

Special Issue

Genetics of Cancer Immunology

Message from the Guest Editor

This Special Issue explores the genetic basis of cancer immunology, focusing on how tumor and immune cell genetic alterations shape immune responses, evasion, and immunotherapy development. From the foundational concept of immune surveillance to the three-phase model of elimination, equilibrium, and escape, genomic advances have revealed critical mutations, neoantigens, and immune checkpoints. We invite submissions on genomic and transcriptomic profiling of tumor-immune interactions, neoantigen identification, immune evasion genetics, germline/somatic influences, gene-editing applications, TME regulation, non-coding RNAs, epigenetics, and computational immunogenetics. Cutting-edge areas include single-cell/spatial genomics, neoantigen prediction, microbiome-immune crosstalk, synthetic immunology (e.g., CAR-T), resistance mechanisms, and AI-driven biomarker discovery. We seek Original Research, Reviews, and Short Communications with novel genetic insights, technological innovations, or clinical implications.

Guest Editor

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Deadline for manuscript submissions

closed (20 November 2025)

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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

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