

张伟



职称：教授

学院/部门：中药质量研究国家重点实验室（澳门科技大学）；中医药学院

电邮地址：wzhang@must.edu.mo

电话：(853) 8897-2463

办公室：H837B

邮件地址：澳门凼仔伟龙马路澳门科技大学 H 座 837B 室

教学科目：分析化学（BP12203/ BPAZ0012）；分析化学实验（BP12204）；基础化学实验(BP12103) ;ME1012 中药药代动力学 ;ME1002 仪器分析；DCMSZ02 中药专题导读；药物分析(BPAZ0024)

研究方向：

- 1) 基于现代技术的中药质量评价研究
- 2) 以单碱基分辨率解析 RNA/DNA 转录后修饰以及相关生物标记物研究
- 3) 纳米材料应用于中药活性成分筛选及癌症治疗

简介：张伟博士，教授，2008 年获得中国药科大学哲学博士学位。2008-2012 于美国耶鲁大学药理系从事博士后研究工作，2012 年 8 月受聘于澳门科技大学中药质量研究国家重点实验室任助理教授，于 2017 年 8 月晋升为副教授，2024 年晋升为教授。张教授的主要研究兴趣和领域包括：1) 基于现代技术的中药质量评价研究；2) 以单碱基分辨率解析 RNA/DNA 转录后修饰以及相关生物标记物研究；3) 纳米材料应用于中药活性成分筛选及癌症治疗。已在 Analytical Chemistry, Environment International, Journal of Pharmaceutical Analysis, Food Chemistry, Advanced Functional Materials 和 Science Translational Medicine 等国际期刊上发表了 110 多篇研究论文，H 指数为 23（Web of Science, 2023）。迄今，张教授已获得 7 项授权专利（含 6 项国际专利和 1 项中国专利）。自 2014 年以来，张教授获得了中银学术研究优秀奖（2014，2023）、中珠医疗生命科学科研一等奖（2016，2018）和中珠医疗生命科学科研二等奖（2017）等奖项。作为负责人张教授获得了 10 多项研究资助，包括澳门科学技术发展基金（FDCT）重点研发项目

(课题：四种中草药质量控制的整合多组学技术和质量标准理论，第三个子项目负责人)、FDCT-NSFC 和 FDCT-GDST 联合基金。此外，他还参与了国家自然科学基金、国家重大研究仪器研究专项基金、美国国立卫生研究院 (NIH) 资助和天然药物国家重点实验室开放项目等多项研究项目。

学历：

2003年7月-2008年7月 中国药科大学药物分析专业硕博连读攻读博士学位

1996年7月-2000年7月 中国药科大学学士学位

工作经历：

2024年8月-至今 澳门科技大学中药质量研究国家重点实验室 教授

2017年8月-2024年7月 澳门科技大学中药质量研究国家重点实验室 副教授

2012年8月-2017年7月 澳门科技大学中药质量研究国家重点实验室 助理教授

2008年8月-2012年8月 美国耶鲁大学医学院 博士后

学术成果

部分发表的SCI期刊论文：(* Corresponding author)

1. R. Wang, G. Huang, , S. Li, H. Huang, G. Zhu, L. Wang, J. Yang, S. Yang*, Z. Jiang*, **W. Zhang***. Blueberry extract for the treatment of ischaemic stroke through regulating the gut microbiota and kynurenine metabolism. *Phytotherapy Research*, 38(2024) 4792-4814. (IF 2023: 6.1, Q1)
2. Z. Li*, Q. Cao, H. Chen, J. Yang, Z. Wang, X. Qu, Y. Yao, Z. Zhou, **W. Zhang**, Dual Phytochemical/Activity-Guided Optimal Preparation and Bioactive Material Basis of *Orthosiphon Stamineus* Benth. (Shen Tea) against Nonalcoholic Fatty Liver Disease, *Journal of Agricultural and Food Chemistry*, 72(2024) 18561-72. (IF 2023: 5.7, Q1)
3. J. Liu, T. Xu, J. Ding, H. Wen, J. Meng, Q. Liu, X. Liu, **W. Zhang**, G.-Y. Zhu, Z.-H. Jiang*, J. Gao*, L.-P. Bai*, Discovery of anti-melanogenic components in persimmon (*Diospyros kaki*) leaf using LC-MS/MS-MN, AlphaFold2-enabled virtual screening and biological validation, *Food Chemistry*, 455(2024) 139814. (IF 2023: 8.5, Q1)
4. L. Fu, C.-C. Wang, W. Tian, Z. Liu, M.-Y. Bao, J. Liu, **W. Zhang**, L.-P. Bai*, Z.-H. Jiang*, G.-Y.

