

Special Issue

Omics Strategies to Enhance Food Safety and Quality

Message from the Guest Editors

Omics technologies, including metabolomics, proteomics, transcriptomics, and genomics, have revolutionized our capacity to improve food safety and quality—these approaches provide a comprehensive understanding of food-related systems at the molecular level across various stages, including food processing/treatment, transportation, storage, and consumption, facilitating the detection of key markers and pathways linked to food contamination and spoilage. For instance, proteomics and metabolomics offer insights into changes in protein and chemical biomarkers for freshness, adulteration, and contamination, which also elucidates the antimicrobial mechanism of various treatments when applied to foodborne pathogens and spoilage organisms. Furthermore, integrating omics data with advanced computational tools makes it possible for prediction models of food quality and safety, contributing to improving the shelf life of perishable foods and monitoring the risks of foodborne diseases. Therefore, this Special Issue welcomes both research papers and reviews on new applications related to omics strategies designed to enhance the safety and quality of food materials and food products.

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About the Journal

Message from the Editor-in-Chief

Foods (ISSN 2304-8158) is an open access and peer reviewed scientific journal that publishes original articles, critical reviews, case reports, and short communications on food science. Articles are released monthly online, with unlimited free access. Currently, *Foods* has been indexed by the Science Citation Index Expanded (SCIE - Web of Science), PubMed, and Scopus. Our aim is to encourage scientists, researchers, and other food professionals to publish their experimental and theoretical results as much detail as possible. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global food science community.

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