



SUMMARY OF ACHIEVEMENTS

David Julian McClements

Distinguished Professor

Biopolymers & Colloids Research Laboratory
Department of Food Science,
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David Julian McClements is a Distinguished Professor at the Department of Food Science at the University of Massachusetts. He specializes in food biopolymers and colloids, with an emphasis on creating healthier and more sustainable foods. He received his Ph.D. in Food Science (1989) at the University of Leeds (UK) in ultrasonic spectrometry. He then did Postdoctoral research at the University of Leeds, University of California (Davis) and University College Cork (Ireland). He is the sole author of three editions of “Food Emulsions: Principles, Practice and Techniques” (1999, 2005, 2015), “Nanoparticle- and Microparticle-based Delivery Systems: Encapsulation, Protection and Release of Active Components” (2014), “Future Foods: How Modern Science is Transforming the Way We Eat” (2019), “Food Nanotechnology” (2022), “MeatLess: The New Food Revolution” (2023), and “Beyond the Ultra-processed Label: The Science Behind Food Processing and Health” (2026). He is also co-author of “How to be a Successful Scientist” (2023), “Next-generation Plant-based Foods” (2022), and “Advances in Food Colloids” (1996). He has also edited or co-edited numerous other books. He has published over 1700 scientific articles in peer-reviewed journals (H-index of 218, Citations > 220,000, Google Scholar), 13 patents, and numerous book chapters and conference proceedings. He has received awards from the *American Chemical Society*, *American Oil Chemists Society*, *Society of Chemical Industry (UK)*, *Institute of Food Technologists*, *International Union of Food Science and Technology*, and *University of Massachusetts* in recognition of his achievements. His research has been funded by grants from the United States Department of Agriculture, National Science Foundation, US Department of Commerce, NASA, and the food industry. He has secured funding worth over \$25 million as a PI or co-PI while working at UMASS. He is an editor or editorial board member of numerous journals, and has organized workshops, symposia, and international conferences in the field of food colloids, emulsions, delivery systems, and ultra-processed foods.



DAVID JULIAN M^cCLEMENTS – CURRICULUM VITAE

Distinguished Professor, Department of Food Science, University of Massachusetts, Amherst, MA 01003

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BACKGROUND

EDUCATION

- **1981 – 1985:** Bachelor of Science (Hons), Department of Food Science, University of Leeds, UK
- **1985 - 1989:** Doctor of Philosophy, Department of Food Science, University of Leeds, UK

POSTDOCTORAL RESEARCH

- **1989 - 1992:** Research Fellow/Senior Research Fellow, Department of Food Science, University of Leeds, UK
- **1992 - 1994:** Senior Research Fellow, Department of Food Science and Technology, University of California, Davis
- **1994 - 1994:** Senior Research Fellow, Department of Food Chemistry, University College Cork, Ireland

PROFESSIONAL EXPERIENCE

- **2016-Present:** Distinguished Professor, Department of Food Science, University of Massachusetts, Amherst
- **2019-Present:** Adjunct Professor, School of Food Science and Bioengineering, Zhejiang Gongshang University, Hangzhou, Zhejiang, China.
- **2016-2021:** Visiting Professor, Center for Nanotechnology and Nanotoxicology, T.H. Chan School of Public Health, Harvard University, Boston,
- **2014 to 2016:** Adjunct Professor, Department of Biochemistry, King Abduliziz University, Jeddah, Saudi Arabia
- **2005 to 2016:** Professor, Department of Food Science, University of Massachusetts, Amherst
- **2000 to 2005:** Associate Professor, Department of Food Science, University of Massachusetts, Amherst
- **1994 to 2000:** Assistant Professor, Department of Food Science, University of Massachusetts, Amherst

HONORS AND AWARDS

1. *Distinguished Lipid and Flavor Science Award in honor of Stephen S. Chang.* This award honors an individual who has provided innovative contributions to the advancement of lipid or flavor science and technology. Institute of Food

- Technologists, 2026.
2. *Top Ranked (#1) Highly Cited Author*, Agricultural Sciences, Essential Science Indicators (Clarivate Analytics), 2017-2025.
 3. *Chancellors Distinguished Professor Medal*, University of Massachusetts, Amherst, 2025.
 4. *Alton Bailey Award*, American Oil Chemist's Society, for "outstanding research contributions and exceptional service in the field of fats, oils, lipids and related disciplines," 2021.
 5. *Nils Foss Excellence Prize, (\$110,000)* for "lifetime of pioneering work in food science and technology." Foss Award Committee, Copenhagen, Denmark, 2019
 6. *Nicolas Appert Award*, for "preeminence in and contributions to the field of food technology," Institute of Food Technologists, 2019.
 7. *Lifetime Achievement Award*, for "remarkable contributions in research, applications and service in food science and technology," International Union of Food Science and Technology, 2018.
 8. *Distinguished Professor*, for "full professors with an extraordinary level of productivity and impact in their field of study that goes well beyond the existing high expectations for full professors on campus," University of Massachusetts, 2016.
 9. *Supleco/Nicholas Pelick Research Award*, for "outstanding original research in fats, oils, lipid chemistry or biochemistry", American Oil Chemists Society, USA, 2015.
 10. *Babcock-Hart Award*, for "contributions to food technology which result in improved public health through nutrition or more nutritious food," Institute of Food Technologists, USA, 2015.
 11. *Hilditch Memorial Award*, for "exceptional contributions to education," Society of Chemical Industry, London, U.K., 2015.
 12. *Research Award*, College of Natural Sciences, University of Massachusetts, 2010.
 13. *Marcel Loncin Research Prize (\$50,000)*, for excellence in "basic chemistry/physics/engineering research applied to food processing and improvement of food quality," Institute of Food Technologists, USA, 2010
 14. *Academy Lectures Series Award*, ConAgra Foods, 2010.
 15. *Stephen S. Chang Award*, for "outstanding accomplishments in lipid research," American Oil Chemists Society, USA, 2010.
 16. *Award for Outstanding Accomplishments in Research and Creative Activity*, University of Massachusetts, Amherst Faculty Convocation, USA, 2008.
 17. *Fergus M. Clydesdale Professor of Food Science*, Endowed Chair. 2007– 2012.
 18. *Research and Development Award*, recognizing a scientist that "significantly advances the discipline of food science, food technology, or nutrition," Institute of Food Technologists, USA, 2007
 19. *Award for the Advancement of Agricultural and Food Chemistry*, Agricultural and Food Chemistry Division, American Chemical Society, USA, 2006
 20. *Food Chemicals Codex (2005-2006)*, National Academies – Committee Member.
 21. *Samuel Cate Prescott Award*, for "outstanding ability in research in food science and technology," Institute of Food Technologists, USA, 1999
 22. *Young Scientist Award*, Agricultural and Food Chemistry Division, American Chemical Society, USA, 1996

FELLOWSHIPS

- Elected Fellow of Royal Society of Chemistry, UK (2014).
- Elected Fellow of American Chemical Society, Agriculture and Food Chemistry Division, USA (2015).
- Elected Fellow of Institute of Food Technologists, USA (2015).

