

Jian-Lin Wu *PhD*



Position: Associate Professor

Faculty: State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology

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Research Areas:

Mass spectrometry-based multi-Omics, pharmaceutical analysis, cancer mechanism

Teaching subjects and achievement

1. Teaching subjects: *Pharmaceutical Analysis, Pharmaceutical Analysis Lab, Analytical Chemistry, Analytical Chemistry Lab, Pharmaceutics Fundamental Chemistry Lab, Instrumental Analysis, Modern Biotechnology.*
2. In terms of undergraduate and postgraduate education, He feed scientific research back to teaching, Centering on the core issues of scientific research practice, conduct in-depth exchanges and communication with students in terms of experimental technology, experimental methods, experimental procedures, data processing, etc., encourage students to read more, think more, and practice more, starting from the practical perspective of solving problems, be bold Innovate, express opinions, and improve students' comprehensive literacy in an all-round way, thus playing the role of instructing study and research.
3. In terms of postgraduate training, he has rich experience and made some achievements. Up to now, 4 of 9 graduated postgraduates, Dr. Xiqing Bian, Dr. Meixian Liu, Dr. Shengshuang Chen and Miss Wanyi Gu, won the "Scientific and Technological R&D Award for Postgraduates" issued by the Government of Macao.

Personal profile

Dr. Jian-Lin Wu is associate professor and doctoral supervisor in the State Key Laboratory of Quality Research in Chinese Medicine (Macau University of Science and Technology), high-level overseas talent in the "Hundred Talents Program" of Shanxi Province, and concurrently serve as a Standing Committee member of the Pharmaceutical Analysis Professional Committee of the China Medicinal Biotech Association, members of Editorial Boards of several academic journals, such as *J Anal*

Testing and Se Pu. During the periods of undergraduate, master, doctor, and post-doctoral studies, the majors were medicinal chemistry, natural medicinal chemistry, analytical chemistry, and metabolomics, respectively. In addition, he also has eight and a half years of experience in pharmaceutical companies. All of these experience make him obtain multi-disciplinary skills, including basic research, pharmaceutical research and development, and pharmaceutical market. In recent years, he is mainly engaged in the method development of metabolomics, metabolic flux, and proteomics based on mass spectrometry and their application in pharmaceutical analysis, TCM analysis and gastrointestinal diseases mechanism and therapy study. Up to now, he has published more than 125 articles in peer-reviewed SCI journals. Among them, more than 103 SCI articles were published after 2016 as the first or corresponding author (including co-authors) in *Cell Res*, *Gastroenterology*, *Anal Chem*, *J Hazard Mater*, *Environ Int*, etc., and as co-author in *PNAS*, *Adv Sci*, *J Hepatol*, *Gut*, *Gastroenterology*, *Nat Commun* and so on. He has obtained 5 authorized international patents. Dr. Wu has hosted and participated in 19 projects supported by the Science and Technology Development Fund, Macau SAR and other funds with amount of more than 60 million RMB, including 13 projects with amount of more than 30 million RMB as principal investigator (PI) or co-principal investigator (Co-PI).

Representative scientific research results

During Dr. Wu's post-doctoral work at the Li Ka Shing Faculty of Medicine, the University of Hong Kong, he built the first set of online/offline ultra-high performance liquid chromatography-solid phase extraction-mass spectrometry-nuclear magnetic resonance system (UHPLC-SPE-NMR/MS) in Hong Kong, which was the second set in Asia, and established the "Metabolomics and Advanced Analytical Laboratory". After joining Macau University of Science and Technology in November 2011, he built online/offline UHPLC-SPE-NMR/MS integrated analysis system based on more than 10 mass spectrometers and 600 M nuclear magnetic resonance with Cryo-probe, and established "Center for Omics Technology and Innovative Drug Research" and "Macao Center for MS and NMR Analysis". Based on the above platform, he developed a series of Metabolic Flux, Metabolomics, Peptidomics and Proteomics approaches and proposed a Problem Oriented Multi-omics Integrated analysis technology based on Mass Spectrometry (POMIMS). In addition, he also developed a series of derivatization-LC-MS approaches to detect metabolites as much as possible, especially carboxyl-containing compounds, and proposed the concept of Carboxylomics for the first time. Above approaches solve the problems of full-component multi-dimensional analysis in complex system, qualitative and quantitative analysis of trace components, and precisely and dynamic positioning of effect substances, and is widely applied in pharmaceutical analysis, TCM analysis, diagnosis and mechanism of clinical diseases, and so on.

