陳美婉

陳美婉，博士，澳門大學教授，博士生導師。首届國家自然科學基金優秀青年科學基金（港澳）獲得者。青年岐黃學者。英國皇家化學會會士。主要致力于生物材料與納米醫學的研究，集中在中藥活性成分的藥物遞送系統。通過設計和合成智能化可降解生物材料，構建新型脂質體和聚合物膠束等多功能納米藥物，解決藥物水溶性差、代謝快、選擇性差和易耐藥性等問題，同時還發展納米技術在中西藥聯合治療中的應用，以期實現更有效的癌症和類風濕關節炎的治療。至今，發表第一/通訊作者 SCI 論文共 125 篇（其中 31 篇 IF>10.0 論文，84 篇 IF>5.0 論文），成果發表于 Advanced Materials、ACS Nano、Nano Letters 和 Biomaterials 等藥劑學和生物材料領域的國際權威期刊。5 篇論文入圍“ESI 高被引論文”。所有論文引用>12000 次，H 因子 62。主持國家自然科學基金優秀青年科學基金項目、澳門科學技術發展基金和澳門大學基金等 20 項研究項目。參與 6 部中英文學術著作的編寫和申請/授權專利 13 項。榮獲第一/二/四/六届澳門特別行政區自然科學獎/科技進步獎（2012/2014/2018/2022）。擔任 Exploration 期刊副主編，Current Drug Delivery、Chinese Chemical Letters、Acta Pharmaceutica Sinica B 等期刊編委，世界中聯中藥藥劑委員會第三届理事會常務理事兼副秘書長、中國生物材料學會生物醫用高分子材料分會委員和中國醫藥生物技術協會納米生物技術分會委員等。指導博碩士 40 余名：榮獲 1 項第 17 届“挑戰杯”全國大學生課外學術科技作品競賽二等獎，1 項第四届中國科協青年人才托舉工程，1 項第九届中國青少年科技創新獎，7 項澳門研究生科研獎和 30 余項海內外會議獎勵等。

主要獲獎情況：

- 2023.09 - Outstanding Editor Award, Exploration International Symposium on Biology, Chemistry, and Medicine, China
- 2022.05 - Fellow of the Royal Society of Chemistry (FRSC), UK
- 2020.12 - ‘Qi Huang’ Youth Scholarship, the State Administration of TCM, China
- 2019.10 - Excellent Young Scientist Fund, NSFC, China
- Third Prize, Science and Technology Progress Award, Macao Science and Technology Awards 2022 (Awarded to I Che, MW Chen, ZQ Lin, KW Choi)
- Third Prize, Natural Science Award, Macao Science and Technology Awards 2018 (Awarded to YT Wang, MW Chen, CM Wang, RB Wang)
- Second Prize, Natural Science Award, Macao Science and Technology Awards 2014 (Awarded to CH Leung, YT Wang, JJ Lu, MW Chen, XP Chen)
- Second Prize, Natural Science Award, Macao Science and Technology Awards 2012 (Awarded to YT Wang, SMY Lee, XP Chen, MW Chen, JJ Lu)
- ICMS Academic Award 2019/2020, University of Macau, May, 2020
- ICMS Academic Award 2017/2018, University of Macau, May, 2018

- The Incentive Award Scheme for Outstanding Academic Staff 2016/2017, University of Macau, May, 2017

主要期刊論文：

1. SLX Yang†, Y Wu†, WZ Zhong, RE Chen, ML Wang, MW Chen*. GSH/pH Dual Activatable Crosslinked and Fluorinated PEI for Cancer Gene Therapy through Endogenous Iron De-Hijacking and in situ ROS Amplification. *Advanced Materials*, 2023, doi: 10.1002/adma.202304098 (IF: 29.4)
2. H Wang, F Lin, Y Wu, W Guo, XS Chen, CS Xiao, MW Chen*. Carrier-Free Nanodrug Based on Co-Assembly of Methylprednisolone Dimer and Rutin for Combined Treatment of Spinal Cord Injury. *ACS Nano*, 2023, 17(13), 12176-12187 (IF: 17.1)
3. P Hua†, RF Liang†, YB Tu, YY Yin, MK Law, MW Chen*. Reactive oxygen species and nitric oxide scavenging nanoparticles alleviating rheumatoid arthritis through adjusting the seeds and growing soils. *Acta Pharmaceutica Sinica B*, 2023, doi: 10.1016/j.apsb.2023.07.021 (IF: 14.5)
4. MY Zhao, HJ Zhuang, BH Li, MW Chen*, XY Chen*. In Situ Transformable Nanoplatforms with Supramolecular Cross-Linking Triggered Complementary Function for Enhanced Cancer Photodynamic Therapy. *Advanced Materials*, 2023, 35(20), 2209944 (IF: 29.4)
5. P Hua†, D Jiang†, ZP Guo†, HY Tian, XS Chen, MW Chen*. Amplified cancer immunotherapy of PD-L1 blockade by sequential tumor microenvironment reshaping and DC maturation. *Chemical Engineering Journal*, 2023, 453, 1, 139795. (IF: 15.1)
6. KH Wong†, ZP Guo†, D Jiang, XZ Zhou, LZ Lin, DG Zhao, MW Chen*. Linear-like polypeptide-based micelle with pH-sensitive detachable PEG to deliver dimeric camptothecin for cancer therapy. *Asian Journal of Pharmaceutical Sciences*, 2023 18(1), 100773 (IF: 10.2)
7. MY Zhao, HJ Zhuang, HX Zhang, BH Li, J Ming, XY Chen*, MW Chen*. A LRET Nanoplatform Consisting of Lanthanide and Amorphous Manganese Oxide for NIR-II Luminescence Lifetime Imaging of Tumor Redox Status. *Angewandte Chemie-International Edition*, 2022, 61(47), e202209592 (IF: 16.6)
8. GJ Song, D Jiang, JC Wu, XZ Sun, MY Deng, L Wang, CX Hao, JY Shi, HT Liu, YQ Tian*, MW Chen*. An ultrasensitive fluorescent breath ammonia sensor for noninvasive diagnosis of chronic kidney disease and *helicobacter pylori* infection. *Chemical Engineering Journal,* 2022, 440: 135979 (IF: 15.1)
9. X Wang, P Hua, CW He, MW Chen*. Non-apoptotic cell death-based cancer therapy: molecular mechanism, pharmacological modulators, and nanomedicine. *Acta Pharmaceutica Sinica B*, 2022, 12(9), 3567-3593 (IF: 14.5)
10. SLX Yang†, KH Wong†, P Hua†, CW He, H Yu, D Shao, Z Shi, MW Chen*. ROS-

