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研究方向

基於質譜的多組學分析方法的建立、臨床疾病病理機制研究、藥物干預新策略、藥食兩用全成分多維分析和功能物質精確定位

教學科目

儀器分析、藥物分析、藥物分析實驗、分析化學、分析化學實驗、藥學基礎化學實驗、中藥研究進展、現代生物技術。

個人簡介

伍建林博士，男，現任中藥質量研究國家重點實驗室(澳門科技大學)副教授，博士生導師；兼任中國醫藥生物技術協會藥物分析專業委員會常務委員、亞太醫學生物免疫學會基礎免疫分會常務委員、廣東省預防醫學會過敏預防與控制專業委員會副主任委員、*J Pharm Anal*, *J Anal Testing* 和色譜雜誌青年編委等學術職務。建立了包括代謝流 (Metabolic Flux)、羧酸組學 (Carboxylomics)、微生物組學 (Microbiomics)、多肽組學 (Peptidomics) 和蛋白組學 (Proteomics) 的基於問題導向的質譜多組學整合分析技術 (Problem Oriented Multi-omics Integrated analysis technology based on Mass Spectrometry, POMIMS)，解決了複雜體系全成分多維度分析、微量和痕量成分定性定量及效應物質精確動態定位的難題，並廣泛應用在臨床疾病病理機制研究、藥物干預新策略、藥食兩用全成分多維分析和功能物質精確定位等方面。截至目前，一共發表學術論文 106 篇，SCI 論文 101 篇，影響因數大於 20 的 7 篇，總影響因數 681，平均影響因數 6.81。其中，2016 以來以第一和通訊作者(含共同)在 *Cell Res*, *Gastroenterology*, *Anal Chem*, *J Hazard Mater*, *Environ Int* 等 Q1 Top，及合作在 *PNAS*, *J Hepatol*, *Gut*, *Gastroenterology* 等雜誌上發表發表 SCI 論文 83 篇，授權國際專利 5 項。

教育背景

2005.11-2009.09 香港浸會大學化學系 分析化學專業 (質譜方向)， 博士

2002.09-2004.07 日本新潟大學工學部 植物化學專業， 碩士

工作經歷

2018.07-至今 澳門科技大學 副教授， 博士生導師

2017.01-2019.12 廣州醫科大學 南山學者特聘教授 (柔性引進), 博士生導師
2011.11-2018.06 澳門科技大學 助理教授, 博士生導師
2010.04-2011.11 香港大學李嘉誠醫學院病理系 平臺建設及代謝組學 博士後研究員
2004.10-2005.10 香港浸會大學化學系 研究助理

學術論文

發表學術論文共 106 篇, 其中 2016-至今代表性 SCI 文章如下:

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: 22.683, Q1 top, 4/92).
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. ([#]These authors contributed equally to this work). (Impact factor: 25.614, Q1 top, 8/195).
3. 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: 7.510, Q1 top, 7/144).
4. 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: 7.510, Q1 top, 7/144).
5. 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: 7.510, Q1 top, 7/144).
6. 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**, doi: 10.1097/JBR.0000000000000114.
7. 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: 6.371, Q1 top, 5/129). **Editor's Choice Article.**
8. 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: 7.510, Q1 top, 7/144).
9. 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: 7.510, Q1 top, 7/144).
10. 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: 6.024, Q1 top, 9/93).
 11. 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: 6.024, Q1 top, 9/93).
 12. 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: 6.050, Q1).
 13. 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: 4.933)
 14. 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:3.734).
 15. 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: 9.620, Q1 top, 14/274).
 16. 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: 7.510, Q1 top, 7/144).
 17. 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: 6.550, Q1).
 18. 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: 5.634, Q1).
 19. 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: 2.402).
 20. **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: 10.580, Q1 top, 10/274).
 21. 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: 6.491, Q1).
22. 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: 5.711).
 23. 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: 5.710).
 24. 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: 5.270, Q1 top, 5/58).
 25. 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: 3.734).
 26. 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:5.810).
 27. 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: 5.810).
 28. 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: 3.350).
 29. 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: 6.981, Q1 top, 8/83).
 30. 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: 4.754, Q1).
 31. 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: 6.981, Q1 top, 8/83).
 32. 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: 6.550, Q1).
 33. 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: 4.463, Q1).
34. 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: 6.473, Q1 top, 9/144).
 35. 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: 3.641).
 36. 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: 4.944).
 37. 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*, 734-745. (Impact factor: 23.054, Q1 top, 3/92).
 38. Ting Li Juan Liu, Yuxin Zhuang, Jianlin 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: 11.614, Q1 top, 9/276).
 39. 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**, doi: 10.1080/10408398.2021.1931022. (Impact factor: 11.172, Q1 top, 4/144).
 40. W. Liao, I. Khan, G. Huang, S. Chen, L. Liu, W.K. Leong, X.A. Li, **J.L. Wu**, W.L.W. Hsiao*. *Bifidobacterium animalis*: the missing link for the cancer-preventive effect of *Gynostemma pentaphyllum*. *Gut Microbes* **2021**, *13*, 1847629. (Impact factor: 10.240, Q1 top, 11/137).
 41. C. C. Wong, J. Xu, X. Bian, **J.L. Wu**, W. Kang, Y. Qian, W. Li, H. Chen, H. Gou, D. Liu, S. T. Y. Luk, Q. Zhou, F. Ji, L.S. Chan, S. Shirasawa, J.J. Sung, J. Yu. In Colorectal Cancer Cells with Mutant KRAS, SLC25A22-Mediated Glutaminolysis Reduces DNA Demethylation to Increase WNT Signaling, Stemness, and Drug Resistance. *Gastroenterology* **2020**, *159*, 2163. (Impact factor: 22.683, Q1 top, 4/92).
 42. R. Zhao, O.O. Coker, **J.L. Wu**, Y. Zhou, L. Zhao, G. Nakatsu, X. Bian, H. Wei, A.W. Chan, J.J. Sung, F.K. Chan, E. El-Omar, J. Yu. Aspirin Reduces Colorectal Tumor Development in Mice and Gut Microbes Reduce Its Bioavailability and Chemopreventive Effects. *Gastroenterology* **2020**, *159*, 969. (Impact factor: 22.683, Q1 top, 4/92).
 43. H.H. Choi, S. Zou, **J.L. Wu**, H. Wang, L. Phan, K. Li, P. Zhang, D. Chen, Q. Liu, B. Qin, TAT Nguyen, S.J. Yeung, L. Fang, M.H. Lee. EGF Relays Signals to COP1 and Facilitates FOXO4 Degradation to Promote Tumorigenesis. *Adv Sci.* **2020**, *7*, 2000681. (Impact factor: 16.801, Q1 top, 13/137).

