Special Issue

Antibiotics and Antibiotic Resistance Genes in the Environment: Transmission, Fate and Mitigation Strategies

Message from the Guest Editors

The widespread use of antibiotics in agriculture—primarily to promote growth, prevent disease, and treat infections in livestock and aquaculture—has made the agro-environment a critical hotspot for the dissemination of antibiotic resistance. This environmental reservoir of antibiotics and antibiotic resistance genes (ARGs) creates continuous selection pressure, fostering the enrichment of resistant bacteria and facilitating the horizontal transfer of ARGs to human pathogens. This Special Issue of Antibiotics seeks to gather high-quality research and review articles that address the complex challenges associated with antibiotics and antibiotic resistance genes in the environment. We aim to advance understanding of the full lifecycle of antibiotics—from their use and environmental fate to their ecological impacts and the development of resistance. Particular emphasis will be placed on innovative strategies for monitoring, risk assessment, and mitigation.

Guest Editors

Prof. Dr. Yongzhen Ding

Dr. Zulin Zhang

Dr. Hui Lin

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

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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 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

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