

Yong Li, Ph.D.

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FTE Distribution: 35% I, 65% R

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

2011 - Present	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 (Writing Intensive)
- FSHN 440. Food Safety
- FSHN 494. Food Product Development Capstone Course (Writing Intensive)
- FSHN 701. Rapid Detection and Fingerprinting of Microbes in Food

Referred Journal Publications (Past 5 Years)

- 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., 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>
- 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>
- 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/w13121678>
- 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
- Lee, B.E., Kang, T.Y., Jenkins, D., Li, Y., Wall, 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*. DOI: <https://doi.org/10.1111/1750-3841.15996>
- Diaz, L., Li, Y., and Jenkins, D.M. 2020. Chemical stabilization of *Escherichia coli* for enhanced recovery with a handheld electroflotation system and detection by Loop-mediated Isothermal Amplification. *PLoS One* 16: Article No. e0244956. DOI: [10.1371/journal.pone.0244956](https://doi.org/10.1371/journal.pone.0244956)
- Ban, G.H., Li, Y., Wall, M.M., and Jun, S. 2020. A nanoengineered stainless steel surface to combat bacterial attachment and biofilm formation. *Foods* 9: Article No. 1518. DOI: [10.3390/foods9111518](https://doi.org/10.3390/foods9111518)
- Diaz, L., Li, Y., Kubota, R., and Jenkins, D.M. 2019. Characterization of a portable, non-instrumented incubator for enrichment of *Escherichia coli* O157:H7 and *Salmonella* serovar Typhimurium and detection by loop mediated isothermal amplification. *Food Protection Trends* 39:40-50
- Ban, G.H., Rungraeng, N., Li, Y., and Jun, S. 2018. Nanoporous stainless steel surfaces for anti-bacterial adhesion performances. *Transactions of the ASABE* 61:1175-1179
- Diaz, L., Jenkins, D.M., Kubota, R., Walter, N., Li, Y., and McNeal, T. 2018. Electroflotation of *Escherichia coli* improves detection rates by loop-mediated isothermal amplification. *Transactions of the ASABE* 61:1209-1220

Extension Publications (Past 5 Years)

- 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

- Lee, C.N., and Li, Y. 2018. Poi: a super food, native tradition, nature's gift. UH CTAHR Extension Publication

Synergistic Activities

- Chair, Departmental Scholarship Committee, University of Hawaii at Manoa, 2019-present
- PhD Nutritional Science Executive Committee, University of Hawaii at Manoa, 2019-present
- Departmental Personnel Committee (elected), University of Hawaii at Manoa, 2012-2014, 2015-2017, 2017-2019, 2019-2021, 2022-present
- Graduate Chair, Food Science Program, University of Hawaii at Manoa, 2006-2020
- Chair, Departmental Personnel Committee, University of Hawaii at Manoa, 2019-2020
- Chair, Search Committee for Food Science Instructor, University of Hawaii at Manoa, 2018
- Chair, Departmental Personnel Committee, University of Hawaii at Manoa, 2013-2014
- Co-Chair, Departmental Policies and Procedures Committee, University of Hawaii at Manoa, 2007-2014
- Search Committee for Food Science Assistant Professor, University of Hawaii at Manoa, 2017-2018
- Search Committee for Animal Physiology Assistant Professor, University of Hawaii at Manoa, 2015-2016
- Search Committee for Human Nutrition Assistant Professor, University of Hawaii at Manoa, 2013-2014
- College 3+2 Undergraduate-Graduate International Program Joint Management Committee, 2015-2020
- College Faculty Senate, University of Hawaii at Manoa, 2011-2013, 2016-2018
- Judge, College Annual Student Research Symposium, University of Hawaii at Manoa, 2006-2018
- College Search Committee for Farm Food Safety Assistant Extension Agent, 2015-2016
- College Scholarship Committee, University of Hawaii at Manoa, 2008
- Reviewer, Undergraduate Research Opportunities Program (UROP) grant proposals, University of Hawaii at Manoa, 2019
- Judge, Undergraduate Research Opportunities Program (UROP) Poster Competition, University of Hawaii at Manoa, 2017, 2019
- Panel Member, Research Ethics and Integrity Program, University of Hawaii, 2013-2014
- Institutional Biosafety Committee (IBC) Microbiology Subcommittee, University of Hawaii, 2007-2010
- 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, Ohio Agricultural Research and Development Center (OARDC) Research Enhancement Competitive Grant Program, 2010, 2011
- Judge, Institute of Food Technologists (IFT) Biotechnology Division Graduate Student Poster Competition, Chicago, 2010

