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個人簡介

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，並於南洋理工大學完成博士後研究。目前主要研究領域為食品及中藥安全分析、納米傳感器製造、活性成分遞送、植物基創新材料研發、AI 輔助的分析技術開發等，已發表九十餘篇 SCI 論文在各類行業頂刊上，包括 *Trends in Food Science & Technology, Food Chemistry*，*Journal of Hazardous Materials, Journal of Agricultural and Food Chemistry*，*Analytical Chemistry* 等。她受邀擔任《食品研究與開發》，《輕工學報》青年編委，《*Advanced Gut & Microbiome Research*》編委，*Frontiers in Nutrition*，*Foods*，*Healthcare, International Journal of Molecular Science* 客座編輯。她兼任澳門科技大學學生事務處委員，澳門高等教育發展促進會會員，橫琴粵澳深度合作區澳質品牌促進中心評審專家，橫琴粵澳深度合作區琴澳健康教育專家團成員，廣東省環境科學學會環境暴露與健康風險控制專業委員會委員。她主持的研究工作曾被海峽時報（the Strait Times），澳廣視（TDM）等媒體報導。 她主持澳門科學技術發展基金 3 項、澳門基金會項目 1 項、四川省國際科技創新合作項目 1 項，珠海市產學研合作項目 1 項，澳門科技大學基金會項目 2 項，重點參研粵港澳大灣區聯合實驗室建設項目 1 項，豐益國際金龍魚營養與安全研究基金 1 項。

課題組歡迎具有食品科技、化學、材料學、藥學、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, and completed her postdoctoral research at Nanyang Technological University. Her current research areas include food and TCM safety

analysis, nanosensor fabrication, functionality delivery, plant-based innovative material development, and AI-assisted analytical technology development. She has published over ninety SCI papers in top industry journals, including *Trends in Food Science & Technology, Food Chemistry*，*Journal of Hazardous Materials, Journal of Agricultural and Food Chemistry*，*Analytical Chemistry etc. She was invited to serve as a youth editorial board member for Food Research and Development, Journal of Light Industry, and Advanced Gut & Microbiome Research, as well as a guest editor for Frontiers in Nutrition*，*Foods*，*Healthcare, International Journal of Molecular Science* etc. She also serves as a member of the Student Affairs Office of the Macau University of Science and Technology, a member of the Macau Higher Education Development Promotion Association, an expert reviewer for the Macau Quality Brand Promotion Center of the Hengqin Guangdong-Macau In-Depth Cooperation Zone, a member of the Hengqin-Macau Health Education Expert Group of the Hengqin Guangdong-Macau In-Depth Cooperation Zone, and a member of the Environmental Exposure and Health Risk Control Professional Committee of the Guangdong Provincial Environmental Science Society.Her research has been reported by media outlets such as The Strait Times and TDM. She has led 3 projects funded by the Macao Science and Technology Development Fund, 1 project funded by the Macao Foundation, 1 project funded by the Sichuan Provincial International Science and Technology Innovation Cooperation Fund, 1 project funded by the Zhuhai Municipal Industry-University-Research Cooperation Fund, 2 projects funded by the Macao University of Science and Technology Foundation, and participated in 1 key research project funded by the Guangdong-Hong Kong-Macao Greater Bay Area Joint Laboratory Construction Project and 1 project funded by the Wilmar International Arowana Nutrition and Safety Research Fund.

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

營養學導論、基礎化學、分析化學、材料科學等

Introduction to Nutrition Science, Fundamental Chemistry, Analytical Chemistry, Material Science

研究領域

食品及中藥安全分析、納米傳感器製造、活性成分遞送、植物基創新材料研發、AI 輔助的

分析技術開發

Food and TCM safety analysis, nanosensor fabrication, functionality delivery, plant-based innovative material development, and AI-assisted analytical technology development.

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

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）
南洋理工大學，博士後研究員（2018-2019）
中科院大連化學物理研究所，研究助理（2013-2014）

Associate Professor, Macau University of Science and Technology (2025-)
Assistant Professor, Macau University of Science and Technology (2019-2025)
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

1. 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.
2. 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.

