

Curriculum Vitae

I. Personal Information

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II. Academic Background

09/2007 ~ 08/2012 **Ph.D.**, Institute of Chinese Medical sciences, University of Macau, Macao SAR, China.

09/2005 ~ 09/2007 **Master of Science**, Institute of Chinese Medical sciences, University of Macau, Macao SAR, China.

09/2005 ~ 08/2007 **Master of Science**, School of Pharmaceutical Sciences, Peking University, Beijing, China.

09/2001 ~ 08/2005 **Bachelor of Science**, School of Pharmaceutical Sciences, Peking University, Beijing, China.

III. Working Experience

08/2023 ~ present **Associate Professor**, Institute of Chinese Medical sciences, University of Macau, Macao SAR, China.

01/2017 ~ 08/2023 **Assistant Professor**, Institute of Chinese Medical sciences, University of Macau, Macao SAR, China.

05/2015 ~ 05/2016 **Visiting Scholar**, Sino-Dutch Center for Preventive and Personalized Medicine, Leiden University, Leiden, the Netherlands.

11/2012 ~ 12/2016 **Postdoctoral Fellow**, State Key Laboratory of Quality Research in Chinese Medicine & Institute of Chinese Medical sciences, University of Macau, Macao SAR, China.

09/2011 ~ 02/2012 **Visiting Scholar**, Molecular Foundry, Lawrence Berkeley National Laboratory, Berkeley, CA, USA.

IV. Research

i) Research interests

- Quality evaluation and international quality standards of Chinese medicines
- Metabolomics study on Chinese medicines
- Drug delivery system of active components from Chinese medicines

ii) Publications

Journal Articles [* (co-)corresponding author; # co-first author]

1. Han YH[#], Qin XY[#], Lin WS, Wang C, Yin XY, Wu JX, Chen Y*, **Chen XJ***, Chen TK*. Microneedle-Based Approaches for Skin Disease Treatment. *Nano-Micro Letters*. 2025, 17(1): 132.
2. Cheng GW[#], Wu JX[#], Liu W, Yang YM, Cui H, Dai XX, Li BW, Tian Z, **Chen XJ**, Li XH, Wu ZF*, Liao GC*, Yu GT*, Chen TK*. A customized immunomodulator reinforces the T cell-mediated immunological cascade for cancer therapy. *Chemical Engineering Journal*. 2025, 522: 167231.
3. Ying YY[#], Hu SY[#], Shu YY[#], He BQ, Cheng GL, Wang HX, Tao NN, Hoffman R, Shi DL, Chen ZJ*, **Chen XJ***, Gao JL*. Epimedin C promotes mitochondrial transfer and delays thymus atrophy in 4-VCD induced mimetic-menopausal mice. *Phytomedicine*. 2025; 139: 156452.
4. Du S, Wu KM, Guan YC, Lin XP, Gao SJ, Huang SQ, Shi XG, Wang LS*, **Chen XJ***, Chen TK*. Biomimetic celastrol nanocrystals with enhanced efficacy and reduced toxicity for suppressing breast cancer invasion and metastasis. *International Journal of Pharmaceutics*. 2025, 671: 125221.
5. Cheng GW[#], Liu ZW[#], Yan Z, Wu JX, Li ZL, Gao SJ, Zheng CY, Guo SS, Pan Y, **Chen XJ***, Lin GH*, Zhou JH, Chen TK*. Minocycline nanoplatfrom penetrates the BBB and enables the targeted treatment of Parkinson's disease with cognitive impairment. *Journal of Controlled Release*. 2025, 377: 591-605.
6. Liu W[#], Yuan Q[#], Li HY, He HT, Ren T, Wu DT, Wang SP*, **Chen XJ***. Fructo-oligosaccharides and polyfructans derived from *Ophiopogon japonicus* ameliorate experimental colitis by regulating the gut microbiota. *Carbohydrate Polymer Technologies and Applications*. 2024, 8: 100602.

