



3D Bioprinted Tissues for Personalized Medicine Approaches

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Message from the Guest Editors

Three-dimensional bioprinting represents a groundbreaking innovation in regenerative medicine. The computer-guided printing of viable cells, biomaterials, and bioactive stimuli enables accurate spatial localization, and punctual control over architecture, cell distribution, and chemical composition. The use of 3D starting models obtained by patient medical images guarantees a match between implant and defect size, thereby allowing for the development of customizable structures depending on the patient's clinical need. Recently, 3D bioprinting has been also integrated with techniques such as 3D cell culture, bioreactor technology, and organ-on-a-chip in order to improve outcomes and enable applications in personalized medicine. Despite encouraging results, bioprinting is still in its early phase. Efforts are mostly concentrated on the development and optimization of the bioink features and of the manufacturing process.

This Special Issue will provide new insights on the potential offered by the bioprinting technique, by presenting scientific research updates in different fields of applications, with the vision of moving towards clinical or industrial translation.





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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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