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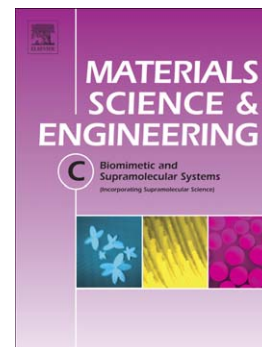
Recent advancements in nanotechnological strategies in selection, design and delivery of biomolecules for skin regeneration

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Recent advancements in nanotechnological strategies in selection, design and delivery of biomolecules for skin regeneration

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Abstract

Skin is a very complex organ and hence designing a bioengineered skin model replicating the essential physiological characteristics for replacing the diseased or damaged parts has been a challenging goal for many. Newer technologies for satisfying most of the criteria are being attempted with the copious efforts of biologists, engineers, physiologists, using multitude of features in combination. Amongst them nanotechnology based biomaterials have gained prominence owing to the enhanced pharmacokinetics, bio-distribution profile, extended half-life and reduced side effects. Designing a matrix that can be assimilated into the body during the regeneration and delivering the essential pharmacological agents in a temporal and spatially specific manner is a tremendous goal. This review essentially deals with the various approaches for designing a multidisciplinary translational smart matrix for addressing the various skin related ailments

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