7. Wang J, He YH, Liu LY, **Chen XJ**, Hou XQ, Wang JX*, Yi XY*. DNA tetrahedron-based dual-signal fluorescence detection of apoE4 gene sites on a microplate reader. *Microchimica Acta*. 2024, 191(5): 288.
8. Miao LC[#], Zhang XT[#], Zhang HL, Cheong MS, **Chen XJ**, Farag MA, Cheang WS*, Xiao JB*. Baicalin ameliorates insulin resistance and regulates hepatic glucose metabolism via activating insulin signaling pathway in obese pre-diabetic mice. *Phytomedicine*. 2024, 124: 155296.
9. Liu W[#], Wang LJ[#], Yuan Q, Hao W, Wang YT, Wu DT, **Chen XJ***, Wang SP*. *Agaricus bisporus* polysaccharides ameliorate ulcerative colitis in mice by modulating gut microbiota and its metabolism. *Food & Function*. 2024, 15(3): 1191-1207.
10. Zhang HL, Lin SY, Xie RW, Zhong WZ, Wang H, Farag MA, Hussain H, Arroo RRJ, **Chen XJ***, Xiao JB*. Thermal degradation of (2*R*, 3*R*)-dihydromyricetin in neutral aqueous solution at 100 °C. *Food Chemistry*. 2024, 435: 137560.
11. Liu F, Zheng YR, Hong HJ, Liu LL, **Chen XJ***, Xia Q*. Identification of Efficacy-Associated Markers to Discriminate Flos Chrysanthemum and Flos Chrysanthemi Indici Based on Fingerprint–Activity Relationship Modeling: A Combined Evaluation over Chemical Consistence and Quality Consistence. *Molecules*. 2023, 28(17): 6254.
12. Xia Q, Zheng YR, Wang LB, **Chen XJ***. Proposing Signaling Molecules as Key Optimization Targets for Intensifying the Phytochemical Biosynthesis Induced by Emerging Nonthermal Stress Pretreatments of Plant-Based Foods: A Focus on γ -Aminobutyric Acid. *Journal of Agricultural and Food Chemistry*. 2023, 71(34): 12622-12644.
13. Du S, Guan YC, Xie AH, Yan Z, Gao SJ, Li WR, Rao L*, **Chen XJ***, Chen TK*. Extracellular vesicles: a rising star for therapeutics and drug delivery. *Journal of Nanobiotechnology*. 2023, 21(1): 231.
14. Lin XP[#], Li ZJ[#], Du S, Wang Q, Guan YC, Cheng GP, Hong HJ, Li JQ, **Chen XJ***, Chen TK*. Occam's Razor-Inspired Nb2C delivery platform potentiates breast cancer therapy and inhibits lung metastasis. *Chemical Engineering Journal*. 2023, 464: 142732.
15. Mai QY, Han YH, Cheng GP, Ma R, Yan Z, **Chen XJ**, Yu GT, Chen TK*, Zhang S*. Innovative Strategies for Hair Regrowth and Skin Visualization. *Pharmaceutics*. 2023, 15(4): 1201.

