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于希博士現任澳門科技大學醫學院副教授。她本科及碩士畢業於吉林大學，博士畢業于新加坡國立大學，於南洋理工大學完成博士後研究，並曾在哈佛大學開展訪問科學家研究。目前主要研究領域為食品及中藥质量安全评估、微納傳感器製造、AI 輔助的分析檢測方法研究、功能活性成分遞送技術及新型可食用材料研發等，她已發表百餘篇 SCI 論文在各類行業頂刊上，包括 *Food Chemistry, Journal of Hazardous Materials, Trends in Food Science & Technology, Journal of Agricultural and Food Chemistry*，*Analytical Chemistry* 等，申請/授權國家發明專利十餘項，她受邀擔任 *Advanced Gut & Microbiome Research*，*Journal of Future Foods*,《食品研究與開發》，《食品科學技術學報》，《輕工學報》等雜誌編委及青年編委，兼任灣區標準評審專家，澳質品牌促進中心評審專家，粵澳深度合作區琴澳健康教育專家，澳門高等教育發展促進會會員，澳門科技大學學生事務處委員等社會職務，主持的研究工作曾受邀接受海峽時報（the Strait Times），澳廣視（TDM）等知名媒體報導。她主持澳門科學技術發展基金、澳門基金會項目、廣東省科技廳粵澳聯合項目、珠海市產學研國際科技合作項目等科研項目十餘項，課題組科研經費充足。

團隊歡迎具有食品科技、藥學、化學、材料、生物科學等相關背景的同學申請碩士、博士研究生。

Dr. Yu Xi is currently an Associate Professor at the Faculty of Medicine, Macau University of Science and Technology. She received her Bachelor's and Master's degrees from Jilin University, her PhD from the National University of Singapore, conducted her postdoctoral research at Nanyang Technological University, and worked as a visiting scientist at Harvard University. Her current research areas include Food and TCM quality safety assessment, micro- and nano- sensor fabrication,

AI-assisted analytical techniques, development of functionality delivery techniques and novel edible materials. She has published over 100 SCI papers in top tier journals, including *Food Chemistry*，*Journal of Hazardous Materials, Trends in Food Science & Technology, Journal of Agricultural and Food Chemistry*，*Analytical Chemistry etc.,* and has filed/granted over 10 national invention patents. *She was invited to serve as an editorial/young editorial board member for Advanced Gut & Microbiome Research, Food Research and Development, Journal of Food Science and Technology, Journal of Light Industry* etc. She also serves as an expert reviewer for Guangdong/Hong Kong/Macau Bay area standards, an expert reviewer for the Macau Quality Brand Promotion Center, a member of the Hengqin-Macau Health Education Expert Group, a member of the Macau Higher Education Development Promotion and a member of the Student Affairs Office of the Macau University of Science and Technology Association. Her research has been reported by media outlets such as The Strait Times and TDM. She has led over 10 projects funded by the Macao Science and Technology Development Fund and the Macao Foundation etc.

The research group welcomes students with backgrounds in food science and technology, chemistry, materials science, pharmacy, and biological sciences to apply for master's and doctoral programs.

教學領域

高級食品化學、現代生物技術與食品研發、分析化學、有機化學、基礎化學、營養學導論、材料科學等

Teaching

Advanced Food Chemistry, Modern Biotechniques and Food Development, Analytical Chemistry, Organic Chemistry, Fundamental Chemistry, Introduction to Nutrition Science, Material Science

研究領域

食品及中藥质量安全评估、微納傳感器製造、AI 輔助的分析檢測方法研究、功能活性成分遞送技術及新型可食用材料研發

Research Interests

Food and TCM quality safety assessment, micro- and nano- sensor fabrication, AI-assisted analytical techniques, development of functionality delivery techniques and novel edible materials.

教育經歷

新加坡國立大學食品科技系，博士
吉林大學分析化學系，碩士
吉林大學化學系，學士

Education

PhD, Food Science and Technology, National University of Singapore;
MSc, Analytical Chemistry, Jilin University
BSc, Chemistry, Jilin University

工作经历

澳門科技大學，副教授（2025-）
澳門科技大學，助理教授（2019-2025）
哈佛大學，訪問科學家（2026）
南洋理工大學，博士後研究員（2018-2019）
中國科學研究院大連化學物理研究所，研究助理（2013-2014）