- Zhu*, NMR-Guided Isolation of Anti-inflammatory Carabranolides from the Fruits of *Carpesium abrotanoides* L, *Journal of Natural Products*, 87(2024) 1786-97. (IF 2023: 3.2, Q2)
5. L. Fu, W. Tian, M.-Y. Bao, Z. Liu, W.-J. Ren, J. Liu, **W. Zhang**, Z. Zhang, J. Gao, L.-P. Bai*, Z.-H. Jiang*, G.-Y. Zhu*, Cevanine-type alkaloids from the bulbs of *Fritillaria unibracteata* var. *wabuensis* and their antifibrotic activities in vitro, *Phytochemistry*, 220(2024) 114018. (IF 2023: 3.3, Q1)
 6. F.-L. Chen, D.-L. Liu, W.-J. Ren, H.-M. Xiong, L.-P. Bai, **W. Zhang**, C. Hon, Z.-H. Jiang*, G.-Y. Zhu*, Atrachinenins D-S, novel meroterpenoids with geranyl hydroquinone moiety from *Atractylodes chinensis* by the LC/MS-based molecular decoy and targeted isolation, *Bioorganic Chemistry*, 144(2024) 107111. (IF 2023: 4.5, Q1)
 7. Z.-R. Lin, M.-Y. Bao, H.-M. Xiong, D. Cao, L.-P. Bai, **W. Zhang**, C.-Y. Chen, Z.-H. Jiang*, G.-Y. Zhu*, Boswellianols A-I, Structurally Diverse Diterpenoids from the Oleo-Gum Resin of *Boswellia carterii* and Their TGF- β Inhibition Activity, *Plants*, 13(2024) 1074. (IF 2023: 4.0, Q1)
 8. L. Zeng, C. Zhang, M. Yang, J. Sun, J. Lu, H. Zhang, J. Qin, **W. Zhang**, Z. Jiang*, Unveiling the Diversity and Modifications of Short Peptides in *Buthus martensii* Scorpion Venom through Liquid Chromatography-High Resolution Mass Spectrometry, *Toxins*, 16(2024) 155. (IF 2023: 3.9, Q1)
 9. L. Yang, C. Zi, Y. Li, J. Huang, Z. Gu, C. Wang, J.M. Hu*, Z. Jiang*, **W. Zhang***, An in-depth investigation of molecular interaction in zeaxanthin/corn silk glycan complexes and its positive role in hypoglycemic activity, *Food Chem*, 438(2024) 137986. (IF 2022: 8.8, Q1)
 10. Y. Wang, F. Yu, Q. Liu, C. Wang, G. Zhu, L. Bai, S. Shi, Y. Zhao*, Z. Jiang*, **W. Zhang***, A novel and sensitive dual signaling ratiometric electrochemical aptasensor based on nanoporous gold for determination of Ochratoxin A, *Food Chem*, 432(2024) 137192. (IF 2022: 8.8, Q1)
 11. M. Zhou, Z. Yang, T. Yin, Y. Zhao, C.Y. Wang, G.Y. Zhu, L.P. Bai, Z.H. Jiang*, **W. Zhang***, Functionalized Fe-Doped Carbon Dots Exhibiting Dual Glutathione Consumption to Amplify Ferroptosis for Enhanced Cancer Therapy, *ACS Appl Mater Interfaces*, 15(2023) 53228-41. (IF 2022: 9.5, Q1)
 12. H.Y. Lyu, M.Y. Bao, C.C. Io, H.M. Xiong, F.L. Chen, L.P. Bai, **W. Zhang**, Z.H. Jiang*, G.Y. Zhu*, Sesquiterpenoids from the roots of *Aucklandia costus* and their anti-inflammatory activities, *Fitoterapia*, 169(2023) 105604. (IF 2022: 3.4, Q2)

13. Q.B. Liu, J. Liu, J.G. Lu, M.R. Yang, **W. Zhang**, W.J. Li, Z.M. Qian, Z.H. Jiang*, L.P. Bai*, Quantitative (1)H NMR with global spectral deconvolution approach for quality assessment of natural and cultured *Cordyceps sinensis*, *J Pharm Biomed Anal*, 235(2023) 115603. (IF 2022: 3.4, Q1)
14. W.J. Ren, C.C. Io, R. Jiang, K.F. Ng, J.Z. Liu, L.P. Bai, **W. Zhang**, Z.H. Jiang, Y.H. Liu*, G.Y. Zhu*, Di- and Triterpenoids from the Rhizomes of *Isodon amethystoides* and Their Anti-inflammatory Activities, *J Nat Prod*, 86(2023) 1230-9. (IF 2022: 5.1, Q1)
15. C.H. Deng, T.Q. Li, **W. Zhang**, Q. Zhao, Y. Wang*, Targeting Inflammasome Activation in Viral Infection: A Therapeutic Solution?, *Viruses*, 15(2023). (IF 2022: 4.7, Q1)
16. H.M. Xiong, H.Y. Li, Z.R. Lin, X.M. Liu, L.P. Bai, **W. Zhang**, Z.H. Jiang*, G.Y. Zhu*, Chemical Constituents from the Fruits of *Amomum kravanh* and Their Role in Activating Alcohol Dehydrogenase, *Molecules*, 28(2023). (IF 2022: 4.6, Q1)
17. H.X. Zhang, J.F. Qin, J.F. Sun, Y. Pan, T.M. Yan, C.Y. Wang, L.P. Bai, G.Y. Zhu, Z.H. Jiang*, **W. Zhang*** Selective Chemical Labeling Strategy for Oligonucleotides Determination: A First Application to Full-Range Profiling of Transfer RNA Modifications, *Anal Chem*, 95(2023) 686-94. (IF 2022: 7.4, Q1)
18. Q.H. Liu, Y.D. Zhang, Z.W. Ma, Z.M. Qian, Z.H. Jiang, **W. Zhang***, L. Wang*, Fractional extraction and structural characterization of glycogen particles from the whole cultivated caterpillar fungus *Ophiocordyceps sinensis*, *Int J Biol Macromol*, 229(2023) 507-14. (IF 2022: 8.2, Q1)
19. H.X. Zhang, D. Yu, J.F. Sun, L. Zeng, C.Y. Wang, L.P. Bai, G.Y. Zhu, Z.H. Jiang*, **W. Zhang***, An integrated approach to evaluate acetamidiprid-induced oxidative damage to tRNA in human cells based on oxidized nucleotide and tRNA profiling, *Environ Int*, 178(2023) 108038. (IF 2022: 11.8, Q1)
20. S. Yan, Y. Wang, Y. Gu, M. Zhou, L. Su, T. Yin, **W. Zhang***, Y. Yue*, Baicalin suppresses colorectal cancer cell proliferation, potentially via ARRDC4: Bioinformatics and experimental analysis, *Arabian Journal of Chemistry*, 16(2023). (IF 2022: 6.0, Q2)
21. Q.-H. Liu, J.-Q. Li, J.-W. Tang, Y.-D. Zhang, M.-Y. Zhou, **W. Zhang***, L. Wang*, Identification of antidiabetic constituents in *Polygonatum odoratum* (Mill.) Druce by UPLC-Orbitrap-MS, network pharmacology and molecular docking, *Arabian Journal of Chemistry*, 16(2023). (IF 2022: 6.0,