Education

2005.11-2009.09 Department of Chemistry, Hong Kong Baptist University, *Doctor of Philosophy* in Analytical Chemistry (Mass Spectrometry)

2002.09-2004.07 Faculty of Engineering, Niigata University, Japan, *Master of Engineering* in Natural Products Chemistry

Work experience

2018.07-now *Associate Professor*, Macau University of Science and Technology

2011.11-2018.06 *Assistant 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, Platform Construction and Metabolomics

2004.10-2005.10 *Research Assistant*, Department of Chemistry, Hong Kong Baptist University

Publications

Total of 129 academic papers have been published, of which the representative SCI papers from 2016 to present are as follows:

1. 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*, 1179-1193. (Impact factor: 29.4, Q1 top, 3/93). Top 1% Highly Cited Paper
2. 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). (Impact factor: 44.1, Q1 top, 4/194).
3. 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. (Impact factor: 13.1, Q1 top, 1/86).
4. 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**, in press

(doi.org/10.1016/j.jpha.2023.06.009). (Impact factor: 8.8, Q1 top, 9/279).

5. 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. (Impact factor: 8.8, Q1 top, 9/142).
6. 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. (Impact factor: 7.7, Q1 top, 13/144).
7. 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. (Impact factor: 8.8, Q1 top, 9/279).
8. 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. (Impact factor: 11.9, Q1 top, 8/212). Editor's Choice Article
9. 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. (Impact factor: 4.1).
10. W. Miao, X. Liu, N. Li, X. Bian, Y. Zhao, J. He, T. Zhou*, **J.L. Wu***. Polarity-extended composition profiling via LC-MS-based metabolomics approaches: A key to functional investigation of *Citrus aurantium L.* *Food Chem.* **2023**, 405, 134988. (Impact factor: 8.8, Q1 top, 9/142).
11. 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. (Impact factor: 8.8, Q1 top, 9/142).
12. 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. (Impact factor: 13.1, Q1 top, 1/86).
13. 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, 9536-9545. (Impact factor: 11.4 Q1 top, 19/274).

14. 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, 1704-1734. (Impact factor: 13.3 Q1 top, 8/277).
15. 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. (Impact factor 9.9 Q1 top, 7/143)
16. 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. (Impact factor: 6.1, Q1 top, 6/59). Front Cover
17. 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. (Impact factor: 6.1, Q1 top, 6/59). Supplementary Cover
18. 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. (Impact factor: 8.8, Q1 top, 9/142).
19. 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. (Impact factor: 8.8, Q1 top, 9/142).
20. 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. (Impact factor: 8.8, Q1 top, 9/142).
21. 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. (Impact factor: 8.8, Q1 top, 9/142).
22. L. Zhang, **J.L. Wu***. Less is more: Vital roles of bioactive equivalency in assessing food Quality. *eFood* **2022**, 3, e49.
23. M. Liu, H. Huang, X. Bian, Z. Zheng, N. Li, B. Sun*, **J.L. Wu***. A prospective cohort study of the presence of SARS-CoV-2 in clinical samples from multiple bodily sites: implications for transmission routes of COVID-19. *J Bio-X Res.* **2022**, 5, 27.
24. 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. (Impact factor: 4.4, Q1 top, 13/130). Editor's Choice Article (編輯推薦文章).
25. 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. (Impact factor: 8.8, Q1 top, 9/142).
 26. 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. (Impact factor: 8.8, Q1 top, 9/142).
 27. 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. (Impact factor: 4.3, Q1 top, 15/94).
 28. 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. (Impact factor: 4.3, Q1 top, 15/94).
 29. 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. (Impact factor: 6.1, Q1, 9/86).
 30. 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. (Impact factor: 4.1)
 31. 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. (Impact factor: 4.1).
 32. 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. (Impact factor: 11.8, Q1 top, 17/274).
 33. 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. (Impact factor: 8.8, Q1 top, 9/142). Top 1% Highly Cited Paper
34. 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*, 62-71. (Impact factor: 6.911, Q1, 10/87).
35. 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). (Impact factor: 5.8, Q1, 15/65).
36. 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*, 290-6. (Impact factor: 5.5, Q1, 13/92).
37. **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*, 128-136. (Impact factor: 13.6, Q1 top, 10/274).
38. 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*, e00680-19. (Impact factor: 7.324, Q1, 24/135).
39. 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. (Impact factor: 8.4, Q1, 34/191).
40. 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. (Impact factor: 4.8).
41. 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*, 4568-4577. (Impact factor: 6.1, Q1 top, 6/59).
42. 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*, 668-680. (Impact factor: 4.1).
43. 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. (Impact factor: 5.6, Q1, 50/279).
44. 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. (Impact factor: 5.6, Q1, 50/279).
45. 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*, 1769-78. (Impact factor: 2.8).
46. G.L. Chen, M.X. Fan, **J.L. Wu**, N. Li, M.Q. Guo. Antioxidant and anti-inflammatory properties of flavonoids from lotus plumule. *Food Chem.* **2019**, *277*, 706-712. (Impact factor: 8.8, Q1 top, 9/142). Top 1% Highly Cited Paper
47. X. Bian, N. Li*, B. Tan, B. Sun, M. Q. Guo, G. Huang, L. Fu, W.L.W. Hsiao, L. Liu*, **J.L. Wu***. Polarity-tuning Derivatization-LC-MS Approach for Probing Global Carboxyl-containing Metabolites in Colorectal Cancer. *Anal Chem.* **2018**, *90*, 11210-5. (Impact factor: 7.4, Q1 top, 7/86).
48. W.Y. Gu, M.X. Liu, B.Q. Sun*, M.Q. Guo, **J.L. Wu***, N. Li*. Profiling of polyunsaturated fatty acids using off-line and on-line solid phase extraction-nano-liquid chromatography-quadrupole-time-of-flight mass spectrometry in human serum. *J Chromatogr A* **2018**, *1537*, 141-6. (Impact factor: 4.1).
49. Y. Zhuo#, **J.L. Wu#**, X. Yan, M.Q. Guo, N. Liu, H. Zhou, L. Liu, N. Li. Strategy for Hepatotoxicity Prediction Induced by Drug Reactive Metabolites Using Human Liver Microsome and Online 2D-Nano-LC-MS Analysis. *Anal Chem.* **2017**, *89*, 13167-75. (#These authors contributed equally to this work). (Impact factor: 7.4, Q1 top, 7/86).
50. X. Bian, B. Sun, P. Zheng, N. Li*, **J.L. Wu***. Derivatization enhanced separation and sensitivity of long chain-free fatty acids: application to asthma using targeted and non-targeted liquid chromatography-mass spectrometry approach. *Anal Chim Acta* **2017**, *989*, 59-70. (Impact factor: 6.911, Q1, 10/87).
51. M.Z. Zhu, Na Li, Y.T. Wang, N. Liu, M.Q. Guo, H. Zhou, L. Liu*, **J.L. Wu***. Acid/Salt/pH Gradient Improved Resolution and Sensitivity in Proteomics Study Using 2D SCX-RP LC-MS. *J Proteome Res.* **2017**, *16*, 3470-5. (Impact factor: 5.37, Q1, 16/79).
52. M. Zhu, N. Li, M. Zhao, W Yu, **J.L. Wu***. Metabolomic profiling delineate taste

