

Special Issue

3D Bioprinting for Vascular Tissue Engineering

Message from the Guest Editor

This Special Issue of *Bioengineering*, titled “3D Bioprinting for Vascular Tissue Engineering”, aims to showcase the latest advances in the creation of vascularized tissues using 3D bioprinting technologies. This Special Issue addresses one of the main challenges in tissue engineering: the development of robust, functional vascular networks, highlighting innovative methods, biomaterials, and bioinks that enable the fabrication of complex, perfusable vasculature within engineered tissues. Contributions will cover technical requirements for mimicking native blood vessel architecture, strategies for promoting angiogenesis and neovascularization, and the integration of vascular networks for nutrient delivery and waste removal in thick tissue constructs. The scope also encompasses applications in disease modeling, high-throughput drug screening, regenerative medicine, and medical device development. By bringing together research articles, reviews, and short communications, this Special Issue seeks to advance the field toward clinically relevant, vascularized tissue constructs for both in vitro and in vivo applications.

Guest Editor

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