

Special Issue

Systems Analytics and Integration of Big Omics Data

Message from the Guest Editor

The emergence and global utilization of high-throughput (HT) technologies, including deep sequencing technologies (genomics) and mass spectrometry (proteomics, metabolomics, lipidomics), has allowed geneticists, biologists, and biostatisticians to bridge the gap between genotype and phenotype on a scale that was not previously possible. Analysis pipelines can be so large and complex that their processing is impractical using traditional data processing applications. Instead, challenges arise in collection: mining, sharing, transfer, visualization, archival, analysis and integration of big data. Even different types of compute structure may be required. In this Special Issue, we will focus on integration strategies for systems level analysis of omics data, big data infrastructure, rigor and transparency in big data research, best practices for sharing omics data with public repositories, recent developments in pathway and network algorithm development, and integration of omics data with clinical and biomedical data.

Guest Editor

Prof. Dr. Gary Hardiman

1. School of Biological Sciences, Institute for Global Food Security, Queen's University Belfast, Belfast BT9 5DL, UK 2. Department of Drug Discovery and Biomedical Sciences, Medical University of South Carolina, Charleston, SC 29425, USA

Deadline for manuscript submissions

closed (31 August 2018)

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/12266

Genes
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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))