MEMBERSHIPS

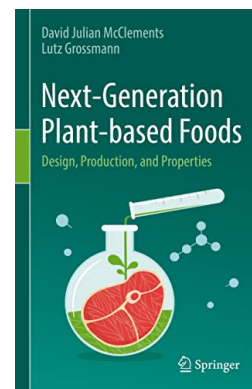
- American Association for the Advancement of Science
- American Chemical Society
- American Oil Chemists Society
- Institute of Food Technologists
- Royal Society of Chemistry
- Center for Bioactive Delivery, UMASS, Amherst
- Cancer Center of Excellence, UMASS, Amherst

RESEARCH

MAJOR RESEARCH AREAS

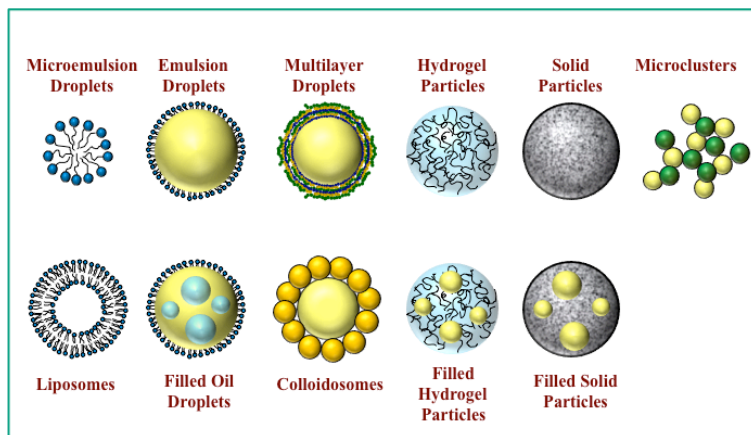
My current major research areas are focused on understanding the molecular-colloidal basis for the physicochemical and physiological properties of foods and their components, such as their texture, flavor, appearance, shelf-life, and nutrition. A better understanding of this subject enables food scientists to design and manufacture high-quality healthful and sustainable food products in a more systematic and cost-effective fashion. A few examples of my research activities are described here.

Next-generation plant-based foods: Animal-based foods, such as meat, seafood, eggs, and dairy products, have been linked to environmental, health, and animal welfare concerns. From an environmental perspective, these products are responsible for greenhouse gas emissions, pollution, land use, and water use. Consequently, there is interest in replacing them with plant-based alternatives. Our laboratory is isolating, characterizing, and utilizing different kinds of alternative proteins to assemble plant-based foods with improved quality, sensory, and nutritional attributes. For instance, we are using soft-matter physics principles to create meat-like microstructures from plant proteins and polysaccharides to simulate the optical, rheological, fluid holding, and sensory characteristics of real meat. We are also using plant proteins to create milk and egg analogs that are nutritionally fortified with vitamins and nutraceuticals to improve their health profile.

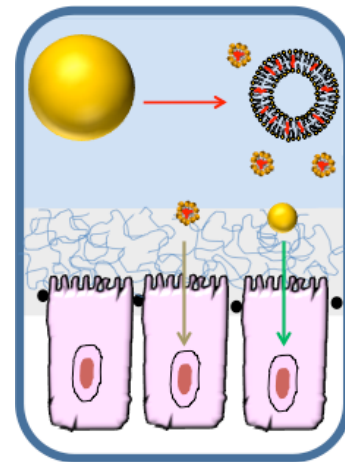


Development of Structured Colloidal Delivery Systems: One of the areas that my research group has helped pioneer has been the utilization of structural design principles to create food-grade colloidal delivery systems. Many bioactive food components cannot easily be incorporated into foods at present due to a variety of issues: poor solubility; adverse impact on appearance, texture or flavor; physical or chemical instability; undesirable interactions with other food components; off-flavors. In addition, the effectiveness of many bioactive components is limited by low bioavailability or instability in the gastrointestinal tract due to enzymatic degradation or microbial fermentation. Development of structured colloidal delivery systems to encapsulate, stabilize and release functional food components, such as flavors, colors, antimicrobials, and nutraceuticals can be critical for the successful incorporation of efficacious bioactive components into functional foods. My research has developed a wide range of different delivery systems, including microemulsions, emulsions, nanoemulsions, hydrogel particles, protein

nanoparticles, filled microgels, colloidosomes, microclusters, and multiple emulsions to encapsulate, protect and deliver different kinds of bioactive agents, including antimicrobials, nutraceuticals, vitamins, colors, and flavors. My research group is therefore an important component of the Bioactive Delivery program in the IALS program at UMASS.

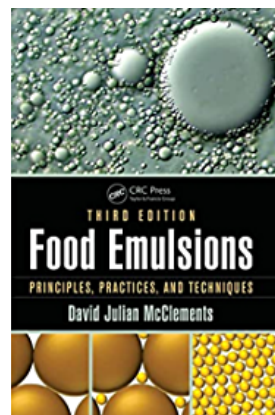


Physicochemical Basis for the Gastrointestinal Fate of Foods: Foods are exposed to a complex series of environments as they pass through the human gastrointestinal tract (GIT), which vary in their compositions, structures, and dynamic properties. The chemical, enzymatic, and mechanical forces that foods are exposed to lead to the disruption of food structures and the degradation of major food components (lipids, proteins, and polysaccharides). My research group has been at the forefront of research in understanding the physicochemical and structural processes that occur within the GIT and in the development of *in vitro* models to simulate gastrointestinal conditions. For example, in recent years we have identified many factors that impact the gastrointestinal fate of lipids, proteins, and dietary fibers. The knowledge gained from this research may lead to the development of functional foods with improved nutritional properties, such as the ability to induce satiety, reduced cholesterol levels, inhibit cancer, and prevent diabetes. Indeed, we recently developed the concept of “excipient foods” based on this knowledge. Excipient foods are designed



to increase the bioavailability of nutraceuticals and vitamins in fresh fruits and vegetables by controlling their bioaccessibility, absorption, and transformation within the GIT.

Physicochemical Properties of Food Emulsions: Many foods consist either partly or wholly as emulsions, or have been in an emulsified state sometime during their manufacture, including milk, cream, salad cream, mayonnaise, salad dressings, soups, sauces, butter, margarine, low-fat spreads, ice cream and coffee whitener. The bulk physicochemical properties of these foods (appearance, flavor, rheology and stability) depend on colloidal properties, such as droplet concentration, size and physical state, interactions and interfacial properties. My laboratory has worked on a number of projects supported by government and industry aimed at improving the understanding of the molecular-colloidal basis of the bulk physicochemical properties of food emulsions. The influence of pH, ionic strength, cosolvents, thermal processing, freeze-thaw cycling, mechanical stress, drying and ingredient interactions on the rheology, stability and appearance of emulsions is being investigated using a variety of experimental methods, including light scattering, laser scanning, dynamic shear rheometry, ultrasonic spectroscopy, ultrasonic imaging, particle electrophoresis and microscopy. The knowledge gained from these studies can be used to develop higher quality, healthier, and less expensive food products. In particular, we have used our knowledge of the roles that lipid droplets play in determining food emulsion properties to develop reduced calorie foods with desirable quality attributes.



