New Tools, Old Enemies: Introducing a New Era of Methods for Detecting, Tracking, and Controlling Foodborne Pathogens

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Message from the Guest Editor

Molecular microbiology techniques, such as whole genome sequencing or PCR-based techniques, as well as bioinformatics and modelling, such as source attribution or predictive microbiology, have major impacts on food safety as they can be used with high accuracy for the detection, tracking, characterization, and identification of pathogens. The rapid emergence and adoption of these tools marks the beginning of a new era in food safety by the application of new molecular and statistical techniques for evidence-based decision-making, and a more effective assessment of microbiological risks. Genomics and other omics technologies (metagenomics, metatranscriptomics, etc.) will be an integral part of the toolkit for the assessment and systematic monitoring of microbiological risks in foods. These technologies will be used to improve the phylogenetic and genetic classification of pathogens by identifying, with high precision, genes related to virulence and/or resistance to antibiotics (antimicrobial resistance). Therefore, articles dealing with these topics as they relate to various foodborne pathogens are welcome for submission to this Special Issue.

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Special Issue

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Message from the Editor-in-Chief

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