



COVID-19: Wastewater-Based Epidemiology

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Message from the Guest Editors

The COVID-19 outbreak is caused by the SARS-CoV-2 virus, detected in China in December 2019. By evaluating wastewater composition, wastewater-based epidemiology may help in evaluating people's habits, such as diet, use of pharmaceutical compounds, abuse of drugs, specific diseases, etc. Additionally, this approach can provide valuable information on the prevalence of different human pathogens. It may represent a cost-effective alternative to testing a large number of random individuals in the population. Moreover, it can be used as an early warning system for SARS-CoV-2 virus. Accordingly, this Special Issue targets:

- SARS-CoV-2 presence in different water matrices such as wastewater, sludge, freshwater, groundwater, etc.
- Removal in wastewater treatment plants, including both water and sludge treatment lines
- Virus concentration and detection methods: developing new approaches and benchmarking existing methods
- Approaches for early warning systems
- Modelling, such as Quantitative Microbiological Risk Assessment (QMRA) analysis and artificial intelligence to link wastewater data and infected population data





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Message from the Editor-in-Chief

Addressing the environmental and public health challenges requires engagement and collaboration among clinicians and public health researchers. Discovery and advances in this research field play a critical role in providing a scientific basis for decision-making toward control and prevention of human diseases, especially the illnesses that are induced from environmental exposure to health hazards. *IJERPH* provides a forum for discussion of discoveries and knowledge in these multidisciplinary fields. Please consider publishing your research in this high quality, peer-reviewed, open access journal.

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