

The advent of three-dimensional (3D) printing has evoked a global industrial revolution, garnering the attention of the public and media in the process. 3D printing software can be used to extract digital data from patient images such as computed tomography, magnetic resonance imaging or laser scanning to yield custom-made and personalized constructs for surgical planning and implantation (1). Despite having its roots in the automotive, packaging and architectural domains (1), major developments in 3D printing technology have borne witness to an expanded role of printing technologies, spanning into healthcare research and prompting the development of numerous medical devices, models and prosthetics. Furthermore, many procedures, particularly in reconstructive and transplantation surgery remain hindered by the availability of donor tissues and organs, the morbidity associated with tissue harvest and the potential complications related to immunosuppression (2, 3). In particular, the incorporation of a biological component would transform this established technology, with the potential to revolutionize personalized healthcare through the advent of autologous living implants akin to the patient's own tissue.