

## Topical Collection

# Genotype-Phenotype Study in Disease

### Message from the Collection Editors

The study of inter-individual variability is essential for precision medicine. The study of polymorphic variants has become decisive in the understanding of mechanisms that underpin various multifactorial diseases (i.e., diabetes, obesity, cancer, and cardiovascular disease). All diseases have different degrees of genetic heterogeneity, for which the severity of the disease varies from individual to individual. The same pathological phenotype could be determined by different mutations in different genes. In multifactorial diseases, however, genetic heterogeneity is much more widespread and frequent, so genes contribute to a different extent to the expression of phenotype. Some genes do not cause disease but rather affect or cause particular aspects of the disease by behaving as modifying genes. More recently it has been proposed that genetic variation may also explain some of the other features of clinical phenotype, such as disease duration. Although the genotype–phenotype link is not always clear, it allows improved therapy, evaluation of individual drug response, and understanding of the adaptive response of organisms to environmental stimuli.

---

### Collection Editors

Prof. Dr. Michele Cioffi

Department of Precision Medicine, University of Campania "Luigi Vanvitelli", Via L. De Crescchio, 7, 80138 Naples, Italy

Dr. Maria Teresa Vietri

Department of Precision Medicine, University of Campania "Luigi Vanvitelli", Via L. De Crescchio, 7, 80138 Naples, Italy

---

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/71270](https://mdpi.com/si/71270)

*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))