

## Special Issue

# Research of Small-Molecule Therapeutics in Transplantation and Tolerance

### Message from the Guest Editor

Organ transplantation is the best curative treatment for patients with end-stage organ disease. An unavoidable complication leading to early allograft dysfunction is mediated primarily by ischemia-reperfusion injury (IRI). Understanding the mechanistic factors leading to I/R injury remains a top priority. Determining the peak induction potential of the signaling networks that attenuate antioxidant, detoxification, and homeostatic functions may be the key to understanding why specific therapeutic strategies fail to advance through clinical trials. Small-molecule therapeutics, comprised of RNA, protein, and/or drug-based molecules, have achieved impressive results regulating gene expression networks involved in pro- and anti-inflammatory responses to organ transplantation injury. They have been shown to significantly increase the capacity to prevent organ rejection by reducing oxidative stress and inflammation, modulating the immune response, and stimulating the production of protective enzymes that promote tissue repair. This Special Issue's aim is to illustrate how these small molecules hold the potential to improve the survival of patients undergoing solid organ transplantation.

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### Guest Editor

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David Geffen School of Medicine at UCLA, Los Angeles, CA, USA

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### Deadline for manuscript submissions

closed (30 November 2024)



## Biomedicines

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### Message from the Editor-in-Chief

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### Editor-in-Chief

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