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## 简介:

姜志宏讲座教授于1987年毕业于中国药科大学，1990年于同校取得硕士学位。1994年获日本国费奖学金资助留学日本，1998年在长崎大学获得药学博士学位。1999年至2001年间在美国哈佛医学院生物化学与分子药理学系进行博士后研究工作，从事抗肿瘤抗生素与小RNA形成共价键附加物的研究。2001年姜志宏博士受聘于香港浸会大学中医药学院任助理教授，2005年提升为副教授，2008年任教授。曾担任教学部副主任和中药学硕士课程主任。2011年7月任澳门科技大学澳门药物及健康应用研究院院长，2016年3月任澳门科技大学副校长。2022年3月起兼任中药质量研究国家重点实验室（澳门科技大学）主任。

姜教授是国际知名的天然药物化学家，他的研究领域包括天然药物化学、代谢组学、中药质量标准以及生物有机化学。为了推进中药现代化，姜教授一直潜心以现代光谱和色谱学、化学生物学和代谢组学的研究技术阐明中药的有效成分和作用机理，并取得卓著成果。迄今姜教授已在Nucleic Acids Research, Nature Communications, JACS, Analytical Chemistry, Organic Letters等国际学术刊物上发表320余篇SCI论文，引用次数达12,000余次，H-index为65 (Google Scholar, 2023)。

姜教授于2007年获得国家杰出青年基金（海外），并于2014年获聘为国家教育部长江学者讲座教授，2022年当选为国家药典委员会委员。他的研究亦得到澳门科学技术发展基金、香港研究资助局、香港卫生署、国家自然科学基金、美国国立卫生研究院的资助。此外，姜教授还担任全国中药标准化技术委员会副主任委员、海峡两岸暨港澳地区中医药科技合作中心会长、澳门科协副会长、澳门特区政府科技委员会和经济委员会委员，以及澳门高等教育发展促进会副理事长等社会职务。

## 教研领域:

教学科目：中药化学；中药分析

研究方向：天然药物化学；代谢组学；生物有机化学；中药质量标准

## 学历:

1998.03 日本长崎大学药学 博士学位  
1990.07 中国药科大学理学 硕士学位  
1987.07 中国药科大学理学 学士学位

## 教学经验:

2015.09 - 今 澳门科技大学 讲座教授  
2011.07 - 2015.08 澳门科技大学 教授  
2008.09 - 2011.06 香港浸会大学中医药学院 教授  
2005.07 - 2008.08 香港浸会大学中医药学院 副教授  
2001.10 - 2005.06 香港浸会大学中医药学院 助理教授  
1999.11 - 2001.09 哈佛医学院生物化学与分子药理学系 博士后  
1996.10 - 2001.09 日本长崎大学药学部 助手 (文部教官)  
1990.07 - 1994.03 中国药科大学助教 讲师

## 科研项目承担:

2022- 2025 新冠病毒及其变异株S蛋白糖基化深度分析及糖基结构与抗体识别相关性研究  
2020 -2023 融合人工智能和多组学技术开展川贝母等六种中药的多维度质量控制研究  
2019 -至今 应用靶向定量蛋白质组学精准分析不同疾病相关的 chemerin 蛋白亚型及筛选验证治疗多囊卵巢综合症的中药活性成分  
2017- 2020 桔梗“引药上行”药效物质基础的作用机理及配伍应用的化学生物学研究  
2014 - 2017 以免疫球蛋白糖基化为靶目标中药有效成份活性评价及作用机理的研究  
2013 - 2016 基于全成分库的板蓝根抗流感病毒药效物质及其多靶点作用机制的研究  
2012 - 2013 中药配方颗粒的质量标准的研究  
2011 - 2013 基于LC-MS和LC-NMR技术的创新脂组学分析平台的建立及其在中药现代研究中的应用。

## 近五年发表论文:

1. Qian-Bao Liu, Jiazheng Liu, Jing-Guang Lu, Ming-Rong Yang, Wei Zhang, Wen-Jia Li, Zheng-Ming Qian, **Zhi-Hong Jiang\***, Li-Ping Bai\*. "Quantitative <sup>1</sup>H NMR with global spectral deconvolution approach for quality assessment of natural and cultured *Cordyceps sinensis*." *Journal of Pharmaceutical and Biomedical Analysis* (2023): 115603.
2. Hao-Yuan Lyu, Meng-Yu Bao, Chi-Cheng Io, Hao-Ming Xiong, Fei-Long Chen, Li-Ping Bai, Wei Zhang, **Zhi-Hong Jiang\***, Guo-Yuan Zhu\*. "Sesquiterpenoids from the roots of