Q2)

22. T. Yin, Y. Yu, Q. Liu, G. Zhu, L. Bai, **W. Zhang***, Z. Jiang*, ¹³C-NMR-based MixONat strategy coupled with 2D NMR for rapid dereplication and identification of new secondary metabolites from Aloe vera, *Journal of Food Composition and Analysis*, 115(2023). (IF 2021: 4.520, Q2)
23. X.J. Wu, D. Cao, F.L. Chen, R.S. Shen, J. Gao, L.P. Bai, **W. Zhang**, Z.H. Jiang*, G.Y. Zhu*, Chlorfortunones A and B, Two Sesquiterpenoid Dimers, Possessing Dispiro[4,2,5,2]pentadecane-6,10,14-tren Moiety from *Chloranthus fortunei*, *ACS Omega*, 7(2022) 35063-8. (IF 2021: 4.132, Q2)
24. M. Zhang, L.B. Bai, L.F. Yau, T.T. Tong, **W. Zhang***, Z.H. Jiang*, Identification of Cannabidivarin Metabolites in Different Mouse Organs Using Ultra-Performance Liquid Chromatography Coupled to a Quadrupole Time-of-Flight Mass Spectrometer, *Cannabis Cannabinoid Res*, (2022). (IF 2021: 4.786, Q2)
25. Z. Li*, B. Qu, X. Wu, H. Chen, J. Wang, L. Zhou, X. Wu, **W. Zhang**, Methodology improvement for network pharmacology to correct the deviation of deduced medicinal constituents and mechanism: Xian-Ling-Gu-Bao as an example, *J Ethnopharmacol*, 289(2022) 115058. (IF 2021: 5.195, Q1)
26. Y. Wu, J. Liu, H. Hao, L. Hu, X. Zhang, L. Luo, J. Zeng, **W. Zhang**, I. Nam Wong, R. Huang*, A new polysaccharide from *Caulerpa chemnitzia* induces molecular shifts of immunomodulation on macrophages RAW264.7, *Food Chem X*, 14(2022) 100313. (IF 2021: 6.443, Q2)
27. L. Kong, J. Meng, W. Tian, J. Liu, X. Hu, Z.H. Jiang, **W. Zhang**, Y. Li*, L.P. Bai*, I(2)-Catalyzed Carbonylation of α -Methylene Ketones to Synthesize 1,2-Diaryl Diketones and Antiviral Quinoxalines in One Pot, *ACS Omega*, 7(2022) 1380-94. (IF 2021: 4.132, Q2)
28. H. Zhang, Y. Li, Z. Li, C.W. Lam, P. Zhu, C. Wang, H. Zhou*, **W. Zhang***, MTBSTFA derivatization-LC-MS/MS approach for the quantitative analysis of endogenous nucleotides in human colorectal carcinoma cells, *J Pharm Anal*, 12(2022) 77-86. (IF 2021: 14.026, Q1)
29. R.S. Shen, D. Cao, F.L. Chen, X.J. Wu, J. Gao, L.P. Bai, **W. Zhang**, Z.H. Jiang*, G.Y. Zhu*, New Monoterpene-Conjugated Phenolic Constituents from Nutmeg and Their Autophagy Modulating Activities, *J Agric Food Chem*, 70(2022) 9684-93. (IF 2021: 5.895, Q1)
30. L.B. Bai, L.F. Yau, T.T. Tong, W.H. Chan, **W. Zhang***, Z.H. Jiang*, Improvement of tissue-specific distribution and biotransformation potential of nicotinamide mononucleotide in

combination with ginsenosides or resveratrol, *Pharmacol Res Perspect*, 10(2022) e00986. **(IF 2021: 2.963, Q3)**

31. X. Chen, W. Li, J. Chen, X. Zhang, **W. Zhang**, X. Duan, B. Lei*, R. Huang*, Transcriptomics Integrated with Metabolomics Reveals 2-Methoxy-1, 4-Naphthoquinone-Based Carbon Dots Induced Molecular Shifts in *Penicillium italicum*, *J Fungi (Basel)*, 8(2022). **(IF 2021: 5.724, Q1)**
32. M. Zhou, X. Wu, Y. Li, H. Zhang, Q. Liu, L. Song, C. Wang, B.Y.K. Law, Z. Jiang, **W. Zhang***, Atomic zinc sites with hierarchical porous carbon for high-throughput chemical screening with high loading capacity and stability, *Pharmacol Res*, 178(2022) 106154. **(IF 2021: 10.334, Q3)**
33. Q.B. Liu, J.G. Lu, Z.H. Jiang*, **W. Zhang**, W.J. Li, Z.M. Qian, L.P. Bai*, In situ Chemical Profiling and Imaging of Cultured and Natural *Cordyceps sinensis* by TOF-SIMS, *Front Chem*, 10(2022) 862007. **(IF 2021: 5.545, Q1)**
34. J. Liu, J. Meng, R. Li, H. Jiang, L. Fu, T. Xu, G.Y. Zhu, **W. Zhang**, J. Gao, Z.H. Jiang*, Z.F. Yang*, L.P. Bai*, Integrated network pharmacology analysis, molecular docking, LC-MS analysis and bioassays revealed the potential active ingredients and underlying mechanism of *Scutellariae radix* for COVID-19, *Front Plant Sci*, 13(2022) 988655. **(IF 2021: 6.627, Q1)**
35. R. Wang, J. Ren, S. Li, X. Bai, W. Guo, S. Yang*, Q. Wu*, **W. Zhang***, Efficacy evaluation of Buyang Huanwu Decoction in the treatment of ischemic stroke in the recovery period: A systematic review of randomized controlled trials, *Front Pharmacol*, 13(2022) 975816. **(IF 2021: 5.988, Q1)**
36. T.P. Yin, Y. Yu, Q.H. Liu, M.Y. Zhou, G.Y. Zhu, L.P. Bai, **W. Zhang***, Z.H. Jiang*, 2D NMR-based MatchNat Dereplication Strategy Enables Explosive Discovery of Novel Diterpenoid Alkaloids†, *Chinese Journal of Chemistry*, 40(2022) 2169-78. **(IF 2021: 5.560, Q1)**
37. Y. Wang, X. Wu, J. Sun, C. Wang, G. Zhu, L.-P. Bai, Z.-H. Jiang*, **W. Zhang***, Stripping voltammetric determination of cadmium and lead ions based on a bismuth oxide surface-decorated nanoporous bismuth electrode, *Electrochemistry Communications*, 136(2022). **(IF 2021: 5.443, Q2)**
38. F.-L. Chen, D.-L. Liu, J. Fu, L. Fu, J. Gao, L.-P. Bai, **W. Zhang**, Z.-H. Jiang*, G.-Y. Zhu*, Atrachinenynes A–D, four diacetylenic derivatives with unprecedented skeletons from the rhizomes of *Atractylodes chinensis*, *New Journal of Chemistry*, 46(2022) 15530-7. **(IF 2021: 3.925, Q2)**

