CURRICULUM VITAE

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EDUCATION

2012 Ph.D.	University of Kentucky Animal and Food Sciences
2008 B.S.	China Agricultural University Food Quality and Safety
2008 B.S.	China Agricultural University Marketing

PROFESSIONAL EXPERIENCE

2024 – current San Diego State University	Associate Professor Food Science
2022 – 2024 San Diego State University	Assistant Professor Food Science
2016 – 2022 California State University, Los Angeles	Assistant Professor (Received tenure and promotion to Associate Professor) Food Science and Technology
2015 – 2016 University of Kentucky	Postdoctoral researcher Food Chemistry
2014 – 2015 Florida State University	Postdoctoral researcher Food Chemistry
2012 – 2014 University of Wisconsin-Madison	Postdoctoral researcher Meat Science

RESEARCH

1. Flavor development for alternative meat and seafood products.
2. Development, characterization, and utilization of microalgae as a food ingredient.
3. Characterization and improvement of protein functionalities using machine learning, molecular dynamic simulation, and experimental approaches.

TEACHING

SDSU

1. FN 401 Advanced Science of Food
2. FN 405 Experimental Food Science and Technology
3. FN 499 Special Study
4. FN 603 Advanced Food Analysis
5. FN 797 Research
6. FN 798 Special Study

Cal State LA

1. FST 3200-01 Food Chemistry.
2. FST 3200-02 Food Chemistry Laboratory.
3. FST 3230-01 Food Analysis.
4. FST 3230-02 Food Analysis Laboratory.
5. FST 4210-01 Sensory Evaluation of Food Products.
6. FST 4210-02 Sensory Evaluation of Food Products Laboratory.
7. FST 4250-01 Food Preservation Technologies
8. FST 4250-02 Food Preservation Technologies Laboratory
9. FST 4540-01 Special Topics in Food Science: Food Proteins.
10. FST 4540-01 Special Topic in Food Science: Food Colorants
11. FST 4600 Animal Food Product Technology.
12. NTRS 3100-01 Scientific Aspects of Food Preparation

PUBLICATIONS & PRESENTATIONS

BOOKS

1. **Zhao, J.**, Liu, C. (Eds.). (2023). *Flavour and Consumer Perception of Food Proteins* (No. 41). Royal Society of Chemistry: London, UK. **ISBN:** 978-1-78801-758-9. doi.org/10.1039/9781839165047.
2. Liu, C., & **Zhao, J.** (2023). *Food Chemistry*, 4th ed.; Top Hat: Toronto, Canada. ISBN-13: 978-1-77877-174-3.
3. Liu, C., & **Zhao, J.** (2021). *Food Chemistry*, 3rd ed.; bluedoor: Minneapolis, USA. ISBN-13: 978-1-77494-231-4.
4. Liu, C., & **Zhao, J.** (2019). *Food Chemistry*, 2nd ed.; bluedoor: Minneapolis, USA. ISBN-13: 978-1-64386-298-9.
5. Liu, C., & **Zhao, J.** (2018). *Food Chemistry*; bluedoor: Minneapolis, USA. ISBN-13: 978-1-68135-477-4.

BOOK CHAPTERS

(*indicates the senior/corresponding author)

1. **Zhao, J.**, Liu, C., Alvarado Martinez, S. (2025). Wet Extraction of Proteins. In: Li, Y. (eds) Plant-Based Proteins. Methods and Protocols in Food Science. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-4272-6_5
2. Liu, C., **Zhao, J.**, Gupta, S., Carrillo, M. (2025). Quantification of Crude and Soluble Protein Content. In: Li, Y. (eds) Plant-Based Proteins. Methods and Protocols in Food Science. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-4272-6_9
3. Raza, A., Liu, C., **Zhao, J.** (2025). Volatile Compounds. In: Li, Y. (eds) Plant-Based Proteins. Methods and Protocols in Food Science. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-4272-6_31
4. Liu, C., **Zhao, J.**, Gupta, S. (2025). Polyacrylamide Gel Electrophoresis. In: Li, Y. (eds) Plant-Based Proteins. Methods and Protocols in Food Science. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-4272-6_19

5. Liu, C.*, Gupta, S., **Zhao, J.** (2024). Characterization of Linear IgE-Binding Epitopes in Food Allergens. In: Cabanillas, B. (eds) *Food Allergens. Methods in Molecular Biology, vol 2717.* Humana, New York, NY. doi.org/10.1007/978-1-0716-3453-0_5
6. **Zhao, J.***; Liu, C.; Raza, A. (2023). Overview of protein flavours. In J. Zhao, C. Liu. (Eds.), *Flavour and Consumer Perception of Food Proteins*. Royal Society of Chemistry. doi.org/10.1039/9781839165047-00001
7. **Zhao, J.***; Xu, M.; Baker, J.; Kinsey, S. (2023). Consumer perceptions of food proteins and protein-enriched foods. In J. Zhao, C. Liu. (Eds.), *Flavour and Consumer Perception of Food Proteins*. Royal Society of Chemistry. doi.org/10.1039/9781839165047-00020
8. Selli, S.*; Sevindik, O.; Guclu, G.; **Zhao, J.** (2023). Flavour of fish and fish proteins. In J. Zhao, C. Liu. (Eds.), *Flavour and Consumer Perception of Food Proteins*. Royal Society of Chemistry. doi.org/10.1039/9781839165047-00119
9. **Zhao, J.***; Gibson, M.; Froble, A.; Liu, C. (2023). Flavour of cereal and pseudocereal proteins. In J. Zhao, C. Liu. (Eds.), *Flavour and Consumer Perception of Food Proteins*. Royal Society of Chemistry. doi.org/10.1039/9781839165047-00212
10. Liu, C.*, & **Zhao, J.** (2019). Insects as a novel food. In L. Melton, F. Shahidi, & P. Varelis (Eds.), *Encyclopedia of Food Chemistry* (pp. 428–436). Elsevier. doi.org/10.1016/B978-0-08-100596-5.21782-4.

JOURNAL ARTICLES
(*indicates the senior/corresponding author)

1. Li, J., Guo, S., Wei, B., Liu, D., Yang, G., **Zhao, J.**, ... & Zhang, W.* (2026). Water retention improvement in frozen bullfrog meat: evaluating basic amino acids as clean-label phosphate alternatives. *Food Production, Processing and Nutrition*, 8(1), 56. 10.1186/s43014-026-00405-9
2. Liu, C.*, Maya, C., Love, J. J., Che, H., Chen, K., & **Zhao, J.** (2026). Edible Insect Allergens: An Emerging Food Safety Challenge. *Sustainable Food Proteins*, 4(3), e70082. 10.1002/sfp2.70082
3. Cai, Y., Liu, C., **Zhao, J.**, Zhou, F., Zhao, D., Zhang, C., ... & Wang, Y. (2026). Non-covalent modification of soy protein isolate by non-protein amino acids: Insights into gelation mechanisms from physicochemical analysis, molecular docking, and molecular dynamics simulation. *Food Hydrocolloids*, 112917. 10.1016/j.foodhyd.2026.112917
4. Yang, G., Guo, S., Wei, B., Liu, D., Li, J., **Zhao, J.**, ... & Zhang, W. (2026). Effects of various modified starches on the eating quality of frozen crispy pork strips. Food Chemistry, 149602. Submitted in Jan. 2026. Accepted and published in May 2026. 10.1016/j.foodchem.2026.149602
5. Kamboj, A., Richter, J. K., Lee, C. L., Bernin, J., Watanabe, P., **Zhao, J**., ... & Ganjyal, G. M. (2025). Azodicarbonamide, Hydrogen Peroxide, and l-Ascorbic Acid Aid in the Modification of Protein Texture During High-Moisture Meat Analog Extrusion Processing. *Journal of Food Science*, *90*(7), e70346. doi.org/10.1111/1750-3841.70346
6. de Vargas, B. O., Vaezi, S., Freeling, J. L., Zhang, Y., Weidauer, L., Lee, C. L., **Zhao, J.**, & Dey, M. (2025). Design and Implementation of the Protein-Distinct Macronutrient-Equivalent Diet (PRODMED) Study: An Eighteen-Week Randomized Crossover Feeding Trial Among Free-Living Rural Older Adults. *Current Developments in Nutrition*, *9*(5), 104588. doi.org/10.1016/j.cdnut.2025.104588
7. Cheng, Q., **Zhao, J.**, Liu, C., Ge, H., Qin, J., & Wang, Y. (2025). Thiol-modified hyaluronic acid and hydroxyl radical-induced oxidation synergistically enhance the gelling capacity of ginkgo seed proteins. *Food Chemistry*, 143044. doi.org/10.1016/j.foodchem.2025.143044
8. Lopez, D., Maya, C., Villalobos, J., Shertukde, S. P., Toia, T., **Zhao, J.**, Trujillo, A., Pérez, R.L. & Liu, C. (2025). Chicatanas: The Seasonal Delicacy of Oaxaca. *Food Science and Nutrition Cases*, (2025), fsncases20250011. doi.org/10.1079/fsncases.2025.0011
9. Cheng, Q., Liu, C., **Zhao, J.**, Guo, F., Qin, J., & Wang, Y*. (2025). Hyaluronic acid promotes heat-induced gelation of ginkgo seed proteins. *Food Chemistry*, 141114. doi.org/10.1016/j.foodchem.2024.141114

