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教学科目: 中药化学、中药炮制学、中药化学实验技术、中药研究进展、生物药剂学
研究方向: 天然产物化学；基於質譜的代謝組學及蛋白質組學分析方法及應用

1999年毕业于中国药科大学药物化学专业，获理学博士学位。1999年至2001年在中国医学科学院协和医科大学（CAMS&PUMC）药物研究所从事博士后研究工作。2001年获得日本学术振兴会（Japan Society for the Promotion of Science）博士后基金的资助，赴日本新泻大学从事博士后研究。2003年至2007年，在中国科学院(CAS)上海药物研究所/国家新药筛选中心担任副研究员，硕士研究生导师。2007年至2011年，在香港中文大学生物医学院从事中药毒理方面的研究工作。2011年进入澳门科技大学以来，主要专注于基于色谱-质谱的蛋白组学分析方法在藥物作用機制研究方面的应用。多年來一直从事中药相关的研究工作，主要包括采用各种光谱及色谱技术，尤其是质谱及核磁共振技术，对中药的活性及毒性成分进行分离、结构鉴定、中药活性成分及毒性成分的作用机理及生物标记物的检测等。在中药研究方面具有丰富的经验。到目前为止，在 Journal of Hepatology, PNAS, Analytical Chemistry, Journal of Medicinal Chemistry, Food Chemistry, Journal of Mass Spectrometry, Analytica Chimica Acta, Journal of Natural Products 等杂志上发表研究论文 90 余篇。申请国际发明专利 9 项，国家发明专利 4 项。

学历

1999.7 中国药科大学理学博士学位
1994.7 华西医科大学理学学士学位

工作经历

- 2018.7 – 今 澳门科技大学副教授
- 2011.9 – 2018.6 澳门科技大学助理教授
- 2007.11 – 2011.8 香港中文大学副研究员
- 2003.12 – 2007.10 中国科学院上海药物研究所/国家新药筛选中心副研究员
- 2001.11 – 2003.11 日本新泻大学博士后
- 1999.9 – 2001.10 中国医学科学院协和医科大学药物研究所博士后

学术成果

近年发表的主要 SCI 期刊论文：（*Corresponding author）

- 1) XQ Bian, W Miao, M Zhao, YR Zhao, Y Xiao, N Li*, JL Wu*. Microbiota drive insoluble polysaccharides utilization via microbiome-metabolome interplay during Pu-erh tea fermentation. *Food Chem* **2022**, 377, 132007.
- 2) XQ Bian, XY Xie, JL Cai, YR Zhao, W Miao, XL Chen, Y Xiao, N Li*, JL Wu*. Dynamic changes of phenolic acids and antioxidant activity of Citri Reticulatae Pericarpium during aging processes. *Food Chem* **2022**, 373, 131399.
- 3) SS Chen, Y Fu, XQ Bian, M Zhao, YL Zuo, YH Ge, Y Xiao, JB Xiao, N Li*, JL 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.
- 4) SL Gong, Y Zhuo, SS Chen, XL Hu, XX Fan, JL 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(11), 2309.
- 5) YQ Zhang, GY Yan, M Song, XQ Bian, TT Xu, YD Zhang, JL Wu, G Chan, QW Zhang*, N Li*. Identification and quantification of markers in Azedarach Fructus and Toosendan Fructus. *J Pharm Biomed Anal* **2021**, 202, 114173.
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- 8) SS Chen, GX Huang, WL Liao, SL Gong, JB Xiao, J Bai, WLW Hsiao, N Li*, JL 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.
- 9) XL Hu, XQ Bian, WY Gu, BQ Sun, X Gao, JL 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.
- 10) XQ Bian, Y Qian, BB Tan, K Li, XF Hong, CC Wong, L Fu, J Zhang, N Li*, JL 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.
- 11) YD Zhang, XX Zong, JL Wu, Y Liu, ZQ Liu, H Zhou, L Liu*, N Li*. Pharmacokinetics and tissue distribution of eighteen major alkaloids of *Aconitum carmichaelii* in rats by UHPLC-QQQ-MS. *J Pharm Biomed Anal* **2020**, *185*, 113226.
- 12) MX Liu, N Li*, YD Zhang, ZY Zheng, Y Zhuo, BQ Sun, LP Bai, MM Zhang, MQ Guo, JL 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.
- 13) MZ Zhu, N Li, F Zhou, J Ouyang, DM Lu, W Xu, J Li, HY Lin, Z Zhang, JB Xiao, KB Wang, JA Huang, ZH Liu*, JL Wu*. Microbial bioconversion of the chemical components in dark tea. *Food Chem* **2020**, *312*, 126043.
- 14) GY Yan, J Li, SS Chen, Y Liu, JL Wu, XM Zhu,* N Li*. New limonoids from the fruits of *Melia toosendan* and their autophagic activities. *Phytochem Lett* **2020**, *35*, 15–22.
- 15) YH Ge, XQ Bian, BQ Sun, M Zhao*, Y Ma, YP Tang, N Li,* JL Wu*. Dynamic profiling of phenolic acids during Pu-erh tea fermentation using derivatization LC-MS approach. *J Agric Food Chem* **2019**, *67*, 4568–4577.
- 16) XX Zong, XJ Yan, JL Wu, ZQ Liu, H Zhou, N Li*, L Liu*. Potentially Cardiotoxic Diterpenoid Alkaloids from the Roots of *Aconitum carmichaelii*. *J Nat Prod* **2019**, *82*, 980–989.
- 17) XJ Yan, Y Zhuo, XQ Bian, JM Li, YD Zhang, LD Ma, GH Lu, MQ Guo, JL Wu*, N Li*. Integrated Proteomics, Biological Functional Assessments, and Metabolomics Reveal Toosendanin-Induced Hepatic Energy Metabolic Disorders. *Chem Res Toxicol* **2019**, *32*,

