

Personal information

Name	Huang, Da Wei	
Title	Associate professor and chairman	
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Email	hdw0906@stust.edu.tw	
Education	Institute of Food Science and Technology	
Laboratory	Laboratory of Food and Bioresource Utilization	
Research Interests	Value-added applications of agricultural by-products Development of biodegradable active packaging preservation technology Low-alcohol beer development Value-added applications of insect biomass Functional evaluation of health-beneficial components Food hygiene and safety	
Work Experience	1. Chairman, Department of Biotechnology and Food Technology, Southern Taiwan University of Science and Technology (2021.8 ~) 2. Associate professor, Department of Biotechnology and Food Technology, Southern Taiwan University of Science and Technology (2021.2 ~) 3. Assistant professor, Department of Biotechnology and Food Technology, Southern Taiwan University of Science and Technology (2019.8 ~ 2021.1) 4. Assistant professor, Department of Biotechnology, Southern Taiwan University of Science and Technology (2018.8 ~ 2019.7) 5. Chairman, Department of Culinary Management, China University of Science and Technology (2016.8 ~ 2017.7) 6. Assistant professor, Department of Culinary Management, China University of Science and Technology (2013.8 ~ 2018.7) 7. Assistant professor, Department of Food Science, China University of Science and Technology (2012.8 ~ 2013.7) 8. Researcher, Lian Hwa Foods Corporation (2011.8 ~ 2012.7) 9. Postdoctoral researcher, Department of Food Science, National Pingtung University of Science and Technology (2010.3 ~ 2010.7)	
Webpage		

Publications

Journal Papers

1. Ping-Hsiu Huang, Yu-Jie Chen, Yu-Wen Lin, **Da-Wei Huang**. Gelatin-kappa-carrageenan-based edible film incorporated with ethanol extracts from *Premna microphylla* Turcz leaves for preservation of sailfish fillets. *LWT-Food Science and Technology*, 208, 2024, 116710.
2. Yu-Wen Lin, Te-Ming Lee, Cheng-Pei Chung, Yi-Chieh Tsai, **Da-Wei Huang**, Ping-Hsiu Huang. Growth of *Cordyceps militaris* cultivation and its bioactive component accumulation as affected by various single-wavelength light-emitting diodes (LED) light sources. *International Journal of Food Properties*, 2024, 27(1), 897-908.

