



Antibiotics and Bacterial Metabolism

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Message from the Guest Editor

Dear Colleagues,

A close link between antibiotic efficacy and bacterial metabolism has emerged in recent years. Indeed, currently used antibiotics target a narrow spectrum of macromolecular biosynthetic processes, also perturbing bacterial metabolism and contributing to cell death. Furthermore, it is becoming more and more evident that the metabolic state of bacteria also influences their susceptibility to antibiotics. In particular, cells with a reduced metabolism (for example, during the stationary phase of growth, or persisters or cells embedded in biofilm) show higher resistance to antibiotic action. Consequently, antibiotic efficacy could be enhanced by altering the metabolic state of bacteria.

This Special Issue welcomes submissions from different research fields that deepen the relationship between bacterial metabolism and antibiotic efficacy, to find new ways to overcome the problem of antibiotic resistance.

Keywords: antibiotic resistance; biofilm; persisters; metabolic state of cells; stationary phase; bacteriostatic and bactericidal antibiotics





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Message from the Editor-in-Chief

There are very few fields that attract as much attention as scientific endeavor related to antibiotic discovery, use and preservation. The public, patients, scientists, clinicians, policy-makers, NGOs, governments, and supra-governmental organizations are all focusing intensively on it: all are concerned that we use our existing agents more effectively, and develop and evaluate new interventions in time to face emerging challenges for the benefit of present and future generations. We need every discipline to contribute and collaborate: molecular, microbiological, clinical, epidemiological, geographic, economic, social scientific and policy disciples are all key. *Antibiotics* is a nimble, inclusive and rigorous indexed journal as an enabling platform for all who can contribute to solving the greatest broad concerns of the modern world.

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