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- 18) YD Zhang, XQ Bian, J Yang, HY Wu*, JL Wu*, N Li*. Metabolomics of Clinical Poisoning by *Aconitum* Alkaloids using derivatization LC-MS. *Frontiers Pharmacol* **2019**, *10*, 275.
- 19) XQ Bian, N Li*, BB Tan, BQ Sun, MQ Guo, GX Huang, L Fu, WLW Hsiao, L Liu*, JL Wu*. Polarity-tuning Derivatization-LC-MS Approach for Probing Global Carboxyl-containing Metabolites in Colorectal Cancer. *Anal Chem* **2018**, *90(19)*, 11210-11215.
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- 23) XQ Bian, BQ Sun, PY Zheng, N Li*, JL 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.
- 24) MZ Zhu, N Li, YT Wang, N Liu, MQ Guo, BQ Sun, H Zhou, L Liu, JL Wu. Acid/Salt/pH Gradient Improved Resolution and Sensitivity in Proteomics Study Using 2D SCX-RP LC-MS. *J Proteome Res* **2017**, *16(9)*, 3470.
- 25) M Yang, J Ruan, H Gao, N Li, J Ma, J Xue, Y Ye, PP Fu, J Wang, G Lin. First evidence of pyrrolizidine alkaloid N-oxide-induced hepatic sinusoidal obstruction syndrome in humans. *Arch Toxicol.* **2017**, *91*, 3913.
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- 27) XX Zong, GY Yan, JL Wu, EL Leung, H Zhou, N Li*, L Liu*. New C₁₉-Diterpenoid Alkaloids from the Parent Roots of *Aconitum carmichaelii*. *Tetrahedron Lett.* **2017**, *58*, 1622.

- 28) MZ Zhu, N Li*, M Zhao, WL Yu, JL Wu*. Metabolomic profiling delineate taste qualities of tea leaf pubescence. *Food Res. Int.* **2017**, *94* (4), 36.
- 29) Y Liang, JL Wu, X Li, MQ Guo, EL Leung, H Zhou, L Liu*, N Li*. Anti-cancer and Anti-inflammatory New Vakognavine-type Alkaloid from the Roots of *Aconitum carmichaelii*. *Tetrahedron Lett.* **2016**, *57*(52), 5881.
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- 33) WY Gu, N Li*, ELH Leung, H Zhou, XJ Yao, L Liu, JL Wu*. Rapid identification of new minor chemical constituents from *Smilacis Glabrae Rhizoma* by combined use of UHPLC-Q-TOF-MS, preparative HPLC and UHPLC-SPE-NMR-MS techniques. *Phytochem. Anal.* **2015**, *26*, 428.
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- 35) JL Wu, EL Leung, H Zhou, L Liu*, N Li*. Metabolite analysis of toosendanin by an ultra-high performance liquid chromatography-quadrupole-time of flight mass spectrometry technique. *Molecules* **2013**, *18*, 12144.
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- 37) J Ruan, N Li, et al. Characteristic ion clusters as determinants for the identification of pyrrolizidine alkaloid *N*-oxides in pyrrolizidine alkaloid-containing natural products using HPLC-MS analysis. *J. Mass Spectrom.* **2012**, *47*, 331.
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- 40) G Lin,* JY Wang,* N Li, et al. Hepatic sinusoidal obstruction syndrome associated with consumption of *Gynura segetum*. *J. Hepatol.* **2011**, *54*, 666.
- 41) N Li, Q Xia, J Ruan, et al. Hepatotoxicity and tumorigenicity induced by metabolic activation of pyrrolizidine alkaloids in herbs. *Curr. Drug Metab.* **2011**, *12*, 823.

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