Academic Appointments

Associate Professor, Macau University of Science and Technology (2025-)
Assistant Professor, Macau University of Science and Technology (2019-2025)
Visiting Scientist, Harvard University (2026)
Postdoc Research Fellow, Nanyang Technological University (2018-2019)
Research Associate, Dalian Institute of Chemical and Physics, Chinese Academy of Science (2013-2014)

精選文章/Selected Publications on Journals

1. Lin, H., Li, Z., Li, Q., Feng, X., Tao, Y., Su, B., Zhong, T., Xiao, Y., & **Yu, X***. (2026). Physicochemical properties and antioxidative stability of curcumin-loaded oleogel made with ethyl cellulose enhanced by soy lecithin. ***Food Chemistry***, 151618.
2. Zhang, Y., Chen, Z., Coghi, P., Feng, X., Li, Z., Zhong, T., Xiao, Y., & **Yu, X***. (2026). Machine learning-assisted detection of Sudan I in chili powder using FT-IR coupled with magnetic molecular imprinting extraction. ***npj Science of Food***.
3. Li, Z., Niu, X., Cao, Y., Tang, S., Zhang, Y., Hai, J.,Feng, X., Li, M., Li, J., Zhong, T., Xiao, Y., & **Yu, X***. (2026). Chitosan and chitosan derivative-based composite

packaging for food preservation: Preparation strategies, performance modulation, and application prospects. ***International Journal of Biological Macromolecules***, 154373.

4. Si, X., Li, Z., Chen, Y., Li, B., Zhang, L., Hai, J., Zhang, Y., Feng, X., Zhong, T., Xiao, Y., & **Yu, X***. (2026). Succinylated nori protein–alginate complex particles prepared using temperature-controlled ultrasonication for the formation of high internal phase Pickering emulsion gels as plant-based fat analogues. ***Ultrasonics Sonochemistry***, 108029.
5. He, Y., Li, Z., Feng, X., Liang, D., Liu, L., He, G., Zhong, T., Xiao, Y., & **Yu, X*.** (2026). Carbon Quantum Dots in Food Analysis: Challenges in Real Matrices, Recognition Mechanisms, and Optimization Strategies. ***Food Bioscience***, 109158.
6. Guo, Y., Luo, Y., Liu, X., Lai, H., Liu, Y., Cui, X., Dong, M., Luo, X., Wu, C., & **Yu, X***. (2026). The association between food group-based inflammatory score and cardiometabolic disorders in Ganzhou City of China. ***Scientific Reports***.
7. Li, X., Wang, A., Chen, S., Qiu, Y., Qian, C., Zhang, X.*, & **Yu, X***. (2026). A novel paper-based biosensor for point-of-care testing of dengue virus nucleic acids utilizing RAA & CRISPR/Cas technology. ***Microchemical Journal,*** 117890.
8. Chen, Y., Yan, Z., Chen, Y., Guo, Z., Feng, X., Liu, X., Zhong, T., Xiao, Y., & **Yu, X***. (2026). Techniques and Applications for the Inhibition of Amine Compounds Formation in Food Matrices: Mechanism Insights, Practical Implications, and Future Perspectives. ***Food Reviews International***, 1-29.
9. Tao, X., Wu, X., Wu, H., Tu, L., Dong, M., Xiao, Y., **Yu, X.***, & Zhong, T*. (2026). A structural roadmap to gut health: A comprehensive review of edible insect chitin–protein complexes as alternative protein-derived, structure-specific prebiotics. ***International Journal of Biological Macromolecules***, 151312.
10. Chen, Z., Ouyang, Z., Ni, W., Lin, B., Zheng, H., Jiang, L., Wu, B., Lai, L., Zhu, M., Jing, Y., Liu, Z., **Yu, X.,*** & Fan, J*. (2026). Combined effects of nitrogen dioxide and ozone air pollution on maternal liver function during pregnancy: a birth cohort study in China. ***Environmental Health and Preventive Medicine,*** 31, 38-38.