39. M. Zhou, Y. Li, C. Huang, C. Wang, Q. Liu, Q. Deng, H. Zhang, T. Yin, G. Zhu, C. Wang, Y. Zhao*, **W. Zhang***, Oriented Layered Graphene Oxide Pad Favoring High Loading Capacity and Stability for High-Throughput Chemical Screening, *Advanced Materials Technologies*, 7(2022). **(IF 2021: 8.856, Q1)**
40. P. Zhu, W. Luo, J. Qian, C. Meng, W. Shan, Z. Xu, **W. Zhang**, X. Liu*, Y. Ling*, GSH/ROS Dual-Responsive Supramolecular Nanoparticles Based on Pillar[6]arene and Betulinic Acid Prodrug for Chemo-Chemodynamic Combination Therapy, *Molecules*, 26(2021). **(IF 2020: 4.411, Q1)**
41. K. Chen, J. Qu, H. Chen, J. Wang, H. Hua, J. Li, L. Zhou, **W. Zhang***, Z. Li*, Investigating the medicinal potential, material basis and mechanism of *Polygoni Orientalis Fructus* based on multi-technology integrated network pharmacology, *Phytomedicine*, 91(2021) 153685. **(IF 2020: 5.340, Q1)**
42. T. Yin, J. Lu, Q. Liu, G. Zhu, **W. Zhang***, Z. Jiang*, Validated Quantitative (1)H NMR Method for Simultaneous Quantification of Indole Alkaloids in *Uncaria rhynchophylla*, *ACS Omega*, 6(2021) 31810-7. **(IF 2020: 3.512, Q2)**
43. C.R. Wang, H.W. Chen, Y. Li, M.Y. Zhou, V.K. Wong, Z.H. Jiang*, **W. Zhang***, Network Pharmacology Exploration Reveals Anti-Apoptosis as a Common Therapeutic Mechanism for Non-Alcoholic Fatty Liver Disease Treated with Blueberry Leaf Polyphenols, *Nutrients*, 13(2021). **(IF 2020: 5.717, Q1)**
44. T. Yin, H. Zhang, **W. Zhang***, Z. Jiang*, Chemistry and biological activities of hetisine-type diterpenoid alkaloids, *RSC Adv*, 11(2021) 36023-33. **(IF 2020: 3.361, Q2)**
45. C.Y. Wang, J.G. Lu, D.X. Chen, J.R. Wang, K.S. Che, M. Zhong, **W. Zhang***, Z.H. Jiang*, Comprehensive chemical study on different organs of cultivated and wild *Sarcandra glabra* using ultra-high performance liquid chromatography time-of-flight mass spectrometry (UHPLC-TOF-MS), *Chin J Nat Med*, 19(2021) 391-400. **(IF 2020: 3.000, Q1)**
46. W. Zhang, C. Peng, X. Shen, Y. Yuan, **W. Zhang**, C. Yang*, M. Yao*, A Bioactive Compound from *Sanguisorba officinalis* L. Inhibits Cell Proliferation and Induces Cell Death in 5-Fluorouracil-Sensitive/Resistant Colorectal Cancer Cells, *Molecules*, 26(2021). **(IF 2020: 4.411, Q1)**
47. Y. Li, W. Luo, H. Zhang, C. Wang, C. Yu, Z. Jiang*, **W. Zhang***, Antitumor Mechanism of

Hydroxycamptothecin via the Metabolic Perturbation of Ribonucleotide and Deoxyribonucleotide in Human Colorectal Carcinoma Cells, *Molecules*, 26(2021). (IF 2020: 4.411, Q1)