10. Dong, C., **Zhao, J.**, Wang, L., Wang, X., Jiang, J. *, & Bi, J*. (2024). Understanding the textural enhancement of low-salt myofibrillar protein gels filled with pea protein pre-emulsions through interfacial behavior: Effects of structural modification and oil phase polarity. *Food Chemistry*, 140632. doi.org/10.1016/j.foodchem.2024.140632
11. Akinmeye, F., Chriki, S., Liu, C., **Zhao, J.**, & Ghnimi, S*. (2024). What factors influence consumer attitudes towards alternative proteins?. *Food and Humanity*, 100349. doi.org/10.1016/j.foohum.2024.100349
12. You, J., Liu, C., **Zhao, J.**, Guo, F., & Wang, Y*. (2024). pH dominates the formation of ginkgo seed protein and whey protein composite gels. *Food Bioscience*, 104245. doi.org/10.1016/j.fbio.2024.104245
13. Cheng, Q., Liu, C., **Zhao, J.**, Guo, F., Qin, J., & Wang, Y*. (2024). Hyaluronic acid modulates techno-functional and digestion properties of heat-induced ginkgo seed protein isolate gel. *Food Bioscience*, 104204. doi.org/10.1016/j.fbio.2024.104204
14. Zhang, L., Ge, H., **Zhao, J.**, Liu, C., & Wang, Y*. (2024). L-Theanine Improves the Gelation of Ginkgo Seed Proteins at Different pH Levels. *Gels*, *10*(2), 131. doi.org/10.3390/gels10020131
15. Dong, C., **Zhao, J.**, Wang, L., & Jiang, J*. (2024). New insights into the cross-linking between myosin and alkali-treated pea protein by transglutaminase under low ionic conditions: Contribution of legumin and vicilin fractions. *Food Hydrocolloids*, *149*, 109620. doi.org/10.1016/j.foodhyd.2023.109620
16. Cheng, Q., Liu, C., **Zhao, J.**, Li, Weiwei, Qin, J. Wang, Y*. (2023). Unlocking the potential of hyaluronic acid: Exploring its physicochemical properties, modification, and role in food applications. *Trends in Food Science & Technology, 142,* 104218. doi.org/10.1016/j.tifs.2023.104218
17. Wei, L., Ge, T., **Zhao, J.,** Wang, L., & Jiang, J*. (2023). Evaluation of mung bean protein and aquafaba as co-stabilizer for sour aerated emulsions. *Food Hydrocolloids, 146*, 109196. doi.org/10.1016/j.foodhyd.2023.109196.
18. Julakanti, S., Charles, A. P. R., **Zhao, J.**, Bullock, F., Syed, R., Myles, Y., & Wu, Y*. (2023). Hempseed protein (*Cannabis sativa* L.): Influence of extraction pH and ball milling on physicochemical and functional properties. *Food Hydrocolloids*, *143*, 108835. doi.org/10.1016/j.foodhyd.2023.108835.
19. Ji, X., Wang, L., **Zhao, J.***, & Jiang, J.* (2023). Possible role of polypeptide-chlorogenic acid interaction in the physicochemical and sensory characteristics of quinoa-modified coffee beverage. *Food Chemistry*, *425*, 136359. doi.org/10.1016/j.foodchem.2023.136359.
20. Zhang, W., Liu, C., **Zhao, J.**, Guo, F., You, J., Zhang, L., & Wang, Y.* (2023). Alkali-induced phenolic acid oxidation enhanced gelation of ginkgo seed protein. *Foods*, *12*(7), 1506. doi.org/10.3390/foods12071506.
21. Dong, C., **Zhao, J.**, Wang, L., & Jiang, J.* (2023). Modified pea protein coupled with transglutaminase reduces phosphate usage in low salt myofibrillar gel. *Food Hydrocolloids*, *139*, 108577. doi.org/10.1016/j.foodhyd.2023.108577
22. He, Z., Liu, C., **Zhao, J.**, Guo, F., & Wang, Y.* (2023). Enhanced gelling properties and hydration capacity of ginkgo seed proteins by genipin crosslinking. *Food Chemistry*, 399, 133924. doi.org/10.1016/j.foodchem.2022.133924.
23. **Zhao, J.**, Wang, Y., & Liu, C.* (2022). Film Transparency and Opacity Measurements. *Food Analytical Methods*, *15*, 2840-2846. doi.org/10.1007/s12161-022-02343-x.
24. Wang, Y., **Zhao, J.**, Zhang, S., Zhao, X., Liu, Y., Jiang, J.*, & Xiong, Y. L. (2022). Structural and rheological properties of mung bean protein emulsion as a liquid egg substitute: The effect of pH shifting and calcium. *Food Hydrocolloids*, *126*, 107485. doi.org/10.1016/j.foodhyd.2022.107485.
25. Cao, Y., Li, Z., Li, B., Fan, X., Liu, M., & **Zhao, J**.* (2022). Mitigation of oxidation-induced loss of myofibrillar protein gelling potential by the combination of pyrophosphate and L-lysine. *LWT – Food Science and Technology*, *157*, 113068. doi.org/10.1016/j.lwt.2022.113068.
26. He, Z., **Zhao, J.,** Liu, C., Li, W., & Wang, Y.* (2022). Ameliorating effect of γ-aminobutyric acid on the physical performance of whey protein films. *Food Hydrocolloids*, *124*, 107207. doi.org/10.1016/j.foodhyd.2021.107207.
27. Wang, Y., Ma, T., Liu, C., Guo, F., & **Zhao, J.*** (2021). L-Histidine improves solubility and emulsifying properties of soy proteins under various ionic strengths. *LWT – Food Science and Technology*, *152*, 112382. doi.org/10.1016/j.lwt.2021.112382.