44. W. Xu, X. Zhang, **J.L. Wu**, L. Fu, D. Liu, N. Wong, J. Yu. O-GlcNAc transferase promotes fatty liver-associated liver cancer through inducing palmitic acid and activating endoplasmic reticulum stress. *J Hepatol.* **2017**, *67*, 310-20. (Impact factor: 25.080, Q1 top, 2/92).
45. L. Fu, Y.R. Qin, X.Y. Ming, X. Zuo, Y.W. Diao, L.Y. Zhang, J. Ai, B.L. Liu, T.X. Huang, T.T. Cao, B.B. Tan, D. Xiang, C.M. Zeng, J. Gong, Q.C. Zhang, S.S. Dong, J. Chen, H. Liu, **J.L. Wu**, R.Z. Qi, D. Xie, L.D. Wang, X.Y. Guan. RNA editing of SLC22A3 drives early tumor invasion and metastasis in familial esophageal cancer. *PNAS* **2017**, *114*, E4631-40. (Impact factor: 11.203, Q1).
46. C.C. Wong, Y. Qian, X. Li, J. Xu, W. Kang, J.H. Tong, K.F. To, Y. Jin, W. Li, H. Chen, M.Y.Y. Go, **J.L. Wu**, K.W. Cheng, S.S.M. Ng, J.J.Y. Sung, Z. Cai, J. Yu. SLC25A22 Promotes Proliferation and Survival of Colorectal Cancer Cells with KRAS Mutations and Xenograft Tumor Progression in Mice via Intracellular Synthesis of Aspartate. *Gastroenterology* **2016**, *151*, 945. (Impact factor: 22.683, Q1 top, 4/92).

書籍章節

1. 中醫方證代謝組學研究進展 (2020年卷), 科學出版社, ISBN號: 978-7-03-069354-9, 2021.7, 編委;
2. 過敏趣史——從未知到反擊, 中國協和醫科大學出版社, ISBN號: 978-7-5679-0775-1, 副主編。

授權專利

1. Method and Kit for Detecting Carboxyl-Containing Compound, **WU, Jian-Lin**; LI, Na; LIU, Liang and BIAN, Xiqing; 澳大利亞專利; 專利號: 2018100592
2. 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; 澳大利亞專利; 專利號: 2017100545
3. Microfluidic perfusion device, system and fabrication method thereof, LUO, Guo-An; MA, Li-Dong; WANG, Yi-Tong; WANG, Jing-Rong and **WU, Jian-Lin**; 澳大利亞專利; 專利號: 2018100361
4. Methods for prediction of hepatotoxicity induced by compound reactive metabolites reactive metabolites, LI, Na; **WU, Jian-Lin**; LIU, Liang; ZHUO, Yue and YAN, Xiaojing; 澳大利亞專利; 專利號: 2018100121
5. Application of an alkaloid derived from a Chinese herbal for treatment of cancer by inhibiting cholesterol synthesis and fatty acid oxidation, Lai-Han LEUNG, Macau (CN); Liang LIU, Macau (CN); Xing-Xing FAN, Macau (CN); **Jian-Lin WU**, Macau (CN); 美國專利; 專利號: US 2015/0307508 A1

學術職務

1. 中國醫藥生物技術協會藥物分析專業委員會 常務委員
2. 廣省預防醫學會過敏預防與控制專業委員會 副主任委員
3. 亞太醫學生物免疫學會基礎免疫分會 常務委員
4. 世界中醫藥學會聯合會中醫藥免疫專業委員會 常務理事

5. *Journal of Pharmaceutical Analysis, Journal of Analytical Testing*、色譜雜誌青年編委,
Frontiers in Pharmacology 主題編輯 (Topic editor)