Functional Properties of Food Biopolymers: The aqueous phases of many foods contain biopolymers that impart desirable functional properties, such as thickening, gelling, water-holding and flavor binding. In addition, biopolymers are important nutritional components in many types of food products, *e.g.*, by providing energy or maintaining proper gut function. The properties of an aqueous biopolymer solution are determined by the type and nature of the biopolymer interactions, *e.g.*, hydrogen bonding, hydrophobic interactions, van der Waals forces, electrostatic interactions and disulfide bond formation. My research group has made major contributions to understanding the molecular basis of the bulk physicochemical properties of biopolymer solutions and in understanding the gastrointestinal fate of food biopolymers. This knowledge is being used to design functional ingredients and foods with improved functional performance.



FUNDING

My research has been funded by numerous grants from federal, commodity, non-profit, and industry sources, including the United States Department of Agriculture, National

Science Foundation, NASA, United States Department of Commerce, the Dairy Management, Good Food Institute, and the food industry. I have received over \$25 million dollars as a PI or co-PI on these grants.

Principal Investigator

Title	Budget
Competitive Grants: Federal, Commodity, Non-profit	
1. DJ McClements. <i>Development of Rapid Nondestructive Device for Measuring the Fat Content of Mackerel</i> . U.S. Department of Commerce, National Marine Fisheries Service, Saltonstall-Kennedy Program (1995-1997).	\$50,700
2. DJ McClements. <i>Influence of Processing Conditions on the Physicochemical Properties of Protein Stabilized Emulsions</i> . USDA, Hatch Grant (1994-2001).	\$95,000
3. DJ McClements. <i>Nondestructive Characterization of Food Emulsions using Ultrasound</i> . USDA-National Research Initiative, Competitive Grants Program, \$110,000 (1996-1997).	\$110,000
4. DJ McClements. <i>Commercialization of Ultrasonic Device for Measuring the Fat Content of Mackerel</i> . U.S. Department of Commerce, National Marine Fisheries Service, Saltonstall-Kennedy Program (1997-1998).	\$68,500
5. DJ McClements. <i>Nondestructive Characterization of Food Emulsions using Ultrasound (Renewal)</i> . USDA - National Research National Research Initiative, Competitive Grants Program, \$125,000 (1997-2000).	\$125,000
6. DJ McClements. <i>Application of Whey Proteins as Emulsifiers in Foods</i> . Dairy Management Incorporated (1998- 2001).	\$61,000
7. DJ McClements. <i>Influence of Cosolvents on Protein Functionality in Food Emulsions and Gels</i> . USDA, Hatch Grant (2002-2007).	\$95,000
8. DJ McClements. <i>Utilization of Interfacial Engineering to Improve Emulsion Stability</i> . USDA-National Research Initiative, Competitive Grants Program (2002-2005)	\$175,000
9. DJ McClements. <i>Utilization of Interfacial Engineering to Improve Emulsion Stability - Renewal</i> . USDA-National Research Initiative, Competitive Grants Program (2005-2008).	\$355,000
10. DJ McClements. <i>Controlling Lipid Oxidation in Foods</i> . United States Department of Agriculture, Cooperative State Research, Extension, Education Service, Hatch Grant (2008-2015).	
11. DJ McClements. <i>Design of Nano-laminated Coatings to Control Bioavailability of Lipophilic Food Components</i> . USDA-National Research Initiative, Competitive Grants Program (2009-2011).	\$335,000

12. DJ McClements. <i>Designing Novel Food Functionality through Controlled Biopolymer Phase Separation</i> . USDA-National Research Initiative, Competitive Grants Program (2009-2011).	\$362,000
13. DJ McClements. Is Smaller Better? Structure and Phase Behavior Effects on the Efficacy of Emulsion-Based Delivery Systems. USDA-National Research Initiative, Competitive Grants Program (2009-2012).	\$182,000
14. DJ McClements. Bioactive Encapsulation for Military Food Applications: Request for Enhanced Nano- & Micro-particle Fabrication & Characterization Facilities. US Army (2012).	\$249,000
15. DJ McClements. Fabrication, Characterization & Toxicology of Antimicrobial Nanoparticle Delivery Systems. USDA-National Research Initiative, Competitive Grants Program (2010-2015).	\$454,000
16. DJ McClements. Rationalization of Lipid Nanoparticle Formation. USDA-National Research Initiative, Competitive Grants Program. (2012-2015)	\$380,000
17. DJ McClements. Development of Nanoemulsion-based Delivery Systems for Functional Lipids. USDA-National Research Initiative, Competitive Grants Program (2014-2017).	\$496,000
18. DJ McClements. Potential Adverse Effects of Consuming Edible Nanoemulsions: Enhanced Pesticide Uptake. USDA-National Research Initiative, Competitive Grants Program (2017-2020).	\$445,000
19. DJ McClements. Nanotechnology to Improve Food Safety, Quality, and Nutrition. United States Department of Agriculture, Cooperative State Research, Extension, Education Service, Hatch Grant (2014-2024).	\$150,000
20. DJ McClements. Enhancing bioavailability of bioactive agents. National Science Foundation (2020-2021)	\$50,000
21. DJ McClements. Optimization of Soft Matter Physics Approaches for the Creation of Next-generation Plant-based Meats. USDA-National Research Initiative, Competitive Grants Program (2020-2023).	\$474,000
22. DJ McClements. Innovative Structural Design Approach for Creating Meat-Substitutes. Good Food Institute, (2021-2023)	\$250,000
23. DJ McClements. Development of Standardized Quantitative Tests to Facilitate Creation of Plant-based Meats Good Food Institute, (2021-2023)	\$50,000
24. DJ McClements. Innovative Structural Design Approach for Creating Meat-Substitutes, Good Food Institute (2020-2022)	\$250,000
25. DJ McClements. Development of Standardized Quantitative Tests to Facilitate Creation of Plant-based Meats, Good Food Institute (2020-2022)	\$50,000
26. DJ McClements*. Double-Network Composite Biopolymer Hydrogels as Next-generation Meat Analogs, USDA (2023-2026)	\$551,000

TOTAL	\$5,863,200
Non-competitive Grants: Industry	
27. DJ McClements. Research on Food Emulsions, PepsiCo	\$234,000
28. DJ McClements. Research on Food Emulsions, PepsiCo	\$88,000
29. DJ McClements. Research on Food Emulsions, PepsiCo	\$45,000
30. DJ McClements. Research on Food Emulsions, Compass Foods	\$3,000
31. DJ McClements. Research on Food Emulsions, International Flavors and Fragrances	\$33,000
32. DJ McClements. Research on Food Emulsions, PepsiCo	\$97,000
33. DJ McClements. Research on Food Emulsions, PepsiCo	\$94,000
34. DJ McClements. Research on Food Emulsions, National Starch	\$25,000
35. DJ McClements. Research on Food Emulsions, Compass Foods	\$66,000
36. DJ McClements. Research on Food Emulsions, Institute of Food Technologists.	\$50,000
37. DJ McClements. Research on Food Emulsions, PepsiCo	\$10,000
38. DJ McClements. Research on Food Emulsions, Nestle	\$50,000
39. DJ McClements. Research on Food Emulsions, Wild Flavors	\$32,000
40. DJ McClements. Research on Food Emulsions, PepsiCo	\$20,000
41. DJ McClements. Research on Food Emulsions, ConAgra Foods	\$15,000
42. DJ McClements. Research on Food Emulsions, Wild Flavors	\$30,000
43. DJ McClements. Research on Food Emulsions, ConAgra Foods	\$150,000
44. DJ McClements. Research on Food Emulsions, ConAgra Foods	\$151,000
45. DJ McClements. Research on Food Emulsions, Wild Flavors	\$6,000
46. DJ McClements. Research on Food Emulsions, Proctor & Gamble	\$10,000
47. DJ McClements. Research on Food Emulsions, ConAgra Foods	\$50,000
48. DJ McClements. Research on Food Emulsions, Kraft Foods	\$89,000
49. DJ McClements. Research on Food Emulsions, Hills Pet Foods	\$15,000
50. DJ McClements. Research on Food Emulsions, Glanbia Foods	\$5,000
51. DJ McClements. Research on Food Emulsions, Ajinomoto	\$383,916
52. DJ McClements. Research on Food Emulsions, Nestle	\$191,400
53. DJ McClements. Research on Food Emulsions, DSM	\$75,000
54. DJ McClements. Research on Food Emulsions, PepsiCo	\$122,126
55. DJ McClements. Research on Food Emulsions, Nestle	\$50,000
56. DJ McClements. Research on Food Emulsions, PepsiCo	\$146,206
57. DJ McClements. Research on Food Emulsions, Nestle	\$62,227
TOTAL	\$2,398,875
Support for Researchers in My Laboratory*	
58. DJ McClements. Research on Nutraceutical Delivery Systems, King Abduladiz University, Saudi Arabia. Fund to UMASS.	\$27,000

