

Special Issue

Novel Approaches for Investigating Antibiotic Resistance and Bacterial Persistence

Message from the Guest Editors

Antibiotic treatment failure is a global public health crisis and imposes a grave impact on many developing countries. In addition to resistant mutants, antibiotics can fail against microorganisms that survive therapy without acquiring heritable genetic changes that enable them to grow in the presence of inhibitory antibiotic concentrations. Bacterial persisters, which are reversible antibiotic-tolerant cells within clonal cultures, contribute to this problem as they are thought to facilitate the recurrence of chronic and biofilm-related infections and promote the emergence of drug resistant mutants. Given that mechanisms associated with persister cell formation, survival and resuscitation are highly complex and diverse, many aspects of persistence are yet to be discovered. Therefore, we would like to invite you to send contributions to this Special Issue. Topics of particular interest in this issue include, but are not limited to:

- recent approaches and findings in persister formation and resuscitation mechanisms
- the links between persistence and mutational resistance mechanisms
- persister cell heterogeneity
- persister cell physiology
- anti-persister strategies

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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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