Titolo (provvisorio): 3D biopolymeric scaffolds for tissue engineering

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Motivazione e campo di applicazione

Design, fabrication and characterization of biologically active scaffolds with optimal characteristics for successful tissue engineering.

Obiettivi generali e principali attività

Hydrogels have been extensively used in various biomedical applications such as drug delivery and biosensing. More recently the ability to finely tune the size, shape and chemical properties of biologically relevant hydrogels has generated new opportunities in addressing challenges in tissue engineering. In this respect, polysaccharide microbeads will be fabricated, by an air-dynamically driven encapsulator, and then the microbeads will be functionalized and assembled into a 3D microporous scaffold. The biological properties of the scaffold will be evaluated by in vitro testing.

Obiettivi di apprendimento (strumenti tecnici e analitici, metodologie sperimentali)

To gain practical experience in the development, engineerization and characterization of hydrogel based formulations for tissue engineering and in cell culture techniques.

Luogo/i in cui si svolgerà il lavoro: DIBRIS, University of Genoa

Informazioni aggiuntive

Numero massimo di studenti: 1