Richard D. Mattes
Distinguished Professor
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Dr. Richard D. Mattes is a leader in the field of ingestive behavior. For more than 39 years, he has conducted groundbreaking research on nutrition and chemosensory function and has particularly focused on the regulation of human food intake. His rigorous research has elucidated many links between behavior and physiology related to feeding in healthy individuals and individuals with selected chronic diseases. His exceptional studies have helped transform clinical and applied nutrition.

Dr. Mattes obtained an undergraduate degree in biology from the University of Michigan, and a MPH from the University of Michigan School of Public Health. After completing his Ph.D. studies in human nutrition at Cornell University, he conducted post-doctoral studies at the Memorial Sloan-Kettering Cancer Center and the Monell Chemical Senses Center. Currently teaching and conducting research at Purdue University's College of Health and Human Sciences, he is a Distinguished Professor in the Department of Nutrition Science, Director of the Ingestive Behavior Research Center, and Head of the Department of Public Health. He is also an Adjunct Associate Professor of Medicine at the Indiana University School of Medicine, and an affiliated scientist at the Monell Chemical Senses Center.

In the early 1980s, Dr. Mattes began characterizing the relationship between salt taste and hypertension, including published work indicating that three-quarters of the sodium in the U.S. diet comes from food processing. These results, and other evidence, prompted many food companies to reduce the sodium content in their products, and the findings are still considered the authoritative source on sodium levels in processed foods. Dr. Mattes also published a series of studies describing the nature and nutritional consequences of food aversions in patients with cancer undergoing chemotherapy and radiotherapy. In addition, he published a paper in 2000 outlining the differential effects of beverages and solid foods on appetite, findings that heralded concerns about beverages, especially sugar-sweetened beverages, in the diet and resulting obesity risks.

Dr. Mattes' research also clarified how nut consumption affects body weight and contributed to promoting the inclusion of nuts in a healthful diet. His work also led to the groundbreaking finding that fatty acids are detected in the mouth by the sense of taste (in addition to olfactory and somatosensory cues)—results that challenge the long-held view that taste is comprised of only a limited number of primary qualities (i.e., sweet, sour, salty, bitter, and umami). This discovery may prove to be critical for understanding why people prefer certain foods and contributes basic information about how different macronutrients can prompt a range of

physiological responses through their sensory properties alone. In another innovative study in 2012, Dr. Mattes demonstrated the importance of cognition on human physiology. Experts believe this investigation, which confirms the fundamental role of human cognition in the physical and mental control of dietary intake, will one day be regarded as a seminal study in nutritional research.

Dr. Mattes has written more than 285 publications and contributes to many professional groups and activities, including serving as a member of the 2020 Dietary Guidelines Advisory Committee and as Past President of the American Society of Nutrition. He is currently a member of the Academy of Nutrition and Dietetics, the Obesity Society, the Institute of Food Technologists, and the Society for the Study of Ingestive Behavior, and is Secretary of the Rose Marie Pangborn Sensory Science Scholarship Fund. His colleagues have presented him with a range of awards and honors, including the Babcock-Hart Award from the Institute of Food Technologists, the Elaine R. Monsen Award for Outstanding Research Literature from the American Dietetic Association, and the Excellence in Research Award from the International Nut and Dried Fruit Council.