28. Zhang, W., Liu, C., **Zhao, J.**, Ma, T, He, Z., Huang, M., & Wang, Y.* (2021). Modification of structure and functionalities of ginkgo seed proteins by pH-shifting treatment. *Food Chemistry*, *358*, 129862. doi.org/10.1016/j.foodchem.2021.129862.
29. He, Z., Liu, C., **Zhao, J.**, Li, W., & Wang, Y.* (2021). Physicochemical properties of a ginkgo seed protein-pectin composite gel. *Food Hydrocolloids*, *118*, 106781. doi.org/10.1016/j.foodhyd.2021.106781.
30. Woolf, E., Maya, C., Yoon, J., Shertukde, S., Toia, T., **Zhao, J.**, Zhu, Y., Peter, P. C. & Liu, C.* (2021). Information and taste interventions for improving consumer acceptance of edible insects: a pilot study. *Journal of Insects as Food and Feed*, *7*(2), 129–139. doi.org/10.3920/JIFF2020.0057.
31. Wang, L., Mu, Y., **Zhao, J.**, Wang, X., & Che, H.* (2020). IGRNet: A deep learning model for non-invasive, real-time diagnosis of prediabetes through electrocardiograms. *Sensors*, *20*(9), 2556. doi.org/10.3390/s20092556.
32. Liu, C., Masri, J., Perez, V., Maya, C., & **Zhao, J.*** (2020). Growth performance and nutrient composition of mealworms (*Tenebrio molitor*) fed on fresh plant materials-supplemented diets. *Foods*, *9*(2), 151. doi.org/10.3390/foods9020151.
33. Cao, Y.*, Ma, W., Wang, J., Zhang, S., Wang, Z., **Zhao, J.**, Fan, X., & Zhang, D. (2020). Influence of sodium pyrophosphate on the physicochemical and gelling properties of myofibrillar protein under hydroxyl radical-induced oxidative stress. *Food & Function*, *11*(3), 1996–2004. doi.org/10.1039/C9FO02412C.
34. Wang, Y., **Zhao, J.**, Zhang, W., Liu, C.*, Jauregi, P., & Huang, M. (2020). Modification of heat-induced whey protein gels by basic amino acids. *Food Hydrocolloids*, *100*, 105397. doi.org/10.1016/j.foodhyd.2019.105397.
35. Wang, Y., Liu, C., Ma, T., & **Zhao, J.*** (2019). Physicochemical and functional properties of γ-aminobutyric acid-treated soy proteins. *Food Chemistry*, *295*, 267–273. doi.org/10.1016/j.foodchem.2019.05.128.
36. Wang, Y., **Zhao, J.**, Liu, C.*, & Li, W. (2019). Influence of γ-aminobutyric acid on gelling properties of heat-induced whey protein gels. *Food Hydrocolloids*, *94*, 287–293. doi.org/10.1016/j.foodhyd.2019.03.031.
37. Liu, C.*, & **Zhao, J.** (2019). *Tenebrio molitor* larvae are a better food option than adults. *Journal of Insects as Food and Feed*, *5*, 241–242. doi.org/10.3920/JIFF2019.x003.
38. Woolf, E., Zhu, Y., Emory, K., **Zhao, J.**, & Liu, C.* (2019) Willingness to consume insect-containing foods: A survey in the United States. *LWT – Food Science and Technology*, *102*, 100–105. doi.org/10.1016/j.lwt.2018.12.010.
39. Costa-Lima, B., **Zhao, J.**, & Boatright, W. L.* (2018). Chemically stimulated luminescence from food proteins. *Cereal Chemistry*, *95*(6), 881–888. doi.org/10.1002/cche.10106.
40. Jiang, J.*, Zhang, Z., **Zhao, J.**, & Liu, Y. (2018). The effect of non-covalent interaction of chlorogenic acid with whey protein and casein on physicochemical and radical-scavenging activity of *in vitro* protein digests. *Food Chemistry*, *268*, 334–341. doi.org/10.1016/j.foodchem.2018.06.015.
41. Liu, C., Chhabra, G. S., **Zhao, J.**, Zaffran, V. D., Gupta, S., Roux, K. H., & Sathe, S. K.* (2017). Comparison of laboratory-developed and commercial monoclonal antibody-based sandwich enzyme-linked immunosorbent assays for almond (*Prunus dulcis*) detection and quantification. *Journal of Food Science*, *82*(10), 2504–2515. doi.org/10.1111/1750-3841.13829.
42. **Zhao, J.**, & Boatright, W. L.* (2017). Static headspace analysis of odorants in commercial rice proteins. *Food Chemistry*, *221*, 345–350. doi.org/10.1016/j.foodchem.2016.10.086.
43. Cao, Y., **Zhao, J.** (Co-first author), & Xiong, Y. L.* (2016). Coomassie Brilliant Blue-binding: a simple and effective method for the determination of water-insoluble protein surface hydrophobicity. *Analytical Methods*, *8*(4), 790–795. doi.org/10.1039/C5AY02630J.
44. **Zhao, J.**, & Xiong, Y. L.* (2015). Interfacial peptide partitioning and undiminished antioxidative and emulsifying activity of oxidatively stressed soy protein hydrolysate in an O/W emulsion. *LWT – Food Science and Technology*, *61*(2), 322–329. doi.org/10.1016/j.lwt.2014.12.022.
45. **Zhao, J.**, Xiong, Y. L.*, & McNear, D. H. (2013). Changes in structural characteristics of antioxidative soy protein hydrolysates resulting from scavenging of hydroxyl radicals. *Journal of Food Science*, *78*(2),

C152–C159. doi.org/10.1111/1750-3841.12030.

46. **Zhao, J.**, Chen, J., Zhu, H., & Xiong, Y. L.* (2012). Mass spectrometric evidence of malonaldehyde and 4-hydroxynonenal adductions to radical-scavenging soy peptides. *Journal of Agricultural and Food Chemistry*, *60*(38), 9727–9736. doi.org/10.1021/jf3026277.
47. **Zhao, J.**, & Xiong, Y. L.* (2012). Nitrite-cured color and phosphate-mediated water binding of pork muscle proteins as affected by calcium in the curing solution. *Journal of Food Science*, *77*(7), C811–C817. doi.org/10.1111/j.1750-3841.2012.02766.x.

CONFERENCE PRESENTATIONS
(*indicates the senior/corresponding author, underline indicates the presenter)

1. Pascua, J., Bilgrien, C., Hernandez Soto, G., Lino, F. L., Gonzalez, S., Walls, P., Dinklage, M., Raza, A., **Zhao, J.*** (2026). Assessing the flavor profile of cost-effective and sustainable hop alternatives in craft brewing. Poster presentation at 2026 American Society of Brewing Chemists & Chartered Institute of Brewers and Distillers (ASBC & CIBD) Meeting: Seattle, WA, USA (August 17–19, 2026).
2. **Zhao, J.***, Sanford, R., Essa, M., Piera, J., Nicholson, F., Mendoza, J. L., Schneider, D., Love, J. J., Flores Renteria, L., Liu, C. (2026). Effect of BSFL frass tea and UV light exposure on growth, nutritional quality, and microbiome of beet microgreens. Poster presentation at the 6th Insects to Feed the World conference: Turin, Italy (June 9–12, 2026).
3. Liu, C.*, Piera, J., Essa, M., Sanford, R., Mendoza, J. L., Nicholson, F., Schneider, D., Love, J. J., Flores Renteria, L., **Zhao, J.** (2026). Growth performance and microbial composition of black soldier fly larvae fed different food waste substrates. Poster presentation at the 6th Insects to Feed the World conference: Turin, Italy (June 9–12, 2026).
4. **Zhao, J.** (2026). Effects of fermentation and extrusion on pea protein flavor. Invited oral presentation at the Plant Protein Innovation Center (PPIC) 7th Annual Research Spotlight Meeting: St. Paul, MN, USA (May 20–21, 2026).
5. Alam Roni, R., Bauby, P. C., Soto, G. H., Liu, C., **Zhao, J.*** (2026). A quantitative analysis of pea protein gel hardness from published literature. Poster presentation at the Plant Protein Innovation Center (PPIC) 7th Annual Research Spotlight Meeting: St. Paul, MN, USA (May 20–21, 2026).
6. **Zhao, J.** (2026). Current applications and future of food colorants – natural vs. synthetic. Invited oral presentation at the Regional American Chemical Society (ACS) virtual meeting (April 23, 2026).
7. Daley, S., Du, Z., Li, Y., Love, J. J., Zuñiga, C., **Zhao, J.**, Liu, C.* (2026). Molecular and structural signatures of predicted allergens in *Chlorella vulgaris*. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).
8. Feng, L., Daley, S., Du, Z., Li, Y., Love, J. J., Zuñiga, C., **Zhao, J.**, Liu, C.* (2026). Protein language model-based prediction of allergens in *Arthrospira platensis*. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).
9. Murrell, S., Bartolovich, M., Liu, C., **Zhao, J.**, Love, J.* (2026). Using AlphaFold to engineer transient tertiary structure (TTS) tags for enhanced expression and phosphorylation of casein proteins. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).
10. Alam Roni, R., Iller, S., Bilgrien, C., Love, J. J., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2026). Structural dynamics of casein isoforms in water. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).
11. Fetrow, J., Bilgrien, C., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2026). Molecular dynamics simulation of ovalbumin at a triolein-water interface. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).
12. Ortiz, E., Hernandez, A., Bilgrien, C., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2026). Molecular dynamics simulation of ovalbumin behavior at the air-water interface. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).

