



3D Printing in Surgical Strategies

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Message from the Guest Editor

3D printing has become extremely inexpensive and highly accessible. Polymeric devices or scaffolds are now combined with bioprinting to open new avenues to cutting-edge research toward musculoskeletal repair and regeneration. Most importantly, these tools are being widely used to generate composite scaffolds representing matrices on which to culture cells of various tissue types. 3D-printed composite matrix scaffolds are being tested in highly sophisticated in vitro and in vivo preclinical models, paving the way for future clinical translation where the ultimate goal is to generate functional replacement tissues. Other avenues include devices for personalized medicine and drug delivery highly applicable to the pharmaceutical industry and beyond. This Special Issue will focus on the current landscape of 3D printing or biofabrication with specific applications in experimental and innovative surgical approaches including tissue engineered grafts, tissue substitutes, surgical guides, models for surgical training and advanced pre-surgical models.

