Special Issue

Application of Next Generation Sequencing for Studying the Resistance of Environmental Pathogens

Message from the Guest Editors

"Environmental pathogens" are organisms that normally spend a substantial part of their lifecycle outside human hosts. The world around us consists of a complex and dense network of microbes, including parasites, fungi, bacteria, and viruses. These microorganisms have either a direct impact on human health by causing diseases or an indirect effect as a vehicle for the transmission of antimicrobial determinants and virulence genes. Next generation sequencing (NGS) offers the possibility to sequence microbial environmental genomes directly from samples (metagenome). The NGS data analyzed by bioinformatic tools enable the rapid and accurate characterization of the microbial composition and the detection of determinants conferring resistance to antimicrobial agents and genes encoding virulence factors. In this Special Issue, "Application of Next Generation Sequencing for studying environmental pathogens", we welcome reviews, original research, and short communications on new insights regarding the application of NGS in environmental samples.

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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.

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