48. P. Zhu, J. Qian, Z. Xu, C. Meng, W. Zhu, F. Ran, **W. Zhang***, Y. Zhang*, Y. Ling*, Overview of piperlongumine analogues and their therapeutic potential, *Eur J Med Chem*, 220(2021) 113471. (IF 2020: 6.514, Q1)
49. Z. Li*, B. Qu, L. Zhou, H. Chen, J. Wang, **W. Zhang**, C. Chen*, A New Strategy to Investigate the Efficacy Markers Underlying the Medicinal Potentials of *Orthosiphon stamineus* Benth, *Front Pharmacol*, 12(2021) 748684. (IF 2020: 6.514, Q1)
50. Y. Li, H.X. Zhang, W.D. Luo, C.W.K. Lam, C.Y. Wang, L.P. Bai, V.K.W. Wong, **W. Zhang***, Z.H. Jiang*, Profiling Ribonucleotide and Deoxyribonucleotide Pools Perturbed by Remdesivir in Human Bronchial Epithelial Cells, *Front Pharmacol*, 12(2021) 647280. (IF 2020: 5.810, Q1)
51. X. Wu, **W. Zhang**, N. Wu, S.S. Pang, Y. Ding, G. He*, Structural Evolution upon Delithiation/Lithiation in Prelithiated Foil Anodes: A Case Study of AgLi Alloys with High Li Utilization and Marginal Volume Variation, *Advanced Energy Materials*, 11(2021). (IF 2020: 29.368, Q1)
52. J.-G. Lu, C.-Y. Wang, D.-X. Chen, J.-R. Wang, K.-S. Che, M. Zhong, **W. Zhang***, Z.-H. Jiang*, Ultra-high-performance liquid chromatograph with triple-quadrupole mass spectrometer quantitation of twelve phenolic components in different parts of *sarcandra glabra*, *World Journal of Traditional Chinese Medicine*, 7(2021). (IF 2022: 4.4, Q3)
53. S. Yan, Y. Yue, L. Zeng, L. Su, M. Hao, **W. Zhang***, X. Wang*, Preparation of Graphene Oxide-Embedded Hydrogel as a Novel Sensor Platform for Antioxidant Activity Evaluation of *Scutellaria baicalensis*, *Front Chem*, 9(2021) 675346. (IF 2020: 5.221, Q1)
54. F.L. Chen, D.L. Liu, J. Fu, J. Yang, L.P. Bai, **W. Zhang**, Z.H. Jiang*, G.Y. Zhu*, (±)-Atrachinenins A—C, Three Pairs of Caged C27 Meroterpenoids from the Rhizomes of *Atractylodes chinensis*, *Chinese Journal of Chemistry*, 40(2021) 460-6. (IF 2020: 6.000, Q1)
55. Y. Li, J. Guo, H. Zhang, C.W.K. Lam, W. Luo, H. Zhou*, **W. Zhang***, Protective Effect of Thymidine on DNA Damage Induced by Hydrogen Peroxide in Human Hepatocellular Cancer Cells, *ACS Omega*, 5(2020) 21796-804. (IF 2020: 2.870, Q2)
56. Y. Li, Y. Chen, H. Zhang, C.W.K. Lam, Z. Li, C. Wang, Y. Zhao*, **W. Zhang***, Z. Jiang*, Immobilization of cell membrane onto a glucose-Zn-based porous coordination polymer and its

- application to rapid screening of potentially active compounds from *Vaccinium corymbosum* L. leaves, *Mikrochim Acta*, 187(2020) 630. (IF 2020: 6.232, Q1)
57. H.X. Zhang, Y. Li, Z. Li, C.W.K. Lam, H.W. Chen, W.D. Luo, C.Y. Wang, Z.H. Jiang, Z.Y. Du, **W. Zhang***, Rapid and sensitive determination of four bisphosphonates in rat plasma after MTBSTFA derivatization using liquid chromatography-mass spectrometry, *J Pharm Biomed Anal*, 190(2020) 113579. (IF 2019: 3.209, Q2)
 58. P. Zhu, J. Qian, Z. Xu, C. Meng, J. Liu, W. Shan, W. Zhu, Y. Wang, Y. Yang, **W. Zhang**, Y. Zhang*, Y. Ling*, Piperlonguminine and Piperine Analogues as TrxR Inhibitors that Promote ROS and Autophagy and Regulate p38 and Akt/mTOR Signaling, *J Nat Prod*, 83(2020) 3041-9. (IF 2019: 3.779, Q1)
 59. R. Ma, Y.L. Chen, Y. Shen, H. Wang, **W. Zhang***, S.S. Pang, J. Huang*, Y. Han, Y. Zhao*, Anodic SnO(2) porous nanostructures with rich grain boundaries for efficient CO(2) electroreduction to formate, *RSC Adv*, 10(2020) 22828-35. (IF 2019: 3.119 Q2)
 60. C.W. Chen, N. Tsao, **W. Zhang**, Z.F. Chang*, NME3 Regulates Mitochondria to Reduce ROS-Mediated Genome Instability, *Int J Mol Sci*, 21(2020). (IF 2019: 4.556 Q2)
 61. D. Li, B. Lv, D. Wang, D. Xu, S. Qin, Y. Zhang, J. Chen, **W. Zhang**, Z. Zhang*, F. Xu*, Network Pharmacology and Bioactive Equivalence Assessment Integrated Strategy Driven Q-markers Discovery for Da-Cheng-Qi Decoction to Attenuate Intestinal Obstruction, *Phytomedicine*, 72(2020) 153236. (IF 2019: 4.268 Q2)
 62. C. Peng, W. Zhang, X. Shen, Y. Yuan, Y. Li, **W. Zhang***, M. Yao*, Post-transcriptional regulation activity through alternative splicing involved in the effects of Aloe vera on the Wnt/beta-catenin and Notch pathways in colorectal cancer cells, *J Pharmacol Sci*, 143(2020) 148-55. (IF 2019: 2.835 Q2)
 63. Z. Li, H. Chen, H. Zhang, Y. Li, C. Wang, L. Bai, **W. Zhang***, Z. Jiang*, Similarity and Specificity of Traditional Chinese Medicine Formulas for Management of Coronavirus Disease 2019 and Rheumatoid Arthritis, *ACS Omega*, 5(2020) 30519-30. (IF 2019: 2.870 Q2)
 64. Z. Li, H. Zhang, Y. Li, H. Chen, C. Wang, V.K.W. Wong, Z. Jiang, **W. Zhang***, Phytotherapy using blueberry leaf polyphenols to alleviate non-alcoholic fatty liver disease through improving mitochondrial function and oxidative defense, *Phytomedicine*, 69(2020) 153209. (IF 2019: 4.268 Q1)