13. Bilgrien, C., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2026). Molecular dynamics simulation of heat-induced denaturation of ovalbumin. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).
14. Ramirez, R., Luhar, P., Hwang, L., Liu, C., **Zhao, J.**, Hong, S. L.* (2026). Measuring plant resilience under stress: Molecular dynamics study of dehydrin and aquaporin. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).
15. Hwang, L.*, Hong, S. L., Liu, C., **Zhao, J.**, Bilgrien, C., Patil, I., Luhar, P., Ramirez, R., Ortiz, E., Fetrow, J. (2026). Let's go beyond the whiteboard: Simulation-driven chemistry learning in agriculture and food sciences. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).
16. Patil, I., Hong, S. L.*, Hwang, L., Liu, C., **Zhao, J.** (2026). Reactive molecular dynamics study of temperature and humidity effects on the oxidative degradation of ascorbic acid. Poster presentation at the American Chemical Society (ACS) Spring 2026 National Meeting & Expo: Atlanta, GA, USA (March 22–26, 2026).
17. Pascua, J., Yu, N., **Zhao, J.*** (2026). Sustainable hop substitution solutions for tropical IPA. Poster presentation at the 2026 San Diego State University Student Symposium (S^3): San Diego, CA, USA (February 26, 2026).
18. Figueroa, J., Raza, A., Bilgrien, C., Liu, C., **Zhao, J.*** (2026). Volatile profiles characterization of commercial vegan tuna products. Oral presentation at the 2026 San Diego State University Student Symposium (S^3): San Diego, CA, USA (February 26, 2026).
19. Daley, S., Du, Z., Li, Y., Love, J. J., Zuñiga, C., **Zhao, J.**, Liu, C.* (2026). Molecular and structural signatures of predicted allergens in *Chlorella vulgaris*. Poster presentation at the 2026 San Diego State University Student Symposium (S3): San Diego, CA, USA (February 27, 2026).
20. Feng, L., Daley, S., Du, Z., Li, Y., Love, J. J., Zuñiga, C., **Zhao, J.**, Liu, C.* (2026). Protein language model-based prediction of allergens in *Arthrospira platensis*. Poster presentation at the 2026 San Diego State University Student Symposium (S3): San Diego, CA, USA (February 27, 2026).
21. Alam Roni, R., Iller, S., Bilgrien, C., Love, J. J., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2026). Structural dynamics of casein isoforms in water. Poster presentation at the 2026 San Diego State University Student Symposium (S3): San Diego, CA, USA (February 27, 2026).
22. Baker, J., Vernoux, A., Raza, A., Liu, C., **Zhao, J.*** (2026). Unlocking seafood flavors from macroalgae: A sustainable, vegan approach. Poster presentation at Foods of the Future: Science and Engineering Approaches. Advanced Plant-Based, Cultivated, and Fermentation-Derived Technologies for Sustainable Food Production. Gordon Research Conference: Pomona, CA, USA (January 25–30, 2026).
23. Alaoui Hassani, M., Raza, A., Ndiba, H., Hecht, D. A., Alam Roni, R., Grabinski, D., **Zhao, J.*** (2025). Prediction of protein gelation properties using artificial intelligence models. Poster presentation at Pacifichem 2025: Honolulu, HI, USA (December 15–20, 2025).
24. Raza, A., Wadman, J., Bilgrien, C., Figueroa, J., Liu, C., **Zhao, J.*** (2025). Volatile profiles characterization of commercial vegan tuna products. Poster presentation at Pacifichem 2025: Honolulu, HI, USA (December 15–20, 2025).
25. Bilgrien, C., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2025). Structural insights into flavin adenine dinucleotide-mediated stabilization of the enzyme BbuA involved in trimethylamine formation. Poster presentation at Pacifichem 2025: Honolulu, HI, USA (December 15–20, 2025).
26. Hwang, L.*, Liu, C., Hong, L., **Zhao, J.**, Patil, I., Bilgrien, C., Garcia, R., Vaishya, A. (2025). Strengthening chemistry fundamentals in food science education with real-time reactive molecular dynamics simulations. Poster presentation at Pacifichem 2025: Honolulu, HI, USA (December 15–20, 2025).
27. Luhar, P., Ramirez, R., **Zhao, J.**, Hwang, L., Liu, C., Hong, L.* (2025). Investigating lipid peroxidation in the presence of metal oxide nanoparticles using ReaxFF-based reactive molecular dynamics simulations. Poster presentation at Pacifichem 2025: Honolulu, HI, USA (December 15–20, 2025).

28. Figueroa, J., Liu, C., **Zhao, J.*** (2025). Improving the flavor profile of microalgae. Oral presentation at the 2nd National Plant-Based Food & Nutrition Symposium Southern: Pomona, CA, USA (November 13–14, 2025).
29. Bilgrien, C., **Zhao, J.**, Liu, C.* (2025). Atoms in action: The molecular movie of food. Southern California Institute of Food Technologists Section (SCIFTS) Student 3MT Pitch Contest at SCIFTS Research Showcase: Pomona, CA, USA (October 15, 2025).
30. Lehrer, S., Liu, C., **Zhao, J.*** (2025). Nature's palette: Painting a sustainable future with microalgae. Southern California Institute of Food Technologists Section (SCIFTS) Student 3MT Pitch Contest at SCIFTS Research Showcase: Pomona, CA, USA (October 15, 2025).
31. Figueroa, J., Liu, C., **Zhao, J.*** (2025). Improving the flavor profile of microalgae. Southern California Institute of Food Technologists Section (SCIFTS) Student 3MT Pitch Contest at SCIFTS Research Showcase: Pomona, CA, USA (October 15, 2025).
32. Lehrer, S., Figueroa, J., Felton, A., Liu, C., **Zhao, J.*** (2025). Enhancing nutrition and sensory properties of foods with microalgae. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Pomona, CA, USA (October 15, 2025).
33. Daley, S., Du, Z., Li, Y., Love, J. J., Zuñiga, C., **Zhao, J.**, Liu, C.* (2025). Molecular and structural signatures of predicted allergens in *Chlorella vulgaris*. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Pomona, CA, USA (October 15, 2025).
34. Alam Roni, R., Iller, S., Bilgrien, C., Love, J. J., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2025). Structural dynamics of casein isoforms in water. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Pomona, CA, USA (October 15, 2025).
35. Feng, L., Daley, S., Du, Z., Li, Y., Love, J. J., Zuñiga, C., **Zhao, J.**, Liu, C.* (2025). Protein language model-based prediction of allergens in *Arthrospira platensis*. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Pomona, CA, USA (October 15, 2025).
36. Fetrow, J., Bilgrien, C., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2025). Molecular dynamics simulation of ovalbumin at a triolein-water interface. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Pomona, CA, USA (October 15, 2025).
37. Ortiz, E., Hernandez, A., Bilgrien, C., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2025). Molecular dynamics simulation of ovalbumin behavior at the air-water interface. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Pomona, CA, USA (October 15, 2025).
38. Williams, C., Rockwell, J., Lee, C.-L., Feng, L., Liu, C., Zuñiga, C., **Zhao, J.*** (2025). Nutrient composition and functional properties of microalgae as food ingredients. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Pomona, CA, USA (October 15, 2025).
39. Bilgrien, C., **Zhao, J.**, Hong, L., Hwang, L., Liu, C.* (2025). Molecular dynamics simulation of heat-induced denaturation of ovalbumin. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Pomona, CA, USA (October 15, 2025).
40. **Zhao, J.**, Xu, C. (2025). Innovations in delicious, nutritious, and personalized foods for extraterrestrial missions. Oral presentation at the Institute of Food Technologists (IFT) 85th Annual Meeting: Chicago, IL, USA (July 13–16, 2025).
41. Alaoui Hassani, M., Ndiba, H., Raza, A., Hecht, D. A., Alam Roni, R., Grabinski, D., **Zhao, J.*** (2025). Predicting protein gel hardness using machine learning and deep learning models. Poster presentation at the Institute of Food Technologists (IFT) 85th Annual Meeting: Chicago, IL, USA (July 13–16, 2025).

