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Updates of DNA Variations in Evolution and Human Diseases

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Message from the Guest Editors

In recent years, progress in decoding the human genome has enabled us to understand genetic architecture and heritability, which provides valuable insights into human diseases. However, interpreting the relationships between genotypes/phenotypes is becoming more complex than expected, leading to the need for (r)evolutionary thinking. DNA variations are crucial for the evolutive process, with most of them producing traits that confer neither an advantage nor disadvantage, and the process of natural selection defines those more suited to a particular environment. Nonetheless, if the environment changes, then an evolutionary mismatch emerges, creating maladaptive conditions. This accounts for the prevalence of many common diseases in modern populations, such as obesity, diabetes, or heart disease affected by lifestyle changes and diet. Therefore, evolutionary medicine, modern diseases from an evolutionary perspective, has the power to identify novel mechanisms, pathways, and networks, enlightening us on how and why we get sick. We welcome original articles, new methods, and reviews related to this issue topic, and we look forward to your valuable contributions.













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Message from the Editor-in-Chief

Genes are central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fastmoving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised.

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