



## Gene-Environment Interaction in Chronic Diseases

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### Message from the Guest Editors

The pathogenesis of common diseases, especially chronic conditions, is a multifactorial process modulated by a complex interplay between genes and the environment. The burden of chronic diseases is rapidly increasing worldwide. The World Health Organization has estimated that, in 2020, chronic diseases will contribute approximately 57% of the global burden of disease. Chronic inflammatory and immune-mediated diseases, such as asthma, COPD, and diabetes are among the most common. This has led to concern about how the modern lifestyle and the environment may trigger innate physiologic defense mechanisms and, based on genetic predisposition, determine phenotype development.

Medical research is facing a significant challenge: improving the accuracy and precision in evaluating the role of environmental and genetic risk factors and their interaction. The awareness of the multifactorial nature of the phenotype development will greatly help in the early diagnosis, management, and prevention of chronic diseases, with important consequences on people and public health achievements.





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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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