



Antimicrobial Resistance and Its Environmental Risk

Guest Editors:

Dr. Pasqualina Laganà

Department of Biomedical and
Dental Sciences and
Morphofunctional Imaging,
University of Messina, A.O.U. "G.
Martino"-Torre Biologica 3rd p, Via
C. Valeria, s.n.c., 98125 Messina,
Italy

Dr. Maria Anna Coniglio

Department of Medical and
Surgical Sciences and Advanced
Technologies "GF Ingrassia",
University of Catania, Via S. Sofia
87, 95123 Catania, Italy

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Message from the Guest Editors

Antibiotic resistance, derived from resistance genes to synthetic and semi-synthetic antibiotics, spreads in the environment through multiple contamination routes, following different anthropic activities in which there is a high use of antibiotics.

The latest European report on antibiotic resistance (ECDC, 2020) provided extremely worrying estimates: around 33,000 deaths a year are the direct consequence of resistant infections. The molecules not metabolized by the human body and the respective metabolites are excreted via urine and faeces, reaching urban wastewater and water purification plants, where they remain, even in minimal concentrations. Antibiotics and metabolites are then introduced into watercourses, lakes, or the sea through treated water, or into the soil through the use of purification sludge as fertilizer for fields.

The Special Issue that we propose has the purpose of gathering experiences in this area; new data on the subject will enrich those already in the scientific community. Studies carried out on classic and new environmental matrices involved in the spread of antibiotic resistance are encouraged.





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Editor-in-Chief

Prof. Dr. Sergio Ulgiati

1. Department of Science and
Technology, Parthenope
University of Naples, Centro
Direzionale, Isola C4, 80143
Napoli, Italy
2. State Key Joint Laboratory of
Environment Simulation and
Pollution Control, School of
Environment, Beijing Normal
University, No. 19 Xijiekouwai
Street, Beijing 100875, China

Message from the Editor-in-Chief

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Environments Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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