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Sommario/riassunto	<p>Materials and equipment in food processing industries are colonized by surface-associated microbial communities called biofilms. In these biostructures microorganisms are embedded in a complex organic matrix composed essentially of polysaccharides, nucleic acids and proteins. This organic shield contributes to the mechanical biofilm cohesion and triggers tolerance to environmental stresses such as dehydration or nutrient deprivation. Notably, cells within a biofilm are more tolerant to sanitation processes and the action of antimicrobial agents than their free living (or planktonic) counterparts. Such properties make conventional cleaning and disinfection protocols normally not effective in eradicating these biocontaminants. Biofilms are thus a continuous source of persistent microorganisms, including spoilage and pathogenic microorganisms, leading to repeated contamination of processed food with important economic and safety impact. Alternatively, in some particular settings, biofilm formation by resident or technological microorganisms can be desirable, due to possible enhancement of food fermentations or as a means of bioprotection against the settlement of pathogenic microorganisms. In the last decades substantial research efforts have been devoted to unravelling mechanisms of biofilm formation, deciphering biofilm architecture and understanding microbial interactions within those ecosystems. However, biofilms present a high level of complexity and many aspects remain yet to be fully understood. A lot of attention has</p>

been also paid to the development of novel strategies for preventing or controlling biofilm formation in industrial settings. Further research needs to be focused on the identification of new biocides effective against biofilm-associated microorganisms, the development of control strategies based on the inhibition of cell-to-cell communication, and the potential use of bacteriocins, bacteriocin-producing bacteria, phage, and natural antimicrobials as anti-biofilm agents, among others. This Research Topic aims to provide an avenue for dissemination of recent advances within the “biofilms” field, from novel knowledge on mechanisms of biofilm formation and biofilm architecture to novel strategies for biofilm control in food industrial settings.