59. DJ McClements. Thailand Research Exchange Program. Funds provided to UMASS.	\$82,000
60. DJ McClements, Chinese Research Scholarship, Funding for Graduate Students, Visiting Scholars, and Postdocs, China (2010-2026). Funds provided to researchers to cover their stay in USA.	\$1,950,000
61. DJ McClements. Thailand Research Exchange Program. Funds provided to UMASS.	\$82,000
62. DJ McClements, Thailand Research Funds, Funding for Graduate Students, Visiting Scholars, and Postdocs, China (2000-2026). Estimated funds to researchers to cover their stay in USA.	\$600,000
63. DJ McClements, Korean Research Funds, Funding for Graduate Students, Visiting Scholars, and Postdocs, Korea (2000-2026). Estimated funds to researchers to cover their stay in USA.	\$350,000
64. DJ McClements, Turkish Research Funds, Funding for Graduate Students, Visiting Scholars, and Postdocs, Turkey (2010-2026). Estimated funds to researchers to cover their stay in USA.	\$300,000
65. DJ McClements, Indian Research Funds, Funding for Graduate Students, Visiting Scholars, and Postdocs, India (2010-2026). Estimated funds to researchers to cover their stay in USA	\$200,000
66. DJ McClements, Spain Research Funds, Funding for Postdoc, Spain (2010-2026). Estimated funds to researchers to cover their stay in USA	\$50,000
67. DJ McClements, Israel Research Funds, Funding for Postdoc, Israel (2010-2026). Estimated funds to researchers to cover their stay in USA	\$50,000
68. DJ McClements, European Union Research Funds, Funding for Postdoc, EU (2010-2026). Estimated funds to researchers to cover their stay in USA	\$50,000
TOTAL	\$3,741,000

- Estimated at \$25,000 per person per year

Co-principal Investigator

Title	Budget
Competitive Grants: Federal, Commodity, Non-profit	
69. L. Grossmann* and DJ McClements. Reducing the Environmental Impact of Plant-based Meat Extrusion Processes by Self-Aggregating Proteins Good Food Institute, (2021-2023)	\$248,725
70. S. Park* and DJ McClements. Enabling production of whole-cut meat and seafood products made from alternative proteins. Good Food Institute, (2021-2023)	\$249,687
71. EA Decker* and DJ McClements. Characterizing the emulsifying, gelling or crosslinking, antimicrobial and	\$407,762

antioxidant properties of food-grade proteins at low protein concentrations, Motif Foods (2019-2022)	
72. Charmaine Koo* and DJ McClements. Fine-tuned delivery bacteriophages in livestock reduce shedding pathogens. USDA-NIFA (2019-2022)	\$160,000
73. H Xiao* and DJ McClements. Functionality-guided smart fermentation of soybean meal, USDA-NIFA (2023-2027)	\$600,000
74. L Grossmann* and DJ McClements. Design of Novel Post-Processing Diffusional Tenderization Techniques to Advance Anisotropic Plant Protein Textures, USDA-NIFA (2023-2027).	\$601,000
75. L Grossmann* and DJ McClements. Strengthening Microscale Imaging Capabilities for Food and Agricultural Materials through 3D X-Ray Microtomography, USDA (2025-2029)	\$400,000
76. L Grossmann* and DJ McClements. Harnessing Fermentation Technology to Overcome Functionality, Nutritional, and Sensory Challenges in Pulse Protein Ingredients for Food Applications, USDA (2024-2026).	\$154,672
77. H Xiao* and DJ McClements. Conversion of Fruit Waste into Novel Multifunctional Bioproducts, USDA (2026-2029)	\$591,473
78. Lu, J*. and DJ McClements. Innovative Structuring-Layering Technology for Large-Scale Production of Fish Analog, Good Food Institute (2022-2024)	\$269,960
79. L Grossmann* and DJ McClements. Plant Whey: Value-Added Food Ingredients from Plant Protein Precipitation Side-streams, USDA (2022-2027)	\$596,050
80. A Kinchla, A.* and DJ McClements. Improving sanitation practices in food processing facilities using fluorescent visual tools, USDA (2022-2024)	\$296,448
81. L. Grossmann* and DJ McClements. Reducing the Environmental Impact of Plant-based Meat Extrusion Processes by Self-Aggregating Proteins Good Food Institute, (2021-2023)	\$248,725
82. S. Park* and DJ McClements. Enabling production of whole-cut meat and seafood products made from alternative proteins. Good Food Institute, (2021-2023)	\$249,687
83. H Xiao* and DJ McClements. Vitamins B1 and K Degradation in Spaceflight Foods: Establishment of Mechanisms and Prevention Strategies, NASA (2015-2017)	\$340,000
84. H Xiao* and DJ McClements. Elucidation of absorption, accumulation, and toxicity mechanisms of titanium dioxide nanoparticles present in foods. USDA-NIFA, (2016-2020)	\$479,000
85. H Xiao* and DJ McClements. Intestinal absorption and toxicity of foodborne inorganic nanoparticles. USDA-NIFA, (2016-2019)	\$479,000

