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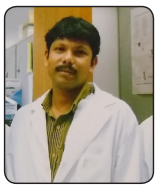
Abstract



New Class of Antibacterial Ointment against Multi-drug Resistant Pathogens

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Abstract:

Wound healing is a complex and dynamin process to restore the tissue layer, simultaneously kill the colonized pathogens and reduce the inflammation level. Ointment is a required medication with antibiotics or any other potential growth factors or anti-inflammatory agents. The conventional ointments are associated with some common problems such as agglomeration, sheathed, competence to poor drug delivery, make stained, immiscible, oil phase ingredients can form lumps, and difficult to wash off. Therefore, it is necessary to make a new type of ointment bases that can overcome those limitations. A new type of ointment base is proposed here, easy and economical to prepare from renewable phenolics. The cross-linked copolymers of biocompatible phenolic derivatives make nanohydrogel which is efficient in drug delivery and free radical scavenging ability. This ointment base itself show off versatile biological activities such as anti-inflammatory, antioxidant, wound healing, antibiofilm and antimicrobial property. Interestingly, the antibiotics resistant bacteria can't survive due to the synergistic action of nanohydrogel and antibiotics. The strategy makes a significant value in health-care infection management application.

Biography:

Santi M. Mandal obtained his Ph D in the field of Molecular Microbiology and continuing research with major focus in Antimicrobial Chemotherapy. He visited UTMB-USA and NUS-Singapore for his postdoctoral training. He worked as an Assistant Professor of Microbiology at Vidyasagar University, India. He has published more than 140 research papers in reputed journals and

conferred upon several prestigious awards for his research contribution. Currently, he is engaged at Central Research Facility, Indian Institute of Technology Kharagpur, Kharagpur India.

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