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Title: Coating Cortical Bone Allografts with Periosteum-Mimetic Scaffolds made of Chitosan, Trimethyl Chitosan, and Heparin

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1 Highlights

2

3 Novel periosteum-mimicking scaffolds were made from chitosan, trimethyl chitosan and heparin.

4

5 This is the first report of chitosan nanofibers and freeze-dried scaffolds directly deposited onto
6 bone.

7

8 Adipose-derived stem cells cultured on scaffolds proliferate and express an osteoprogenitor
9 phenotype for up to 21 days.

10

11 Periosteum-like scaffolds on bone allografts could improve graft integration by mimicking bone
12 autograft healing.

13

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