16. Liu Q, Lu JJ, Hong HJ, Yang Q, Wang YT, **Chen XJ***. *Ophiopogon japonicus* and its active compounds: A review of potential anticancer effects and underlying mechanisms. *Phytomedicine*. 2023, 113: 154718.
17. Chen MH[#], Leong F[#], Gao SJ, Chen X, Lu JJ, Lin LG, Wang YT, **Chen XJ***. Comparison of *Ophiopogon japonicus* and *Liriope spicata* var. *prolifera* from Different Origins Based on Multi-Component Quantification and Anticancer Activity. *Molecules*. 2023, 28(3): 1045.
18. Cheng GW[#], Li ZJ[#], Liu YJ, Ma R, **Chen XJ**, Liu W, Song YF, Zhang Y*, Yu GT*, Wu ZF*, Chen TK*. “Swiss Army Knife” black phosphorus-based nanodelivery platform for synergistic antiparkinsonian therapy via remodeling the brain microenvironment. *Journal of Controlled Release*. 2023, 353: 752-766.
19. Lin XP[#], Wang Q[#], Du S, Guan YC, Qiu JM, **Chen XJ**, Yuan DS*, Chen TK*. Nanoparticles for co-delivery of paclitaxel and curcumin to overcome chemoresistance against breast cancer. *Journal of Drug Delivery Science and Technology*. 2023, 79: 104050.
20. Cheng GW, Liu YJ, Ma R, Cheng GP, Guan YC, **Chen XJ**, Wu ZF*, Chen TK*. Anti-Parkinsonian Therapy: Strategies for Crossing the Blood-Brain Barrier and Nano-Biological Effects of Nanomaterials. *Nano-Micro Letters*. 2022, 14(1): 105.
21. Zhang HL[#], Wang ML[#], Liang YW, Lv XM, Xie RW, **Chen XJ***, Xiao JB*. Discovery of nitrogenous derivatives of dihydromyricetin in cell culture medium. *eFood*. 2022, 3(5): e34.
22. Liu Q, Shen JM, Hong HJ, Yang Q, Liu W, Guan Z, Wang YT, **Chen XJ***. Cell metabolomics study on the anticancer effects of *Ophiopogon japonicus* against lung cancer cells using UHPLC/Q-TOF-MS analysis. *Frontiers in Pharmacology*. 2022, 13: 1017830.
23. Liu Y, Luo JS, Liu YJ, Liu W, Yu GT, Huang YT, Yang Y*, **Chen XJ***, Chen TK*. Brain-Targeted Biomimetic Nanodecoys with Neuroprotective Effects for Precise of Parkinson's Disease. *ACS Central Science*. 2022, 8(9): 1336-1349.
24. Zhao MM, Linghu KG, Xiao LX, Hua TY, Zhao GD, Chen QL, Xiong SH, Shen LY, Yu JY, Hou XT, Hao EW, Du ZC, Deng JG, Bai G, **Chen XJ**, Li L*, Li P*, Yu H*. Anti-inflammatory/anti-oxidant properties and the UPLC-QTOF/MS-based metabolomics discrimination of three yellow camellia species. *Food Research International*. 2022, 160: 111628.
25. Zhao YY[#], Liu N[#], Liu PX, Fan TJ, Ma R, Hong HJ, **Chen XJ**, Xie ZJ, Zhang H*,