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- Hui-Xia Zhang, Dian Yu, Jian-Feng Sun, Ling Zeng, Cai-Yun Wang, Li-Ping Bai, Guo-Yuan Zhu, **Zhi-Hong Jiang\***, Wei Zhang\*. "An integrated approach to evaluate acetamiprid-induced oxidative damage to tRNA in human cells based on oxidized nucleotide and tRNA profiling." *Environment International* (2023): 108038.
  - Xinyu Zhang, Yuting Chen, Yueying Pan, Xinye Ma, Gui Hu, Song Li, Yan Deng, Zhu Chen, Hui Chen\*, Yanqi Wu\*, **Zhihong Jiang\***, Zhiyang Li. "Research progress of severe acute respiratory syndrome coronavirus 2 on aerosol collection and detection." *Chinese Chemical Letters* (2023): 108378.
  - Fei Ren, Kai-Yue Cao, Rui-Ze Gong, Meng-Lan Yu, Peng Tao, Yi Xiao, **Zhi-Hong Jiang\***. "The role of post-transcriptional modification on a new tRNA<sup>Ala</sup> (GAU) identified from *Ganoderma lucidum* in its fragments' cytotoxicity on cancer cells." *International Journal of Biological Macromolecules* 229 (2023): 885-895.
  - Hui-Xia Zhang, Jian-Feng Qin, Jian-Feng Sun, Yu Pan, Tong-Meng Yan, Cai-Yun Wang, Li-Ping Bai, Guo-Yuan Zhu, **Zhi-Hong Jiang\***, Wei Zhang\*. "Selective Chemical Labeling Strategy for Oligonucleotides Determination: A First Application to Full-Range Profiling of Transfer RNA Modifications." *Analytical Chemistry* 95.2 (2023): 686-694.
  - Hui Chen, Xinye Ma, Xinyu Zhang, Gui Hu, Yan Deng, Song Li, Zhu Chen, Nongyue He\*, Yanqi Wu\*, **Zhihong Jiang\***. "Novel aerosol detection platform for SARS-CoV-2: Based on specific magnetic nanoparticles adsorption sampling and digital droplet PCR detection." *Chinese Chemical Letters* 34.1 (2023): 107701.
  - Min Zhang, Long-Bo Bai, Lee-Fong Yau, Tian-Tian Tong, Wei Zhang\*, **Zhi-Hong Jiang\***. "Identification of Cannabidiol Metabolites in Different Mouse Organs Using Ultra-Performance Liquid Chromatography Coupled to a Quadrupole Time-of-Flight Mass Spectrometer." *Cannabis and Cannabinoid Research* (2022), doi.org/10.1089/can.2022.0161.
  - Lee-Fong Yau, Hao Huang, Tian-Tian Tong, Long-Bo Bai, Guo-Yuan Zhu, Yuanyuan Hou, Gang Bai\*, **Zhi-Hong Jiang\***. "Characterization of deglycosylated metabolites of platycosides reveals their biotransformation after oral administration." *Food Chemistry* 393 (2022): 133383.
  - Xu-Jia Wu, Dai Cao, Fei-Long Chen, Rong-Sheng Shen, Jin Gao, Li-Ping Bai, Wei Zhang, **Zhi-Hong Jiang\***, Guo-Yuan Zhu\*. "Chlorofortunones A and B, Two Sesquiterpenoid Dimers, Possessing Dispiro [4, 2, 5, 2] pentadecane-6, 10, 14-tren Moiety from *Chloranthus fortunei*." *ACS Omega* 7.39 (2022): 35063-35068.
  - Jiazheng Liu, Jieru Meng, Runfeng Li, Haiming Jiang, Lu Fu, Ting Xu, Guo-Yuan Zhu, Wei Zhang, Jin Gao, **Zhi-Hong Jiang\***, Zi-Feng Yang\*, Li-Ping 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." *Frontiers in plant science* 13 (2022): 988655.
  - Tian-Peng Yin, Yi Yu, Qing-Hua Liu, Ming-Yue Zhou, Guo-Yuan Zhu, Li-Ping Bai, Wei Zhang\*, **Zhi-Hong Jiang\***. "2D NMR-based MatchNat Dereplication Strategy Enables Explosive Discovery of Novel Diterpenoid Alkaloids." *Chinese Journal of Chemistry* 40.18 (2022): 2169-2178.

