Special Issue

Genome Engineering Technologies for Diseases

Message from the Guest Editor

Recent advances in genome engineering have opened new avenues for exploring gene function and developing innovative approaches to understand and treat human diseases. Techniques like gene editing, delivery, and insertional mutagenesis enable precise genome manipulation, driving progress in basic and translational research. These technologies also advance functional genomics through cell-based assays, reporter systems, and in silico tools for large-scale analysis of gene networks and disease pathways. Functional modules have been identified that enhance the versatility of editing platforms. Genome engineering increasingly contributes to advanced therapies like cell therapy and personalized immunotherapy, including CAR-T cells. Integrating experimental and computational methods expands our ability to model diseases and evaluate interventions at cellular levels. This Special Issue showcases genome engineering developments and their disease research applications. We welcome original research and reviews on tool development, computational analysis, functional innovation, and therapeutic applications.

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Message from the Editor-in-Chief

Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to Biomedicines, be it original research, review articles, or developing Special Issues of current key topics.

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