Special Issue

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

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.

Guest Editors

Dr. Carla Novais
Dr. Patrícia Antunes
Dr. Ana R. Freitas

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

mdpi.com/journal/microorganisms

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"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.

Editor-in-Chief

Dr. Nico Jehmlich
Department of Molecular Toxicology, UFZ-Helmholtz Centre for Environmental Research, 04318 Leipzig, Germany

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