- Wang Q*, Chen TK*. Robust boron nanoplatfrom provokes potent tumoricidal activities via inhibiting heat shock protein. *Asian Journal of Pharmaceutical Sciences*. 2022, 17(5): 728-740.
26. Wang Q#, Ma R#, Liu PX, Cheng GW, Yang Q, **Chen XJ**, Wu ZF*, Yuan DS, Chen TK*. Efficient Sustained-Release Nanoparticle Delivery System Protects Nigral Neurons in a Toxin Model of Parkinson's Disease. *Pharmaceutics*. 2022, 14(8): 1731.
27. Xia Q, Liu QQ*, Denoya GI, Yang CJ, Barba FJ, Yu HN*, **Chen XJ***. High Hydrostatic Pressure-Based Combination Strategies for Microbial Inactivation of Food Products: The Cases of Emerging Combination Patterns. *Frontiers in Nutrition*. 2022, 9 : 878904.
28. Hong HJ#, Yang Q#, Liu Q, Leong F, **Chen XJ***. Chemical Comparison of Monk Fruit Products Processed by Different Drying Methods Using High-Performance Thin-Layer Chromatography Combined With Chemometric Analysis. *Frontiers in Nutrition*. 2022, 9 : 887992.
29. Hu Y#, Wang Z#, Liu JY, Yang W, Yang Q, Liu YC, You QY, **Chen XJ***, Wan JB*. Chemical Stability of a Chinese Herbal Spirit Using LC-MS-Based Metabolomics and Accelerated Tests. *Frontiers in Pharmacology*. 2022, 13: 857706.
30. Wang M##, Yao PF#, Sun PY, Liang W, **Chen XJ***. Key quality factors for Chinese herbal medicines entering the EU market. *Chinese Medicine*. 2022, 17(1): 29.
31. Hua X#, Hong HJ#, Zhang DY, Liu Q, Leong F, Yang Q, Hu YJ*, **Chen XJ***. Rapid Screening of Lipase Inhibitors from *Ophiopogonis Radix* Using High-Performance Thin Layer Chromatography by Two Step Gradient Elution Combined with Bioautographic Method. *Molecules*. 2022, 27(4): 1155.
32. Chen L, Lu J, Luo M, Yu H, **Chen XJ**, Deng JG, Hou XT, Hao EW, Wei JC*, Li P*. A ratiometric fluorescent sensing system for the selective and ultrasensitive detection of pesticide residues via the synergetic effects of copper nanoclusters and carbon quantum dots. *Food Chemistry*. 2022, 379: 132139.
33. Zhang HL#, Wang ML#, Yi LZ, Hogger P, Arroo R, Bajpai VK, Prieto MA, **Chen XJ***, Simal-Gandara J*, Cao H*. Stability profiling and degradation products of dihydromyricetin in Dulbecco's modified eagle's medium. *Food Chemistry*. 2022, 378: 132033.
34. Mo YS#, Liu W#, Liu PX, Liu Q, Yuan ZY, Wang Q, Yuan DS, **Chen XJ***, Chen TK*. Multifunctional Graphene Oxide Nanodelivery Platform for Breast Cancer

- Treatment. *International Journal of Nanomedicine*. 2022, 17: 6413-6425.
35. Tan Y[#], Liu Y[#], Liu YJ, Ma R, Luo JS, Hong HJ, **Chen XJ**, Wang SP, Liu CT, Zhang Y*, Chen TK*. Rational Design of Thermosensitive Hydrogel to Deliver Nanocrystals with Intranasal Administration for Brain Targeting in Parkinson's Disease. *Research*. 2021: 9812523.
 36. Zhao YY, Liu PX, Tan HX, **Chen XJ**, Wang Q, Chen TK*. Exosomes as Smart Nanoplatfoms for Diagnosis and Therapy of Cancer. *Frontiers in Oncology*. 2021, 11: 743189.
 37. Liu Y[#], Hong HH[#], Xue JC, Luo JS, Liu Q, **Chen XJ**, Pan Y, Zhou JW*, Liu ZM*, Chen TK*. Near-Infrared Radiation-Assisted Drug Delivery Nanoplatfom to Realize Blood-Brain Barrier Crossing and Protection for Parkinsonian Therapy. *ACS Applied Materials & Interfaces*. 2021, 13(31): 37746-37760.
 38. Li TZ, Liu Y, Bao WL, Luo JS, Gao LF, **Chen XJ**, Wang SP, Yu JT, Ge YQ, Zhang B, Xie N, Xie ZJ*, Chen TK*, Zhang H*. Synergistic Photothermal and Chemical Therapy by Smart Dual-Functional Graphdiyne Nanosheets for Treatment of Parkinson's Disease. *Advanced Therapeutics*, 2021, 4(7): 2100082.
 39. Xiong S, Luo JS, Wang Q, Li ZJ, Li JT, Liu Q, Gao LQ, Fang SH, Li YY, Pan HF, Wang H, Zhang YB, Wang Q*, **Chen XJ***, Chen TK*. Targeted graphene oxide for drug delivery as a therapeutic nanoplatfom against Parkinson's disease. *Biomaterials Science*. 2021, 9(5): 1705-1715.
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 41. Ruan YF, Cai ZD, Deng Y, Pan DD, Zhou CY, Cao JX, **Chen XJ**, Xia Q*. An untargeted metabolomic insight into the high-pressure stress effect on the germination of wholegrain *Oryza sativa* L. *Food Research International*. 2021, 140: 109984.
 42. Cheng GW, Luo JS, Liu Y, **Chen XJ**, Wu ZF*, Chen TK*. Cucurbituril-Oriented Nanoplatfoms in Biomedical Applications. *ACS Applied Bio Materials*. 2020, 3(12): 8211-8240.
 43. Xia Q*, Zheng YR, Liu ZM, Cao JX, **Chen XJ**, Liu LL, Yu HN, Barba FJ*, Pan DD*. Nonthermally driven volatilome evolution of food matrices: The case of high pressure processing. *Trends in Food Science & Technology*. 2020, 106: 365-381.

