

**Na Li**



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**Teaching Modules**

**Research areas**

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## ***Academic Qualifications***

## ***Working Experiences***

Present

2018.6

- 2007.11 2011.8 Research Associate, The Chinese University of Hong Kong, Hong Kong
- 2003.12 2007.10 Associate Professor, The National Center for Drug Screening, Shanghai  
Institute of Materia Medica, CAS
- 2001.11 2003.11 Postdoctoral Fellow, Niigata University, Japan
- 1999.9 2001.10 Postdoctoral Fellow, Institute of Materia Medica, CAMS & PUMC

## ***Representative Publications***

- 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.
  - 6) Y Zhuo, YD Zhang, M Li, HY Wu, SL Gong, XL Hu, Y Fu, XZ Shen, BQ Sun, JL Wu\*, N Li\*. Hepatotoxic evaluation of toosendanin via biomarker quantification and pathway mapping of large-scale chemical proteomics. *Food Chem Toxicol* **2021**, *153*, 112257.
  - 7) YH Ge, N Li, Y Fu, X Yu, Y Xiao, ZY Tang, JB Xiao, JL Wu\*, ZH Jiang\*. Deciphering superior quality of Pu-profile. *Food Chem* **2021**, *358*, 129602.
  - 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
  - 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,
  - 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,
  - 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.
  - 20) Y Liang, GY Yan, JL Wu, XX Zong, ZQ Liu, H Zhou, L Liu\*, N Li\*. Qualitative and Quantitative Analysis of Lipo-alkaloids and Fatty acids in *Aconitum carmichaelii* using LC-MS and GC-MS. *Phytochem Anal* **2018**, 29, 398.
  - 21) WY Gu, MX Liu, BQ Sun, MQ Guo, JL Wu\*, N Li\*. Profiling of polyunsaturated fatty acids in human serum using off-line and on-line solid phase extraction-nano-liquid chromatography-quadrupole-time-of-flight mass spectrometry. *J Chromatogr A* **2018**, 1537, 141.
  - 22) Y Zhuo, JL Wu, XJ Yan, MQ 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.
  - 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. *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.
- 26) N Li, F Zhang, W Lian, HL Wang, J Zheng, G Lin. Immunoassay approach for diagnosis of exposure to pyrrolizidine alkaloids. *J. Environ. Sci. Health C Environ. Carcinog. Ecotoxicol. Rev.* **2017**, 35(3), 127.
- 27) XX Zong, GY Yan, JL Wu, EL Leung, H Zhou, N Li\*, L Liu\*. New C<sub>19</sub>-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.
- 30) Y Liang, JL Wu, EL Leung, H Zhou, ZQ Liu, GY Yan, L Liu\*, N Li\*. Identification of Oxygenated Fatty Acid as a Side Chain of Lipo-Alkaloids in *Aconitum carmichaelii* by UHPLC-Q-TOF-MS and a Database. *Molecules* **2016**, 21(4), 437.
- 31) L Zhu, JQ Ruan, N Li, PP Fu, Y Ye, G Lin. A novel ultra-performance liquid chromatography hyphenated with quadrupole time of flight mass spectrometry method for rapid estimation of total toxic retronecine-type of pyrrolizidine alkaloids in herbs without requiring corresponding standards. *Food Chem.* **2016**, 194, 1320.
- 32) J Ruan, H Gao, N Li, J Xue, J Chen, C Ke, Y Ye, PP Fu, J Zheng, J Wang, G Lin. Blood pyrrole-protein adducts - A biomarker of pyrrolizidine alkaloid-induced liver injury in humans. *J. Environ. Sci. Health C Environ. Carcinog. Ecotoxicol. Rev.* **2015**, 33, 404.
- 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.

- 34) WY Gu, N Li\*, ELH Leung, H Zhou, GA Luo, L Liu, JL Wu\*. Metabolites software-assisted flavonoids hunting in plant using ultra-high performance liquid chromatography-quadrupole-time of flight mass spectrometry. *Molecules* **2015**, *20*, 3955.
- 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.
- 36) YH Li, WL Kan, N Li, G Lin. Assessment of pyrrolizidine alkaloid-induced toxicity in an in vitro screening model. *J. Ethnopharmacol.* **2013**, *150*, 560.
- 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.
- 38) Q Liu, N Li, et al. Cyclobutane derivatives as novel nonpeptidic small molecule agonists of glucagon-like peptide-1 receptor. *J. Med. Chem.* **2012**, *55*(1), 250.
- 39) H Gao, N Li, et al. Definitive diagnosis of hepatic sinusoidal obstruction syndrome induced by pyrrolizidine alkaloids. *J. Dig. Dis.* **2012**, *13*, 33.
- 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.