42. **Zhao, J.** (2025). Leveraging artificial intelligence to predict protein gelation properties. Invited oral presentation at the 6th Plant Protein Innovation Center Annual Research Spotlight Meeting: Minneapolis, MN, USA (May 21–22, 2025).
43. **Zhao, J.** (2025). Harnessing AI for enhanced protein functionality and allergen safety. Invited oral presentation at the 1st CAFS workshop: Virtual (March 28, 2025).
44. Raza, A., Hecht, D. A., Alaoui Hassani, M., Ndiba, H., Esmaeelian, M., Alam Roni, R., Grabinski, D., **Zhao, J.*** (2025). Predicting protein gelation properties through modeling using published literature results. Poster presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
45. Vaishya, A., Lee, C.-L., Bilgrien, C., Hong, S.*, Hwang, J., Liu, C., **Zhao, J.** (2025). Molecular dynamics simulations of trans fatty acid formation in various oils during high-temperature frying. Poster presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
46. Liu, C.*, Du, Z., Li, Y., Love, J. J., Altammami, H., Daley, S., Teran, S., Zuñiga, C., **Zhao, J.** (2025). Protein language model-based prediction of potential allergens in *Chlorella vulgaris*. Oral presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
47. Tran, K., Love, J. J., **Zhao, J.**, Liu, C.* (2025). Chemical inhibition of enzymatic browning during mealworm (*Tenebrio molitor*) protein extraction. Poster presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
48. Mathers, W., Hwang, J., Liu, C., Hong, S.*, **Zhao, J.** (2025). Enhancing nutritional science with molecular dynamics: A focus on the Maillard reaction. Poster presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
49. Kemenes, K., Noreña-Caro, D., Liu, C., Zuñiga, C., **Zhao, J.*** (2025). Antioxidant activities of different microalgae species. Poster presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
50. Hwang, J.*, Hong, S., **Zhao, J.**, Liu, C., Mathers, W., Lee, C.-L., Vaishya, A. (2025). From theory to practice: Enhancing undergraduate problem-solving skills in food and agricultural sciences through computational chemistry modeling, molecular dynamics simulation, and culturally relevant pedagogy. Oral presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
51. Williams, C., Rockwell, J., Feng, L., Liu, C., Zuñiga, C., **Zhao, J.*** (2025). Nutrient composition and functional properties of microalgae as food ingredients. Poster presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
52. Love, J. J.*, Murrell, S., Bartolovich, M., Liu, C., **Zhao, J.** (2025). Utilizing the AI protein design tool AlphaFold to enhance precision bacterial fermentation of bovine αs1-casein. Oral presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
53. Vaishya, A., Hong, S.*, Hwang, J., Liu, C., **Zhao, J.** (2025). Simulating oxidative pathways in linoleic acid: A molecular dynamics approach to safeguard food quality and extend shelf life. Poster presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
54. Wadman, J., Feng, L., Lehrer, S., Raza, A., Liu, C., **Zhao, J.*** (2025). Sensory similarity and consumer preferences of plant-based seafood analogues. Poster presentation at the American Chemical Society (ACS) Spring 2025 National Meeting & Expo: San Diego, CA, USA (March 23–27, 2025).
55. **Zhao, J.** (2024). Consumer acceptance and flavor of alternative protein products. Invited oral presentation at the Food Innovation and Engineering (FOODIE) Conference: San Diego, CA, USA (November 1, 2024).
56. Altammami, H., Daley, S., Teran, S., Du, Z., Li, Y., Love, J. J., Zuñiga, C., **Zhao, J.**, Liu, C.* (2024). Protein language model-based prediction of potential allergens in *Chlorella vulgaris*. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 16, 2024).

57. Wadman, J., Liu, C., **Zhao, J.*** (2024). Vegan fish: Something smells funny. Southern California Institute of Food Technologists Section (SCIFTS) Student 3MT Pitch Contest at SCIFTS Research Showcase: Orange, CA, USA (October 16, 2024).
58. Williams, C., **Zhao, J.**, Liu, C.* (2024). Harnessing the superpower of microalgae. Southern California Institute of Food Technologists Section (SCIFTS) Student 3MT Pitch Contest at SCIFTS Research Showcase: Orange, CA, USA (October 16, 2024).
59. Wadman, J., Feng, L., Lehrer, S., Raza, A., **Zhao, J.**, Liu, C.* (2024). Sensory similarity and consumer preferences of plant-based/vegan seafood analogues. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 16, 2024).
60. Baker, J., Lehrer, S., Raza, A., Liu, C., **Zhao, J.*** (2024). Unlocking seafood flavors from macroalgae: A sustainable, vegan approach. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 16, 2024).
61. Williams, C., Rockwell, J., Lee, C.-L., Feng, L., Liu, C., Zuñiga, C., **Zhao, J.*** (2024). Nutrient composition and functional properties of microalgae as food ingredients. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 16, 2024).
62. Kemenes, K., Noreña-Caro, D., Liu, C., Zuñiga, C., **Zhao, J.*** (2024). Antioxidant activities of different microalgae species. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 16, 2024).
63. Zuñiga, C.*, **Zhao, J.**, Liu, C. (2024). Better space parties with algae-enriched guacamole. Oral presentation at the NASA MPLAN Principal Investigators Summit. Virtual.
64. **Zhao, J.***, Jaimes Noriega, C., Raza, A., Liu, C. (2024). Characterization of nutritional compositions, flavor profiles, and sensory properties of fresh and preserved huitlacoche, a Mexican delicacy. Poster presentation at the Institute of Food Technologists (IFT) 84th Annual Meeting: Chicago, IL, USA (July 14–17, 2024).
65. Baker, J., Raza, A., Liu, C., **Zhao, J.*** (2024). Unlocking seafood flavors from macroalgae: A sustainable, vegan approach. Poster presentation and oral competition at the Institute of Food Technologists (IFT) 84th Annual Meeting: Chicago, IL, USA (July 14–17, 2024). Second place in Graduate Student Oral Competition.
66. **Zhao, J.***, Raza, A., Yoon, J., Liu, C. (2024). Exploring the flavorful world of edible insects and their aromatic building blocks. Poster presentation at the 5th Insects to Feed the World conference: Singapore (June 19–22, 2024).
67. Liu, C.*, Yoon, J., Ghnimi, S., Maya, C., **Zhao, J.** (2024). Eat bugs, not buzz: Cultivating entomophagy through flavorful encounters. Oral presentation at the 5th Insects to Feed the World conference: Singapore (June 19–22, 2024).
68. Raza, A., Cramton, E., Baker, J., Liu, C., **Zhao, J.*** (2024). Algae as a precursor of seafood flavor in alternative seafood. Poster presentation at the American Chemical Society (ACS) Spring 2024 National Meeting & Expo: New Orleans, LA, USA (March 17–21, 2024).
69. Martinez, S. A., Raza, A., Lopez, D., Esparza, V., **Zhao, J.**, Liu, C.* (2024). Exploring flavors of edible ants: A path to sustainable gastronomy and consumer acceptance. Poster presentation at the American Chemical Society (ACS) Spring 2024 National Meeting & Expo: New Orleans, LA, USA (March 17–21, 2024).
70. Rockwell, J., Raza, A., Vernazza, R., Cramton, E., Esparza, V., Lopez, D., Williams, C., Zuñiga, C., Liu, C., **Zhao, J.*** (2024). Better space parties with algae-enriched guacamole. Poster presentation at the 2024 National Aeronautics and Space Administration (NASA) Human Research Program (HRP) Investigators' Workshop (IWS): Galveston, TX, USA (February 13–16, 2024).
71. Noreña-Caro, D.*, Armstrong, J., **Zhao, J.**, Liu, C., Zuñiga, C. (2024). Enhancing flavor and nutritional value of guacamole using the metabolic network of the marine algae *Dunaliella salina*. Poster presentation at the 2024 National Aeronautics and Space Administration (NASA) Human Research Program (HRP) Investigators' Workshop (IWS): Galveston, TX, USA (February 13–16, 2024).