11. Guo, Z., Yan, Z., Chen, Y., Ieong, W. I., Zhong, T., Xiao, Y., & **Yu, X***. (2025). Protective role of natural saccharides in frozen animal food formulations: Enhancing cryopreservation during cold treatment. ***International Journal of Biological Macromolecules***, 321, 146222.
12. Gao, J., Zhao, X., He, Y., Xu, W., Zhou, Y., Feng, X., He, G., Zhong, T., Peng, Y., Xiao, Y., **Yu, X***. (2025). Low temperature clean-up combined with magnetic solid phase extraction for rapid and sensitive detection of crystal violet and malachite green in eels. ***Microchemical Journal***, 216, 114787.
13. Guo, Z., Feng, X., Han, J., Zhong, T., Zheng, Z., Xiao, Y., & **Yu, X.*** (2025). Inhibitory effects of κ-carrageenan oligosaccharides on histamine formation in Atlantic mackerel (Scomber scombrus) during cold storage. ***Food Bioscience***, 64, 105921.
14. Tao, Y., Wu, M., Su, B., Lin, H., Li, Q., Zhong, T., Xiao, Y., & **Yu, X***. (2025). Impact of Vitamin B1 and Vitamin B2 Supplementation on Anxiety, Stress, and Sleep Quality: A Randomized, Double-Blind, Placebo-Controlled Trial. ***Nutrients***, 17(11), 1821.
15. Guo, Y., Zhang, Y., Han, L., Wang, Y., Zhong, T., Xiao, Y., Lam, L., Wu, C.*, & **Yu, X***. (2025). Study on fatigue, sleep quality and PTSD symptoms and influencing factors among prevention and control workers during the COVID-19 outbreak in China. ***Scientific Reports***, 15(1), 35414.
16. Si, X., Si, Y., Lu, Z., Zhong, T., Xiao, Y., Wang, Z., & **Yu, X***. (2025). Mechanisms of fatigue and molecular diagnostics: The application of bioactive compounds in fatigue relief research. ***Food Bioscience***, 68, 106523.
17. Guo, Y., Zhu, Y., Wang, Y., Yin, H., Han, L., Zhong, T., Xiao, Y., Lam, L., **Yu, X***. (2025). The influence of anti-COVID-19 measures on the incidence of hand-foot-mouth disease in Zhanggong district of Ganzhou city in China. ***Heliyon***, 11(2).
18. Chen, Z., Zhu, M., Ni, W., Wu, B., Liu, T., Lin, B., Lai, L., Jing, Y., Jiang, L., Ouyang, Z., Hu, J., Zheng, H., Peng, W., **Yu, X.***, Fan, J.*, Association of PM2.5 exposure in early pregnancy and maternal liver function: A retrospective cohort study in Shenzhen, China. ***Environmental Research*** 2024, 263, 119934.

19. Chen, Z., Wang, A., Qin, Y., Chen, X., Feng, X., He, G., Zhu, X., Xiao, Y., **Yu, X.***, Zhong, T.*, Zhang, K., Preparation of a thermosensitive and antibacterial in situ gel using poloxamer-quaternized chitosan for sustained ocular delivery of Levofloxacin hydrochloride. ***International Journal of Biological Macromolecules*** 2024, 283, 137479.
20. He, G., Xie, R., Hou, X.*, **Yu, X.*,** Qiu, S., Qin, S., Wang, F., Chen, X., Safety risk of using asomate to reduce acid in Citrus production. ***Journal of Food Composition and Analysis*** 2024, 134, 106537.
21. Qin, Y., Chen, Z., Peng, Y., Xiao, Y., Zhong, T*., **Yu, X.***, Deep learning methods for protein structure prediction. ***MedComm–Future Medicine*** 2024, 3 (3), e96.
22. Guo, Z., Feng, X., He, G., Yang, H., Zhong, T., Xiao, Y., **Yu, X.***, Using bioactive compounds to mitigate the formation of typical chemical contaminants generated during the thermal processing of different food matrices. ***Comprehensive Reviews in Food Science and Food Safety*** 2024, 23 (5), e13409.
23. Zhao, X., Zhai, L., Chen, J., Zhou, Y., Gao, J., Xu, W., Li, X., Liu, K., Zhong, T., Xiao, Y., **Yu, X***., Recent Advances in Microfluidics for the Early Detection of Plant Diseases in Vegetables, Fruits, and Grains Caused by Bacteria, Fungi, and Viruses. ***Journal of Agricultural and Food Chemistry*** 2024, 72 (28), 15401-15415.
24. Wang, A., Chen, Z., Feng, X., He, G., Zhong, T., Xiao, Y., **Yu, X***., Magnetic-gold nanoparticle-mediated paper-based biosensor for highly sensitive colorimetric detection of food adulteration. ***Journal of Hazardous Materials*** 2024, 475, 134849.
25. Dong, Y., Wu, T., Jiang, T., Zhu, W., Chen, L., Cao, Y., Xiao, Y., Peng, Y., Wang, L., **Yu, X***., Zhong, T*., Chitosan-coated liposome with lysozyme-responsive properties for on-demand release of levofloxacin. ***International Journal of Biological Macromolecules*** 2024, 269, 132271.
26. Zhao, X., Wang, A., Zhai, L., Gao, J., Lyu, S., Jiang, Y., Zhong, T., Xiao, Y., **Yu, X***., Magnetic solid phase extraction coupled to HPLC-UV for highly sensitive analysis of mono-hydroxy polycyclic aromatic hydrocarbons in urine. ***Analytica***

Chimica Acta 2024, 1285, 342020.