- 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
- Ad hoc reviewer for Genome, Microbiome, Scientific Reports, Nutrition Reviews, Food Microbiology, 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, Applied Microbiology and Biotechnology

Graduate Students (Past 5 Years)

As chair of graduate committee

- Biyu Wu, 2019-present, Ph.D. student in Nutritional Science, Antimicrobial properties of polyphenols in ohelo berry and their implications in food safety and gut health
- Lianger Dong, 2018-present, Ph.D. student in Nutritional Science, Uncovering the symbiotic potential of fermented poi, the traditional Hawaiian staple
- 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
- Yu He, 2022-present, M.S. student in Food Science
- 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 E. 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
- Biyu Wu, Graduated in 2019, M.S. in Food Science, Rapid and sensitive detection of pathogenic bacteria in chicken products by single tube nested real time PCR
- Ann Wallace, Graduated in 2019, M.S. in Nutritional Science, Purple sweet potato: cultural importance and potential as a functional food
- Xiaohan Liu, Graduated in 2019, M.S. in Food Science, Antimicrobial activity of ohelo berry
- Ana Keliikuli, Graduated in 2018, M.S. in Animal Science, Co-advisor with Dr. Chin Nyean Lee, Korean natural farming and indigenous microorganisms

As graduate committee member

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| • Adriana L. Sarmiento | Ph.D. Plant Pathology | Graduated in 2022 |
| • Bo Li | Ph.D. Civil Engineering | Graduated in 2020 |
| • Taiyoung Kang | Ph.D. Molecular Biosciences & Bioengineering (MBBE) | Graduated in 2019 |
| • Amit Singh | Ph.D. Animal Science | Graduated in 2019 |

- Alyssa Haygood Ph.D. MBBE Graduated in 2019
- Jinwen Tang M.S. Food Science 2022-present
- Yijing Wang M.S. Food Science 2021-present
- Kento Senga M.S. Food Science Graduated in 2021
- Yu Wang M.S. Food Science Graduated in 2021
- Garinn Pereira M.S. Food Science Graduated in 2021
- Bog Eum Lee M.S. Food Science Graduated in 2019
- Muci Li M.S. Food Science Graduated in 2019
- Cherisse Chun M.S. Food Science Graduated in 2019
- Junhuang Liu M.S. Food Science Graduated in 2018
- Linge Li M.S. Animal Science Graduated in 2018

Current Research Interests

- Novel microbial detection methods
- Sanitation techniques
- Natural antimicrobials
- Probiotics, prebiotics, and gut health

Current Research Support

- 2018 - 2023 Prebiotic potential of tropical commodities. US Department of Agriculture/
Agricultural Research Service. PI
- 2021-2023 Electric and magnetic field-based supercooling technology to ensure the
freshness in the food supply chain. USDA-AFRI. Co-PI, with Jun, S and Ho,
K.