86. H Xiao* and DJ McClements. Directed assembly of lipid nanoparticles in gastrointestinal tract to enhance health benefits of lipophilic dietary components USDA-NIFA (2014-2017)	\$491,000
87. E. Decker* and DJ McClements. Lipid oxidation in low moisture foods: Developing technologies for improving nutritional composition without negatively impacting quality USDA-NIFA (2016-2019).	\$469,775
88. H Xiao* and DJ McClements. Influence of Nanoparticle Characteristics on Fate, Bioavailability, and Toxicity of Food-Grade Nanoemulsions: USDA/EPA/NSF (2010-2013).	\$600,000
89. E. Decker* and DJ McClements. Bioactive Foods Research for Health and Food Safety, Federal line item with Congressman Olver (2010-2012).	\$525,000
90. H Xiao* and DJ McClements. Food Science Graduate Training in Food and Health with Emphasis on Ingredient Delivery Systems and Food Policy. USDA/CSREES Higher Education Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Grants Program. (2010 - 2014).	\$234,000
91. M Henson* and DJ McClements. Integrated Product and Process Design for Structured Products. National Science Foundation, GOALI (2007-2011).	\$316,365
92. EA Decker* and DJ McClements. Utilization of Emulsion Interface Engineering to Improve the Oxidative Stability of Food Emulsions: The Role of Antioxidant Proteins. USDA, (2004-2008).	\$304,000
93. EA Decker* and DJ McClements. Role of Physical Structures in Food Oils on Lipid Oxidation. USDA-NIFA (2007-2010).	\$293,094
94. J. Weiss* and DJ McClements. Antimicrobial delivery systems to improve food safety. USDA-NIFS (2003-2006).	\$338,000
95. EA Decker* and DJ McClements. Efficacy of Producing Stable Omega-3 Fatty Acid-Enhanced Foods to Improve Human Health. E.A. Decker. USDA-IFAFS (2001-2005)	\$1,722,000
96. EA Decker* and DJ McClements. Impact of emulsifiers on oxidation in lipid dispersions. USDA (1999-2002).	\$140,000
97. EA Decker* and DJ McClements. Impact of emulsifiers on oxidation in lipid dispersions (Renewal). USDA (2004-2008).	\$304,000
98. P Chinachoti* and DJ McClements. Improvement of Oxidative Stability of Encapsulated Fish Oil in Food Powders. U.S. Department of Commerce, National Marine Fisheries Service, Saltonstall-Kennedy Program (2000-2002).	\$92,073
99. R. Levin* and DJ McClements. Seafood safety, USDA (2002-2009).	\$1,598,651
TOTAL	\$13,800,147

Non-competitive Grants: Industry	
100. J Weiss * and DJ McClements. Research on cationic surfactants. Vedesqa Foods, Spain.	\$75,000
101. J Weiss * and DJ McClements. Research on acoustic methods in foods. Harris Acoustics.	\$15,000
102. EA Decker* and DJ McClements. Research on food colors. Sensient Technologies.	\$55,045
103. J. Weiss* and DJ McClements. Research on natural preservatives. PepsiCo	\$194,020
104. E Decker and DJ McClements. Research on natural colors. PepsiCo	\$40,000
105. EA Decker* and DJ McClements. Control of flavor oxidation in emulsions. Kraft Foods	\$40,000
106. C. Chinachoti* and DJ McClements. Research on Spray-Dried Creamers. Dairy Management Inc.	\$120,000
107. EA Decker* and DJ McClements. Research on delivery systems. DSM Nutritional.	\$120,000
108. EA Decker* and DJ McClements. Research on delivery systems. Wesfolk	\$122,965
109. EA Decker* and DJ McClements. Research on food lipids, Bunge	\$ 216,017
110. EA Decker* and DJ McClements. Research on food lipids, Cargill.	\$100,000
111. M Henson* and DJ McClements. Research on food emulsions, Unilever.	\$90,000
112. A Kinchla* and DJ McClements. Research on food emulsions, American River Nutrition	\$82,500
TOTAL	\$1,270,547
University Grants	
113. H Xiao* and DJ McClements. Tributyrin delivery systems for the colon, UMASS CVIP Fund, Amherst (2009-2011).	\$30,000
114. EA Decker* and DJ McClements. New Technology for Encapsulation of Emulsified Lipids in Food Beverages, CVIP Fund, UMASS, Amherst (2007-2008).	\$ 100,000
115. J. Weiss* and DJ McClements. Food-Based Solutions to Health and Wellness Proposal for Academic-Industry Strategic Alliance. UMASS Science and Technology Initiatives Fund. (2005-2007).	\$100,000
TOTAL	\$230,000

Funding Summary

Total Funds as Principal Investigator: \$12,003,075

Total Funds as Co-Investigator: \$15,300,694

Total Grant Funds: > \$25,000,000

PUBLICATIONS SUMMARY

- 21 Books: 11 as Author or co-Author; 10 as Editor or co-Editor.
- 13 Patents
- > 1900 Journal Articles; > 220,000 citations (h-index 218– Google Scholar)
- > 70 Book Chapters
- Google Scholar: [DJM Google Scholar articles](#)
- Orcid: <https://orcid.org/0000-0002-9016-1291>

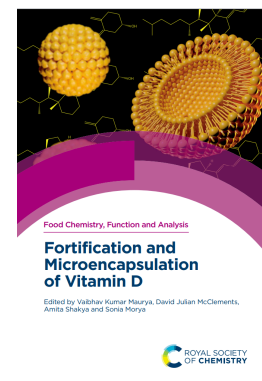
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2. D.J. McClements, I.F. McClements, and J. McClements (2024). *How to be a Successful Scientist: A Guide for Graduate Students, Postdocs, and Professors*. Springer Scientific, New York.
3. D.J. McClements (2023). *Meat Less: The Next Food Revolution*, 350 pages. Springer Scientific, New York.
4. D.J. McClements (2022). *Food Nanotechnology*, De Gruyter, Boston.
5. D.J. McClements and L. Grossmann (2022). *Next-generation Plant-based Foods: Design, Production, and Properties*, 572 pages. Springer, New York, NY.
6. D.J. McClements (2019). *Future Foods: How Modern Science Is Transforming the Way We Eat*, 400 pages. Springer Scientific, New York.
7. D.J. McClements (2015). *Food Emulsions: Principles, Practice and Techniques, 3rd Edition*, 609 pages. CRC Press. Boca Raton, Florida.
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9. D.J. McClements (2005). *Food Emulsions: Principles, Practice and Techniques, 2nd Edition*, 609 pages. CRC Press. Boca Raton, Florida.
10. D.J. McClements (1999). *Food Emulsions: Principles, Practice and Techniques*. CRC Press. Boca Raton, Florida, 378 pages.

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2. Khalid Bashir, Kulsum Jan, Shumaila Jan, Ab Lateef Khan, David Julian McClements (2023). *Biodegradable and Edible Food Packaging: Trends and Technologies*, Elsevier, New York, NY.
3. Long Chen, Miao Ming, and David Julian McClements (2023). *Bioactive Delivery Systems: Formulation, Fabrication, and Application*, Published, Royal Society of Chemistry, Cambridge, UK.
4. S.M. Jafari and D.J. McClements (2018). *Nanoemulsions*, Elsevier.
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6. R. Elias, D.J. McClements & E.A. Decker (2010). *Oxidation in foods and beverages and antioxidant applications (I)*. Editors. Woodhead Publishing, Cambridge, UK.
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8. D.J. McClements & E.A. Decker (2009). *Designing Functional Foods*. Editors. Woodhead Publishing, Cambridge, UK.
9. D.J. McClements (2007). *Understanding and Controlling the Microstructure of Complex Foods*. Woodhead Publishing, Cambridge, UK
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1. Aayush, K., D. J. **McClements**, S. Sharma, R. Sharma, G. P. Singh, K. Sharma and K. Oberoi (2022). "Innovations in the development and application of edible coatings for fresh and minimally processed Apple." *Food Control* **141**.
2. Abedini, A., Sadighara, P., Sani, M. A., & **McClements**, D. J. (2023). The impact of synthetic and natural additives on biogenic amine production in food products. *Food Bioscience*, *56*.
3. Aboalnaja, K. O., Yaghmoor, S., Kumosani, T. A., & **McClements**, D. J. (2016). Utilization of nanoemulsions to enhance bioactivity of pharmaceuticals, supplements, and nutraceuticals: Nanoemulsion delivery systems and nanoemulsion excipient systems. *Expert Opinion on Drug Delivery*, *13*(9), 1327-1336.
4. Aghababaei, F., **McClements**, D. J., & Hadidi, M. (2024). Ultrasound processing for enhanced digestibility of plant proteins. *Food Hydrocolloids*, *155*.
5. Aghababaei, F., **McClements**, D. J., & Hadidi, M. (2025). Strategies to overcome nutritional and technological limitations of pulse proteins. *Future Foods*, *11*.
6. Aghababaei, F., **McClements**, D. J., Martinez, M. M., & Hadidi, M. (2024). Electrospun plant protein-based nanofibers in food packaging. *Food Chemistry*, *432*.
7. Aghababaei, F., **McClements**, D. J., Pignitter, M., & Hadidi, M. (2024). A comprehensive review of processing, functionality, and potential applications of lentil proteins in the food industry. *Advances in Colloid and Interface Science*, *333*.

