Special Issue

Natural Product-Based Biomaterials for Advanced Wound Dressings

Message from the Guest Editors

Dressings are traditionally used to protect the wound, but they can also be used as a source of release of antimicrobial agents, bioactive molecules with anti-inflammatory, pain-relieving, and healing action, and smell-controlling agents. Having a local release of these active agents allows to avoid systemic administration with the risk of not reaching the minimum effective concentration on site and exposing the body to high doses of drugs.

Natural products (NPs) are still a valuable source of bioactive molecules. Several studies have shown how NPs can promote wound healing, due to their anti-inflammatory, antioxidant, and antimicrobial activities. For these reasons, medicinal plants can be promising therapeutics for improving wound healing in different ways: as a source of bioactive compounds or drug-releasing biomaterials.

Therefore, this Special Issue aims at innovative studies on natural agent-based advanced wound dressings able to promote healing, preventing and reducing infections, and enhancing patient compliance, with attention to innovative drug delivery systems.

Guest Editors

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Deadline for manuscript submissions

closed (20 July 2025)



Journal of Functional Biomaterials

an Open Access Journal by MDPI

Impact Factor 5.2 CiteScore 6.8 Indexed in PubMed



mdpi.com/si/188399

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Message from the Editor-in-Chief

The biomaterials field is one of the largest and fastest growing research areas both in the scientific community and in the industrial one. Biomaterials are the result of collaborations between different disciplines: chemistry, medicine, pharmacology, engineering and biology. The objective of this collaboration is to lead to the implementation of new devices to restore form and human body functions. The mission of the Journal of Functional Biomaterials (JFB) is to focus attention on physico-chemical characteristics and their importance in the interactions between biomaterials and living tissues. JFB seeks to publish studies on the preparation, performance and use of biomaterials in biomedical devices, as well as regarding their behavior in physiological environments. We are pleased to welcome you as our authors.

Editor-in-Chief

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