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The Quest for Novel Antimicrobials: From Chemical Synthesis and Discovery to Mechanisms of Action and Resistance

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Message from the Guest Editors

Dear Colleagues,

The ongoing worldwide viral pandemic that is affecting all of us highlights the problem of microbial resistance to available drugs and the urgent need for the development of novel antibacterial, antifungal and antiviral compounds. The current rush points out the need for the research of novel antifungal and antibacterial compounds to cope with established pathogens and emerging multiresistant strains. In recent years, research laboratories and academia have taken the front edge of research on antimicrobials, as the introduction of novel antibiotics into the market has continuously declined.

This Issue aims to gather papers describing novel antimicrobial molecules that are active against bacteria, fungi and viruses, originating from chemical synthesis, repositioning of existent drugs, or from natural sources. We are also welcoming papers describing the discovery of novel targets and mechanisms of action and resistance, as well as on the use of omics and bioinformatic approaches to advance the field of novel antimicrobials discovery.

Keywords: antibacterial; antifungal; antiviral; new synthetic routes; drug discovery



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Special Issue



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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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