Special Issue

Novel Analysis and Detection Approaches in Food Microbiology

Message from the Guest Editors

Food microbiology is essential for a large number of aspects of human well-being. Microbiological methods of food microbiology cover microorganisms' growth, survival, and biochemical activity dynamics in food, food additives, and pharmaceuticals. Traditional microbiology methods (culture-dependent) are sometimes labor-intensive and time-consuming. However, they are the only way to isolate pure microbial cultures. The combined application of culture methods and MALDI-TOF-MS and 16S rRNA sequencing contribute to the development of a culturomics strategy for microorganism isolation and identification from complex environments. The rapid and novel culture-independent methods in microbiological tests provide more sensitive, precise, and reproducible results than conventional ones. Although conventional PCR, real-time quantitative PCR, ELISA, microarray and biochip technologies, etc., are the most rapid microbiology testing methods in food processing, an innovative trend in methods development enables the detection of multiple species in a single analysis.

Guest Editors

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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