

## Yong Li, Ph.D.

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### Education

University of Missouri-Columbia	Food Science	PhD	2004
University of Missouri-Columbia	Statistics	MS	2005
China Agricultural University	Microbiology	MS	1997
China Agricultural University	Microbiology	BS	1994

### Professional Appointments

2023 - Present	Professor, College of Tropical Agriculture & Human Resources, University of Hawaii
2011 - 2023	Associate Professor, College of Tropical Agriculture & Human Resources, University of Hawaii
2005 - 2011	Assistant Professor, College of Tropical Agriculture & Human Resources, University of Hawaii
2004 - 2005	Post-Doctoral Associate, Department of Food Science, University of Missouri
1998 - 2004	Graduate Research Assistant, Dual majored in Food Science and Statistics, University of Missouri

### Courses Offered at University of Hawaii at Manoa

- FSHN 403. Microbiology of Foods
- FSHN 440. Food Safety
- FSHN 494. Food Product Development Capstone Course
- FSHN 701. Rapid Detection and Fingerprinting of Microbes in Food

### Recent Journal Publications

- Saxby, S.M., Dong, L., Tipton, L., Kai, J., Saxby, N.E., Jia, W., Lee, C.N., Fialkowski, M.K., Boushey, C., Wall, M., and Li, Y. 2025. Assessing the prebiotic potential of five taro (*Colocasia esculenta*) varieties found in Hawai'i on the human gut microbiome and short-chain fatty acid production using *in vitro* human digestion and fecal fermentation system. ACS Food Science & Technology (in press)

- Lee, D., You, Y., Ho, K.K.H.Y., Li, Y., and Jun, S. 2024. Impact of supercooling storage on physical and chemical properties of yellowfin tuna (*Thunnus albacares*). Journal of Food Engineering 373: 11818. DOI: <https://doi.org/10.1016/j.jfoodeng.2023.111818>
- Saxby, S.M., Dong, L., Ho, K.K.H.Y., Lee, C.N., Wall, M., and Li, Y. 2024. Nutritional, physicochemical, and functional properties of Hawaiian taro (*Colocasia esculenta*) flours: A comparative study. Journal of Food Science 89: 2629-2644. DOI: <https://doi.org/10.1111/1750-3841.17053>
- Dong, L., Wall, M., and Li, Y. 2023. Behaviors of *Salmonella* Typhimurium and *Listeria monocytogenes* on whole avocado during storage at 21 or 7°C and their reduction by aqueous chlorine dioxide and peroxyacetic acid. LWT-Food Science and Technology 173: Article No. 114359. DOI: <https://doi.org/10.1016/j.lwt.2022.114359>
- Lee, I., So, H., Kim, J., Auh, J.H., Wall, M.M., Li, Y., Ho, K., and Jun, S. 2023. Selective detection of *Escherichia coli* K12 and *Staphylococcus aureus* in mixed bacterial communities using a single-walled carbon nanotube (SWCNT)-functionalized electrochemical immunosensor with dielectrophoretic concentration. Nanomaterials 13: Article No. 985. DOI: <https://doi.org/10.3390/nano13060985>
- Wu, B., Hu, J.S., and Li, Y. 2022. Development of an ultra-sensitive single-tube nested PCR assay for rapid detection of *Campylobacter jejuni* in ground chicken. Food Microbiology 106: Article No. 104052. DOI: <https://doi.org/10.1016/j.fm.2022.104052>
- Dong, L., Wall, M., and Li, Y. 2022. Aqueous chlorine dioxide generated with organic acids have higher antimicrobial efficacy than those generated with inorganic acids. International Journal of Food Microbiology 369: Article No. 109632. DOI: <https://doi.org/10.1016/j.ijfoodmicro.2022.109632>
- Ma, D., Li, Y., Chen, C., Fan, S., Zhou, Y., Deng, F., and Zhao, L. 2022. Microbial succession and its correlation with the dynamics of volatile compounds involved in fermented minced peppers. Frontiers in Nutrition 9:1041608. DOI: 10.3389/fnut.2022.1041608
- Liu, X., Wu, B., Nakamoto, S.T., Imamura, J.L., and Li, Y. 2022. Inhibition of *Listeria monocytogenes* and *Escherichia coli* O157:H7 growth by ohelo berry (*Vaccinium calycinum*) fractions: anthocyanins, non-anthocyanins phenolics, and organic acids. Microorganisms 10: Article No. 2231. DOI: <https://doi.org/10.3390/microorganisms10112231>
- Ma, D., Li, Y., Wang, J., Pan, L., Kang, W., Wang, Z., Wu, Z., Dai, Z., Deng, F., Zhao, L. 2022. Relationship between fungal communities and volatile flavor components during the traditional Chinese fermentation of *Capsicum annuum* L. Var. Dactylus M. Processes 10: Article No. 1513. <https://doi.org/10.3390/pr10081513>
- Wu, B., Liu, X., Nakamoto, S.T., Wall, M., and Li, Y. 2022. Antimicrobial activity of ohelo berry (*Vaccinium calycinum*) Juice against *Listeria monocytogenes* and its potential for milk preservation. Microorganisms 10: Article No. 548. DOI: <https://doi.org/10.3390/microorganisms10030548>
- Jun, S., Chun, C., Ho, K., and Li, Y. 2021. Design and evaluation of a millifluidic insulator-based dielectrophoresis (DEP) retention device to separate bacteria from tap water. Water 13: Article No. 1678. DOI: <https://doi.org/10.3390/w1312678>