72. Cramton, E., Liu, C., **Zhao, J.*** (2024). Identification of flavor active compounds in micro- and macro-algae. Oral presentation at the 2024 San Diego State University Student Symposium (S^3): San Diego, CA, USA (March 1–2, 2024).
73. Rockwell, J., Liu, C., **Zhao, J.*** (2024). Better space parties with algae-enriched guacamole. Oral presentation at the 2024 San Diego State University Student Symposium (S^3): San Diego, CA, USA (March 1–2, 2024).
74. Baker, J., Liu, C., **Zhao, J.*** (2024). Unlocking seafood flavors from macroalgae: A sustainable, vegan approach. Oral presentation at the 2024 San Diego State University Student Symposium (S^3): San Diego, CA, USA (March 1–2, 2024).
75. Lopez, D., Alvarez, A. G., Borough, J., Martinez, A., **Zhao, J.**, Liu, C., Scholar, K.* (2024). Chipulines blue corn cricket chips: Jump to a more sustainable snack. Poster presentation at the 2024 San Diego State University Student Symposium (S^3): San Diego, CA, USA (March 1–2, 2024).
76. Williams, K., Aguilar, S., Liu, C., **Zhao, J.**, Bhutani, S.* (2024). Evening chronotypes are at higher risk of high sugar consumption due to greater sweet taste preference. Poster presentation at the 2024 San Diego State University Student Symposium (S^3): San Diego, CA, USA (March 1–2, 2024).
77. Martinez, S. A., Raza, A., Lopez, D., Esparza, V., **Zhao, J.**, Liu, C.* (2023). Exploring flavors of edible ants: A path to sustainable gastronomy and consumer acceptance. Oral presentation at the Southern California Conferences for Undergraduate Research (SCCUR): Fullerton, CA, USA (November 18, 2023).
78. Raza, A., Cramton, E., Baker, J., Liu, C., **Zhao, J.*** (2023). Identification of flavor active compounds in micro- and macro-algae. Oral presentation at the Southern California Conferences for Undergraduate Research (SCCUR): Fullerton, CA, USA (November 18, 2023).
79. Raza, A., Rockwell, J., Esparza, V., Lopez, D., Cramton, E., Williams, C., Vernazza, R., Liu, C., Zuñiga, C., **Zhao, J.*** (2023). Nutritious and flavorful microalgae-enriched guacamole mix for space explorers. Poster presentation at the Southern California Conferences for Undergraduate Research (SCCUR): Fullerton, CA, USA (November 18, 2023).
80. Rockwell, J., **Zhao, J.**, Liu, C.* (2023). Microalgae-enriched space guacamole. Southern California Institute of Food Technologists Section (SCIFTS) Student 3MT Pitch Contest at SCIFTS Research Showcase: Orange, CA, USA (October 18, 2023). Third place in competition.
81. Baker, J., Raza, A., Liu, C., **Zhao, J.*** (2023). Developing seafood flavors from macroalgae. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 18, 2023).
82. Baker, J., Raza, A., Liu, C., **Zhao, J.*** (2023). Developing seafood flavors from macroalgae. 3MT Contest at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 18, 2023).
83. Martinez, S. A., Raza, A., Lopez, D., Esparza, V., **Zhao, J.**, Liu, C.* (2023). Exploring flavors of edible ants: A path to sustainable gastronomy and consumer acceptance. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 18, 2023).
84. Carrillo, M., Rodriguez-Chavez, J., Raza, A., Kim, J., **Zhao, J.**, Liu, C.* (2023). Nutrient composition and flavor profile of chia seeds. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 18, 2023).
85. Villalobos, J., Liu, Z., Raza, A., **Zhao, J.**, Liu, C.* (2023). Flavor characterization of zein prepared by ethanol extraction and aqueous extraction. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 18, 2023).
86. Rockwell, J., Raza, A., Vernazza, R., Cramton, E., Esparza, V., Lopez, D., Williams, C., Hirayama, S., Zuñiga, C., Liu, C., **Zhao, J.*** (2023). Better space parties with algae-enriched guacamole. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 18, 2023).

87. Jaimes Noriega, C., Raza, A., Liu, C., **Zhao, J.*** (2023). Characterization of nutritional compositions, flavor profiles, and sensory properties of fresh and preserved huitlacoche, a Mexican delicacy. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 18, 2023).
88. Cramton, E., Raza, A., Liu, C., **Zhao, J.*** (2023). Comparison of flavor compounds in microalgae and macroalgae using GC-O-MS. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Student Research Poster Showcase: Orange, CA, USA (October 18, 2023).
89. Raza, A., Baker, J., Liu, C., **Zhao, J.*** (2023). Developing seafood flavors from macroalgae. Poster presentation at The Good Food Conference 2023, San Francisco, CA, USA (September 20, 2023).
90. Jaimes Noriega, C., Liu, C., Li, Y. O., **Zhao, J.***. (2023). Heavy metal content in extracted rice bran protein. Poster presentation at the Institute of Food Technologists (IFT) 83rd Annual Meeting, Chicago, IL, USA.
91. Pamintuan, A., Davis, J., Rodriguez-Chavez, J., Love, J. J., **Zhao, J.**, Liu, C.* (2023). Biodegradable whey protein films loaded with biosynthesized ZnO nanoparticles. Poster presentation at the Institute of Food Technologists (IFT) 83rd Annual Meeting, Chicago, IL, USA.
92. Li, Y. O.*, **Zhao, J.**, Chang, D., Salami, E., Liu, C., Lau, S. (2023). Improving extractability and functionalities of rice proteins using enzymatic treatments. Poster presentation at the 14th edition of the International Congress on Engineering and Food (ICEF14), Nantes, France.
93. Liu, C.*, **Zhao, J.** (2023). Flavor of edible insects and insect proteins. Invited oral presentation at the 114th American Oil Chemists' Society (AOCS) Annual Meeting & Expo: Denver, CO, USA.
94. **Zhao, J.*,** Baker, J. (2023). Flavor characterization of alternative proteins. Poster presentation at the Fermentation-Enabled Alternative Proteins Summit, San Francisco, CA, USA.
95. Jaimes Noriega, C., **Zhao, J.*** (2022). Rice bran protein isolation and heavy metal content analysis. Oral presentation at the Southern California Conference of Undergraduate Research, Malibu, CA, USA.
96. Baker, J., Kinsey, S., & **Zhao, J.*** (2023) The color stability of various genetically mutated samples of C-phycocyanin. Oral presentation at the 2023 San Diego State University Student Symposium (S^3).
97. Jaimes Noriega, C., & **Zhao, J.*** (2023). Rice bran protein isolation and heavy metal content analysis. Oral presentation at the 2023 San Diego State University Student Symposium (S^3).
98. Salami, E., Chang, Y. D., Lau, S., Jaimes Noriega, C., Liu, C., Li, Y. O., & **Zhao, J.*** (2022). Improving extractability and functionalities of rice proteins using enzymatic treatments. Poster presentation and 3M oral presentation competition at the Southern California Institute of Food Technologists Section (SCIFTS) Annual Research Showcase, Long Beach, CA.
99. Pamintuan, A., Davis, J., Bushehri, K., **Zhao, J.**, Liu, C.*. (2022). Mechanical strength and barrier properties of biodegradable whey protein films loaded with biosynthesized ZnO nanoparticles. Poster presentation at the Southern California Institute of Food Technologists Section (SCIFTS) Annual Research Showcase, Long Beach, CA.
100. Lau, S., Valderram, K., & **Zhao, J.*** (2022). Effect of transglutaminase treatment on rice protein functionality. Poster presentation and 3M oral presentation competition at the Southern California Institute of Food Technologists Section (SCIFTS) Annual Research Showcase, Long Beach, CA. **Second place in the 3M oral presentation competition.**
101. Salami, E., Chang, Y. D., Lau, S., Jaimes Noriega, C., Liu, C., Li, Y. O., & **Zhao, J.*** (2022). Improving extractability and functionalities of rice proteins using enzymatic treatments. Oral and poster presentation at the California State University Agricultural Research Institute PI Meeting, Sacramento, CA.
102. Chang, Y., Lau, S., Li, Y. O., Liu, C., & **Zhao, J**.* (2022). Characterization of transglutaminase-treated rice protein and its application in gluten-free pasta. Poster presentation at the Institute of Food Technologists (IFT) Annual Meeting, Chicago, IL. **Oral competition third place (Protein Division).**
103. Li, Y., Wensel, P., & **Zhao, J**.* (2022). Improved pH-stability in genetically engineered C-phycocyanins. Poster presentation at the Institute of Food Technologists (IFT) Annual Meeting: Virtual event.
104. Li, Y., Wensel, P., & **Zhao, J.*** (2021). Purification and Characterization of C-Phycocyanin.

Poster presentation and 3M oral presentation competition at the Southern California Institute of Food Technologists Section (SCIFTS) Annual Research Showcase, Orange, CA.

