Special Issue

Antibiotics and the Evolution of Resistance: Insights into Horizontal Gene Transfer

Message from the Guest Editors

Horizontal gene transfer (HGT) plays a pivotal role in the dissemination and persistence of antimicrobial resistance (AMR). Vehicles for HGT in bacteria are conjugative plasmids (CPs), mobilizable plasmids (MPs), integrative conjugative elements (ICEs), integrative mobilizable elements (IMEs), and bacteriophages. We encourage researchers working on these mobile genetic elements to submit manuscripts demonstrating their participation in the evolution of AMR in bacteria. We also invite manuscripts describing structural, functional, or mechanistic aspects of HGT in conjunction with the spread and persistence of AMR, e.g., in hospitals, the environment, and especially in the ONE HEALTH context. Original research articles, short communications, and reviews on the topic are highly welcome.

Guest Editors

Prof. Dr. Günther Koraimann
Institute of Molecular Biosciences, University of Graz, Graz, Austria

Prof. Dr. Elisabeth Grohmann
Faculty of Life Sciences and Technology, Department of Microbiology, University of Applied Sciences Berlin, Berlin, Germany

Deadline for manuscript submissions

31 August 2025

Antibiotics

an Open Access Journal by MDPI

Impact Factor 4.6
CiteScore 8.7
Indexed in PubMed

mdpi.com/si/230098

Antibiotics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
antibiotics@mdpi.com

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

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 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.

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)

MDPI