65. Y. Su, T. Wang, Y. Su, M. Li, J. Zhou*, **W. Zhang**, W. Wang*, A neutrophil membrane-functionalized black phosphorus riding inflammatory signal for positive feedback and multimode cancer therapy, *Materials Horizons*, 7(2020) 574-85. **(IF 2019: 12.319 Q1)**
66. X. Wu, **W. Zhang***, N. Wu, S.S. Pang, G. He*, Y. Ding, Exploration of Nanoporous CuBi Binary Alloy for Potassium Storage, *Advanced Functional Materials*, 30(2020). **(IF 2019: 16.836 Q1)**
67. T. Zhao, J. Gu, H. Zhang, Z. Wang, W. Zhang, Y. Zhao, Y. Zheng, **W. Zhang**, H. Zhou, G. Zhang, Q. Sun, E. Zhou*, Z. Liu*, Y. Xu*, Sodium Butyrate-Modulated Mitochondrial Function in High-Insulin Induced HepG2 Cell Dysfunction, *Oxid Med Cell Longev*, 2020(2020) 1904609. **(IF 2019: 5.076 Q1)**
68. Z. Cao, T. Zhou, X. Ma, Y. Shen, Q. Deng, **W. Zhang***, Y. Zhao*, Hydrogen Production from Urea Sewage on NiFe-Based Porous Electrocatalysts, *ACS Sustainable Chemistry & Engineering*, (2020). **(IF 2019: 7.632 Q1)**
69. C. Peng, W. Zhang, C. Dai, W. Li, X. Shen, Y. Yuan, L. Yan, **W. Zhang***, M. Yao*, Study of the aqueous extract of Aloe vera and its two active components on the Wnt/beta-catenin and Notch signaling pathways in colorectal cancer cells, *J Ethnopharmacol*, 243(2019) 112092. **(IF 2018: 3.414 Q1)**
70. Z. Li, H.X. Zhang, Y. Li, C.W.K. Lam, C.Y. Wang, W.J. Zhang, V.K.W. Wong, S.S. Pang, M.C. Yao*, **W. Zhang***, Method for Quantification of Ribonucleotides and Deoxyribonucleotides in Human Cells Using (Trimethylsilyl)diazomethane Derivatization Followed by Liquid Chromatography-Tandem Mass Spectrometry, *Anal Chem*, 91(2019) 1019-26. **(IF 2018: 6.350 Q1)**
71. V.K.W. Wong, C. Qiu, S.W. Xu, B.Y.K. Law, W. Zeng, H. Wang, F. Michelangeli, I. Dias, Y.Q. Qu, T.W. Chan, Y. Han, N. Zhang, S.W.F. Mok, X. Chen, L. Yu, H. Pan, S. Hamdoun, T. Efferth, W.J. Yu, **W. Zhang**, Z. Li, Y. Xie, R. Luo, Q. Jiang, L. Liu*, Ca(2+) signalling plays a role in celastrol-mediated suppression of synovial fibroblasts of rheumatoid arthritis patients and experimental arthritis in rats, *Br J Pharmacol*, 176(2019) 2922-44. **(IF 2018: 6.583 Q1)**
72. Z. Li, Y. Li, H.X. Zhang, J.R. Guo, C.W.K. Lam, C.Y. Wang, **W. Zhang***, Mitochondria-Mediated Pathogenesis and Therapeutics for Non-Alcoholic Fatty Liver Disease, *Mol Nutr Food Res*, 63(2019) e1900043. **(IF 2018: 5.309 Q1)**
73. X. Wu, Y. Chen, Z. Xing, C.W.K. Lam, S.S. Pang, **W. Zhang***, Z. Ju*, Advanced Carbon-Based

Anodes for Potassium-Ion Batteries, *Advanced Energy Materials*, 9(2019). (IF 2018: 25.245 Q1)

74. X. Wu, C.W.K. Lam, N. Wu, S.-S. Pang, Z. Xing, **W. Zhang***, Z. Ju*, Multiple templates fabrication of hierarchical porous carbon for enhanced rate capability in potassium-ion batteries, *Materials Today Energy*, 11(2019) 182-91. (IF 2018: 9.3 Q1)
75. Z. Cao, T. Zhou, Y.L. Chen, J. Liu, D. Wang, **W. Zhang***, S.S. Pang, Y. Zhao*, A Trimodal Porous Cobalt-Based Electrocatalyst for Enhanced Oxygen Evolution, *Advanced Materials Interfaces*, 6(2019). (IF 2018: 4.713 Q1)
76. L. Zheng, C. Qian-Qian, C.W.K. Lam, G. Jian-Ru, W.-J. Zhang, W. Cai-Yun, V.K.W. Wong, Y. Mei-Cun*, **W. Zhang***, Investigation into perturbed nucleoside metabolism and cell cycle for elucidating the cytotoxicity effect of resveratrol on human lung adenocarcinoma epithelial cells, *Chinese journal of natural medicines*, 17(2019) 608-15. (IF 2018: 2.014 Q1)
77. J. Guo, Y. Li, C.W.K. Lam, C. Wang, M. Yao*, **W. Zhang***, ZH-1 enhances the anticancer activity of gemcitabine via deoxyribonucleotide synthesis and apoptotic pathway against A549 cells, *Food Chem Toxicol*, 119(2018) 222-30. (IF 2017: 3.775 Q1)
78. Q. Zhang, J. He, R. Guo, Y. Zhao, W. Zhang*, **W. Zhang**, S.S. Pang, Y. Ding*, Assembling Highly Coordinated Pt Sites on Nanoporous Gold for Efficient Oxygen Electroreduction, *ACS Appl Mater Interfaces*, 10(2018) 39705-12. (IF 2017: 8.097 Q1)
79. W. Zhang, J. He, S. Liu, W. Niu, P. Liu, Y. Zhao, F. Pang, W. Xi, M. Chen, **W. Zhang**, S.S. Pang, Y. Ding*, Atomic origins of high electrochemical CO(2) reduction efficiency on nanoporous gold, *Nanoscale*, 10(2018) 8372-6. (IF 2017: 7.233 Q1)
80. M.P. Liu, W. Li, C. Dai, C.W. Kei Lam, Z. Li, J.F. Chen, Z.G. Chen, **W. Zhang***, M.C. Yao*, Aqueous extract of *Sanguisorba officinalis* blocks the Wnt/beta-catenin signaling pathway in colorectal cancer cells, *RSC Adv*, 8(2018) 10197-206. (IF 2017: 2.936 Q1)
81. X. Ling, Y. Xiang, F. Chen, Q. Tang, **W. Zhang***, X. Tan*, Intestinal absorption differences of major bioactive compounds of Gegenqinlian Decoction between normal and bacterial diarrheal mini-pigs in vitro and in situ, *J Chromatogr B Analyt Technol Biomed Life Sci*, 1083(2018) 93-101. (IF 2017: 2.441 Q2)
82. Q.Q. Zhang, W.Q. Huang, Y.Q. Gao, Z.D. Han, **W. Zhang**, Z.J. Zhang*, F.G. Xu*, Metabolomics Reveals the Efficacy of Caspase Inhibition for Saikosaponin D-Induced Hepatotoxicity, *Front Pharmacol*, 9(2018) 732. (IF 2017: 3.831 Q1)

