Titolo (provvisorio): 3D polysaccharide based scaffolds for tissue engineering

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Motivazione e campo di applicazione

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

Obiettivi generali e principali attività

Polysaccharide based scaffolds, mainly based on chitosan and its modified forms, will be developed in the form of porous microsponges and microbeads. The possibility to functionalized the scaffolds by the addition of conductive elements will be taken into account. The scaffolds will be characterized by standard spectroscopic techniques and by scanning electron, optical and confocal microscopies. 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 a 3D biopolymeric scaffolds with tunable architectures and bioactive characteristics.

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

Numero massimo di studenti: 1