

Special Issue

The Evolution of Foodborne Pathogens in the 4.0 Era: A Food Safety Perspective

Message from the Guest Editors

This Special Issue focuses on technological advances for monitoring, detecting, and controlling pathogenic microorganisms in the Food Safety 4.0 Era. The 4.0 Era, characterized by artificial intelligence, big data, and the Internet of Things (IoT), is revolutionizing and accelerating food safety systems, making them faster, more accurate, and more accessible. Recent advances in this area focus on research using molecular microbiology, genetics, and in silico tools, such as bioinformatics, to identify and characterize evolving and persistent pathogens in the food chain. For example, tools such as genome sequencing, CRISPR, and other techniques are combined with computational tools that allow an extensive data set to be analyzed, making it possible to trace these pathogens. Hence, the technological advances that accompany Era 4.0 are crucial to elucidating the cellular and molecular mechanisms of pathogens as science and technology advance. Therefore, we invite researchers and experts in the field to contribute their work to this Special Issue, providing valuable information on the future of food safety and pathogen control in the 4.0 Era.

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About the Journal

Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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