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14. Alizadeh-Sani, M., M. Tavassoli, D. J. **McClements** and H. Hamishehkar (2021). "Multifunctional halochromic packaging materials: Saffron petal anthocyanin loaded-chitosan nanofiber/methyl cellulose matrices." *Food Hydrocolloids* 111.
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1824. Zou, Y., Y. Qian, X. Y. Rong, K. X. Cao, D. J. **McClements** and K. Hu (2021). "Encapsulation of quercetin in biopolymer-coated zein nanoparticles: Formation, stability, antioxidant capacity, and bioaccessibility." *Food Hydrocolloids* 120.

Student, Research Fellow & Visiting Scholar Advising

In addition to traditional classroom teaching I also spend an appreciable amount of my time teaching, advising and mentoring students and Post-Docs who are working in my laboratory. Each student or Post-Doc that I have worked with has demonstrated their own unique skills and limitations and I have therefore recognized the importance of individually tailoring each person's educational program so as to facilitate their development into effective research scientists. In particular, I aim to provide a stimulating learning environment, which emphasizes the development of independent and rational thought, critical thinking, communication skills, creativity, and teamwork. I also actively involve students in the activities they are likely to carry out in their future careers, such as: choosing an appropriate research topic; critically evaluating previous research; clearly defining a scientific problem; designing a suitable experimental protocol to address the stated problem; analyzing, interpreting and presenting scientific data; preparing and submitting scientific manuscripts.

TEACHING AND MENTORING

Classroom Teaching

I have prepared and taught a variety of undergraduate and graduate courses at the University of Massachusetts:

- Food Chemistry (FD SCI 541); Food Chemistry Laboratory (FD SCI 544); Analysis of Food Products (FD SCI 581); Physical Phenomena in Foods (FD SCI 761); Graduate Seminar (FD SCI 797); Future Foods (FD SCI 791); Sustainable Foods (FD SCI 794).

I routinely receive positive student evaluations for my courses, which are appreciably higher than the department, college, and university averages for similar courses.

Ph.D. Students

I have been the major supervisor of numerous graduate students who have received their degree from UMASS. Most of them have gone on to be Professors in US or international universities, or to work as research scientists in the food industry or government laboratories. I have also served on the PhD thesis committees of many more students (not listed).

	Year	Student	Thesis Title	Last Known Position
1	1998	Kyros Demetriades (Crete)	The Effect of Processing Conditions and Ingredient Interactions on the Physicochemical Properties of Whey Protein Isolate-Stabilized Emulsions	Group Quality Assurance Manager at Photos Photiades Breweries Ltd, Cyprus
2	1999	Jochen Weiss (Germany)	Effect of Mass Transport Processes on Physicochemical Properties of Surfactant-Stabilized Emulsions	Vice President for Research, Professor, Food Physics and Meat Science, University of Hohenheim, Stuttgart, Germany
3	2000	Cory M. Bryant. (US)	Physicochemical Studies of Heat-Denatured Whey Protein Functionality	Assistant Country Director for Foods and Veterinary Medicine, FDA Center for Food Safety and Applied Nutrition, Beijing China
4	2001	Taygun Basaran (Turkey)	Ultrasonic And Optical Profiling Studies of Mass Transport Phenomena in Food Emulsions	Vice President of Sales at Chefmaster, Los Angeles
5	2001	Ratjika Chanamai (Thailand)	Characterization Of Food Emulsions Using Ultrasonic Spectroscopy	Research Scientist, Wild Flavors, Cincinnati
6	2001	Withida Chantrapornchai (Thailand)	Influence of Composition and Structure on Optical Properties of Food Emulsions	Assistant Professor, Food Product Development, Kasetsart University, Bangkok, Thailand
7	2002	Eakaphan Keowmaneechai	Influence of Protein-Mineral Interactions on	Assistant Professor, Department of Food Technology, Silpakorn

		(Thailand)	Physicochemical Properties of Model Nutritional Beverage Emulsions	University, Nakhon Pathom, Thailand.
8	2003	Stefan Baier (Germany)	Influence of Cosolvent Systems on the Thermostability and Heat-Induced Gelation Mechanism of Globular Proteins	Research Scientist, Pepsico, Valhalla, New York
9	2004	Masubon Thongngam (Thailand)	Characterization of Polysaccharide-Surfactant Interactions	Assistant Professor, Department of Food Science and Technology, Faculty of Agro-Industry, Kasetsart University. Bangkok, THAILAND
10	2004	Apiradee Wangsakan (Thailand)	Investigation of Molecular Origin and Characteristics of Maltodextrin-Surfactant Interactions	Researcher, Thailand
11	2006	Demet Guzey (Turkey)	Utilization Of Interfacial Engineering To Improve Food Emulsion Properties	Research Scientist, Unilever, The Netherlands
12	2008	Wanlop Chanasattru (Thailand)	Influence Of Water-Soluble Poly-Ols On Globular Protein Functionalities	Research Scientist, Food Biotechnology Research Unit, National Center for Genetic Engineering and Biotechnology, Pathum Thani, Thailand.
13	2009	Owen Jones (US)	Fabrication Of Protein-Polysaccharide Particulates Through Thermal Treatment Of Associative Complexes	Assistant Professor, Department of Food Science, Purdue University, West Lafayette, Indiana
14	2009	Young-hee Cho (Korea)	Development Of Structured Delivery Systems Using Nanolaminated Biopolymer Layers	Lecturer, Lafayette, Department of Food Science, Purdue University, West Lafayette, Indiana
15	2011	Alison M. Matalanis (US)	Fabrication, Characterization and Utilization of Filled Hydrogel Particles as Food Grade Delivery Systems	Quality Assurance Manager, American Lecithin Company, USA
16	2013	Tanushree Tokle (India)	Design And Fabrication Of Functional Lipid Nanoparticles Based On Control Of Interfacial Properties Using Biopolymers	Research Scientist, QualiTech, MN
17	2013	Cheng Qian (China)	Food-Grade Nanodispersions for Encapsulation, Protection and Delivery of Bioactive Food Component	Research Scientist, Coca Cola, Atlanta, Georgia
18	2013	Yingyi Mao (China)	Designing Novel Emulsion Performance by Controlled Hetero-Aggregation of Mixed Biopolymer Systems	Research Scientist, Abbot Nutrition, China

