Titolo (provvisorio): All-natural composite films for the treatment of acute and chronic wounds

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Motivazione e campo di applicazione

Obiettivi generali e principali attività
Acute and chronic wound management has been a significant social and financial burden. For this reason, new strategies for the production of innovative and low-cost smart wound dressings are needed. An ideal smart wound dressing should be biocompatible and act as a shield that protects the wound area. Furthermore, it should be transparent to constantly monitor the state of the wound, able to deliver active agents such as antioxidant, anti-inflammatory or antibacterial molecules, have suitable mechanical and adhesive properties and, at the same time, promote the wound healing. In this regard, biocompatible and bioactive films will be produced with eco-friendly and organic solvent-free methods for the delivery of natural compounds with antioxidant activity.

Obiettivi di apprendimento (strumenti tecnici e analitici, metodologie sperimentali)
During his thesis, the student will have the opportunity to gain practical experience in the development, fabrication and characterization of bioactive films loaded with natural compounds for the application in the field of wound management.

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

Informazioni aggiuntive
Numero massimo di studenti: 1