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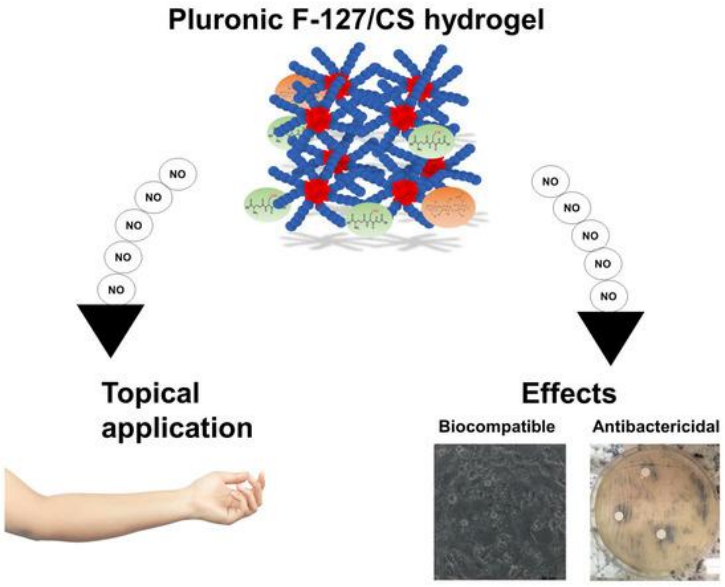
Pharmacological Applications of Nitric Oxide-Releasing Biomaterials in Human Skin

Shelke Sejal Eknath, Nutan Yewale, Payal Wavhal, Supriya Thite, Shraddha Kadam, Prof. Ms. Gaikwad S. D.
Samarth Institute of Pharmacy, Belhe, Maharashtra, India

Abstract: *The gaseous free radical nitric oxide (NO) is a key endogenous found molecule involved in several physiological and pathophysiological processes in different organs and tissues . The use of nitric oxide (NO) is emerging as a promising, novel approach for the treatment of antibiotic resistant bacteria and biofilm infections. Depending on the concentration, NO can induce biofilm dispersal, increase bacteria susceptibility to antibiotic treatment, and induce cell damage or cell death via the formation of reactive oxygen or reactive nitrogen species. In detail, NO-donor prodrugs have been attached and loaded to diverse biomaterials to fabricate nanoparticles, hydrogels, and coating platforms by means of physical, chemical, or supramolecular techniques*



Keywords: NO, novel approach , concentration, antibiotic , prodrug, supramolecular techniques

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