

Special Issue

Molecular Perspectives in Tissue Engineering and Regenerative Medicine

Message from the Guest Editor

This Special Issue is dedicated to exploring the molecular foundations of tissue engineering and regenerative medicine. It aims to highlight cutting-edge research that investigates the molecular mechanisms driving tissue formation, repair, and integration, with a focus on translating molecular insights into innovative therapeutic strategies. We welcome original research articles, reviews, and short communications that address, but are not limited to, the following topics:

- The molecular regulation of stem cell differentiation and behaviour;
- Growth factors, cytokines, and signalling pathways in tissue regeneration;
- Gene editing and molecular engineering approaches for regenerative applications;
- Extracellular matrix remodelling and cell-matrix interactions;
- Molecular crosstalk in engineered tissue environments;
- Immunomodulation at the molecular level in regenerative therapies;
- Molecular diagnostics and biomarkers for tissue regeneration outcomes;
- Omics-based approaches (genomics, proteomics, and metabolomics) in tissue engineering.

Guest Editor

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Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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