# Special Issue

# Genetics of Multifactorial Diseases

## Message from the Guest Editor

Current genetic approaches, with the major example of genome-wide association studies (GWASs), have unveiled numerous associated loci in multifactorial diseases, thus enabling the computation of an individual's predisposition to a complex trait through polygenic risk scores (PRSs). However, existing approaches are limited to the incorporation of identified common genetic variants that explain a small proportion of the estimated genetic variability, thus excluding the effect of rare variants that have been repeatedly shown to explain the 'missing heritability'. The clinical and molecular variability in multifactorial diseases is additionally mediated by multi-layered interactions between the genetic component and environmental factors; these gene–environment interactions are depicted from the epigenetic modulations that orchestrate the expression of respective loci. Deciphering the role of rare genetic variants in a trait's predisposition as well as assessing gene–environment interactions through the functional relevance of the epigenetic modifications.

## Guest Editor

Dr. Yiannis Vasilopoulos

Laboratory of Genetics, Section of Genetics, Cell Biology and Development, Department of Biology, University of Patras, 26504 Patras, Greece

## Deadline for manuscript submissions

closed (10 February 2024)

GCAT
TACG
GCAT

Genes

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.5
Indexed in PubMed

mdpi.com/si/148113

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

mdpi.com/journal/genes

MDPI

GCAT
TACG
GCAT

# Genes

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.5
Indexed in PubMed

mdpi.com/journal/genes

MDPI

# 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))