

## Special Issue

# Multitalented Synthetic Antimicrobial Compounds: From Design to Effect

### Message from the Guest Editors

The misuse and overuse of antibiotics has contributed to the development of antimicrobial resistance, rendering antibiotics ineffective for treating multi-drug-resistant bacterial and fungal infections. In addition, the lack of innovation in the development of novel therapeutic strategies in the last few decades has undermined efforts to circumvent multi-drug-resistant infections. Hence, there is an urgent need to design and develop new classes of antimicrobial compounds, particularly those with broad antibacterial and/or fungal activity. This Special Issue will compile up-to-date research on novel antimicrobial compounds. Topics to be covered in this Special Issue include, but are not limited to, the design and synthesis of antimicrobial compounds, the development of synthetic analogues of natural products with antimicrobial activity, the in vitro and/or in vivo antimicrobial evaluation of synthetic compounds, and the mechanisms of action of novel antimicrobial compounds. Prospective authors are invited to submit their research findings as full articles, communications, or reviews related to this topic.

---

### Guest Editors

Dr. Tsz Tin Yu

School of Chemistry, University of New South Wales (UNSW Sydney), Sydney, NSW 2052, Australia

Dr. Maria Fernanda N. N. Carvalho

Instituto Superior Técnico, University of Lisbon, 1049-001 Lisbon, Portugal

---

### Deadline for manuscript submissions

31 July 2026



## Antibiotics

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.6  
CiteScore 8.7  
Indexed in PubMed



[mdpi.com/si/201932](https://mdpi.com/si/201932)

*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)