3. 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.
4. 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.
5. 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.
6. Zhang, L., Chen, Y., Yang, Q., Guo, J., Zhou, S., Zhong, T., Xiao, Y., **Yu, X.**, Feng, K., Peng, Y., Han, Z., Feng, F., Wang, L*. (2025). The Impact of Dietary Fiber on Cardiovascular Diseases: A Scoping Review. ***Nutrients***, 17(3), 444.
7. 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).
8. 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.

9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.

15. 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.
16. 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.
17. He, Y., **Yu, X***., Review on the application of upconversion nanomaterials in heavy metal detection. ***Food Health*** 2024, 6(3), 11.
18. Zhao, X., Gao, J., Zhai, L., **Yu, X.***, Xiao, Y*. Recent Evidence on Polycyclic Aromatic Hydrocarbon Exposure ***Healthcare*** 2023, 11(13), 1958.
19. 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.
20. Wu, T., Zhu, W., Chen, L., Jiang, T., Dong, Y., Wang, L., Tong, X., Zhou, H., **Yu, X.**, Peng, Y., Wang, L., Xiao, Y., Zhong, T.*, A review of natural plant extracts in beverages: Extraction process, nutritional function, and safety evaluation. ***Food***

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21. 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.
22. 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.
23. 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.
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25. Ahmad, T., Li, G., Wang, J., Li, M., Xiao, Y., **Yu, X.**, Zheng, Y., Moosa, A., Nie, C., Liu, Y.*, First Report of Bacterial Leaf Spot of Ficus benghalensis Caused by Pseudomonas cichorii in Pakistan. ***Plant Disease*** 2023, 107 (2), 552.
26. Fu, C., **Yu, X.,** Guo, H.*, You, C.*, Du, J.*, Recent Advances and Product Opportunities in the Technology of Proteins, ***Frontiers in Nutrition*** 2023, 10, 1126929.
27. Tao, A., Zhang, H., Duan, J., Xiao, Y., Liu, Y., Li, J., Huang, J., Zhong, T.*, **Yu, X.***,

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31. **Yu, X**., Zuo, T*., Editorial: Food Additives, Cooking and Processing: Impact on the Microbiome. ***Frontiers in Nutrition*** 2021, 8, 731040.

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detect Sudan dye adulteration in chilli powders. ***Food Chemistry*** 2019, 299, 125144.

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followed by ultrafast liquid chromatography analysis. ***Talanta*** 2012, 98, 257-264.

專利

1. National invention patent: A method for the prediction of fish fillet freshness. Application No.: 202411586894.7. Inventors：**Yu, X**, Lu, Y., Wang, Y.

2. National invention patent: A composition that inhibits histamine production. Application No.: 202411429822.1. Inventors：**Yu, X**, Guo, Z.

3. National invention patent:A kind of microcapsule for inhibiting the beany flavor of protein and its application. Application No.:202411134245.3. Inventors：**Yu, X**, Chen, Z., Zhong, T., Zhang, K.

4. National invention patent: A formulation for ocular use. Inventors：**Yu, X**,

5. National invention patent: Novel kit and method for the detection of target DNA. Application No.: 202410742144.8. Inventors：**Yu, X**, Wang, A., Wang, Z., Chen, Y.

6. National invention patent: Novel kit and method for the detection of adulterants in meat products. Application No.: 202410742128.9. Inventors：**Yu, X**, Wang, A., Wang, Z., Chen, Y.

7. National invention patent:Novel detection method for Sudan dye pollution in water. Patent No.: ZL201110157977.0, Inventors：Song D，Sun Y，Jiang C，**Yu X**，Zhang L，Sun X，Gao Y.

專業認證和獎項

1. 澳門科學技術發展基金年度研究生科技研發獎，論文導師

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

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

4. 新加坡國立大學食品科技係“年度最優秀畢業生”

5. 吉林大學研究生國家獎學金

專業協會會員資格:

澳門高等教育發展促進會會員，橫琴粵澳深度合作區澳質品牌促進中心評審專家，橫琴粵澳深度合作區琴澳健康教育專家團成員，廣東省環境科學學會環境暴露與健康風險控制專業委員會委員，中國食品科學技術學會會員。