13. Kua Hu, Tong-Meng Yan, Kai-Yue Cao, Fang Li, Xiao-Rong Ma, Qiong Lai, Jin-Cheng Liu, Yu Pan, Jun-Ping Kou, **Zhi-Hong Jiang\***. "A tRNA-derived fragment of ginseng protects heart against ischemia/reperfusion injury via targeting the lncRNA MIAT/VEGFA pathway." *Molecular Therapy-Nucleic Acids* 29 (2022): 672-688.
14. Jing-Guang Lu, Yingwei Wang, Ming-Rong Yang, Cai-Yun Wang, Jieru Meng, Jiazheng Liu, Zifeng Yang, Kongsong Wu, Li-Ping Bai\*, Guo-Yuan Zhu\*, **Zhi-Hong Jiang\***. "Structures, biomimetic synthesis, and anti-SARS-CoV-2 activity of two pairs of enantiomeric phenylpropanoid-conjugated protoberberine alkaloids from the rhizomes of *Corydalis decumbens*." *Archives of Pharmacal Research* 45.9 (2022): 631-643.
15. Long-Bo Bai, Lee-Fong Yau, Tian-Tian Tong, Wai-Him Chan, Wei Zhang\*, **Zhi-Hong Jiang\***. "Improvement of tissue-specific distribution and biotransformation potential of nicotinamide mononucleotide in combination with ginsenosides or resveratrol." *Pharmacology Research & Perspectives* 10.4 (2022): e00986.
16. Rong-Sheng Shen, Dai Cao, Fei-Long Chen, Xu-Jia Wu, Jin Gao, Li-Ping Bai, Wei Zhang, **Zhi-Hong Jiang\***, Guo-Yuan Zhu\*. "New Monoterpene-Conjugated Phenolic Constituents from Nutmeg and Their Autophagy Modulating Activities." *Journal of Agricultural and Food Chemistry* 70.31 (2022): 9684-9693.
17. Kai-Yue Cao, Yu Pan, Tong-Meng Yan, Peng Tao, Yi Xiao, **Zhi-Hong Jiang\***. "Antitumor activities of tRNA-derived fragments and tRNA halves from non-pathogenic *Escherichia coli* strains on colorectal cancer and their structure-activity relationship." *mSystems* 7.2 (2022): e00164-22.
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19. Kai-Yue Cao, Tong-Meng Yan, Ji-Zhou Zhang, Ting-Fung Chan, Jie Li, Chong Li, Elaine Lai-Han Leung, Jin Gao, Bao-Xian Zhang, **Zhi-Hong Jiang\***. "A tRNA-derived fragment from Chinese yew suppresses ovarian cancer growth via targeting TRPA1." *Molecular Therapy-Nucleic Acids* 27 (2022): 718-732.
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23. Xin Liu, Jing Fu, Rong-Sheng Shen, Xu-Jia Wu, Ji Yang, Li-Ping Bai, **Zhi-Hong Jiang\***, Guo-Yuan Zhu\*. "Linderanoids A—O, dimeric sesquiterpenoids from the roots of *Lindera aggregata* (Sims) Kosterm." *Phytochemistry* 191 (2021): 112924.
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  26. Xin Liu, Ji Yang, Jing Fu, Pei-Lin Xu, Tang-Gui Xie, Li-Ping Bai, **Zhi-Hong Jiang\***, Guo-Yuan Zhu\*. "Monoterpene-flavonoid conjugates from *Sarcandra glabra* and their autophagy modulating activities." *Bioorganic Chemistry* 112 (2021): 104830.
  27. WANG Cai-Yun, LU Jing-Guang, CHEN Da-Xin, WANG Jing-Rong, CHE Kai-Si, Ming Zhong, Wei Zhang\*, **Zhi-Hong 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)." *Chinese Journal of Natural Medicines* 19.5 (2021): 391-400.
  28. Xin Liu, Jing Fu, Ji Yang, Ancheng C Huang, Run-Feng Li, Li-Ping Bai, Liang Liu, **Zhi-Hong Jiang\***, Guo-Yuan Zhu\*. "Linderaggrenolides A–N, oxygen-conjugated sesquiterpenoid dimers from the roots of *Lindera aggregata*." *ACS Omega* 6.8 (2021): 5898-5909.
  29. Yu Pan, Tong-Meng Yan, Jing-Rong Wang, **Zhi-Hong Jiang\***. "The nature of the modification at position 37 of tRNAPhe correlates with acquired taxol resistance." *Nucleic Acids Research* 49.1 (2021): 38-52.
  30. Run-Feng Li, Xiao-Bo Zhou, Hong-Xia Zhou, Zi-Feng Yang, Hai-Ming Jiang, Xiao Wu, Wen-Jia Li, Jian-Jian Qiu, Jia-Ning Mi, Ming Chen, Nan-Shan Zhong, Guo-Yuan Zhu\*, **Zhi-Hong Jiang\***. "Novel fatty acid in *Cordyceps* suppresses influenza A (H1N1) virus-induced proinflammatory response through regulating innate signaling pathways." *ACS Omega* 6.2 (2021): 1505-1515.
