q1 top, 19/374).
- 53. M. Zhao^{*}, X. Su, B. Nian, L. Chen, D. Zhang, S. Duan, L. Wang, X. Shi, B. Jiang, W. Jiang, C. Lv, D. Wang, Y. Shi, Y. Xiao, J.L. Wu^{*}, Y. Pan^{*}, Y. Ma^{*}. Integrated meta-omics approaches to understand the microbiome of spontaneous fermentation of traditional Chinese pu-erh tea. *mSystems* 2019, *4*, e00680. (2018 Impact factor: 4.6, Q1).
- 54. M. Zhang, Y. Pan, D. Tang, R.G. Dorfman, L. Xu, Q. Zhou, L. Zhou, Y. Wang, Y. Li, Y. Yin, B. Kong, H. Friess, S. Zhao, J.L. Wu^{*}, L. Wang^{*}, X. Zou^{*}. Low levels of pyruvate induced by a positive feedback loop protects cholangiocarcinoma cells from apoptosis. *Cell Commun Signal.* 2019, *17*, 23. (2024 Impact factor: 8.9, Q1).
- 55. L. Xu, L. Wang, L. Zhou, R.G. Dorfman, Y. Pan, D. Tang, Y. Wang, Y. Yin, C. Jiang, X.Zou, J.L. Wu^{*}, M. Zhang^{*}. The SIRT2/cMYC Pathway Inhibits Peroxidation-Related Apoptosis In Cholangiocarcinoma Through Metabolic Reprogramming. *Neoplasia* 2019, *21*, 429-441. (2024 Impact factor: 7.7, Q1).
- Y. Ge, X. Bian, B. Sun, M. Zhao, Y. Ma, Y.P. Tang, N. Li^{*}, J.L. Wu^{*}. Dynamic profiling of phenolic acids during Pu-erh tea fermentation using derivatization LC-MS approach. *J Agric Food Chem.* 2019, 67, 4568. (2024 Impact factor: 6.2, Q1 top, 7/94).
- 57. X. Yan, Y. Zhuo, X. Bian, J. Li, Y. Zhang, L. Ma, G. Lu, M.Q. Guo, J.L. Wu^{*}, N. Li^{*}. Integrated Proteomics, Biological Functional Assessments, and Metabolomics Reveal Toosendanin-Induced Hepatic Energy Metabolic Disorders. *Chem Res Toxicol.* 2019, *32*, 668. (2024 Impact factor: 3.8, Q2).
- 58. C. Luo, X. Bian, Q. Zhang, Z. Xia, B. Liu, Q. Chen, C. Ke, J.L. Wu^{*}, Y. Zhao^{*} Shengui Sansheng San Ameliorates Cerebral Energy Deficiency Via Citrate Cycle after Ischemic Stroke. *Front Pharmacol.* 2019, *10*, 386. (2024 Impact factor: 4.8, Q1).