19	2013	Jiajia Rao (China)	Rationalizing Lipid Nanoemulsion Formation for Utilization in the Food and Beverage Industry	Assistant Professor, Department of Food Science, North Dakota
20	2014	Ying Yang (China)	Rationalizing Nanoemulsion Formation for Encapsulation, Protection and Delivery of Bioactive Food Components	Research Scientist, Tate & Lyle, China
21	2015	Cynthia L. Lopez Pena (Mexico)	Physicochemical and Toxicological Assessment of Antimicrobial E-Polylysine-Pectin Complexes	Research Scientist, Nestle Nutrition, Freemont, US
22	2015	Bicheng Wu (China)	Structural Design Approaches for Creation of Reduced Fat Products	Research Scientist, Ingredion, New Jersey
23	2015	Jennifer Komaiko (US)	Optimization Of the Fabrication, Stability, and Performance of Food Grade Nanoemulsions with Low-Energy and High-Energy Methods	Research Scientist, Coca Cola, Atlanta, Georgia
24	2019	Ruojie Zhang (China)	Development of Excipient Emulsions to Improve the Bioavailability of Nutraceuticals in Fruits and Vegetables	Professor, Department of Food Science, University of Missouri, USA
25	2019	Zipei Zhang (China)	Design, Fabrication, and Utilization of Hydrogel Particles as Food-Grade Delivery Systems	Professor, Department of Food Science, University of Missouri, USA
26	2021	Songran Gao (China)	Development of Solid Lipid Nanoparticles for Utilization as Delivery Systems in Foods	Scientific Researcher, China
27	2019	Cansu Gamus (Turkey)	Identification and Characterization of Natural Emulsifiers for forming Food Grade Nanoemulsions	Associate Professor at Ankara University, Turkey
28	2020	Mahesh Kharat (India)	Stabilization of Curcumin in Foods and the Gastrointestinal Tract using Colloidal Delivery Systems	Senior Scientist, Nestle Research, Marysville, USA
29	2020	Jorge Muriel-Mundo (Puerto Rico)	Development of Vitamin C Delivery Systems	Sensor Scientist, Lucks Food Decorating Company, Washington State, USA
30	2021	Hualu Zhou (China) PhD	Elucidation of the Physicochemical Basis of Nanoparticle Fate in Gastrointestinal Tract	Assistant Professor, University of Georgia, GA, USA
31	2021	Jinning Liu (China) PhD	Creation of multiple-emulsion based delivery systems for	Senior Scientist, Formulation, Revere, MA, USA

			improved bioactive performance.	
32	2021	Yunbing Tan (China)	Fabrication of nanostructured vitamin delivery systems for improved health and nutrition.	Data Scientist, Labvia, Cambridge, MA, USA
33	2021	Bingjing Zheng (China)	Development of novel delivery systems for hydrophobic nutraceuticals.	Food scientist GNT Group, Tarrytown, NY, USA
34	2025	Sisheng Li (China)	Development of next-generation plant-based foods: enhancing physicochemical and nutritional properties through soft matter physics approaches	Postdoctoral researcher, China
35	Current	Xianwei Chen (China)	Creation of plant-based milk and dairy products using structural design approaches	Graduate Student, UMASS, Amherst, MA
36	2025	Jae Kun Ryu (Korea)	Utilization of soft matter physics to create plant-based meat analogs	Postdoctoral researcher, UMASS, Amherst, MA
37	2024	Xiaoyan Hu (China)	Utilization of soft matter physics to create plant-based adipose and muscle tissue	Postdoctoral researcher, Pennsylvania State University, PA, USA.
38	Current	Tian Ma (China)	Development of novel microgel technologies for creating healthier foods	Graduate Student, UMASS, Amherst, MA

Many of the PhD students who have worked in my laboratory have gone on to be postdocs, professors, or leaders in the food industry.

Post-Doctoral Research Fellows

I have also been a supervisor of numerous Postdoctoral researchers who have been employed to work on industrial or academic proposals. Typically, these Postdocs have worked in my laboratory for one to three years. Most of them have gone on to be Professors in US or international universities, or work as research scientists in the food industry or government laboratories.

1. John Coupland (1995-1997) (England)
2. Reza Ghaedian (1995-1996) (Iran)
3. Norbert Herrmann (1997-1998) (France)
4. Voranuch Suvanich (1997-1998) (Thailand)
5. Halldor Sigfusson (1998-1999) (Iceland)
6. Ratjika Chanamai (2000-2001) (Thailand)
7. Mark Richards (2000) (US)
8. Hyun-Jung Kim (2001-2004) (Korea)
9. Yeun-Suk Gu (2002-2004) (Korea)
10. Faraji Habibollah (2002-2004) (Iran)
11. Min Hu (2002-2004) (China)
12. Sachun Mun (2004-2005, 2011) (Korea)
13. Jeonghee Surh (2006-2008) (Thailand)
14. Darinka Djorjevic (2004-2005) (Serbia)
15. Sandra Sandra (2008-2010) (Malaysia)
16. Tarek Awad (2008-2009) (Egypt)
17. Dalal Asker (2009) (Egypt)
18. Seung Jun Choi (2010-2011) (Korea)
19. Sun Jin Hur (2011) (Korea)
20. Yan Li (2011-2012) (China)
21. Yuhua Chang (2011-2013) (China)
22. Amir Hossein Saberi (2013-2015) (Iran)
23. Thananunt Rojanasasithara (2011) (Thailand)
24. Min Hu (2010-2011) (China)
25. Uri Lesmes (2009-2010) (Israel)
26. Khalid Ziani (2011-2012) (Morocco)
27. Iris Joye (2013-2015) (Belgium)
28. Gabriel Davidov (2013-2015) (Mexico)
29. Laura Salvia Trujillo (2013-2015) (Spain)
30. Cheryl Chung (2013-2020) (Malaysia)
31. Charmaine Koo (2017-2019) (Canada)
32. Minqi Wang (2017-2019) (China)
33. Zhiyun (Kevin) Zhang (2019-2020) (China)
34. Eric Tsin (2021-2023) (China)
35. Zeynep Aksoylu (2022-2023) (Turkey)
36. Tugba Capar (2023-2024) (Turkey)
37. Xiaoyan Hu (2024-2025) (China)
38. Jeongsoo Lee (2024-2025) (Korea)
39. Minna Lu (2025) (China)

Jae Kun Ryu (2025-2026) (Korea)
Zhichang Qui (2025-2026) (China)

Master's Students

I have mentored several master's students in my laboratory at UMASS. Most of them have gone on to work in the food industry or to do PhD studies.

1. Carlotta Cancalliare (1998-1999) (Italian)
2. David Kelley (2000-2002) (US)
3. Peter Law (2015-2018) (US)
4. Rebecca Walker (2014-2015) (US)
5. Marrisa Guttoff (2014-2015) (US)
6. Zifan Zhang (2019-2021) (China)
7. Dawn Wannasin (2021-2022) (Thailand)
8. Disha Jayakumar (2022-2023) (India)
9. Ramdattu Santhapur (2022-2023) (India)
10. Tushika Raina (2024-2025) (India)
11. Pratham Gajendragadkar (2025-2026) (India)
12. Nazerke Toktar (2025-2026) (Khazikstan)

External Examiner

I served as External Member for a number of graduate students: Brian Degner (University of Nebraska), Amit Khosla (University of Nottingham, UK); Suomit Kiran (University of Toronto, Canada); Fulden Buyukozturk (Northwestern University, Massachusetts); SK (University College Dublin, Ireland).

