



## Challenges and Emerging Approaches in Environmental Exposure and Human Health Risk Assessment

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### Message from the Guest Editors

Massive quantities of chemicals have already been produced, released, and accumulated in our ecosystem. Humans are exposed to multiple chemicals by multiple routes of exposure. Many of these chemicals are suspected of causing adverse health effects. In order to regulate these chemicals, risk assessment taking account of both exposure and toxicity is therefore necessary to monitor and control possible adverse effects on human health. Risk assessments have traditionally used toxicological data from animal studies and safety assessment factors to derive intakes that can be associated with an acceptable level of risk. However, there is consensus that the 21st century paradigm shift in human health risk assessment will be based on the understanding of mechanisms of toxicity rather than on the identification of apical endpoints of toxicity. The objective of this Special Issue is to cover different aspects of new-generation approaches for Environmental Exposure and Human Health Risk Assessment of single or multiple chemicals, including all chemical classes (cumulative) and all routes (aggregate) of combined exposure, considered for their effects on human health.





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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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