

Special Issue

Natural Products and Bio-Nanomaterials: Novel Strategies to Overcome Antibiotic Resistance

Message from the Guest Editors

Natural products are a trend in biomedical applications as antimicrobials due to their low toxicity and environmental safety. Many different plants have been used as pharmaceuticals with benefits and advantages in infection control. However, this use alone presents some difficulties (cost, efficacy, seasonality, etc.) suggesting increments in their compounds. Nanotechnology or Nanoscience is the study and application of small particles (between 1 and 100 nm) to produce new structures, material, and devices. This size and charge allow optimizing some physicochemical properties, as well as biological activities. Some nanomaterials with antimicrobial effects have been applied in the field of medicine with satisfactory results. These materials can adopt interesting strategies such as nanoencapsulation, compounds delivery, magnetic targeting and synergic associations. In this way, our Special Issue will receive articles focusing on the antimicrobial activity using natural products (from marine, plants, microorganisms, etc.) and bionanomaterials for prevention or therapy against pathogens, including MDRs. Authors can send original research or review approaching this theme.

Guest Editors

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Deadline for manuscript submissions

closed (30 June 2025)



Antibiotics

an Open Access Journal
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Impact Factor 4.6
CiteScore 8.7
Indexed in PubMed



mdpi.com/si/107003

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About the Journal

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 disciplines 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.

Editor-in-Chief

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