3. Yu-Wen Lin, Yueh-An Yao, **Da-Wei Huang**, Chung-Jen Chen, Ping-Hsiu Huang. Modifications on the processing parameters of traditional pineapple slices by stabilized sound pressure of multiple frequency ultrasonic-assisted osmotic dehydration. *Processes* 2024, 12(6), 1109.
4. **Da-Wei Huang**, Yung-Jia Chan, Yuan-Chao Huang, Ya-Ju Chang, Jen-Chieh Tsai, Amanda Tresiliana Mulio, Zong-Ru Wu, Ya-Wen Hou, Wen-Chien Lu, Po-Hsien Li. Quality evaluation, storage stability, and sensory characteristics of wheat noodles incorporated with isomaltodextrin. *Plants*, 2021, 10(3), 578.
5. Chih-Yuan Ko, Yangming Martin Lo, Jian-Hua Xu, Wen-Chang Chang, **Da-Wei Huang**, James Swi-Bea Wu, Cho-Hua Yang, Wen-Chung Huang, Szu-Chuan Shen. Alpha-lipoic acid alleviates NAFLD and triglyceride accumulation in liver via modulating hepatic NLRP3 inflammasome activation pathway in type 2 diabetic rats. *Food Science & Nutrition*, 2021, 9(5), 2733-2742.
6. 鍾竺均、黃大維。市售亞麻籽油脂脂肪酸分析之研究。南臺學報。2021，16(2)。
7. Jian-Hua Xu, Yangming Martin Lo, Wen-Chang Chang, **Da-Wei Huang**, James Swi-Bea Wu, Yu-Yuan Jhang, Wen-Chung Huang, Chih-Yuan Ko, Szu-Chuan Shen. Identification of bioactive components from *Ruellia tuberosa* L. on improving glucose uptake in TNF- α -induced insulin-resistant mouse FL83B hepatocytes. *Evidence-Based Complementary and Alternative Medicine*, 2020, 6644253.
8. **Da-Wei Huang**, Yangming Martin Lo, Wen Chang Chang, Chia Yu Lin, Jou An Chen, James Swi Bea Wu, Wen Chung Huang, Szu Chuan Shen. Alleviative effect of *Ruellia tuberosa* L. on NAFLD and hepatic lipid accumulation via modulating hepatic de novo lipogenesis in high fat diet plus - streptozotocin induced diabetic rats. *Food Science & Nutrition*, 8(10), 5710-5716.
9. Po-Hsien Li, Yung-Jia Chan, Wen-Chien Lu, **Da-Wei Huang**, Ting-Chieh Chang, Wen-Hong Chang, Xiao-Bao Nie, Chang-Xing Jiang, Xiao-Lei Zhang. Bioresource utilization of *Djulius (Chenopodium formosanum)* biomass as natural antioxidants. *Sustainability*, 2020, 12(15), 5926.
10. Chih-Yuan Ko, Ru-Hai Lin, Yang-Ming Martin Lo, Wen-Chang Chang, **Da-Wei Huang**, James Swi-Bea Wu, Yu-Fang Chang, Wen-Chung Huang, Szu-Chuan Shen. Effect of *Ruellia tuberosa* L. on aorta endothelial damage - associated factors in high fat diet and streptozotocin induced type 2 diabetic rats. *Food Science & Nutrition*, 2019, 7, 3742-3750.
11. Wen-Chang Chang, **Da-Wei Huang (co-first author)**, Martin Lo, Qin-Qiao Tee, Po-Ling Kuo, James Swi-Bea Wu, Wen-Chung Huang, Szu-Chuan Shen. Protective effect of caffeic acid against Alzheimer's disease pathogenesis via modulating cerebral insulin signaling, β -amyloid accumulation, and synaptic plasticity in hyperinsulinemic rats. *Journal of Agricultural and Food Chemistry*, 2019, 67, 7684-7693.
12. Wen-Chang Chang, **Da-Wei Huang**, Jou-An Chen, Yu-Fang Chang, James Swi-Bea Wu, Szu-Chuan Shen. Protective effects of *Ruellia tuberosa* L. against hyperglycemia and abnormal expression of hepatic detoxification enzymes in diabetic rats. *RSC Advances*, 2018, 8, 21596.
13. **Da-Wei Huang**, Wen-Chang Chang, Heng-Jui Yang, James Swi-Bea Wu, Szu-Chuan Shen. Gallic acid alleviates hypertriglyceridemia and fat accumulation via modulating glycolysis and lipolysis pathways in perirenal adipose tissues of rats fed a high-fructose diet. *International Journal of Molecular Sciences*, 2018, 19, 254.
14. Wen-Chien Lu, **Da-Wei Huang**, Chiun-C.R. Wang, Ching-Hua Yeh, Jen-Chieh Tsai, Yu-Ting Huang, Po-Hsien Li. Preparation, characterization, and antimicrobial activity of nanoemulsions incorporating citral essential oil. *Journal of Food and Drug Analysis*, 2018, 26, 82-89.
15. Po-Hsien Li, Yu-Wen Lin, Wen-Chien Lu, Jyh-Ming Hu, **Da-Wei Huang**. In vitro hypoglycemic activity of the phenolic compounds in longan fruit (*Dimocarpus longan* var. Fen Ke) shell against α -glucosidase and β -galactosidase. *International Journal of Food Properties*, 2016, 19, 1786-1797.
16. **Da-Wei Huang**, Wen-Chang Chang, James Swi-Bea Wu, Rui-Wen Shih, Szu-Chuan Shen. Vescalagin from Pink wax apple [*Syzygium samarangense* (Blume) Merrill and Perry] alleviates hepatic insulin

- resistance and ameliorates glycemic metabolism abnormality in rats fed a high-fructose diet. *Journal of Agricultural and Food Chemistry*, 2016, 64, 1122-1129.
17. **Da-Wei Huang**, Wen-Chang Chang, James Swi-Bea Wu, Rui-Wen Shih, Szu-Chuan Shen. Gallic acid ameliorates hyperglycemia and abnormality of hepatic carbohydrate metabolism in high-fructose diet-fed rats. *Nutrition Research*, 2016, 36, 150-160.
 18. Wen-Chien Lu, Ting-Jie Zhang, T.J., **Da-Wei Huang**, Po-Hsien Li. Nanoemulsion of D-limonene in water system prepared by ultrasonic emulsification. *Journal of Cosmetic Science*, 2014, 65, 245-252.
 19. Wen-Chien Lu, Been-Huang Chiang, **Da-Wei Huang**, Po-Hsien Li. Skin permeation of D-limonene-based nanoemulsions as a transdermal carrier prepared by ultrasonic emulsification. *Ultrasonics Sonochemistry*, 2014, 21, 826-832.
 20. 林昱文、黃大維。薄膜乳化系統的發展與應用。食品工業。2013。8 (45)：20-26。
 21. **Da-Wei Huang**, Szu-Chuan Shen. Caffeic acid and cinnamic acid ameliorate glucose metabolism via modulating glycogenesis and gluconeogenesis in insulin-resistant mouse hepatocytes. *Journal of Functional Foods*, 2012, 4, 358-366.
 22. **Da-Wei Huang**, Szu-Chuan Shen, James Swi-Bea Wu. Effects of caffeic acid and cinnamic acid on glucose uptake in insulin-resistant mouse hepatocytes. *Journal of Agricultural and Food Chemistry*, 2009, 57, 7687-7692.
 23. Chia-Yu Ma, Szu-Chuan Shen, **Da-Wei Huang**, Hong-Ming Chang, James Swi-Bea Wu. Growth inhibition and induction of apoptosis in U937 cells by *Coptis chinensis* extract. *Journal Food Science*, 2008, 73, 6, H127-H133.