Visiting International Scholars

I served as the advisor for numerous visiting undergraduate students, graduate students, postdocs, and professors who have worked in my laboratory (typically for 6 to 24 months) as part of their programs at international universities. Some selected examples are given here. Many of them have gone on to be Professors in international universities, or to work as research scientists in the food industry or government laboratories. A number of these scholars are listed below:

1. Adrian Boldianu (Bulgaria)
2. Alessandro Gullota (Italy)
3. Amelia Torcello-Gómez (Spain)
4. Amonrat Thanonkaew (Thailand)
5. Anais Roux (France)
6. Anand Singh (Canada)
7. Andrea Esquivel (Mexico)
8. Anna Carolina de Aguirra (Brazil)
9. Anna Joos (Germany)
10. Arnaud Tesson (France)
11. Asylbek Kulmyrzaev (Kyrgyzstan)

12. Aurelie Berard (France)
13. Bahar Demircan (Turkey)
14. Baris Ozel (Turkey)
15. Bengu Ozturk (Turkey)
16. Benjamin Zeeb (Germany)
17. Biao Yuan (China)
18. Bingjing Zheng (China)
19. Carlos Bengoechea Ruiz (Spain)
20. Carlotta Cancalliere (Italy)
21. Celine Jamine (France)
22. Celine Laye (France)
23. Chainarong Chuajum (Thailand)
24. Chao Qiu (China)
25. Chaoying Qiu (China)
26. Chengzhen Liu (China)
27. Christopher Marshall (France)
28. Chunqing Bai (China)
29. Da Ma (China)
30. Diago Iwanga (Japan)
31. Ekasit Onsaard (Thailand)
32. Elizabeth Troncoso (Chile)
33. Eric Tsin (China)
34. Fang Chen (China)
35. Felix Orstag (Germany)
36. Francois Littoz (France)
37. Fuguo Liu (China)
38. Gege Sun (China)
39. Goran Vladislavljevic (Serbia)
40. Hao Xu (China)
41. Hector Pool (Mexico)
42. Hu Kun (China)
43. Irene Padro (Spain)
44. Irene Sierra (Mexico)
45. Izlia Arroyo-Maya (Mexico)
46. Izuki Bando (Japan)
47. Jeonghee Surh (Korea)
48. Jiangpin Ye (China)
49. Jianyong Wu (China)
50. Jiro Yokota (Japan)
51. Jochen Weiss (Germany)
52. Jochim Meier (Germany)
53. Jun Liu (China)
54. Korlid Thinkohkaew (Thailand)
55. Kubra Sislioglu (Turkey)
56. Larisa Schoener (Germany)
57. Laura Salvia Trujillo (Spain)

58. Lei Dai (China)
59. Li Liang (China)
60. Liqiang Zou (China)
61. Long Bai (China)
62. Long Chen (China)
63. Louisa Nouhan (France)
64. Lucile Bonnarie (France)
65. Lucile Gehin (France)
66. Luis Torres (Brazil)
67. Luping Gu (China)
68. Lydie Moreau (France)
69. Maria Ximena Quintanilla (Mexico)
70. Marialice Silvestre (Brazil)
71. Marie Dubot (France)
72. Marie-Ange Bonnaud (France)
73. Maud Beysseriat (France)
74. Mauricio Espinal-Ruiz (Columbia)
75. Moo-Yeol Baik (Korea)
76. Muhammad Imran (Pakistan)
77. Myriam Loffler (Germany)
78. Nuttinee Tangsrianugul (Thailand)
79. Olivier Kamtchueng Simo (France)
80. Patrick Chang (China)
81. Prune Baudot (France)
82. Qian Ju (China)
83. Qian Li (China)
84. Qian-Chun Deng (China)
85. Qianzhu Lin (China)
86. R. Santipanichwong (Thailand)
87. Raquel Gonçalves (Spain)
88. Ratchanee Charoen (Thailand)
89. Rodjana Noptana (Thailand)
90. Ruyi Li (China)
91. Sandra Ebert (Germany)
92. SangSoo Lim (Korea)
93. Saori Okuda (Japan)
94. Satoshi Ogawa (Japan)
95. Seung Jun Choi (Korea)
96. Shahid Iqbal (Pakistan)
97. Shanshan Lv (China)
98. Shengfeng Peng (China)
99. Shuai Chen (China)
100. Sigthor Petrusen (Iceland)
101. Sinja Meyer (Germany)
102. Solene LeMaux (France)
103. Sophie Duval (France)

104. Sophie Pallandre (France)
105. Sung Je Lee (New Zealand)
106. Supaporn Saechio (Malaysia)
107. Takahiko Doi (Japan)
108. Tanatchapond Rodsamai (Thailand)
109. Taotao Dai (China)
110. Thannalin Winuprasith (Thailand)
111. Thepkunya Harnsilawat (Thailand)
112. Thrandur Helgessen (Iceland)
113. Thunnalin Winuprasith (Thailand)
114. Tobias Schmelz (Germany)
115. Tomoko Aoki (Japan)
116. Tugba Capar (Turkey)
117. Utai Klinkesorn (Thailand)
118. Varanya Techasukthavorn (Thailand)
119. Wenjian Cheng (China)
120. Wentao Wang (China)
121. Xiang Luo (China)
122. Xiaoyan Hu (China)
123. XingFeng Xu (China)
124. Xinyi Cheng (China)
125. Xiuping Liang (China)
126. Xuan Liu (China)
127. Yajuan Li (China)
128. Yan Li (China)
129. Yaoguang Chang (China)
130. Yaqiong Pei (China)
131. Yashu Chen (China)
132. Yayuan Xu (China)
133. Youn-Ho Hong (China)
134. Yuan Fang (China)
135. Yue Gu (China)
136. Yujie Su (China)
137. Yunfei Huang (China)
138. Yuri Tashiro (Japan)
139. Yuting Wang (China)
140. Yuying Hu (China)
141. Zeynep Aksoylu (Turkey)
142. Zhen Fu (China)
143. Zhenbao Zhu (China)
144. Zhihua Pang (China)
145. Zicong Zeng (China)

Undergraduates

My laboratory has also hosted numerous undergraduate students (> 50) who have worked on independent study projects. Most of these students have published their

work in scientific journals and have gone on to graduate studies or to work in the food industry.

SERVICE

I am currently the Editor of Annual Reviews in Food Science and Technology, one of the top journals in food science. I also serve on the editorial boards of numerous other food science and physical chemistry journals. I have organized scientific meetings and short courses on numerous occasions and have chaired many scientific sessions. At the University level, I have served on numerous department, college, and campus committees. I frequently consult for national and international food companies and have served on the scientific advisory boards of large multinational companies, as well as start-up companies. I have given numerous invited lectures at international symposia and at companies. I believe that it is critical that science is communicated to the general public in an engaging and informative manner. I have therefore written several books on food science and the scientific method for general audiences. Moreover, I have been interviewed on many radio, TV, and internet programs about my work in food science, and articles about my work have appeared in many different media formats.