105. Liu, C.*, & **Zhao, J.** (2021). *In-silico* assessment of allergenicity and cross-reactivity of mealworm (*Tenebrio molitor*) allergens. Poster presentation at the Institute of Food Technologists (IFT) 81st Annual Meeting: Virtual event.
106. Rosenbloom, A., Lavine, N., Makin, J., Shertukde, S., **Zhao, J.**, & Liu, C.* (2020). Inhibition of enzymatic browning during protein isolation from mealworm (*Tenebrio molitor*) larvae. Poster presentation at the IFT 80th Annual Meeting: Virtual event.
107. Woolf, E., Maya, C., Yoon, J., **Zhao, J.**, Zhu, Y., & Liu, C.* (2020). Informational and sensorial interventions for improving consumer acceptance of edible insects. Poster presentation at the IFT 80th Annual Meeting: Virtual event.
108. Garcia, M. T., & **Zhao, J.*** (2019). Extraction and solubility of rice bran proteins. Poster presentation at the Southern California Food Science and Technology Faculty Consortium Student Research Showcase: Irvine, CA.
109. Rosenbloom, A., Lavine, N., Makin, J., Shertukde, S., **Zhao, J.**, Liu, C.*. (2019). Inhibition of enzymatic browning during protein isolation from mealworm (*Tenebrio molitor*) larvae. Poster presentation at the Southern California Food Science and Technology Faculty Consortium Student Research Showcase: Irvine, CA.
110. Woolf, E., Maya, C., Yoon, J., **Zhao, J.**, Zhu, Y., **Liu, C.***. (2019). Informational and sensorial interventions for improving consumer acceptance of edible insects. Poster presentation at the Southern California Food Science and Technology Faculty Consortium Student Research Showcase: Irvine, CA.
111. Perez, V. & **Zhao, J.*** (2019). Capsaicinoids in snack products and their stability under thermal processing conditions. Poster presentation at the IFT 79th Annual Meeting: New Orleans, LA.
112. Salami, E., **Zhao, J.***, & Liu, C. (2019). Functional properties of germinated brown rice protein extracted from three methods. Poster presentation at the IFT 79th Annual Meeting: New Orleans, LA. **Oral competition finalist (Protein Division).**
113. Woolf, E., Love, J., **Zhao, J.**, Hooshmand, S., Hong, M. Y., Liu, C.*. (2019). Isolation of mealworm tropomyosin, a potential cross-reactive food allergen. Poster presentation at the Institute of Food Technologists (IFT) 79th Annual Meeting: New Orleans, LA. **Poster competition first place (Protein Division).**
114. Perez, V.; **Zhao, J.*** (2019). Capsaicinoids in snack products and their stability under thermal processing conditions. Oral presentation at the 27th Cal State LA Research, Scholarship, and Creative Activities (RSCA) Student Symposium: Los Angeles, CA.
115. Salami, E.; **Zhao, J.***; Liu, C. (2019). Functional properties of germinated brown rice protein extracted from three methods. Oral presentation at the 27th Cal State LA Research, Scholarship, and Creative Activities (RSCA) Student Symposium: Los Angeles, CA.
116. **Zhao, J.** (2018). Odor compounds and their formation in rice protein. Oral presentation at the IFT 78th Annual Meeting: Chicago, IL, USA.
117. Woolf, E., Zhu, Y., **Zhao, J.**, Emory, K., & Liu, C.* (2018). Factors that affect willingness to consume insect-based foods in the United States. Poster presentation at the IFT 78th Annual Meeting: Chicago, IL.
118. Masri, J., Perez, V., Liu, C., & **Zhao, J.*** (2018) Growth rate and antioxidant activities of mealworms fed with antioxidant-supplemented diets. Poster presentation at the IFT 78th Annual Meeting: Chicago, IL.
119. Salami, E., Vanegas, P., Liu, C., & **Zhao, J.*** (2018). Solubility and antioxidant activities of rice bran proteins prepared from three extraction methods. Poster presentation at the IFT 78th Annual Meeting: Chicago, IL.
120. Syed, R. J., **Zhao, J.**, & Wu, Y.* (2018). Physicochemical and functional properties of pigeon pea (*Cajanus Cajan*) protein. ePoster presented at the IFT 78th Annual Meeting: Chicago, IL.
121. **Zhao, J.***, Salami, E., & Boatright, W.L. (2018). The yield, solubility and metastable radical formation in rice proteins affected by the starting materials and extraction methods. Poster presentation at the USDA Project Director Meeting: Boston, MA.

122. Liu, C.*, Woolf, E., **Zhao, J.**, Kim, S., & Shertukde, S. (2018). Functional properties of mealworm proteins. Invited oral presentation at the American Oil Chemists' Society (AOCS) 109th Annual Meeting & Expo: Minneapolis, MN.
123. Forsel, M., McCombe, A, & **Zhao, J.*** (2018). The influence of roasting and brewing methods on the caffeine content and antioxidant activities of coffee. Poster presentation at the 26th Cal State LA Research, Scholarship, and Creative Activities (RSCA) Student Symposium: Los Angeles, CA.
124. Masri, J., Perez, V., & **Zhao, J.*** (2018). Growth rate and antioxidant activities of mealworms fed with antioxidant-supplemented diets. Oral presentation at the 26th Cal State LA RSCA Student Symposium: Los Angeles, CA.
125. Salami, E., Vanegas, P., & **Zhao, J.*** (2018). Solubility and antioxidant activities of rice bran proteins prepared from three extraction methods. Oral presentation at the 26th Cal State LA RSCA Student Symposium: Los Angeles, CA.
126. Sample, P., & **Zhao, J.*** (2017). Characterization of betalain pigments from plants. Oral presentation at the 25th Cal State LA RSCA Student Symposium: Los Angeles, CA.
127. **Zhao, J.** (2018). Flavor compounds and their formation in food proteins. Invited oral presentation at the Society of Flavor Chemist 432nd Meeting: Los Angeles, CA.
128. **Zhao, J.** (2017). An overview of the advances in protein processing technologies. Invited oral presentation at the AOCS 108th Annual Meeting and Industry Showcases: Orlando, FL.
129. **Zhao, J.**, & Boatright, W. L.* (2016). Characterization of primary odorants in rice proteins by static headspace analysis. Poster presentation at the IFT 76th Annual Meeting: Chicago, IL.
130. Liu, C., **Zhao, J.**, Alasvand Zarasvand, S., & Sathe, S. K.* (2015). Immunoreactivity of pistachio proteins assessed by a monoclonal antibody-based enzyme-linked immunosorbent assay. Oral presentation at the 7th International Chemical Congress of Pacific Basin Societies (Pacifichem): Honolulu, HI.
131. Rao, Q.*, Labuza, T. P., & **Zhao, J**. (2015). Storage stability of food protein hydrolysates. Oral presentation at the AOCS 106th Annual Meeting and Industry Showcases: Orlando, FL.
132. **Zhao, J.**, & Claus, J. R.* (2014). Lipid oxidation stability of cooked turkey influenced by sodium replacing salts. Poster presentation at the IFT 74th Annual Meeting: New Orleans, LA.
133. **Zhao, J.**, & Claus, J. R.* (2013). Influence of partial or complete replacement of sodium chloride with potassium chloride blends on protein extraction and meat quality of cooked sausages. Oral presentation at the 59th International Congress of Meat Science and Technology: Izmir, Turkey.
134. **Zhao, J.**, & Claus, J. R.* (2013). Influence of partial or complete replacement of sodium chloride with potassium chloride blends on protein extraction and meat quality of cooked sausages. Poster presentation at the IFT 73rd Annual Meeting: Chicago, IL.
135. **Zhao, J.**, & Xiong, Y. L.* (2012). Localization of peptides and suppression of lipid oxidation in an o/w emulsion stabilized by Tween 20 and radical-scavenging soy protein hydrolysate. Poster presentation at the IFT 72nd Annual Meeting: Las Vegas, NV.
136. **Zhao, J.**, & Xiong, Y. L.* (2011). Thermal aggregation of hydroxyl radical-stressed antioxidative soy peptides. Poster presentation at the IFT 71st Annual Meeting: New Orleans, LA.
137. **Zhao, J.**, & Xiong, Y. L.* (2010). Structural changes of antioxidative soy protein hydrolysates resulting from inactivation of hydroxyl radicals. Oral presentation at the IFT 70th Annual Meeting: Chicago, IL.
138. **Zhao, J.**, & Xiong, Y. L.* (2010). The influence of calcium ion and pH on cured pork: color and water- holding capacity. Poster presentation at the IFT 70th Annual Meeting: Chicago, IL.
139. **Zhao, J.**, & Xiong, Y. L.* (2009). Antioxidant activity and the fate of soy protein hydrolysates following oxidative attack. Oral presentation at the IFT 69th Annual Meeting: Anaheim, CA.

