

竺曉鳴



職稱： 副教授

學院/部門： 中藥機制與質量全國重點實驗室，澳門
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教學科目：基礎藥理學、藥理學與毒理學、毒理學與安全用藥、中藥藥理學、高等藥劑學、中藥研究進展、中西醫結合研究進展、基因工程學、生物化學與分子生物學

研究方向：腫瘤藥理及靶向藥物輸送、生物材料與納米醫學、蛋白降解調控藥物研究、血管活性藥物篩選

竺曉鳴博士 2003 年畢業於浙江大學藥學院，獲藥學學士學位。2008 年畢業於北京協和醫學院藥物研究，獲得藥理學博士學位。博士期間研究方向為高通量藥物篩選以及血管活性天然藥物的發現。2009 年至 2010 年在新加坡南洋理工大學化學與生物醫學工程系進行博士後研究工作，期間建立了一種基於螢光共振能量轉移技術的生物感測器用於腫瘤血管生成抑制藥物的篩選研究。2010 年至 2013 年在香港中文大學威爾斯親王醫院從事博士後研究工作，研究方向是納米材料的生物醫學應用包括藥物輸送、細胞成像、腫瘤診斷與治療。2014 年 1 月加入澳門科技大學中藥機制與質量全國重點實驗室。已經發表 60 餘篇 SCI 收錄論文，並獲得 2017 年中國藥理學會施維雅青年藥理學家獎。

學歷

2003 – 2008 北京協和醫學院藥理學博士學位

1999 - 2003 浙江大學藥學學士學位

工作履歷

2020.7 – 現在 澳門科技大學中藥機制與質量全國重點實驗室副教授

2014.1 – 2020.6 澳門科技大學中藥機制與質量全國重點實驗室助理教授

2010.7 – 2013.12 香港中文大學威爾斯親王醫院博士後

2009.5 – 2010.7 新加坡南洋理工大學化學與生物醫學工程系博士後

學術成果

近年發表的主要 SCI 期刊論文：(* Corresponding author)

1. Yin D, Wu X, Chen JL, An K, Fang YN, Xiong HM, Wang L, Huang C, Zhu GY, Cheng L, Wang JF*, **Zhu XM***. Spatiotemporal activation of unfolded protein response by combined sonodynamic therapy and proteasome inhibition with bortezomib-conjugated TiN nanoparticles. *Bioactive Materials*, 2026, 61, 774-795.
2. Wang MY, Deng XN, Dong H, Feng XY, Zhu FR, Yin D, Hong C, Chen ZY, Wang L, **Zhu XM***. Enhancing the efficacy of sonodynamic therapy through modulation of autophagy. *Ultrasonics Sonochemistry*, 2025, 121, 107527.
3. Yin D, Wu X, Chen X, Chen JL, Xia X, Wang J, Chen X, **Zhu XM***. Enhanced anticancer effect of carfilzomib by codelivery of calcium peroxide nanoparticles targeting endoplasmic reticulum stress. *Materials Today Bio*, 2025, 32, 101649.
4. Gu ZY, Chen GH, Gao N, Zhang XR, Xu QG, Xiong W, Liu L, Liu Q, Yin D, **Zhu XM***, Huang YZ*. In-situ trichosanthin-IL2/pectin dynamic hydrogel activates dendritic cells and reverses T cell exhaustion for post-operative cancer therapy. *Chemical Engineering Journal*, 2025, 505, 159426.
5. Xu YN, Bai X, Chen JL, Wu X, Yin D, Yuan G, Dai R, **Zhu XM***, Wang JF*. Tracing sentinel lymph nodes and inhibiting lymphatic metastasis with TiN nanobipyramids through photothermal therapy. *International Journal of Nanomedicine*, 2024, 19:

