Special Issue

Advances in Antimicrobial Therapies for Oral Infections: From Biofilm Disruption to Clinical Applications

Message from the Guest Editors

Oral infections, such as dental caries, periodontitis, oral candidiasis and denture stomatitis, are frequently associated with the formation of microbial biofilms that are resistant to conventional therapies. Advances in understanding the structure and behavior of biofilms have driven the development of new, more effective antimicrobial strategies. Studies have evaluated the control of oral infections through natural molecules, with the development of antibiofilm properties, essential oils, antimicrobial peptides, and emerging technologies such as nanoparticles, antimicrobial photodynamics and bacteriophages. In addition, the combination of physical, chemical and biological approaches has demonstrated synergistic potential, promoting greater efficacy and a lower risk of microbial resistance. Therefore, the application of these advances to clinical practice, with a focus on the prevention and treatment of oral infections, is extremely important. The incorporation of these innovative therapies into the dental routine represents a promising step in overcoming the challenges imposed by biofilms, contributing to the improvement of oral health and quality of life.

Guest Editors

Prof. Dr. Cláudia Helena Silva-Lovato

Department of Dental Materials and Prostheses, School of Dentistry of Ribeirão Preto, University of São Paulo, São Paulo 14040-904, Brazil

Dr. Adriana Barbosa Ribeiro

Department of Dental Materials and Prostheses, School of Dentistry of Ribeirão Preto, University of São Paulo, São Paulo 14040-904, Brazil

Deadline for manuscript submissions

31 January 2026

Antibiotics

an Open Access Journal by MDPI

Impact Factor 4.6
CiteScore 8.7
Indexed in PubMed

mdpi.com/si/241950

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