- Lee, B.E., Kang, T.Y., Jenkins, D., Li, Y., Wall, M.M., and Jun, S. 2021. A single-walled carbon nanotubes-based electrochemical impedance immunosensor for on-site detection of *Listeria monocytogenes*. Journal of Food Science 87: Article No. 15996. DOI: <https://doi.org/10.1111/1750-3841>
- Calle, A.F., Wu, B., Odani, J.S., Duponte, M.W., and Li, Y. 2021. Development of *Salmonella* testing capacity for the Hawaii egg and poultry industry. Pacific Agriculture and Natural Resources 11:19-23
- Dong, L., and Li, Y. 2021. Fate of *Salmonella* Typhimurium and *Listeria monocytogenes* on whole papaya during storage and antimicrobial efficiency of aqueous chlorine dioxide generated with HCl, malic acid or lactic acid on whole papaya. Foods 10: Article No. 1871. DOI: <https://doi.org/10.3390/foods10081871>

### Recent Extension Publications

- Yuen, B., Wu, B., Li, Y., and Lee, C.N. 2023. Natural Farming: The bacteria in 10 different sources of indigenous microorganisms (IMO4) from natural farming operators in Hawaii. UH CTAHR Extension Publication SA-22
- Wu, B., Li, Y., and Lee, C.N. 2023. Natural Farming: Identification of bacteria in fermented cultures of rice water and milk. UH CTAHR Extension Publication SA-23
- Keliikuli, A., Wang, K.H., Li, Y., and Lee, C.N. 2019. Natural Farming: Comparison of phosphorus-solubilizing and nitrogen-fixing bacteria among Korean Natural Farming (KNF), organic (ORG), and conventional (CON) farming methods. UH CTAHR Extension Publication SA-20
- Keliikuli, A., Smith, K., Li, Y., and Lee, C.N. 2019. Natural Farming: The development of indigenous microorganisms using Korean natural farming methods. UH CTAHR Extension Publication SA-19

### Recent Graduate Students

#### As Chair of Graduate Committee

- Biyu Wu, Graduated in 2023, Ph.D. in Nutritional Science, Antimicrobial, antivirulence, and antibiotic potentiation properties of ohelo berry against *Salmonella* Typhimurium
- Felix Dong, Graduated in 2023, Ph.D. in Nutritional Science, The role of poi as a naturally fermented Hawaiian food in the modulation of gut health
- Solange Saxby, Graduated in 2020, Ph.D. in Nutritional Science, The potential of taro as a dietary prebiotic source for the prevention of colorectal cancer
- Yuhan Huang, M.S. in Food Science, 2023-present, Effect pineapple peel as a sustainable substrate on probiotic cultivation and functional properties
- Yu He, Graduated in 2024, M.S. in Food Science, Antimicrobial activity of coffee husk extracts against *Listeria monocytogenes* and *Salmonella* Typhimurium in microbiological media and milk
- Beverly Yuen, Graduated in 2021, M.S. in Food Science, The effects of inulin, fructooligosaccharides, and breadfruit fiber on the physicochemical properties, growth, and survival of probiotic yeast and bacteria

- Yen Nyugen, Graduated in 2020, M.S. in Food Science, Comparison of antibiotic resistance and sanitizer susceptibility of *Escherichia coli* isolated from agricultural water in Hawaii
- Andrea Flores Calle, Graduated in 2020, M.S. in Food Science, Effect of anthocyanins in Okinawan sweet potato on growth and physicochemical properties of *Salmonella* Typhimurium and *Listeria monocytogenes*

