



## Molecular Epidemiology of Human Bacterial Pathogens Tolerant to Biocides and Resistant to Antibiotics

Guest Editors:

**Dr. Carla Novais**

**Dr. Patrícia Antunes**

**Dr. Ana R. Freitas**

Deadline for manuscript  
submissions:  
**closed (30 September 2023)**

### Message from the Guest Editors

Biocides (e.g., disinfectants, metals) are critical to human and animal infection prevention and control. Although they are usually used in high concentrations, sub-inhibitory ones (e.g., due to inadequate use or environmental residues) might select human pathogenic bacteria with diverse levels of biocide tolerance in several environments. Biocides have also been pointed out as a potential player in the selection of bacteria resistant to antibiotics. The application of genomics and metagenomics could be a key strategy to decipher the molecular epidemiology of biocide tolerance (clones, genetic elements) among antibiotic-resistant human pathogenic bacteria as well as the interconnection among microbiota from overlapping ecosystems contributing to this problem. This Special Issue will highlight research findings that cover topics focusing on molecular aspects of biocide tolerance and of diverse practices associated with their use in diverse clinical, food-chain, and environmental contexts contributing to the selection and persistence of biocide-tolerant and antibiotic-resistant bacteria.





an Open Access Journal by MDPI

## Editor-in-Chief

### Dr. Nico Jehmlich

Department of Molecular  
Toxicology, UFZ-Helmholtz  
Centre for Environmental  
Research, 04318 Leipzig,  
Germany

## Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

## 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, PubAg, CAPlus / SciFinder, AGRIS, and other databases.

**Journal Rank:** JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

## Contact Us

---

*Microorganisms* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/microorganisms  
microorganisms@mdpi.com  
X@Micro\_MDPI