  31. Tianpeng Yin, Huixia Zhang, Wei Zhang\*, **Zhihong Jiang\***. "Chemistry and biological activities of hetisine-type diterpenoid alkaloids." *RSC advances* 11.57 (2021): 36023-36033.
  32. Yingwei Wang, Mingrong Yang, Chichou Lao, **Zhihong Jiang\***. "C–H bond cleavage-enabled aerobic ring-opening reaction of in situ formed 2-aminobenzofuran-3 (2 H)-ones." *Organic & Biomolecular Chemistry* 19.43 (2021): 9448-9459.
  33. Ji Yang, Xin Liu, Jing Fu, Hao-Yuan Lyu, Li-Ping Bai, **Zhi-Hong Jiang\***, Guo-Yuan Zhu\*. "Calycindaphines A–J, Daphniphyllum alkaloids from the roots of *Daphniphyllum calycinum*." *RSC Advances* 11.16 (2021): 9057-9066.
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  35. Hao Huang, Tian-Tian Tong, Lee-Fong Yau, Jing-Rong Wang, Mao-Hua Lai, Chun-Ren Zhang, Xiao-Hui Wen, Shu-Na Li, Kun-Yin Li, Jian-Qiao Liu, Hong-Xia Ma, Benjamin K Tsang, **Zhi-Hong Jiang\***. "Chemerin isoform analysis in human biofluids using an LC/MRM-MS-based targeted proteomics approach with stable isotope-labeled standard." *Analytica Chimica Acta* 1139 (2020): 79-87.
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- Hong Jiang\***. "Synthesis of crocetin derivatives and their potent inhibition in multiple tumor cells proliferation and inflammatory property of macrophage." *BMC Complementary medicine and therapies* 20 (2020): 1-8.
37. Zheng Li, Hongwei Chen, Huixia Zhang, Yan Li, Caiyun Wang, Liping Bai, Wei Zhang\*, **Zhihong Jiang\***. "Similarity and specificity of traditional Chinese medicine formulas for management of coronavirus disease 2019 and rheumatoid arthritis." *ACS Omega* 5.47 (2020): 30519-30530.
  38. Yan Li, Yanli Chen, Huixia Zhang, Christopher Wai Kei Lam, Zheng Li, Caiyun Wang, Yunfeng Zhao, Wei Zhang\*, **Zhihong 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." *Microchimica Acta* 187 (2020): 1-10.
  39. Hong-Xia Zhou, Run-Feng Li, Yi-Feng Wang, Li-Han Shen, Li-Hua Cai, Yun-Ceng Weng, Huan-Rong Zhang, Xin-Xin Chen, Xiao Wu, Rui-Feng Chen, Hai-Ming Jiang, Caiyun Wang, Mingrong Yang, Jingguang Lu, Xiao-Dong Luo\*, **Zhihong Jiang\***, Zi-Feng Yang\*. "Total alkaloids from *Alstonia scholaris* inhibit influenza a virus replication and lung immunopathology by regulating the innate immune response." *Phytomedicine* 77 (2020): 153272.
  40. Zhihua Wang, Wenbo Wu, Xiangchen Guan, Shuang Guo, Chaowen Li, Ruixue Niu, Jie Gao, Min Jiang, Liping Bai, Elaine Laihan Leung, Yuanyuan Hou\*, **Zhihong Jiang\***, Gang Bai\*. "20 (S)-Protopanaxatriol promotes the binding of P53 and DNA to regulate the antitumor network via multiomic analysis." *Acta Pharmaceutica Sinica B* 10.6 (2020): 1020-1035.
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  44. Lee-Fong Yau, Ju Liu, Min Jiang, Gang Bai, Jing-Rong Wang\*, **Zhi-Hong Jiang\***. "An integrated approach for comprehensive profiling and quantitation of IgG-Fc glycopeptides with application to rheumatoid arthritis." *Journal of Chromatography B* 1122 (2019): 64-72.
  45. Xin Liu, Ji Yang, Jing Fu, Xiao-Jun Yao, Jing-Rong Wang, Liang Liu, **Zhi-Hong Jiang\***, Guo-Yuan Zhu\*. "Aggreganoids A–F, carbon-bridged sesquiterpenoid dimers and trimers from *Lindera aggregata*." *Organic Letters* 21.14 (2019): 5753-5756.
  46. Cheng-Yu Chen, Guo-Yuan Zhu, Tang-Gui Xie, Ping-Chuan Jiang, Jing-Rong Wang\*, **Zhi-Hong Jiang\***. "A phenanthroindolizidine glycoside with HIF-1 inhibitory activity from *Tylophora atrofolliculata*." *Phytochemistry Letters* 31 (2019): 39-42.

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48. Xiaobo Zhou, Yuan Qing Qu, Zhiyuan Zheng, Betty Yuen Kwan Law, Simon Wing Fai Mok, **Zhi-Hong Jiang\***, Vincent Kam Wai Wong\*, Li-Ping Bai\*. "Novel dauricine derivatives suppress cancer via autophagy-dependent cell death." *Bioorganic Chemistry* 83 (2019): 450-460.