44. Xiong S[#], Li ZJ[#], Liu Y, Wang Q, Luo JS, **Chen XJ**, Xie ZJ, Zhang Y, Zhang H*, Chen TK*. Brain-targeted delivery shuttled by black phosphorus nanostructure to treat Parkinson's disease. *Biomaterials*. 2020, 260 : 120339.
45. Liu W, Huang G, Su XY, Li SY, Wang Q, Zhao YY, Liu Y, Luo JS, Li Y, Li CW, Yuan DS, Hong HH*, **Chen XJ***, Chen TK*. Zebrafish: A Promising Model for Evaluating the Toxicity of Carbon Dot-Based Nanomaterials. *ACS Applied Materials & Interfaces*. 2020, 12(43): 49012-49020.
46. Liu Y, Zhu DM, Luo JS, **Chen XJ**, Gao LQ, Liu W*, Chen TK*. NIR-II-Activated Yolk-Shell Nanostructures as an Intelligent Platform for Parkinsonian Therapy. *ACS Applied Bio Materials*. 2020, 3(10): 6876-6887.
47. Xiong S, **Chen XJ**, Liu Y, Fan TJ, Wang Q, Zhang H*, Chen TK*. Black phosphorus as a versatile nanoplatform: From unique properties to biomedical applications. *Journal of Innovative Optical Health Sciences*. 2020, 13(5): 2030008.
48. Leong F[#], Hua X[#], Wang M, Chen TK, Song YL, Tu PF, **Chen XJ***. Quality standard of traditional Chinese medicines: comparison between European Pharmacopoeia and Chinese Pharmacopoeia and recent advances. *Chinese Medicine*. 2020, 15(1): 76.
49. Xiong S[#], Liu W[#], Zhou YL, Mo YS, Liu Y, **Chen XJ**, Pan HF, Yuan DS*, Wang Q*, Chen TK*. Enhancement of oral bioavailability and anti-Parkinsonian efficacy of resveratrol through a nanocrystal formulation. *Asian Journal of Pharmaceutical Sciences*. 2020, 15(4): 518-528.
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51. Zhao YY, Xiong S, Liu PX, Liu W, Wang Q, Liu Y, Tan HX, **Chen XJ**, Shi XG, Wang Q*, Chen TK*. Polymeric Nanoparticles-Based Brain Delivery with Improved Therapeutic Efficacy of Ginkgolide B in Parkinson's Disease. *International Journal of Nanomedicine*. 2020, 15: 10453-10467.
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- A Promising Strategy for Biomedical Applications. *Nano-Micro Letters*. 2019, 11(1): 100.
54. Ge YH[#], **Chen XJ**[#], Godevac D, Bueno PCP, Abarca LFS, Jang YP, Wang M, Choi YH*. Metabolic Profiling of Saponin-Rich *Ophiopogon japonicus* Roots Based on (1) H NMR and HPTLC Platforms. *Planta Medica*. 2019, 85(11/12): 917-924.
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58. Zhang QR[#], Yu H[#], Qi J, Tang DS, **Chen XJ**, Wan JB, Li P, Hu H, Wang YT, Hu YJ*. Natural formulas and the nature of formulas: Exploring potential therapeutic targets based on traditional Chinese herbal formulas. *Plos One*. 2017, 12(2): e0171628.
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61. Chen MH[#], **Chen XJ**[#], Wang M, Lin LG*, Wang YT*. *Ophiopogon japonicus*-A phytochemical, ethnomedicinal and pharmacological review. *Journal of Ethnopharmacology*. 2016, 181: 193-213.