FUNDED GRANTS

1. $48,260.46 - Building the Database for Protein Functionality Predictions – An equipment request for a particle size analyzer, PI, SCIFTS Research and Education Grant. Project period: 07/01/2026–06/30/2027
2. $1,046,500 - DSFAS-CIN-PARTNERSHIP: Building A Comprehensive Food Protein Database (FoodProt) For Predictive Modeling of Protein Functionalities, PI, USDA-NIFA-AFRI. Project period: 03/15/2026–3/14/2029.
3. $27,220 - Advancing Flavor Science: Investigating the Impacts of Food Processing on Product Aroma, PI, Southern California Institute of Food Technologists Section (SCIFTS). Project period: 7/1/2025 – 6/30/2026.
4. $595,400 - Unlocking the green potential: Genome-scale metabolic modeling for microalgae-based food innovation. PI, USDA-NIFA-AFRI. Project period: 09/01/2024–8/31/2027.
5. $547,729 - Building database of protein functionality and flavor. PI, AI-Bobby. Project period: 08/01/2024–7/31/2027.
6. $30,000 - Enhancing the high moisture extrusion protein texturization process through better understanding of cooling die scalability and thermochemical protein texturization mechanisms. Co-PI, Good Food Institute. Project period: 07/01/2024-06/30/2026.
7. $35,600 - Development of solid-state fermentation process to improve the functional properties of pea protein in plant-based meats. Co-PI, USA Dry Pea & Lentil Council. Project period: 07/01/2024-06/30/2025.
8. $302,076 - e-FARMS: Education Reform in Food and Agriculture Using Reactive Molecular Simulations and Science Pedagogy, Co-PI, United States Department of Agriculture (USDA)– National Institute of Food and Agriculture (NIFA)- Hispanic Serving Institution (HSI) Education Grant Program. Project period: 09/01/2023–08/31/2027.
9. $50,000 - Better space parties with algae-enriched guacamole. Co-PI, National Aeronautics and Space Administration (NASA) Minority University Research and Education Project (MUREP) Partnership Learning Annual Notification. Project period: 10/1/2023 – 5/31/2024.
10. $32,288 - Characterization and improvement of flavor in novel food proteins, PI, Southern California Institute of Food Technologists Section (SCIFTS). Project period: 7/1/2023 – 6/30/2024.
11. $7,500 - Flavor Characterization and Improvement of Algae Proteins, PI, 2023 SDSU Seed Grant Program for Research, Scholarship, and Creative Activities. Project period: 1/1/2023 – 12/31/2025.
12. $203,784 - Generating seafood flavor from macroalgae protein hydrolysates through Maillard reactions, PI, Good Food Institute (GFI). Project period: 11/28/2022 – 11/27/2025.
13. $171,708 - Sodium Regulation in Individuals on Known Dietary Sodium Intake, Co-PI, National Institute of Health, subaward from University of California, San Diego. Project period: 7/1/2022–6/30/2023.
14. $150,000 - Improving the Heavy Metal Safety and Applications of Rice Protein Ingredients, PI, California State University (CSU) Agricultural Research Institute (ARI). Project period: 3/14/2019 – 5/1/2024.
15. $224,417 - SBIR Phase I: Cyanobacteria Metabolic Engineering for Dye Stability, Co-PI, National Science Foundation (NSF) Small Business Innovation Research Program. Project period: 12/12/2020–5/30/2022.
16. $209,745 - MRI: Acquisition of a Surface Plasmon Resonance Microscopy System for Interdisciplinary Research and Research Training, Co-PI, National Science Foundation (NSF) Major Research Instrumentation (MRI) Program. Project period: 8/1/2018–7/31/2021.
17. $5,000 - Influence of Processing on the Sensory Attributes of Rice Protein Powers, PI, Cal State LA Research, Scholarship and Creative Activities Grant Program. Project period: 7/1/2018–6/30/2019
18. $149,998 - Improving the Sensory Attributes of Rice Protein Isolates, PI, United States Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) Agriculture and Food Research Initiative (AFRI) Foundational Program. Project period: 6/1/2017–5/31/2020.
19. $12,720 - Influence of Non-Protein Ingredients on Protein Oxidation during Rice Protein Processing, PI, Southern California Institute of Food Technologists Section (SCIFTS). Project period: 7/1/2017–6/30/2018.

20. $5,000 - Characterization of Antioxidant Peptides of Plant Origin, PI, Cal State LA Research, Scholarship and Creative Activities Grant Program. Project period: 7/1/2017–6/30/2018

SCHOLARLY AWARDS

1.	2026	Kroger Outstanding Reviewer Award, Institute of Food Technologists.
2.	2023–2024	Institute of Food Technologists (IFT) Outstanding Volunteer Award.
3.	2022–present	Phi Tau Sigma honor society lifetime member.
4.	2019	Publons Top Peer Reviewer Award: Top Reviewer in Agricultural Sciences
5.	2018	USDA E. Kika De La Garza Fellowship
6.	2018	Cal State LA Exceptional Levels of Service to Students
7.	2018	Food Chemistry: Outstanding Contribution in Reviewing
8.	2013	Iron Chef Competition winning team, AMSA Reciprocal Meat Conference (RMC) in Auburn, AL, USA.
9.	2010–2011	IFT Foundation Graduate Scholarship
10.	2010–present	Phi Kappa Phi honor society membership
11.	2009–present	Gamma Sigma Delta honor society membership
12.	2009–2010	Kentucky Opportunity Fellowship, University of Kentucky
13.	2005–2007	Excellent Academic Scholarship, China Agricultural University
14.	2007	AiPu Food Scholarship, China Agricultural University
15.	2005	Syngenta Scholarship, China Agricultural University

PROFESSIONAL AFFILIATIONS

2021 – present	American Chemists Society (ACS)
2016 – present	Southern California IFT Section (SCIFTS)
2009 – 2016	American Meat Science Association (AMSA)
2008 – present	Institute of Food Technologists (IFT)

PROFESSONAL INVOLVEMENTS

1. 2025 – 2026: IFT Protein Division Past Chair
2. 2025: IFT Pacific Southwest College Bowl Coordinator
3. 2025: Panel reviewer for USDA grant proposals
4. 2024 – 2025: IFT Protein Division Chair
5. 2024: Reviewer for Good Food Institute research grants
6. 2023: Reviewer for Bezos Earth Fund Center of Excellence Proposals
7. 2023 – 2024: IFT Protein Division chair-elect.
8. 2023 – 2024: SCIFTS Scholarship Committee chair.
9. 2023 – 2024: Southern California Food Industry Conference planning committee
10. 2023: Reviewer for proposals for Centers of Excellence (CoEs) in alternative protein research for the Bezos Earth Fund (BEF)
11. 2023: Reviewer for IFT Protein of the Future Challenge
12. 2023: Judge for SCIFTS College Bowl Competition
13. 2022 – 2026: SCIFTS Scholarship Committee member.
14. 2022: Reviewer for IFT Global Food System Challenge Seed Grant.
15. 2022: Guest editor of Research Topic: Food-derived Bioactive Peptides and its Application in Treatment of Chronic Diseases, Frontiers in Nutrition.
16. 2022: Review of book proposals for Elsevier
17. 2022: Reviewer for IFT Annual Meeting Scientific Abstracts
18. 2022: Protein Division graduate student oral competition lead, infographic lead
19. 2021 – 2023: IFT Protein Division graduate student oral competition and infographic lead.

20. 2021, 2022: IFT Protein Division Oral Competition Judge
21. 2019 – 2022: IFT Education Extension and Outreach Division secretary
22. 2019 – present: Editorial Board Members-at-Large, Journal of Food Science
23. 2018: Panel reviewer for USDA grant proposals
24. 2017, 2018: Reviewer for IFT Annual Meeting Scientific Abstracts
25. 2017 – present: IFT Protein Division leadership team member
26. 2016 – 2018: Serving in IFT eMentor program
27. 2016 – 2017: Juror of the 2017 Babcock Hart Award at the Institute of Food Technologists
28. 2016, 2017: Member of the Feeding Tomorrow Undergraduate Scholarship Jury at the Institute of Food Technologists
29. 2014 – present: Manuscript review for Journal of Agricultural and Food Chemistry, Food Chemistry, Journal of Food Science, Journal of Functional Foods, Food Bioscience, and Journal of Chemistry

PROFESSIONAL DEVELOPMENT

2025	Macmillan Learning Webinar: From Zoomers to Boomers: Supporting the Modern Adult Learner in the Age of AI
2025	Macmillan Learning Webinar: Think It. Do It. Defend It: A New Model for AI-Era Assessment
2024	Train-a-Professor Workshop on Food Product Development Education, Plano, TX.
2024	SDSU I-Corps program, San Diego, CA.
2024	SDSU Micro-credential: Academic Applications of AI
2024	ASU+GSV AIR Show, San Diego, CA
2020	IFT Short Course: Certified Food Scientist Preparatory Course
2020	IFT Short Course: Survey of Flavor Technology – Applications and Interactions
2019	Steps of Data Analysis Course

TRAINING CERTIFICATIONS

Lab Chemical Safety
Human Subjects Research (HSR) - Social-Behavioral
CITI Social & Behavioral Research
Responsible Conduct of Research (RCR) - Conflict of Interest Only
Responsible Conduct of Research (RCR) - Faculty, Staff and Students
Responsible Conduct of Research (RCR) - Research Involving Human Subjects
Information Privacy Security (IPS) - Information Privacy & Security (IPS) | Faculty/Staff/Student/IRB Member
Curriculum: Injury and Illness Prevention Program (IIPP)
Course: CSU-Emergency Procedures
Course: CSU-Workplace Violence Prevention
Course: Data Security Introduction and FERPA (Module 1)
Curriculum: SDSURF Sexual Harassment Prevention for Supervisors
Curriculum: CSU's Discrimination Harassment Prevention Program for Non-Supervisors