Special Issue

Unraveling Genomic Mechanisms of Stress Tolerance and Antimicrobial Resistance in Foodborne Pathogens

Message from the Guest Editors

In recent years, there has been a noticeable increase in stress tolerance among foodborne pathogens in response to various stimuli such as heat, sanitizers, antibiotics, and acidity, among others. Additionally, some bacteria like Escherichia coli have demonstrated the presence of not just individual resistance genes but entire genomic loci, such as the Transmissible Locus of Stress Tolerance (tLST). Other genomic elements, including the Listeria monocytogenes Stress Survival Islet 1 (SSI-1) and the Salmonella Genomic Island 1 (SGI1), have also been implicated in enhancing survival and multidrug resistance.

This Special Issue aims to address existing gaps and showcase cutting-edge research in this field. We invite researchers to contribute manuscripts exploring all aspects of stress tolerance and antimicrobial resistance in foodborne pathogens. Studies focusing on stressors such as heat, sanitizers, acidity, salinity, and osmolarity, as well as mechanisms of antimicrobial resistance, including the role of emerging resistance genes, genomic islands, and mobile genetic elements, are especially welcome.

Guest Editors

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Deadline for manuscript submissions

closed (25 January 2026)

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Message from the Editor-in-Chief

Genes is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised. Why not consider *Genes* for your next genetics paper?

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