- qualities of tea leaf pubescence. *Food Res Int.* **2017**, *94*, 36-44. (Impact factor: 7.7, Q1 top, 13/143).
53. Y. He, W. Liu, L. Chen, G. Lin, Q. Xiao, C. Gao, **J.L. Wu**^{*}, Z. Lin^{*}. Facile synthesis of Ti⁴⁺-immobilized affinity silica nanoparticles for the highly selective enrichment of intact phosphoproteins. *J Sep Sci.* **2017**, *40*, 1516-23. (Impact factor: 3.1).
54. L.Y Zhang[#], **J.L. Wu**[#], S.S. Dong[#], Y.H. Zhu, H.B. Qiu, V.H.F. Lee, Y.R. Qin, Y. Li, J. Chen, H.B. Liu, J. Bi, S. Ma, X.Y. Guan, L. Fu. PSCA acts as a tumor suppressor by facilitating the nuclear translocation of RB1CC1 in esophageal squamous cell carcinoma. *Carcinogenesis* **2016**, *37*, 320-32. ([#]These authors contributed equally to this work). (Impact factor: 4.7).
55. X. Chai, L. Wen, Y. Song, X. He, J. Yue, **J.L. Wu**, X. Chen, Z. Cai, Z. Qi. DEHP exposure elevated cardiovascular risk in obese mice by disturbing the arachidonic acid metabolism of gut microbiota. *Sci Total Environ.* **2023**, *875*, 162615. (Impact factor: 10.237, Q1 top, 26/279).
56. 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. (Impact factor: 16.6, Q1 top, 6/73)
57. 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 anti-programmed cell death 1/programmed cell death ligand 1 (anti-PD-1/PD-L1) immunotherapy. *Gut* **2022**, *71*, 734-745. (Impact factor: 24.5, Q1 top, 5/93). Top 1% Highly Cited Paper (前 1% 高被引論文)
58. Ting Li Juan Liu, Yuxin Zhuang, **J.L. Wu**, Qiang Wu, Meixian Liu, Yue Zhao, Zhongqiu Liu, Caiyan Wang, Linlin Lu, Yingjiao Meng, Kawai Lei, Xiaojuan Li, Qibiao Wu, Elaine Lai-Han Leung, Zhengyang Guo, Liang Liu. IKK β mediates homeostatic function in inflammation via competitively phosphorylating AMPK and I κ B α . *Acta Pharm Sin B* **2022**, *12*, 651. (Impact factor: 14.5, Q1 top, 5/277).
59. S. Fakhri, M. Tomas, E. Capanoglu, Y. Hussain, F. Abbaszadeh, B. Lu, X. Hu, J.L. Wu, L. Zou, A. Smeriglio, J. Simal-Gandara, H. Cao, J. Xiao, H. Khan. Antioxidant and anticancer potentials of edible flowers: where do we stand? *Crit Rev Food Sci Nutr.* **2021**, *62*, 8589. (Impact factor: 10.2, Q1 top, 2/88).

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Book Chapter

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