83. X.M. Dai, D.N. Cui, J. Wang, **W. Zhang**, Z.J. Zhang*, F.G. Xu*, Systems Pharmacology Based Strategy for Q-Markers Discovery of HuangQin Decoction to Attenuate Intestinal Damage, *Front Pharmacol*, 9(2018) 236. (IF 2017: 3.831 Q1)
84. C. Dai, M.-p. Liu, W.-j. Zhang, C.W.K. Lam, J.-r. Guo, W. Li, J. Wu, J.-f. Chen, Z.-g. Chen, **W. Zhang***, A material-basis study of Aloe vera on the wnt/ β -catenin signaling pathway using a knockin/knockout method with high-speed countercurrent chromatography, *RSC advances*, 7(2017) 38819-29. (IF 2016: 2.936 Q1)
85. J. Chen, S. Li, M. Liu, C.W.K. Lam, Z. Li, X. Xu, Z. Chen, **W. Zhang***, M. Yao*, Bioconcentration and metabolism of emodin in zebrafish eleutheroembryos, *Frontiers in Pharmacology*, 8(2017) 453. (IF 2016: 4.4 Q1)
86. J.-R. Guo, Q.-Q. Chen, C.W.K. Lam, C.-Y. Wang, V.K.W. Wong, Z.-F. Chang, **W. Zhang***, Profiling ribonucleotide and deoxyribonucleotide pools perturbed by gemcitabine in human non-small cell lung cancer cells, *Scientific Reports*, 6(2016) 37250. (IF 2015: 5.228 Q2)
87. N. Tsao, M.-H. Lee, **W. Zhang**, Y.-C. Cheng, Z.-F. Chang*, The contribution of CMP kinase to the efficiency of DNA repair, *Cell Cycle*, 14(2015) 354-63. (IF 2015: 3.952 Q2)
88. C.M. Sánchez, J.M.P. Martín, J.-S. Jin, A. Davalos, **W. Zhang**, G. de la Pena, J. Martinez-Botas, S. Rodriguez-Acebes, Y. Suarez, M.J. Hazen*, Disruption of the mevalonate pathway induces dNTP depletion and DNA damage, *Biochimica et Biophysica Acta (BBA)-Molecular and Cell Biology of Lipids*, 1851(2015) 1240-53. (IF 2015:4.779, Q2)
89. J. Guo, Q. Chen, C. Wang, H. Qiu, B. Liu, Z.-H. Jiang, **W. Zhang***, Comparison of two exploratory data analysis methods for classification of *Phyllanthus* chemical fingerprint: unsupervised vs. supervised pattern recognition technologies, *Analytical and bioanalytical chemistry*, 407(2015) 1389-401. (IF 2015:3.125, Q1)
90. J. Guo, Q. Chen, C.W.K. Lam, C. Wang, V.K.W. Wong, F. Xu, Z. Jiang, **W. Zhang***, Application of artificial neural network to investigate the effects of 5-fluorouracil on ribonucleotides and deoxyribonucleotides in HepG2 cells, *Scientific Reports*, 5(2015) 16861. (IF 2015:5.228, Q2)
91. H. Fan#, **W. Zhang#**, J. Wang, M. Lv, P. Zhang, Z. Zhang, F. Xu, HPLC–MS/MS method for the determination of four lignans from *Phyllanthus urinaria* L. in rat plasma and its application, *Bioanalysis*, 7(2015) 701-12. (IF 2015:2.813, Q4)
92. **W. Zhang***, J. Guo, B. Xiang, H. Fan, F. Xu, Improving the detection sensitivity of

chromatography by stochastic resonance, *Analyst*, 139(2014) 2099-107. (IF 2014:4.107, Q2)

