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簡介:

姜志宏講座教授于1987年畢業於中國藥科大學，1990年於同校取得碩士學位。1994年獲日本國費獎學金資助留學日本，1998年在長崎大學獲得藥學博士學位。1999年至2001年間在美國哈佛醫學院生物化學與分子藥理學系進行博士後研究工作，從事抗腫瘤抗生素與小RNA形成共價鍵附加物的研究。2001年姜志宏博士受聘于香港浸會大學中醫藥學院任助理教授，2005年提升為副教授，2008年任教授。曾擔任教學部副主任和中藥學碩士課程主任。2011年7月任澳門科技大學澳門藥物及健康應用研究院院長，2016年3月任澳門科技大學副校長。2022年3月起兼任中藥質量研究國家重點實驗室（澳門科技大學）主任。

姜教授是國際知名的天然藥物化學家，他的研究領域包括天然藥物化學、代謝組學、中藥質量標準以及生物有機化學。為了推進中藥現代化，姜教授一直潛心以現代光譜和色譜學、化學生物學和代謝組學的研究技術闡明中藥的有效成分和作用機理，並取得卓著成果。迄今姜教授已在Nucleic Acids Research, Nature Communications, JACS, Analytical Chemistry, Organic Letters等國際學術刊物上發表320餘篇SCI論文，引用次數達12,000餘次，H-index為65 (Google Scholar, 2023)。

姜教授於2007年獲得國家傑出青年基金（海外），並於2014年獲聘為國家教育部長江學者講座教授，2022年當選為國家藥典委員會委員。他的研究亦得到澳門科學技術發展基金、香港研究資助局、香港衛生署、國家自然科學基金、美國國立衛生研究院的資助。此外，姜教授還擔任全國中藥標準化技術委員會副主任委員、海峽兩岸暨港澳地區中醫藥科技合作中心會長、澳門科協副會長、澳門特區政府科技委員會和經濟委員會委員，以及澳門高等教育發展促進會副理事長等社會職務。

教研領域:

教學科目：中藥化學；中藥分析

研究方向：天然藥物化學；代謝組學；生物有機化學；中藥質量標準

學歷:

- 1998.03 日本長崎大學藥學 博士學位
1990.07 中國藥科大學理學 碩士學位
1987.07 中國藥科大學理學 學士學位

教學經驗:

- 2015.09 - 今 澳門科技大學 講座教授
2011.07 - 2015.08 澳門科技大學 教授
2008.09 - 2011.06 香港浸會大學中醫藥學院 教授
2005.07 - 2008.08 香港浸會大學中醫藥學院 副教授
2001.10 - 2005.06 香港浸會大學中醫藥學院 助理教授
1999.11 - 2001.09 哈佛醫學院生物化學與分子藥理學系 博士後
1996.10 - 2001.09 日本長崎大學藥學部 助手 (文部教官)
1990.07 - 1994.03 中國藥科大學助教 講師

科研項目承擔:

- 2022- 2025 新冠病毒及其變異株S蛋白糖基化深度分析及糖基結構與抗體識別相關性研究
2020 -2023 融合人工智慧和多組學技術開展川貝母等六種中藥的多維度品質控制研究
2019 -至今 應用靶向定量蛋白質組學精準分析不同疾病相關的 chemerin 蛋白亞型及篩選驗證治療多囊卵巢綜合症的中藥活性成分
2017- 2020 桔梗“引藥上行”藥效物質基礎的作用機理及配伍應用的化學生物學研究
2014 - 2017 以免疫球蛋白糖基化為靶目標中藥有效成份活性評價及作用機理的研究
2013 - 2016 基於全成分庫的板藍根抗流感病毒藥效物質及其多靶點作用機制的研究
2012 - 2013 中藥配方顆粒的品質標準的研究
2011 - 2013 基於LC-MS和LC-NMR技術的創新脂組學分析平臺的建立及其在中藥現代研究中的應用。

近五年發表論文:

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 ¹H 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

- Aucklandia costus and their anti-inflammatory activities." *Fitoterapia* (2023): 105604.
- 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^{Ala} (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.
20. Fei-Long Chen, Dong-Li Liu, Jing Fu, Ji Yang, Li-Ping Bai, Wei Zhang, **Zhi-Hong Jiang***, Guo-Yuan Zhu*. "(±)-Atrachinenins A—C, Three Pairs of Caged C27 Meroterpenoids from the Rhizomes of *Atractylodes chinensis*." *Chinese Journal of Chemistry* 40.4 (2022): 460-466.
21. Fei-Long Chen, Dong-Li Liu, Jing Fu, Lu Fu, Jin Gao, Li-Ping Bai, Wei Zhang, **Zhi-Hong Jiang***, Guo-Yuan Zhu*. "Atrachinenynes A—D, four diacetylenic derivatives with unprecedented skeletons from the rhizomes of *Atractylodes chinensis*." *New Journal of Chemistry* 46.32 (2022): 15530-15537.
22. Tianpeng Yin, Jingguang Lu, Qinghua Liu, Guoyuan Zhu, Wei Zhang*, **Zhihong Jiang***. "Validated quantitative ¹H NMR method for simultaneous quantification of indole alkaloids in *Uncaria rhynchophylla*." *ACS Omega* 6.47 (2021): 31810-31817.
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- Hong Jiang***. "Deciphering superior quality of Pu-erh tea from thousands of years' old trees based on the chemical profile." *Food Chemistry* 358 (2021): 129602.
25. Qiang Shang, Xiaobo Zhou, Ming-Rong Yang, Jing-Guang Lu, Yu Pan, Guo-Yuan Zhu*, **Zhi-Hong Jiang***. "Amide Derivatives of Ginkgolide B and Their Inhibitory Effects on PAF-Induced Platelet Aggregation." *ACS Omega* 6.35 (2021): 22497-22503.
 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.
 34. Tong-Meng Yan, Yu Pan, Meng-Lan Yu, Kua Hu, Kai-Yue Cao, **Zhi-Hong Jiang***. "Full-range profiling of tRNA modifications using LC–MS/MS at single-base resolution through a site-specific cleavage strategy." *Analytical Chemistry* 93.3 (2020): 1423-1432.
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 36. Mao-Ze Wang, Jin Gao, Yang Chu, Jie Niu, Ming Chen, Qiang Shang, Li-Hua Peng*, **Zhi-**

- 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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 42. An-Cheng Huang, Cheng-Yu Chen, Jing-Rong Wang*, **Zhi-Hong Jiang***. "Three new C21 steroidal glycosides from *Tylophora atrofolliculata*." *Phytochemistry Letters* 36 (2020): 111-114.
 43. Kai-Yue Cao, Yu Pan, Tong-Meng Yan, **Zhi-Hong Jiang***. "Purification, characterization and cytotoxic activities of individual tRNAs from *Escherichia coli*." *International Journal of Biological Macromolecules* 142 (2020): 355-365.
 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.