27. He, Y., **Yu, X***., Review on the application of upconversion nanomaterials in heavy metal detection. ***Food Health*** 2024, 6(3), 11.
28. Zhao, X., Gao, J., Zhai, L., **Yu, X.***, Xiao, Y*. Recent Evidence on Polycyclic Aromatic Hydrocarbon Exposure ***Healthcare*** 2023, 11(13), 1958.
29. Zhang, Y., Qiu, J., Yang, K., Lu, Y., Xu, Z., Yang, H., Xu, Y., Wang, L., Lin, Y., Tong, X., He, J., Xiao, Y., Sun, X., Huang, R., **Yu, X.***, Zhong, T.*, Generation, mechanisms, kinetics, and effects of gaseous chlorine dioxide in food preservation. ***Comprehensive Reviews in Food Science and Food Safety*** 2023, 22 (4), 3105-3129.
30. Zhao, X., Feng, X., Chen, J., Zhang, L., Zhai, L., Lv, S., Ye, Y., Chen, Y., Zhong, T., **Yu, X.*,** Xiao, Y.*, Rapid and Sensitive Detection of Polycyclic Aromatic Hydrocarbons in Tea Leaves Using Magnetic Approach. ***Foods*** 2023, 12 (11), 2270.
31. Chen, S., Feng, X., **Yu, X.***, Editorial: Advances on innovative protein-based complexes with promising functionality, nutrient retention and encapsulation capacity. ***Frontiers in Nutrition*** 2023, 10,1217964.
32. Lu, Y., Li, Z., Chen, Q., Fan, Y., Wang, J., Ye, Y., Chen, Y., Zhong, T., Wang, L., Xiao, Y., Zhang, D.*, **Yu, X.***, Association of working hours and cumulative fatigue among Chinese primary health care professionals. ***Frontiers in Public Health*** 2023, 11, 1193942.
33. Wang, A., Feng, X., He, G., Xiao, Y., Zhong, T., **Yu, X.***, Recent advances in digital microfluidic chips for food safety analysis: Preparation, mechanism and application. ***Trends in Food Science & Technology*** 2023, 134, 136-148.
34. Tao, A., Zhang, H., Duan, J., Xiao, Y., Liu, Y., Li, J., Huang, J., Zhong, T.*, **Yu, X.***, Mechanism and application of fermentation to remove beany flavor from plant-based meat analogs: A mini review. ***Frontiers in Microbiology*** 2022, 13,1070773.
35. Lu, Y., Li, Z., Fan, Y., Wang, J., Zhong, T., Wang, L., Xiao, Y., Zhang, D.*, Chen, Q.*, **Yu, X.*,** The Mediating Role of Cumulative Fatigue on the Association

between Occupational Stress and Depressive Symptoms: A Cross-Sectional Study among 1327 Chinese Primary Healthcare Professionals. ***International Journal of Environmental Research and Public Health*** 2022, 19 (23), 15477.

