

# **Preparation of antibacterial nanofibers containing Eucalyptus extract on staphylococcus aureus and pseudomonas aeruginosa**

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**Staphylococcus aureus is a virulent pathogen and a major causative agent of superficial and invasive skin infections. Antibiotic resistance in S. aureus amongst other bacterial pathogens has rapidly increased. antimicrobial properties and extensively activity against infection pathogens that post-translationally modified bacterial antimicrobial peptides say briefly AMPs that may be used as a substitute for antibiotics or in combination with antibiotics reduces the risk of antimicrobial resistance. Nanofibers are produced by electrospinning process has a lot of uses and properties including the capacity for wound dressing, the high oxygen permeability, pore size varies has a high surface area to volume ratio. These are also in terms of morphological similar to extracellular matrix. Ability to import organic compounds such as bacteriocins into nanofibers which increases its ability to heal wounds. In this study, The antimicrobial peptides can be used as alternative for antibiotics or in combination with antibiotics to reduce resistance to infectious bacteria to antimicrobial agents. are similar to the extracellular matrix. The ability to import organic compounds such as extracts into nanofibers increases its ability to heal wounds. Using Agar\_Well Assay antimicrobial effect of nanofibers containing the extract of Cocos Staphylococcus aureus bacteria causing infections in different concentrations 0.7 and 0.03 chitosan and polyvinyl alcohol Eucalyptus extract in different concentrations of 0.5 to 2.5 mm Lytrmvrdr review and formed halos around the wells within 72 hours, indicating a gradual release of extracts of the nanofibers.**

**Keywords :** electrospinning and nanofibers and antimicrobial activity of S. aureus

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