

## Special Issue

# Overcoming Bacterial Resistance Using Antibiotic Combinations

### Message from the Guest Editors

Resistance of bacteria to antibiotics is a growing problem. One of the existing ways to overcome the emergence of microbial resistance is combined use of antibiotics of different classes and/or antibiotics with beta-lactamase inhibitors. The search of such combinations or new active compounds characterized with potent efficacy against resistant organisms is one of the main areas of research. For these purposes, different approaches based on in vitro activity assay of combinations, including checkerboard techniques, time-kill experiments and investigation of pharmacodynamics in in vitro dynamic models, are used. In vitro dynamic models simulate the human pharmacokinetics of drugs and allow predicting the antibiotic combination effectiveness in clinic. Along with the search for novel antibiotic combinations, new approaches to evaluate their possible efficacy in clinic are valuable. In vivo experiments with infected animals hold a special place in the investigation of perspective drug combinations. Articles exploring the antimicrobial potential of drug combinations to overcome antibiotic resistance are welcome.

### Guest Editors

Dr. Maria V. Golikova

Gause Institute of New Antibiotics, Moscow, Russia

Dr. Elena N. Strukova

Gause Institute of New Antibiotics, Moscow, Russia

### Deadline for manuscript submissions

closed (30 April 2024)



## Antibiotics

an Open Access Journal  
by MDPI

Impact Factor 4.6  
CiteScore 8.7  
Indexed in PubMed



[mdpi.com/si/167968](https://mdpi.com/si/167968)

*Antibiotics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[antibiotics@mdpi.com](mailto:antibiotics@mdpi.com)

[mdpi.com/journal/  
antibiotics](https://mdpi.com/journal/antibiotics)





# Antibiotics

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.6  
CiteScore 8.7  
Indexed in PubMed



[mdpi.com/journal/  
antibiotics](https://mdpi.com/journal/antibiotics)



## 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

Prof. Dr. Nicholas Dixon  
School of Chemistry and Molecular Bioscience, University of  
Wollongong, Wollongong, NSW 2522, Australia

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Infectious Diseases) / CiteScore - Q1 (General Pharmacology, Toxicology and Pharmaceutics)