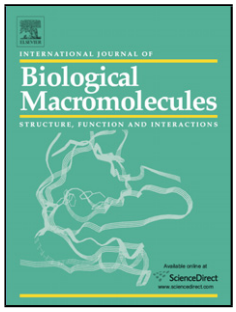

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Chitosan as biomaterial in drug delivery and tissue engineering

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Abstract

Chitin is one of the most abundant polysaccharide found on earth. The deacetylated form of chitin *viz.* chitosan has been reported for its various important pharmacological properties and its role in tissue engineering and regenerative medicine is also well documented. Chitosan based bone graft substitutes are biocompatible, biodegradable, osteoconductive, osteoinductive and structurally similar to bone, with excellent mechanical strength and cost effectiveness. Chitosan based hydrogels and wound healing bandages have also found a great market in the field of medicine. More recently, chitosan has gained popularity for its use as a matrix molecule for drug delivery and also finds an upcoming utility in the area of dentistry. The present article has tried to review the latest research on chitosan based tissue engineering constructs, drug delivery vehicles as well as dental care products. An attempt has also been made to discuss the various modifications of