# Food TOXICOLOGY

## Current Advances and Future Challenges

*Editors* Ashish Sachan | Suzanne Hendrich

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# Food Toxicology

## Current Advances and Future Challenges

This volume covers a selection of important research in the multifaceted field of food toxicology. With more than seven billion people in the world today and counting, advances in food toxicology have a direct bearing on food safety issues that are of concern to all humanity for the foreseeable future. Massive globalization, industrialization, and commercialization have affected every aspect of food production, the food supply chain, and food consumption.

This informative volume offers the global perspectives of scientists in important areas related to biomarkers and nanosensors in food toxicology, toxicology of nanomaterials, chemicals in sanitation and packaging, additives, mycotoxins, endocrine disruptors, radionuclides, toxic metals, and waste-burning residues in food. The book also emphasizes regulatory toxicology and includes an interesting example case study.

The challenge of sustainable and safe food for everyone needs a multidisciplinary and multi-sectorial approach from related industries and governments alike. Food chemical safety is an underappreciated aspect of consumer safety, and this volume seeks to help fill that gap by providing informative research for food scientists and researchers and many others.

### ABOUT THE EDITORS

**Ashish Sachan,** DVM, MVSc, PhD, is a veterinarian licensed in toxicology by the College of Veterinarians of Ontario (CVO), Canada. Dr. Sachan has been involved with toxicological sciences for more than twenty years in both university and industrial settings. Dr. Sachan's publications and books have widely covered advancements in the field of pharmacology and toxicology, including research topics related to ethnopharmacology, pesticide toxicology, and nanosensor technologies. Currently he is the Director of Toxam, Inc. and also serves on the board of directors for the Society of Toxicology of Canada (STC). His current professional interests include the regulatory affairs and the scientific and business development of agricultural and veterinary products.

**Suzanne Hendrich,** PhD, is a University Professor and the Lura M. Lovell Fellow at the Department of Food Science and Human Nutrition at Iowa State University. She has authored more than 150 research papers and abstracts, mainly on the bioavailability of dietary constituents, such as soybean isoflavones. Dr. Hendrich compiles an annual report based on data from the American Association of Poison Control Center comparing foodborne toxicants, including dietary botanical, vitamin and mineral supplements, seafood toxins, and other foodborne toxicants for their adverse effects. She writes a "foodtox" blog (https://foodtoxicologyprof.wordpress.com/) for which she critiques research on food chemical and dietary supplement safety.

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