

## Special Issue

# The Application of Nanomaterials in Combating Antibiotic-Resistant Bacteria

### Message from the Guest Editor

Antibiotic resistance is becoming increasingly prevalent among microbes today. It is one of the most serious major public health issue confronting the world's population. It is estimated that many patients die as a result of their illnesses. As a result, the situation is considerably worse in developing countries, where approximately 75% of all infections occur. Statistically, South Africa's results are likely to fall within the respective ranges. Although new antibiotics have been developed during the last century, they are inadequate to treat a variety of antibiotic-resistant bacteria. Consequently, a novel antimicrobial medication that is noncorrosive and nontoxic, and that operates more effectively and rapidly than current antibiotics, is necessary to address this growing public health risk. The use of photodynamic therapy (PDT) and the development of nanoformulations to reduce multidrug-resistant pathogen infections can involve in vitro, animal study, and clinical trial approaches.

This Special Issue aims to discover a therapeutic molecule and agent that will aid in the treatment of disease and illness in human beings and animals.

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### Guest Editor

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### Deadline for manuscript submissions

closed (1 April 2024)



## Antibiotics

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**CiteScore 8.7**  
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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.

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### Editor-in-Chief

Prof. Dr. Nicholas Dixon  
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