- Y. Zhang, X. Bian, J. Yang, H. Wu^{*}, J.L. Wu^{*}, N. Li^{*}. Metabolomics of Clinical Poisoning by Aconitum Alkaloids using derivatization LC-MS. *Front Pharmacol.* 2019, 10, 275. (2024 Impact factor: 4.8, Q1).
- C.X. Cai, X. Bian, X.Q. Liu, J.X. Wang, H.S. Hu, S.G. Zheng, B.Q. Sun^{*}, J.L. Wu^{*}. Eicosanoids metabolized through LOX distinguish Asthma-COPD Overlap from COPD by metabolomics study. *Int J Chron Obstruct Pulmon Dis.* 2019, *14*, 1769. (2024 Impact factor: 3.1, Q2).
- X. Liu, J. Song, M. Yuan, F. Zuo, H. Li, L. Tang, X. Wang, X. Wang, Q. Xiao, L. Li, X. Liu, Z. Yang, J.L. Wu, J. Jing, X. Ma, H. Shi. Single-cell transcriptional dissection illuminates an evolution of immunosuppressive microenvironment during pancreatic ductal adenocarcinoma metastasis. *Signal Transduct Target Ther.* 2025, 10, 182. (2024 Impact factor: 52.7, Q1 top, 1/319).
- W Yang, W Zhang, X Huang, S Geng, Y Zhai, Y Jiang, T Tian, Y Gao, J He, T. Huang, Y. Li, W. Zhang, J. Wen, J.L. Wu, G. Wang, T. Zhou. Gut Microbiota, a Potential Mediated Target for Reducing Geniposide Hepatotoxicity by Interacting with Isoflavones. *Engineering* 2025, *47*, 222. (2024 Impact factor: 11.6, Q1 top, 3/175).
- J. Gao, J. Yang, H. Dong, S. Tao, J. Shi, B. He, X. Bian, J.L. Wu, Y. Yin, L. Hu, G. Jiang. The origin of methyl group in methanogen-mediated mercury methylation: From the Wolfe cycle. *Proc Natl Acad Sci USA* 2024, *121*, e2416761121. (2024 Impact factor: 9.1, Q1 top, 14/135).
- 64. J. Huang, D. Liu, Y. Wang, L. Liu, J. Li, J. Yuan, Z. Jiang, Z. Jiang, W.W. Hsiao, H. Liu, I. Khan, Y. Xie, J.L. Wu, Y. Xie, Y. Zhang, Y. Fu, J. Liao, W. Wang, H. Lai, A. Shi, J. Cai, L. Luo, R. Li, X. Yao, X. Fan, Q. Wu, Z. Liu, P. Yan, J. Lu, M. Yang, L. Wang, Y. Cao, H. Wei, E.L. Leung. Ginseng polysaccharides alter the gut microbiota and kynurenine/tryptophan ratio, potentiating the antitumour effect of antiprogrammed cell death 1/programmed cell death ligand 1 (anti-PD-1/PD-L1) immunotherapy. *Gut* 2022, *71*, 734. (2024 Impact factor: 25.8, Q1 top, 4/147). <u>Top 1% Highly Cited Paper (289 Citations).</u>
- C. Wong, J.L. Wu, F. Ji, W.Kang, X. Bian, H. Chen, L. Chan, S. Luk, S. Tong, J. Xu, Q. Zhou, D. Liu, H. Su, H. Gou, A. Cheung, K. To, Z. Cai, J. Shay, J. Yu. The cholesterol uptake regulator PCSK9 promotes and is a therapeutic target in APC/KRAS-mutant colorectal cancer. *Nat Commun.* 2022, *13*, 3971. (2024 Impact factor: 15.7, Q1 top, 10/135).
- G.L. Chen, M.X. Fan, J.L. Wu, N. Li, M. Guo. Antioxidant and anti-inflammatory properties of flavonoids from lotus plumule. *Food Chem.* 2019, 277, 706. (2024 Impact factor: 9.8, Q1 top, 4/112). <u>Top 1% Highly Cited Paper (149 Citations).</u>

Book Chapter

1. Progress of Chinmedomics (2020 Volume) *China Science Publishing & Media* ISBN 978-7-03-069354-9, 2021.7.

2. Allergy history-From unknown to counterattack *Peking Union Medical College Press* ISBN 978-7-5679-0775-1.

Selected Patents

- 1. Method and Kit for Detecting Carboxyl-Containing Compound. **WU, Jian-Lin**; LI, Na; LIU, Liang and BIAN, Xiqing; Australian patent; Patent No.: 2018100592;
- Method of determining histamine in a sample and kit for doing the same. WU, Jian-Lin; LI, Na; LIU, Liang; GU, Wan-Yi and BIAN, Xiqing; Australian patent; Patent No.: 2017100545;
- 3. Method for detecting trace amines based on DIPP derivatization-HPLC-ChipQQQ-MS and its application. **Wu, Jian-Lin**; Li, Na; Zhang, Yida; Bian, Xiqing. Chinese Patent: CN 113945675B (Granted);
- 4. Method of preparing gel composition and its use. **Wu, Jian-Lin**; Li, Na; Wang, Xuan. Chinese Patent: CN117044927A (Substantial examination).

Membership of Academic Associations and Community Service

- 1. Committee Member of "The China Association for Instrumental Analysis (CAIA)";
- 2. Executive Committee Member of "The Committee for Fundamental Immunity, Asia-Pacific Association of Medicine and Bio-Immunology";
- 3. Committee Member of "The Pharmaceutical Analysis Professional Committee, Chinese Pharmaceutical Association";
- 4. Committee Member of "The Development of Food and Medicine Continuum Industry, Chinese Nutrition Society";
- 5. Editorial board member: Journal of Pharmaceutical Analysis, Current Research in Food Science, Phytochemical Analysis, Allergy Medicine, Microbiota & Diseases, Health and Metabolism.