93. **W. Zhang***, J. Guo, H. Qiu, C. Wang, Q.Q. Chen, B. Liu, Quantitation of kudinoside A, kudinoside D and kudinoside F in human plasma using a high performance liquid chromatography–electrospray ionization tandem mass spectrometric method, *Journal of Chromatography B*, 972(2014) 1-5. (IF 2014:2.729, Q2)
94. **W. Zhang**, S. Tan, E. Paintsil, G.E. Dutschman, E.A. Gullen, E. Chu, Y.-C. Cheng*, Analysis of deoxyribonucleotide pools in human cancer cell lines using a liquid chromatography coupled with tandem mass spectrometry technique, *Biochemical pharmacology*, 82(2011) 411-7. (IF 2011:4.576, Q1)
95. **W. Zhang**, M.W. Saif, G.E. Dutschman, X. Li, W. Lam, S. Bussom, Z. Jiang, M. Ye, E. Chu, Y.-C. Cheng, Identification of chemicals and their metabolites from PHY906, a Chinese medicine formulation, in the plasma of a patient treated with irinotecan and PHY906 using liquid chromatography/tandem mass spectrometry (LC/MS/MS), *Journal of Chromatography A*, 1217 (2010) 5785-5793. (IF 2010: 3.858, Q2)
96. W. Lam, S. Bussom, F. Guan, Z. Jiang, **W. Zhang**, E.A. Gullen, S.-H. Liu, Y.-C. Cheng, The Four-Herb Chinese Medicine PHY906 Reduces Chemotherapy-Induced Gastrointestinal Toxicity, *Science Translational Medicine*, 2 (2010). (IF 2010: 14.41, Q1)

學術書籍

Wing Lam , Scott Bussom , Zaoli Jiang , **Wei Zhang** , Fulan Guan , Shwu-Huey Liu , and Yung-Chi Cheng , “Inflammation, Oxidative Stress and Cancer: Dietary Approaches for Cancer Prevention” CRC press, INC.,(ISBN 9781466503700), Chapter Number 29, ”PHY906,a cancer adjuvant therapy,differentially affects inflammation of different tissues”

承擔主要科研項目

1. 2024-2027 The development and application of an innovative platform for the analysis of mitochondrial mRNA modifications based on the magnetic carbon-based nanomaterials and chemical labeling, Macao Science and Technology Development Fund (project number 0054/2024/RIA1), MOP 1,733,600.00, PI

2. 2023-2026 Development of Next-Generation Anti-Aging Products Based on Synergistic Enhancement Techniques with Edible TCMs, FDCT Key R & D research project (project number 0001/2023/AKP, PI: Professor JIANG Zhi-Hong), MOP 11,916,000.00, Co-PI. (PI of the third subproject on “Development of NMN delivery system”)
3. 2022-2024 Research on Quality Evaluation and Product Development of Cultivated Cordyceps Sinensis , FDCT-GDST Joint Fund (project number 0040/2021/AGJ), MOP 865,000, PI.
4. 2020-2023 Study on multi-dimensional quality control of six Chinese herbal medicines by combining artificial intelligence and multi-omics technologies, FDCT Key R & D research project (project number 0023/2019/AKP, PI: Professor JIANG Zhi-Hong), MOP 8,000,000.00, Co-PI. (PI of the third subproject on “Integrated multi-omics technology and quality marker theory for quality control of four Chinese herbal medicines”)
5. 2019-2022 Synergistic antitumor activity of 5-fluorouracil in colorectal cancer based on the targeted-regulation of nucleotide metabolism, Macao Science and Technology Development Fund (project number 0077/2019/A2), MOP 1,434,400.00, PI
6. 2018-2021 Integrative patterns of efficient components recognition of Aloe based on Wnt/ β -Catenin Signaling Pathway, Macao Science and Technology Development Fund (project number 0052/2018/A2), MOP 1,112,100.00, PI
7. 2018-2021 Reduction of CO₂ into Energy Products through Electro- and Photo-Catalysts Using Nanoporous Functional Materials, FDCT-MOST Joint Fund(FDCT project number 002/2017/ AFJ) MOP 1,772,100, PI
8. 2016-2018 Using nucleotide metabolomics to investigate the impacts of tonic Chinese Herbs on DNA damage and Repair, Macao Science and Technology Development Fund (project number 006/2015/A1), MOP 2,820,000, PI
9. 2013-2015 The Profiling of Bioactive Compounds of Phyllanthus urinaria and Mechanism of Toxicity Reducing and Efficacy enhancing in Combination with Nucleoside Analogues, Macao Science and Technology Development Fund (project number 091/2012/A3) MOP 1,963,000, PI
10. 2013-2015 Metabolism and pharmacokinetics of Phyllanthus urinaria in the mouse, open project of Guangxi Key Laboratory of Traditional Chinese Medicine Quality Standards (project number Guizhongzhongkai201301) , PI

11. 2012-2014 Metabolomic study of Huang Qin decoction to decrease chemotherapy toxicities, open project of the State Key Laboratory of Natural Medicines (project number SKLNMKF201220), RMB 40,000, PI
12. 2013-2013 In-depth study on the metabolism process of flavonoids in Huangqin decoction, Macao Foundation (#0272), MOP 98,000, Principal Investigator, PI
13. 2014-2016 Huangqin Decoction Attenuates CPT-11-Induced Gastrointestinal Toxicity by Regulating Brain-gut axis of tryptophan metabolism National Natural Science Foundation of China(project number 81307949) RMB 230,000,Co-I
14. 2019-2023 Living single-cell analyzer based on light beam control and manipulation, Special Fund for Research on National Major Research Instrument (project number 61827819), RMB 7,769,600,Co-I

學術機構及社會任職

世界中联中医药免疫专业委员会常务理事

澳門化驗師公會會員

澳門科學技術協進會會員

學術獎勵

1. Bank of China (BOC, Macau Branch) Excellent Research Award 2014 中銀(澳門)學術研究優秀獎 2014
2. Zhongzhu Awards for Life Science Recognizing First Prize in Research 中珠醫療生命科學科研一等獎 2016
3. Zhongzhu Awards for Life Science Recognizing second Prize in Research 中珠醫療生命科學科研二等獎 2017
4. Zhongzhu Awards for Life Science Recognizing First Prize in Research 中珠醫療生命科學科研一等獎 2018
5. Bank of China (BOC, Macau Branch) Excellent Research Award 2023 中銀(澳門)學術研究優秀獎 2023