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- Polygonum multiflorum* using pressurized liquid extraction and short-end injection micellar electrokinetic chromatography. *Chemistry Central Journal*. 2013, 7: 45.
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75. Xu J#, Guan J#, **Chen XJ**, Zhao J*, Li SP*. Comparison of polysaccharides from different *Dendrobium* using saccharide mapping. *Journal of Pharmaceutical and Biomedical Analysis*. 2011, 55(5): 977-983.
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81. **Chen XJ**, Ji H, Zhang QW, Tu PF, Wang YT, Guo BL, Li SP*. A rapid method for simultaneous determination of 15 flavonoids in *Epimedium* using pressurized liquid extraction and ultra-performance liquid chromatography. *Journal of*

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Conference Papers [* (co-)corresponding author; # co-first author]

1. Xiao LX, Yang Q, Wang ZX, Qiu LY, **Chen XJ***. Multi-Omics Quality Consistency Evaluation of *Alismatis Rhizoma* Origins: Chemical Characterization, Hypolipidemic Efficacy, and Host-Microbiota Metabolic Interactions. *The 21st Meeting of Consortium for Globalization of Chinese Medicine (CGCM)*. Phitsanulok, Thailand. August 19-21, 2025. Travel Grant. (Oral presentation).
2. Yang Q, Xiao LX, Qiu LY, Wang ZX, **Chen XJ***. CCD-RSM-Optimized Xiasangju Formula Attenuates DILI via Metabolic and Gut Microbiota Modulation. *The 21st Meeting of Consortium for Globalization of Chinese Medicine (CGCM)*.

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3. Gong M, Xiao LX, Hong HJ, Yang Q, **Chen XJ***. HPTLC-Chemometric Analysis of Triterpenes and Saccharides in *Alisma plantago-aquatica* and *Alisma orientale*. *The 21st Meeting of Consortium for Globalization of Chinese Medicine (CGCM)*. Phitsanulok, Thailand. August 19-21, 2025. Travel Grant. (Oral presentation).
 4. **Chen XJ**. Quality Evaluation of *Ophiopogon japonicus* Based on Comprehensive Components Analysis. *The 13th International Conference on TCM Pharmaceutical Analysis & Annual Meeting & Election of the Council of Specialty Committee of TCM Pharmaceutical Analysis, World Federation of Chinese Medicine Societies*. Zhongshan, China. September 27-29, 2024. (Oral presentation).
 5. Yang Q, Zhao YH, **Chen XJ***. Quality Evaluation of Xiasangju Granules Based on HPTLC Identification and UHPLC-QAM-TIRS Determination. *The 12th Chinese Conference on Pharmaceutical Analysis*. Chongqing, China. October 14-15, 2023. (Poster presentation).
 6. Hong HJ, Hua X, **Chen XJ***. Rapid screening for natural lipase inhibitors from *Ophiopogonis Radix* by high performance thin layer chromatography combined with bioautography method. *The 12th Chinese Conference on Pharmaceutical Analysis*. Chongqing, China. October 14-15, 2023. (Poster presentation).
 7. Guan Z, Yao PF, **Chen XJ***. Study on quality standard of Phyllanthi Fructus for European Pharmacopoeia monograph. *The 12th Chinese Conference on Pharmaceutical Analysis*. Chongqing, China. October 14-15, 2023. (Poster presentation).
 8. Liu W, Wang SP*, **Chen XJ***. Polysaccharides from *Agaricus bisporus* ameliorate ulcerative colitis in mice induced by dextran sulfate sodium via modulating the gut microbiota and metabolism. *The 19th Meeting of Consortium for Globalization of Chinese Medicine (CGCM)*. Chengdu, China. August 22-24, 2023. (Poster presentation).
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