36. Li, X., Su, L., Zhang, X., Chen, Q., Wang, Y., Shen, Z., Zhong, T., Wang, L., Xiao, Y., Feng, X.*, **Yu, X.,*** Recent Advances on the Function and Purification of Milk Exosomes: A Review. ***Frontiers in Nutrition*** 2022, 9, 871346.
37. **Yu, X.**, Zhong, T.*, Zhang, Y., Zhao, X., Xiao, Y.*, Wang, L., Liu, X., Zhang, X., Design, Preparation, and Application of Magnetic Nanoparticles for Food Safety Analysis: A Review of Recent Advances. ***Journal of Agricultural and Food Chemistry*** 2021, 70 (1), 46-62.
38. **Yu, X**., Zuo, T*., Editorial: Food Additives, Cooking and Processing: Impact on the Microbiome. ***Frontiers in Nutrition*** 2021, 8, 731040.
39. **Yu, X**., Lim, C. Y. X., Dong, B., Hadinoto, K*., Development of magnetic solid phase extraction platform for the purification of bioactive γ-glutamyl peptides from garlic (*Allium sativum*). ***LWT-Food Science and Technology*** 2020, 127, 109410.
40. **Yu, X**., Lee, J. K., Liu, H., & Yang, H. Synthesis of magnetic nanoparticles to detect Sudan dye adulteration in chilli powders. ***Food Chemistry*** 2019, 299, 125144.
41. **Yu, X**., Li, Z., Zhao, M., Lau, S. C. S., Ru Tan, H., Teh, W. J., Yang, H., Zheng, C., Zhang, Y. Quantification of aflatoxin B1 in vegetable oils using low temperature clean-up followed by immuno-magnetic solid phase extraction. ***Food Chemistry*** 2019, 275, 390-396.
42. **Yu, X.**; Li, Y.; Ng, M.; Yang, H.; Wang, S., Comparative study of pyrethroids residue in fruit peels and fleshes using polystyrene-coated magnetic nanoparticles based clean-up techniques. ***Food Control*** 2018, 85, 300-307.
43. **Yu, X**.; Ang, H. C.; Yang, H.; Zheng, C.; Zhang, Y., Low temperature cleanup combined with magnetic nanoparticle extraction to determine pyrethroids residue in vegetables oils. ***Food Control*** 2017, 74, 112-120.
44. **Yu, X.**; Yang, H., Pyrethroid residue determination in organic and conventional

vegetables using liquid-solid extraction coupled with magnetic solid phase extraction based on polystyrene-coated magnetic nanoparticles. ***Food Chemistry*** 2017, 217, 303-310.

45. **Yu, X**.; Sun, Y.; Jiang, C.-Z.; Gao, Y.; Wang, Y.-P.; Zhang, H.-Q.; Song, D.-Q., Magnetic solid-phase extraction and ultrafast liquid chromatographic detection of Sudan dyes in red wines, juices, and mature vinegars. ***Journal of Separation Science*** 2012, 35 (23), 3403-3411.
46. **Yu, X**.; Sun, Y.; Jiang, C.; Sun, X.; Gao, Y.; Wang, Y.; Zhang, H.; Song, D., Magnetic solid-phase extraction of five pyrethroids from environmental water samples followed by ultrafast liquid chromatography analysis. ***Talanta*** 2012, 98, 257-264.

書籍專著/Books and Chapters

1. Fu, C., Guo, H., You, C., & **Yu, X.** (Eds.). (2023). Recent Advances and Product Opportunities in the Technology of Proteins, Probiotics and Prebiotics.
2. Safety and Practice for Organic Food, Chapter 5: From a Perspective of Nutrition: Importance of Organic Foods over Conventional Counterparts. Zheng Y; **Yu X**; Yang H*; Wang S. Elsevier. 2019. ISBN: 978-0-12-812060-6.