### **Recent Students' Achievements**

- Yu He, College (CTAHR) 1<sup>st</sup> Place Master Student 10-min Oral Presentation, CTAHR Conference, University of Hawaii at Manoa, 2024
- Biyu Wu, 1<sup>st</sup> Place, Chinese Association for Food Protection in North America (CAFPNA) Graduate Student Presentation Competition, Institute Association for Food Protection (IAFP) Annual Meeting, Phoenix AZ, 2021
- Lianger Dong, 2<sup>nd</sup> Place, Chinese Association for Food Protection in North America (CAFPNA) Graduate Student Presentation Competition, Institute Association for Food Protection (IAFP) Annual Meeting, Phoenix AZ, 2021
- Solange Saxby, Soroptimist International Founder Region Fellowship, 2020
- Solange Saxby, Finalist for Young Minority Investigator Award, American Society for Nutrition (ASN) Annual Meeting, 2020 (competition cancelled due to the pandemic)
- Alan Martin, 1<sup>st</sup> Place, King's Hawaiian Food Product Development Competition, University of Hawaii Kapiolani Community College, 2019
- Solange Saxby, University of Hawaii at Manoa Cancer Center Fellowship, 2017-2019
- Solange Saxby, College (CTAHR) 1<sup>st</sup> Place Ph.D. Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2018
- Rae Takahashi, College (CTAHR) 1<sup>st</sup> Place Undergraduate Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2018
- Garinn Pereira, College (CTAHR) 3<sup>rd</sup> Place Undergraduate Student Oral Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2018
- Surely Wallace, College (CTAHR) 1<sup>st</sup> Place Master Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2017
- Solange Saxby, College (CTAHR) 3<sup>rd</sup> Place Ph.D. Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2017
- Biyu Wu, Department (HNFAS) Best Master Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2017
- Surely Wallace, College (CTAHR) Master Student Three-Minute Elevator Pitch (3MEP) Presentation Award, University of Hawaii at Manoa, 2017

### **Current Research Interests**

- Novel detection methods for foodborne pathogens
- Natural antimicrobials

- Prebiotics, probiotics and gut health
- Microbial survival and virulence during food processing

### **Current Research Support**

2022-2026	Prebiotic potential of tropical commodities. US Department of Agriculture-Agricultural Research Service. PI
2023-2025	Assessment of Hawaiian aquaculture for disease mitigation and control. Center for Tropical and Subtropical Aquaculture. PI, with Odani, J, Klinger-Bowen, R., and Brodsky, M.
2022-2027	Empowering underrepresented graduate students with advanced research training in Food Science. U.S. Department of Agriculture-Agriculture and Food Research Initiative. Co-PI, with Ho, K. and Jun, S.
2024-2026	Health and nutritional studies of Hawaii specialty crops and fruits for promoting local food production and prevention of obesity and diabetes. UHM Strategic Investment Initiative Award. Co-PI, with Yang, J., Ho, K., Novotny, R., Ceria-Ulep, C.D., Revilla, M.K.F.
2024-2025	Ensuring the safety and nutritional quality of limu for commercial aquaculture. Hawaii Department of Agriculture. Co-PI, with Ho, K., and Fox, B.

### **Selected Synergistic Activities**

- Departmental Curriculum Committee, University of Hawaii at Manoa, 2022-present
- Departmental Scholarship Committee, University of Hawaii at Manoa, 2025-present
- Search Committee, Farm Food Safety Agent, University of Hawaii at Manoa, 2024-present
- Curriculum Committee, Sustainable Food and Farming Systems (SFFS) Program, University of Hawaii at Manoa, 2025-present
- Nutritional Sciences Ph.D. Executive Committee, University of Hawaii at Manoa, 2019-2024
- Departmental Personnel Committee (elected), University of Hawaii at Manoa, 2012-2014, 2015-2017, 2017-2019, 2019-2021, 2022-2024
- Chair, Departmental Personnel Committee, University of Hawaii at Manoa, 2013-2014, 2019-2020, 2023-2024
- Chair, Departmental Scholarship Committee, University of Hawaii at Manoa, 2019-2022
- Graduate Chair, Food Science Program, University of Hawaii at Manoa, 2006-2020
- Chair, Search Committee for Food Science Instructor, University of Hawaii at Manoa, 2018
- Co-Chair, Departmental Policies and Procedures Committee, University of Hawaii at Manoa, 2007-2014
- College 3+2 Undergraduate-Graduate International Program Joint Management Committee, 2015-2020
- Treasurer and Membership Chair, Hawaii Institute of Food Technologists (HIFT), 2011-2019
- Panel Member, US Department of Agriculture-National Institute of Food and Agriculture (USDA-NIFA) Novel Foods and Innovative Manufacturing Technologies Competitive Grant Program, 2019
- Panel Member, USDA-NIFA Improving Food Quality Competitive Grant Program, 2018

- Reviewer, USDA-NIFA Exploratory Research Competitive Grant Program, 2017
- Reviewer, National Science Foundation of China (NSFC) Food Science Competitive Grant Program, 2013-2014
- Panel Member, National Science Foundation of China (NSFC) Agricultural Science Key Competitive Grant Program, Beijing, 2012
- Panel Member, National Science Foundation of China (NSFC) Food Science Competitive Grant Program, Beijing, 2012
- Editorial Board, Letters in Applied Microbiology, 2022-2024
- Ad hoc reviewer for Genome, Microbiome, Scientific Reports, Nutrition Reviews, Food Microbiology, Food Control, Archives of Microbiology, Food Biotechnology, Journal of Applied Microbiology, Journal of Food Quality, Letters in Applied Microbiology, Journal of Food Science, Journal of Food Science Education, Canadian Journal of Plant Pathology, Clinical Chemistry, Journal of Agricultural and Food Chemistry, FEMS Microbiology Letters, Journal of Food Composition and Analysis