

## Special Issue

# Updates of DNA Variations in Evolution and Human Diseases

### 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, studying 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.

---

### Guest Editors

Dr. Laura Crisponi

CNR, Ist Ric Genet & Biomed, Cagliari, Italy

Dr. Mara Marongiu

The National Research Council (CNR), Institute for Genetic and Biomedical Research (IRGB), Lanusei, OG, Italy

Dr. Manuela Uda

The National Research Council (CNR), Institute for Genetic and Biomedical Research (IRGB), Monserrato, CA, Italy

---

### Deadline for manuscript submissions

closed (10 November 2023)

G C A T  
T A C G  
G C A T

## Genes

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.5  
Indexed in PubMed



[mdpi.com/si/103095](https://mdpi.com/si/103095)

*Genes*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[genes@mdpi.com](mailto:genes@mdpi.com)

[mdpi.com/journal/  
genes](https://mdpi.com/journal/genes)



G C A T  
T A C G  
G C A T

# Genes

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.5  
Indexed in PubMed



[mdpi.com/journal/  
genes](https://mdpi.com/journal/genes)



## About the Journal

### Message from the Editor-in-Chief

*Genes* is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving 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. Why not consider *Genes* for your next genetics paper?

---

### Editor-in-Chief

Prof. Dr. Selvarangan Ponnazhagan  
Department of Pathology, The University of Alabama at Birmingham,  
1825 University Blvd, SHEL 814, Birmingham, AL 35294-2182, USA

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Embase, PubAg, and other databases.

#### Journal Rank:

JCR - Q2 (Genetics and Heredity) / CiteScore - Q2 (Genetics (clinical))