



## Printing of Polymer-Based Systems for Medical and Healthcare Applications

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### Message from the Guest Editors

Three-dimensional printing of bionic scaffolds, cells, bioactive compounds and printing of polymer-based systems have flourished over the past ten years. Three-dimensional printing techniques have developed fast, including micro-extrusion bioprinting, inkjet bioprinting, laser-assisted bioprinting, and scaffold-free spheroid-based bioprinting, which offer great promise in the field of regenerative medicine and drug delivery. Meanwhile, new functional bio-inks and materials have also been developed. Furthermore, the 3D bioprinting of stem cells, such as human-induced pluripotent stem cells, is driving a paradigm shift in tissue regeneration and the modeling of human disease, representing an unlimited cell source for tissue regeneration and the study of human disease. Thus, an in-depth understanding of 3D printing processes and physical, biological, and/or digital cues is highly relevant to the performance and development of 3D bio-printed products and the printing of polymer-based systems for medical and healthcare applications. Both original contributions and comprehensive reviews are welcome





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### Prof. Dr. Alexander Böker

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