responsive fluorinated polyethyleneimine vector to co-deliver shMTHFD2 and shGPX4 plasmids induces ferroptosis and apoptosis for cancer therapy. *Acta Biomaterialia*, 2022, 140, 492-505. (IF: 9.7)
11. RF Liang†, KH Wong†, Y Yang*, YR Duan, MW Chen*. ROS-responsive dexamethasone micelles normalize the tumor microenvironment enhancing hypericin in cancer photodynamic therapy. *Biomaterials Science*, 2022, 10, 1018-1025. (IF: 6.6)
12. WZ Zhong, KH Wong, FJ Xu, NN Zhao, MW Chen*. NIR-responsive polydopamine-based calcium carbonate hybrid nanoparticles deliver artesunate for cancer chemo-photothermal therapy. *Acta Biomaterialia*, 2022, 145, 135-145 (IF: 9.7)
13. ZJ Yang, DL Tao, WZ Zhong, Z Liu, LZ Feng*, MW Chen*. Perfluorocarbon loaded fluorinated covalent organic polymers with effective sonosensitization and tumor hypoxia relief enable synergistic sonodynamic-immunotherapy. *Biomaterials*, 2022, 280:121250. (IF: 14)
14. ZP Guo, YY Hu, MY Zhao, K Hao, P He, HY Tian, XS Chen, MW Chen*. Prodrug-Based Versatile Nanomedicine with Simultaneous Physical and Physiological Tumor Penetration for Enhanced Cancer Chemo-Immunotherapy. *Nano Letters*, 2021, 21(9): 3721-3730. (IF: 10.8)
15. ZA Wang†, X Wang†, JB Wan, FJ Xu, NN Zhao, MW Chen*. Optical Imaging in the Second Near Infrared Window for Vascular Bioimaging. *Small*, 2021, 17(43): 2103780. (IF: 13.3)
16. CJ Wang, C Liang, Y Hao, ZL Dong, YJ Zhu, QG Li, Z Liu, LZ Feng*, MW Chen*. Photodynamic creation of artificial tumor microenvironments to collectively facilitate hypoxia-activated chemotherapy delivered by coagulation-targeting liposomes. *Chemical Engineering Journal*, 2021, 414: 128731. (IF: 15.1)
17. QG Li, ZL Dong, MW Chen*, LZ Feng*. Phenolic molecules constructed nanomedicine for innovative cancer treatment. *Coordination Chemistry Reviews*, 2021, 439: 213912. (IF: 20.6)
18. Y Yang, WJ Zhu, L Cheng, R Cai, X Yi, JX He, XS Pan, L Yang, K Yang, Z Liu, WH Tan*, MW Chen*. Tumor microenvironment (TME)-activatable circular aptamer-PEG as an effective hierarchical-targeting molecular medicine for photodynamic therapy. *Biomaterials*, 2020, 246: 119971. (IF: 14)
19. Y Yang†, JX He†, WJ Zhu, XS Pan, H.S. Yazd, C Cui, L Yang, XW Li, L Li, L Cheng, LZ Feng, RW Wang, Z Liu*, MW Chen*, WH Tan*. Molecular domino reactor built by automated modular synthesis for cancer treatment. *Theranostics*, 2020, 10(9): 4030-4041. (IF: 12.4)
20. ZP Guo, L Lin, K Hao, DW Wang, F Liu, PJ Sun, HY Yu, ZH Tang, MW Chen*, HY Tian*, XS Chen. Helix Self-Assembly Behavior of Amino Acid-Modified Camptothecin Prodrugs and Its Antitumor Effect. *ACS Applied Materials & Interfaces*, 2020, 12(6): 7466-7476. (IF: 9.5)