

Meet the Instructors



Brady Carter, PhD

Senior Scientist at Carter Scientific Solutions

Dr. Brady Carter is a Senior Research Scientist with Carter Scientific Solutions. He specializes in Water Activity, moisture sorption, moisture determination, agricultural production, flow cytometry, multi-spectral imaging, and plant science. Dr. Carter earned his Ph.D. and M.S Degree in Food Engineering and Crop Science from Washington State University and a B.A. Degree in Botany from Weber State University. He has 24 years of

experience in research and development and currently provides scientific support to multiple companies. He has been the instructor for training seminars in over 23 different countries and has provided on-site training for companies around the world. He has authored over 20 white papers on water activity, moisture sorption isotherms, and complete moisture analysis. He has participated in hundreds of extension presentations and has given talks at numerous scientific conferences. He developed the shelf-life simplified paradigm and hygrothermal time shelf-life model and is the leading expert in applying water activity to shelf-life prediction. He also has successfully implemented models for determining the moisture content of field crops at harvest using on combine harvest monitoring systems.



Lisa Mauer, PhD

Professor and Associate Vice Provost at Purdue University

Lisa Mauer is a professor in the Department of Food Science and the Whistler Center for Carbohydrate Research and associate vice provost for faculty affairs at Purdue University. She joined IFT in 1992 and is now an IFT Fellow. Her research focuses on food materials science structure-function questions, emphasizing low and intermediate-moisture products, water-solid interactions (including deliquescence), food ingredient architecture, and micronutrient stability, for which she has received numerous awards, including the IFT Marcel Loncin Prize and the IFT Research and Development Award. Mauer also enjoys teaching, mentoring, and

advising students. She is an inducted member of Purdue's Teaching Academy and the Book of Great Teachers and has been a longtime contributor to IFT's preconference short courses.



Michelle Richardson, PhD

Senior Food Technologists at Natick Soldier Research, Development and Engineering Center

Ms. Richardson has worked for the U.S. Army Combat Capabilities Development Command for almost over 35 years. She attended the University of Rhode Island (Talent Development Program) and has earned a B.S. in food science and nutrition at the University of Rhode Island. She is a research food technologist serving as a project officer on Food Engineering and Analysis Team, Combat Feeding Division. Her primary responsibilities include defining, planning, and conducting all activities relating to the exploration, conceptualization,

characterization of new food items and processes for the development of safe, nutritious, and highly acceptable components for both military and space feeding.

She has written and presented papers for various technical meetings, refereed journals and conference proceedings and had the opportunity to author/co-author several book chapters. In addition, she has a United States Patent on a Self-heating, self-hydrating pouch that simultaneously hydrates and heats completely or partially dehydrated food or beverage products. Her previous projects focus on bakery item stability; developing shelf stable items; and vitamin stabilization for the five-year mission to Mars; She currently focusing on water properties in food, meal replacement bars, vacuum microwave dehydration and processing foods for the International Space Station.