專利

1. 于希；趙小涵；高久和；何宇鴻，一種檢測魚類產品中結晶紫和或孔雀石綠含量的方法。發明專利：ZL202510180820.1（授權號）

2. 张茉琰；钟恬；于希；乐怡，一种固定化酶反应装置。實用新型專利：ZL202520966284.3（授權號）

3. 于希；張亦辰；李占明，基于納米粒子與機器學習的辣椒粉中蘇丹紅快速檢測方法。發明專利：CN202511772810.3（申請號）

4. 于希；黎芊梓；馮瀟，一種高內相 Pickering 乳液用復合蛋白穩定劑及其制備方法和應用。發明專利：CN202511083487.9（申請號）

5. 于希；林恒；黎芊梓；馮瀟，一種含抗氧化劑的復合顆粒及其制備方法和應用。發明專利：CN202510632153.6（申請號）

6. 于希；盧煜婷；王一涵，魚片新鮮度的預測方法、預測模型訓練方法、計算機裝置。發明

專利：CN202411586894.7（申請號）

7.于希；王安宇；王子嫣；陳于同，一種用于檢測目標基因含量的組合產品以及方法。發明專利：CN202410742144.8（申請號）

8. 于希；王安宇；王子嫣；陳于同，一種用于檢測肉類摻假的組合產品以及方法。發明專利：CN202410742128.9（申請號）

9. 于希；韓來燁，一種用于抑制組織蛋白豆腥味的微膠囊及其應用。發明專利：CN202411134245.3（申請號）

10. 于希；何宇鴻，基于磁性納米顆粒與碳量子點的黃曲霉產毒基因檢測方法。發明專利：CN202610570080.7（申請號）

11. 于希；陳子晗；鐘恬；張康，一種眼用制劑。發明專利：CN202411120834.6（申請號）

12. 于希；郭子龍，一種抑制組胺生成的組合物。發明專利：CN202411429822.1（申請號）

13. 宋大千；孫穎；孫秀敏；吳麗威；姜春竹；王麗英；高巖；于希，水樣中芳香胺化合物的檢測方法。發明專利：ZL201110154233.3（授權號）

14. 宋大千；孙颖；姜春竹；于希；张磊；孙秀敏；高岩，环境水样中苏丹红浓度的检测方法。發明專利：ZL201110157977.0（授權號）

Patents

1. Yu Xi; Zhao Xiaohan; Gao Jiuhe; He Yuhong, A method for detecting the content of crystalline violet or malachite green in fish products. Invention patent: ZL202510180820.1 (Authorization number).

2. Zhang Moyan; Zhong Tian; Yu Xi; Leyi, a immobilized enzyme reaction device. Utility Model Patent: ZL202520966284.3 (Authorization Number).

3. Yu Xi; Zhang Yichen; Li Zhanming, Rapid detection method for Sudan red in chili powder based on nanoparticles and machine learning. Invention patent: CN202511772810.3 (Application No.).

4. Yu Xi; Li Qianzi; Feng Xiao, A high-intrinsic Pickering emulsion compound protein stabilizer, its preparation method, and application. Invention patent: CN202511083487.9 (Application No.).

5. Yu Xi; Lin Heng; Li Qianzi; Feng Xiao, A compound granule containing antioxidants, its preparation method, and application. Invention patents:
CN202510632153.6 (Application Number)

6. Yu Xi; Lu Yuting; Wang Yihan, Method for Predicting Freshness of Fish Slices, Training Method for Predictive Models, Computer Apparatus. Invention Patent: CN202411586894.7 (Application No.).

7. Yu Xi; Wang Anyu; Wang Ziyan; Chen Yutong, A combination product and method for detecting target gene content. Invention patent: CN202410742144.8 (Application No.).

8. Yu Xi; Wang Anyu; Wang Ziyan; Chen Yutong, A combination product and method for detecting meat adulteration. Invention patent: CN202410742128.9 (Application No.).

9. Yu Xi; Han Laiye, A microcapsule for suppressing the bean odor of tissue protein and its applications. Invention patent: CN202411134245.3 (Application No.).

10. Yu Xi; He Yuhong, Detection method for toxicogenic genes of Aspergillus flavus based on magnetic nanoparticles and carbon quantum dots. Invention patent: CN202610570080.7 (Application No.).

11. Yu Xi; Chen Zihan; Zhong Tian; Zhang Kang, an eye preparation. Invention patent: CN202411120834.6 (Application No.).

12. Yu Xi; Guo Zilong, a composition that inhibits histamine formation. Invention patent: CN202411429822.1 (Application No.).

13. Song Daqian; Sun Ying; Sun Xiumin; Wu Liwei; Jiang Chunzhu; Wang Liying; Gao Yan; Yu Xi, Detection method for aromatic amine compounds in water samples. Invention patent: ZL201110154233.3 (Authorization No.).

14. Song Daqian; Sun Ying; Jiang Chunzhu; Yu Xi; Zhang Lei; Sun Xiumin; Gao Yan, Method for Detecting Sudan Red Concentration in Environmental Water Samples. Invention Patent: ZL201110157977.0 (Authorization Number).

專業認證和獎項

1. 澳門學技術發展基金年度研究生科技研發獎，論文導師 (2025)

2. “莫干山杯”全國大學生標準化奧林匹克競賽二等獎，指導教師 (2025)

3. “天食杯”第四屆食品研究與開發創新創意大賽全國三等獎，指導教師 (2024)

4. MedComm-Future Medicine“最佳论文”，通訊作者 （2024）

5. 新加坡國立大學食品科技係“年度最優秀畢業生”(2019)

6. 吉林大學研究生國家獎學金 (2013)

Professional Certification and Awards

1. Annual Postgraduate Research Award, Macao Science and Technology Development Fund (FDCT), Thesis Supervisor (2025)

2. Second Prize, “Moganshan Cup” National Standardization Olympiad for College Students, Supervisor (2025)

3. National Third Prize, 4th “Tianshi Cup” Food Research and Development Innovation Competition, Supervisor (2024)

MedComm-Future Medicine“Best Paper”, corresponding author （2024）

4. Outstanding Graduate of the Year, Department of Food Science and Technology, National University of Singapore (2019)

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