



*genes*



an Open Access Journal by MDPI

## Chromosome-Centric View of the Genome Organization and Evolution

Guest Editors:

**Dr. Maria Sharakhova**

Fralin Life Science Institute,  
Virginia Tech, Blacksburg, VA,  
USA

**Dr. Vladimir Trifonov**

Institute of Molecular and  
Cellular Biology of the Siberian  
Branch of the Russian Academy  
of Sciences (IMCB SB RAS),  
630090 Novosibirsk, Russia

Deadline for manuscript  
submissions:

**closed (30 April 2021)**

### Message from the Guest Editors

Dear Colleagues,

The development of next generation sequencing technologies in the last decade has led to obtaining highly-fragmented genome assemblies for numerous organisms. The quality of genome assemblies significantly varies among species, depending of the abundance of the repetitive elements and levels of genetic polymorphism. As a result, many important problems in genome biology remain unresolved, without understanding how the genome is organized at the level of the chromosomes. Recent advances in genome and chromosome technologies, including long-read sequencing, Hi-C scaffolding, chromosome flow sorting, and physical and optical mapping, allow for obtaining genome assemblies at the level of complete chromosomes. Such assemblies provide new opportunities to study chromosome organization and evolution, structural genome variations, sex-biased gene expression, epigenomic modifications, and long-range chromatin interactions.

In this Special Issue, we would like to invite submissions of original research and review articles, with a special focus on chromosomes in our understanding of the genome structure, function, and evolution.



[mdpi.com/si/32917](https://mdpi.com/si/32917)

# Special Issue



*genes*



an Open Access Journal by MDPI

## 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

## 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.

Why not consider *Genes* for your next genetics paper?

## 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)*)

## Contact Us

---

*Genes* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/genes](http://mdpi.com/journal/genes)  
[genes@mdpi.com](mailto:genes@mdpi.com)  
[X@Genes\\_MDPI](#)