

Better Food Through Enabling Technologies

Chemistry Seminar

Fri, March 17

3:15 pm

Room 310

Donuts will be provided

With over 20 years' experience in the food industry, I have a few stories to tell. This talk will be partly about my professional journey, partly about General Mills, and partly about developing enabling technologies to make food healthier. Some of the things we'll explore: What kind of technical and scientific questions must be answered? How does one develop novel technology for food? How long does that take? What all goes into launching a product? We'll discuss an overview of these aspects as well as dive into the details of reducing sodium in retail food. Salty taste is important to palatability and consumer acceptance. However, high intake of sodium in the diet has been associated with adverse health outcomes. Attempts to reduce sodium in the diet has led to increased use of alternative salty tasting ingredients. These approaches are limited by reduced salty taste, increased off-flavors, and physiological tolerance concerns in certain populations. We'll explore the use of natural flavors and enriched extracts as a way to improve salty taste perception, thereby improving overall palatability while reducing sodium in products.



Christine Nowakowski, Principal Scientist General Mills, Inc.



Christine began her career at General Mills in 2000 as a Scientist in the Bell Institute of Health and Nutrition. Since then, Christine has held roles of increasing responsibility, supporting research and development activities in Grain & Technology, Meals, Big G Cereals, Global Technical Research and more recently, in Nutrition and Technology Solutions group. Christine is an important technical expert for the company and is a recognized authority and highly sought out consultant on many food science topics including sugar crystallization and taste receptor chemistry. Christine leads several long-term research initiatives (sodium reduction technology, sugar reduction technology, flavor perception) as well as creating technical solutions that enable on product launches e.g., (gluten-free Cheerios, Annie's Toaster Pastry). Christine has a high commitment to teaching and mentoring others. She holds an Adjunct Associate Graduate Professor position at the University of Minnesota - Twin Cities Food Science and Nutrition Department and has served as a major advisor or committee member to many graduate students over the years, helping them to achieve their graduate degrees in Food Science. Christine enjoys sharing her knowledge with others and had been a dedicated instructor at the U of M, teaching in courses such as Ingredient Functionality, Food Carbohydrates and Food Chemistry as well as acting as an industrial mentor for Capstone. Internal to General Mills, Christine teaches Food Chemistry, Food Polymer Science and several other related courses. She is the author of over 120 publications and patents. In her spare time, Christine mentors veterans for American Corporate Partners and volunteers as a technical expert with Partners in Food Solutions, enabling product launches in Kenya, Ethiopia, Zambia and Haiti. Christine received her B.S in Microbiology at the University of Wisconsin - Milwaukee and M.S. in Food Science and Ph.D in Food Chemistry from the University of Wisconsin-Madison.