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Advanced Nanomaterials and Nanotechnologies for Wound Healing

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Message from the Guest Editors

Dear Colleagues,

Skin wound healing is a global health problem and the cure of wound infections is currently a high unmet clinical need. Uncured wounds are often infected and colonized with different bacteria, and also lead to additional healthcare costs, and decrease the patient's quality of life and life expectancy. Hence, the problem of wound healing is unsolved and requires new solutions.

Various nanotechnologies and nanomaterials offer innovative alternative solutions to this problem. Materials comprising hydrocolloids, fiber technologies, nanoscaffolds, and advanced fiber technologies are paving the way for new avenues for antibacterial wound care. Nanostructures with different morphologies, consisting of biodegradable materials and ecologically safe solutions, are forming the future of technologies for wound healing.

The goal of this Special Issue is to provide the scientific community with a way to demonstrate new approaches for developing materials to fight wound infections, antibiotic-resistant bacteria, and pathogenic fungi through new mechanisms of antimicrobial activity, by tuning biomaterials to enable better efficacy and safer outcomes.