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6. Chen JL, Jia XH, Wu X, Yuan MH, Xia XY, Yin D, Chen X, Gu ZY, Liu JZ, Bai LP, Luo KQ, Wang JF, **Zhu XM***. Kidney-targeted antioxidant salvianolic acid B nanoparticles restoring lysosome homeostasis for acute kidney injury therapy. *Chemical Engineering Journal*, 2024, 490, 151811.
7. Chen X, Wu X, **Zhu XM***. Development of proteasome inhibitors for cancer therapy. *International Journal of Drug Discovery and Pharmacology*, 2024, 3(1): 100004.
8. Chen JL, Jia XH, Xia XY, Wu X, Xu YN, Yuan G, Gu ZY, Luo KQ, Yuan MH, Jiang RB, Wang JF, **Zhu XM***. Co-delivery of vorinostat and chloroquine by autophagy-inhibitory hollow ZrO₂ nanoshells for synergistic combination chemotherapy. *Chemical Engineering Journal*, 2023, 471, 144740.
9. Chen JL, Wu X, Yin D, Jia XH, Chen X, Gu ZY, **Zhu XM***. Autophagy inhibitors for cancer therapy: small molecules and nanomedicines. *Pharmacology & Therapeutics*, 2023, 249, 108485.
10. Yuan G, Xu YN, Bai XP, Wang WM, Wu X, Chen JL, Li J, Jia XH, Gu ZY, Zhang X, Hu W, Wang JF, Liu Y*, **Zhu XM***. Epirubicin-loaded polyacrylic acid/calcium phosphate nanoparticles for chemoembolization treating hepatocellular carcinoma. *ACS Applied Materials & Interfaces*, 2023, 15(9): 11431-11443.
11. Wu X, Wang L, Xu YN, Chen JL, *et al*, **Zhu XM***, Jiang RB*. Chemo-phototherapy with carfilzomib-encapsulated TiN nanoshells suppressing tumor growth and lymphatic metastasis. *Small*, 2022, 18(29): 2200522.
12. Yan GY, Li J, Chen SS, Liu Y, Wu JL, **Zhu XM***, Li N*. New limonoids from the fruits of *Melia toosendan* and their autophagic activities. *Phytochemistry Letters*, 2020, 35: 15-22.
13. Chen JL, Zhang H, Huang XQ, Wan HY, Li J, Fan XX, Luo KQ, Wang JH, **Zhu XM***, Wang JF*. Antiangiogenesis-combined photothermal therapy in the second near-infrared window at laser powers below the skin tolerance threshold. *Nano-Micro Letters*, 2019, 11(1):93.
14. Zhang H, Chen JL, Li NN, Jiang RB, **Zhu XM***, Wang JF*. Au nanobottles with synthetically tunable overall and opening sizes for chemo-photothermal combined therapy. *ACS Applied Materials & Interfaces*, 2019, 11(5): 5353-5363.
15. Wan HY, Chen JL, Zhu XZ, Liu L, Wang JF*, **Zhu XM***. Titania-coated gold nano-bipyramids for blocking autophagy flux and sensitizing cancer cells to proteasome inhibitor-induced death. *Advanced Science*, 2018, 5: 1700585.

16. Fang CH*, Ding Q, Bi T, Xu XX, Chen JL, **Zhu XM***, Geng BY*. Plasmonic band tunable (Au nanocrystal)/SnO₂ core/shell hybrids for photothermal therapy. *Particle & Particle Systems Characterization*, 2018, 1800238.
17. Wan HY, Chen JL, Yu XY, **Zhu XM***. Titania-coated gold nanorods as an effective carrier for gambogic acid. *RSC Advances*, 2017, 7: 49518-49525.
18. **Zhu XM***, Wan HY, Jia H, Liu L, Wang JF*. Porous Pt nanoparticles with high near-infrared photothermal conversion efficiencies for photothermal therapy. *Advanced Healthcare Materials*, 2016, 5:3165-3172.
19. **Zhu XM**, Fang CH, Jia HL, Huang Y, *et al.* Cellular uptake behaviour, photothermal therapy performance, and cytotoxicity of gold nanorods with various coatings. *Nanoscale*, 2014, 6: 11462-11472.
20. Wang YX*, **Zhu XM**, Liang Q, Cheng CH, Wang W*, Leung KC*. In vivo chemoembolization and magnetic resonance imaging of liver tumors by using iron oxide nanoshell/doxorubicin/poly(vinyl alcohol) hybrid composites. *Angewandte Chemie International Edition*, 2014, 53(19): 4812-5.
21. Wang DW, **Zhu XM (Co-first)**, Lee SF, *et al.* Folate-conjugated Fe₃O₄@SiO₂@gold nanorods@mesoporous SiO₂ nanocomposite: a theranostic agent for magnetic resonance imaging and photothermal therapy. *Journal of Materials Chemistry B*, 2013, 1: 2934-42.
22. **Zhu XM**, Yuan J, Leung KC, Lee SF, *et al.* Hollow superparamagnetic iron oxide nanoshells as a hydrophobic anticancer drug carrier: intracellular pH-dependent drug release and enhanced cytotoxicity. *Nanoscale*, 2012, 4(18): 5744-54.
23. **Zhu XM**, Wang YX, Leung KC, Lee SF, *et al.* Enhanced cellular uptake of aminosilane coated superparamagnetic iron oxide nanoparticles in mammalian cell lines. *International Journal of Nanomedicine*, 2012, 7: 953-64.
24. **Zhu XM**, Fu AF, Luo KQ*. A high-throughput fluorescence resonance energy transfer (FRET)-based endothelial cell apoptosis assay and its application for screening vascular disrupting agents. *Biochemical and Biophysical Research Communications*, 2012, 418(4): 641-646.
25. **Zhu XM**, Fang LH, Li YJ, Du GH*. Endothelium-dependent and -independent relaxation induced by pinocembrin in rat aortic rings. *Vascular Pharmacology*, 2007, 46(3): 160-5.