Conference Papers

1. 吳靜妤、黃靖嵐、詹佳恩、黃大維。結合觀音葉萃取物阻隔堅果吸濕之生物可分解薄膜。2023 台灣食品科學技術學會第 53 次會員大會暨研討會，臺南市。本人為通訊作者。
2. 文廷毓、蘇鈺涵、林至廷、顏凡美、黃大維。添加文旦柚皮部分 取代啤酒花對精釀啤酒品質影響之研究。2023 台灣食品科學技術學會第 53 次會員大會暨研討會，臺南市。本人為通訊作者。
3. 林韋成、黃韻如、黃大維。添加螺旋藻萃取物對中式麵條特性 與機能性成分之影響。2023 台灣食品科學技術學會第 53 次會員大會暨研討會，臺南市。本人為通訊作者。
4. 陳錦慧、林昱文、黃大維。以反應曲面法探討添加菱角殼膨發 米果最適化條件。2023 台灣食品科學技術學會第 53 次會員大會暨研討會，臺南市。
5. Jain Cen Hao, Huang Da Wei. Study on the development of biodegradable film consist of carrageenan and gelatin incorporating with the extracts from *Premna microphylla* Turcz leaf. 2023 International Symposium on Novel and Sustainable Technology.
6. 張又羚，黃大維。觀音樹葉果膠特性分析之研究。2022 台食品科學技術學會第 52 次會員大會暨研討會。
7. 陳錦慧，陳子瑄，陳佩雯，黃大維。開發添加菱角殼與秋葵之 纖米薯條膨發休閒食品。2022 台灣食品科學技術學會第 52 次會員大會暨研討會。
8. Yung Chi Lin, Yu Wen Lin, Da Wei Huang. Application of *Pichia kluyveri* in the production of low-alcohol beer. 2022 International Symposium on Novel and Sustainable Technology.
9. 白詠湄，陳惠婷，林昱文，黃大維。含豆渣點心餅乾開發之研究。2021 台灣食品科學技術學會第 51 次會員大會暨研討會。
10. Y.J. Chen, Y.W. Lin, D.W. Huang. Preservative effects of edible film incorporating with the extract from *Premna microphylla* Turcz leaf. 2021 International Symposium on Novel and Sustainable Technology.

11. 何冠穎, 劉正大, 呂彥璋, 黃大維。紅藜及燕麥啤酒開發與品質指標建立之研究。2020 台灣食品科學技術學會第 50 次會員大會暨研討會。
12. 林欣妤, 李崇丞, 黃大維。桃膠成分分析及麵條製作應用之研究。2020 台灣食品科學技術學會第 50 次會員大會暨研討會。
13. 林永琪, 張又羚, 黃大維。台灣觀音樹葉片成分分析及抗氧化評估。2020 台灣食品科學技術學會第 50 次會員大會暨研討會。
14. 陳錦慧, 黃怡瑄, 黃大維。全果果乾開發之研究。2020 台灣食品科學技術學會第 50 次會員大會暨研討會。
15. Chen, Y. J., Huang, D. W. Development of carrageenan-gelatin films containing *Premna microphylla* Turcz leaf extracts. 2019 International Symposium on Novel and Sustainable Technology, Tainan.
16. Li, G. P., Xie, Y. H., Luo, W. H., Huang, D.W. Evaluation of Tamarillo on antioxidant activity and α -glucosidase inhibitory. 2019 International Symposium on Novel and Sustainable Technology.
17. 張梓揚, 黃佩琳, 黃大維。含膳食纖維麵條儲存安定性及蒸煮品質檢測。2019 台灣食品科學技術學會第 49 次會員大會暨研討會。
18. 詹于誼, 謝育豪, 羅文章, 李國平, 黃大維。文旦柚皮乙酸乙酯區分物抗氧化及抑制 α -glucosidase 活性之評估。2019 台灣食品科學技術學會第 49 次會員大會暨研討會。
19. 陳芊羽, 陳雅琳, 黃大維。咖啡果殼茶包開發之研究。2019 台灣食品科學技術學會第 49 次會員大會暨研討會。

Projects

NSTC Projects:

