Special Issue

Applying Polymeric Biomaterials in 3D Tissue Constructs

Message from the Guest Editor

Over the past decade, significant progress has been made in the evolution from 2D cell culture to 3D tissue culture. In a well-designed 3D construct, cells of different types can interact with each other and their environment, stimulating them to form tissue, and to display behaviour as observed in vivo. Such tissue models can be used in vitro for drug screening, toxicology testing, or biological studies, or in vivo for regenerative medicine. The application of polymers has greatly aided the development of 3D tissue models. Polymers can provide structural support as well as 3-dimensionality (hydrogels in particular), and they can present cells with attachments sites, biochemical cues and degradable links. This Special Issue focuses on the application of polymers in 3D tissue constructs, where polymers can range from synthetic to naturally derived, and from hard scaffolding polymers to elastomers through to hydrogels. It aims to exhibit a sample of the state-of-the-art of the application of polymeric biomaterials in 3D tissue constructs.

Guest Editor

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Editor-in-Chief

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