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Dairy Spoilage Microorganisms, Mechanisms and Novel Preservation Strategies

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Message from the Guest Editors

In the dairy industry, spoilage causes losses of billions of dollars worldwide every year. Proteolysis, lipolysis and pigments released by various microorganisms are some of the most characterized spoilage activities. Most of them are quorum sensing (QS) regulated, and molecule signals have been detected in spoiled products where they affect microbial biodiversity and metabolic activities. Thus, preservation strategies blocking this communication system are considered as promising in counteracting spoilage phenomena.

This Special Issue aims to provide a fundamental understanding of the role of microbial cross-talk in the evolution of dairy spoilage, with respect to microbiota composition, metabolic pathways, enzymes and molecules involved in spoilage activity. Omics technologies are continuously offering new insights into the characterization of this issue. Genomics, metagenomics, proteomics and metabolomics studies will help us to understand the microbial ecology of spoiled products. The development of novel preservation strategies, such as the utilization of natural antimicrobials and QS inhibitors, and their impact on the shelf life of dairy products, is welcomed.













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Message from the Editor-in-Chief

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