

Special Issue

Antimicrobial Resistance and Its Environmental Risk

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.

Guest Editors

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Environmental issues are quickly becoming central political, economic and academic topics of the twenty-first century. A large number of modern challenges are directly or indirectly caused by complex interactions between environmental issues. Such issues require interdisciplinary research, knowledge and insights to understand and, ultimately, for solutions to be found. Through the journal *Environments*, we strive to create a platform for meaningful discourse by accepting contributions from a wide range of fields. We sincerely hope you will consider publishing your distinguished work in this highly-accessible, peer-reviewed journal.

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