Honors and Awards

- 2021 Finalist for Faculty Award for Excellence in Mentoring Undergraduate
Research and Creative Work, University of Hawaii
- 2019 Superior Paper Award, American Society for Agriculture and Biological
Engineers
- 2013 Nominee for Excellence in Teaching Award, University of Hawaii
- 2008 USDA/CSREES Grantsmanship Workshop Travel Grant, Western Association
of Agricultural Experiment Station Program
- 2003, 2000, 1999 Harold P. Dugdale Scholarship, Department of Food Science, University of
Missouri
- 2003 Outstanding Poster Award, First Poster Day, University of Missouri
- 2002, 2001 Eugene V. Nay Scholarship, Department of Food Science, University of
Missouri

2002	Outstanding Academic Achievement, International Center, University of Missouri
2001	Superior Graduate Student Achievement Award, Graduate Student Association, University of Missouri
1996	Excellent Graduate Student Award, Graduate School, China Agricultural University

Students' Achievements (*Co-mentored)

- Biyu Wu, 1st 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, 2nd 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, one of five finalists for Young Minority Investigator Award, American Society for Nutrition Annual Meeting, 2020 (competition cancelled due to the pandemic)
- Alan Martin, 1st Place, King's Hawaiian Product Development Competition, University of Hawaii Kapiolani Community College, 2019
- Solange Saxby, University of Hawaii at Manoa Cancer Center Scholarship, 2017-2019
- Solange Saxby, College (CTAHR) 1st Place Ph.D. Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2018
- Rae Takahashi, College (CTAHR) 1st Place Undergraduate Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2018
- Garinn Pereira, College (CTAHR) 3rd Place Undergraduate Student Oral Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2018
- Surely Wallace, College (CTAHR) 1st Place Master Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2017
- Solange Saxby, College (CTAHR) 3rd 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
- Beverly Yuen, College (CTAHR) 3rd Place Undergraduate Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2016
- Christensen Mangahas, Department (HNFAS) Best Undergraduate Student Oral Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2016

- Ana Keliikuli*, Department (HNFAS) Best Master Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2016
- Krista Ann Lee*, College (CTAHR) 3rd Place Undergraduate Student Oral Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2015
- Elyse Bowman, Department (HNFAS) Best Undergraduate Student Oral Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2015
- Elyse Iseke, College (CTAHR) 1st Place Undergraduate Student Oral Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2014
- Qianting Li, Department (HNFAS) Best Graduate Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2014
- Ana Keliikuli*, Department (HNFAS) Best Undergraduate Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2014
- Jennifer Ishimoto, Graduate Student Organization (GSO) Travel Award, University of Hawaii at Manoa, 2013
- Jaemi-Lise Yoshioka*, Undergraduate Research Opportunities Program (UROP) Research Grant (\$4992), University of Hawaii at Manoa, 2013
- Ningjian Liang, 3rd Place, Biotechnology Division Graduate Student Poster Competition, Institute of Food Technologists (IFT) Annual Meeting, New Orleans, 2011
- Ningjian Liang, Student Excellence in Research award, University of Hawaii Research Council, 2011
- Ningjian Liang, Department (HNFAS) Best Graduate Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2011
- Ningjian Liang, College (CTAHR) 2nd Place MS Student Poster Presentation, Gamma Sigma Delta Award, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2010
- Alfred Lee Castro, College (CTAHR) 2nd Place Undergraduate Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2010
- Alfred Lee Castro, Undergraduate Summer Research Award, University of Hawaii Research Council, 2008
- Hongfei He, 2nd Place, Food Microbiology Division Graduate Student Poster Competition, Institute of Food Technologists (IFT) Annual Meeting, New Orleans, 2008
- David Pirazzini, 1st Place, Master Student Oral Presentation Competition, American Society for Microbiology (ASM) Branch Meeting, Hawaii, 2008
- Hongfei He, College (CTAHR) 1st Place MS Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2008
- David Pirazzini, Department (HNFAS) Best Graduate Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2008
- Hongfei He, Department (HNFAS) Best Graduate Student Poster Presentation, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2007
- David Pirazzini, College (CTAHR) 2nd Place MS Student Poster Presentation, Gamma Sigma Delta Award, CTAHR Student Research Symposium, University of Hawaii at Manoa, 2007