Year	Project Title (number)
2023	Study on development of low-alcohol beer brewing with non- <i>Saccharomyces</i> isolated from fruit peel (NSTC 112-2637-E-218-006-)
2022	Study of brewing low-alcohol craft beer by <i>Pichia kluyveri</i> and establishing the quality index (II) (MOST 111-2637-E-218-003-)
2021	Study of brewing low-alcohol craft beer by <i>Pichia kluyveri</i> and establishing the quality index (MOST 110-2637-E-218-006-)
2019	Study of the development on functional craft beer and the establishment of quality index (MOST 108-2637-E-218-007-)
2015	Study of extracts and fermentation products of passion fruit pericarp on improving glucose uptake in insulin-resistant cells and comprehending the hypoglycemic mechanism (MOST 104-2311-B-157-001-)

Government Projects:

Year	Project Title (number)
2024	2022 Tainan Food Safety and Hygiene Management System Project, Public Health Bureau, Tainan City Government (1700-B112001)
2023	2023 Industry-Academia Collaboration - Food Automation Production Quality Management Talent Cultivation Program, Ministry of Education (17001120239-EDU)
2023	2023 Higher Education Teaching Practice Research Project - Impact of Integrating Design Thinking and Real-Time Feedback Systems on Learning Outcomes in New Product Development Practical Courses, Ministry of Education (17001120259-EDU)
2022	2022 Tainan Food Safety and Hygiene Management System - 2023 Follow-up Expansion Project, Public Health Bureau, Tainan City Government (14001120051-GP-2)
2022	2022 Industry-Academia Collaboration Project - Food Technology and Mechanical Automation Industry Practical Talent Cultivation Program, Ministry of Education (17001110248-EDU)
2022	2022 Higher Education Teaching Practice Research Project - Exploring the Impact of Problem-Based Learning and Real-Time Feedback Systems on Learning Outcomes in Food Processing Courses, Ministry of Education (17001110243-EDU)
2022	2022 Tainan Food Safety and Hygiene Management System Project, Public Health Bureau, Tainan City Government (13001110085-GP-3)
2021	2020 Tainan Food Safety and Hygiene Management System - 2021 Follow-up Expansion Project, Public Health Bureau, Tainan City Government (13001100043-GP-4)
2021	Environmental Sustainability Education Promotion Project - "Green Magic Fun Food" Training Camp, Ministry of Education (17001100063-EDU)
2020	2020 Tainan Food Safety and Hygiene Management System Project, Public Health Bureau, Tainan City Government (13001090148-GP-5)
2020	2020 Youth and Elderly Co-Creation, Hand in Hand to Build Smart Age-Friendly Communities, Ministry of Education (4B001090032-EDU-13)
2019	2019 Tainan Food Safety and Hygiene Management System Project, Public Health Bureau, Tainan City Government (13001080078-GP-16)

Industrial Collaboration Projects:

Year	Project Title
2022	Assessment of Mosquito Repellent Components from Guanyin Tree Leaves and Product Development. Green Mountain Forestry Co., Ltd.
2022	Development of Technologies and Educational Training Using Big Data and Artificial Intelligence in Healthcare. Chi Mei Medical Foundation Chi Mei Hospital.
2022	Good Hygiene Practice (GHP) Guidance Program. Nan Pao Resin Chemical Co., Ltd. Project Principal Investigator
2021	Development of Powdered Extract from Stevia Leaves. Yan Hou Tang Trading Co.
2021	Milling of Guanyin Tree Leaves and Development of Application Products. Green Mountain Forestry Co., Ltd.
2021	Development of Instant Tea Powder. Ru Chuang Zao Xiang Trading Co.
2020	Development of Processed Products from Guanyin Tree Leaves. Green Mountain Forestry Co., Ltd.

Year	Project Title
2019	Whole Fruit Dried Product Development Project. Yunji Trading Co., Ltd.
2019	Component Analysis and Product Development of Guanyin Tree Leaves. New Greenism Co., Ltd.
2019	Management Program for the Use of Domestic Fresh Pork in School Lunches. Taiwan Excellent Agricultural Products Development Foundation.

Professional Certificates

1. National Examination Certified Food Technician (Certification No. 006945)
2. ISO 14067:2018 Carbon Footprint Standard Lead Verifier (SGS 131606677S07015)
3. ISO 22000 Food Safety Management System Internal Auditor (SGS 2013/IQAKHH0066S/01004)
4. ISO 9001 Quality Management System Internal Auditor (TC21-2014-01-18-22)
5. Level C Baking Technician (Technical Certification No. 077311476)
6. HACCP Practical Training Course - Practical Class (No. 273, Year 100, Hongshi Training)
7. Hospitality Service Quality Audit Management Certified - Level A License (HSQM-T97000029)
8. BBOM Leisure B&B Management Talent - Level B License (Taiwan Internal Certification No. 1000239935)