

Grishma Prabhukhot, Ph.D.



Tell us a little about yourself and your connection with Maryland IFT. We'd love to hear your story!

I am a food safety professional with a Ph.D. in Mechanical Engineering from the University of Maryland, Baltimore County (UMBC), where my research focused on microbial biofilms and their removal from food-contact surfaces. My career has allowed me to work at the intersection of engineering, microbiology, food safety, and food processing. I currently work in Technical Services at Elite Spice Inc., where I support technical documentation, formula and specification review, regulatory and customer inquiries, supplier documentation, and food safety-related activities.

My connection with Maryland IFT has been an important part of my professional journey. Through Maryland IFT, I have had opportunities to connect with food professionals across different areas of the industry, contribute to the food science community, and take on leadership and communication roles. Being part of this community has reinforced how valuable collaboration and knowledge-sharing are in advancing the food industry.

What inspired you to pursue a career in food science?

My interest in food science developed from my engineering background and my curiosity about how engineering principles can be applied to real-world food safety challenges. During my doctoral research, I became particularly interested in how microorganisms interact with food-processing environments and how we can use science and engineering to control those risks. That experience showed me that food safety is a multidisciplinary field where engineering, microbiology, chemistry, and process science come together to solve practical problems. It ultimately led me to pursue a career where I could apply my technical background to improving the safety and quality of food products and processes.

Can you share a bit about your current role and how your work contributes to advancing food science, quality, policy, or innovation?

In my current role in Technical Services, I work across technical, regulatory, and customer-facing functions. I review and approve formulas and technical documents, support regulatory and customer inquiries, evaluate supplier documentation, and contribute to food safety and compliance activities. My previous role in Process Controls at Elite Spice focused more directly on validation of microbial reduction processes for low-moisture foods, including evaluating sterilization technologies and developing risk-based approaches for process validation. Together, these experiences have given me a broader perspective on how scientific research translates into validated processes, regulatory requirements, and practical food industry decisions.

What is one challenge or opportunity you see shaping the future of the food industry?

The food industry is constantly balancing safety, quality, sustainability, regulatory requirements, cost, and consumer expectations. I think the future will increasingly depend on data quality and risk-based decision-making to develop effective solutions without compromising food safety.

What advice would you give to students or early-career professionals interested in building a career in this field?

Be curious and do not limit yourself to one discipline. Food science is incredibly interdisciplinary, and some of the most interesting opportunities are at the intersection of different fields. Build strong technical fundamentals, but also learn how to communicate your science to people who may not have the same technical background. Your career may not follow the path you initially imagine, and that is okay, stay open to opportunities that allow you to keep learning.