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Vascularization of LBL structured nanofibrous matrices with endothelial cells for tissue regeneration

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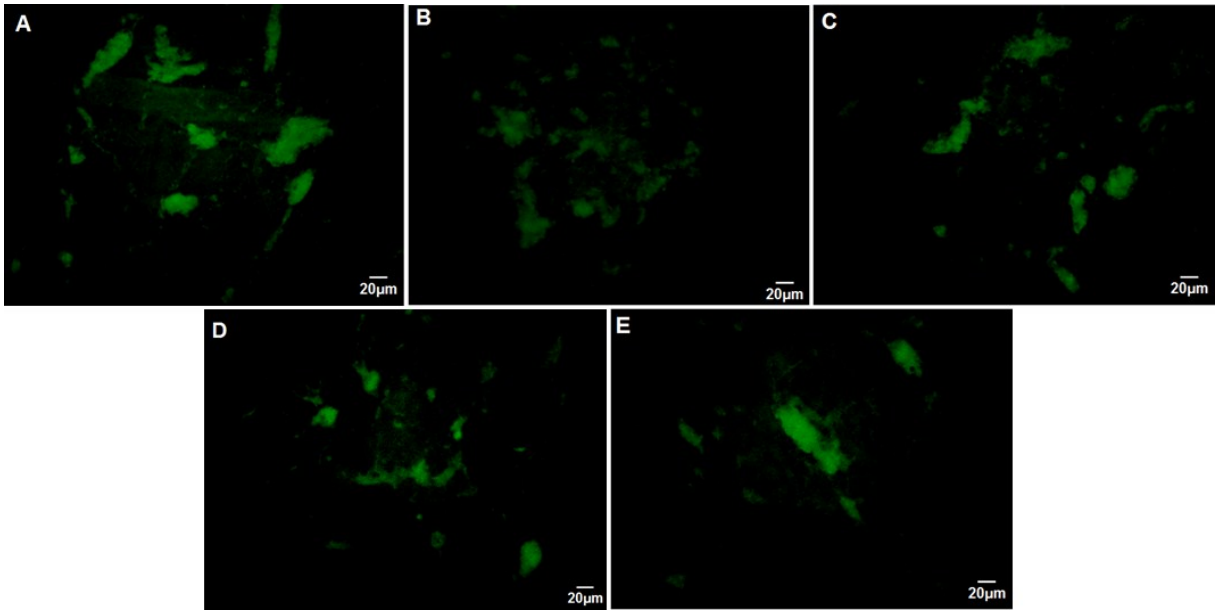

Figure S1: The platelet adhesion on prepared (A) randomly oriented PCL-cellulose and nanofibrous mats coated by $(CS\text{-}Collagen)_n$ after 72hrs incubation: (B) $(CS\text{-}Collagen)_5$, (C) $(CS\text{-}Collagen)_{10}$; (D) $(CS\text{-}Collagen)_{15}$; (E) $(CS\text{-}Collagen)_{20}$.

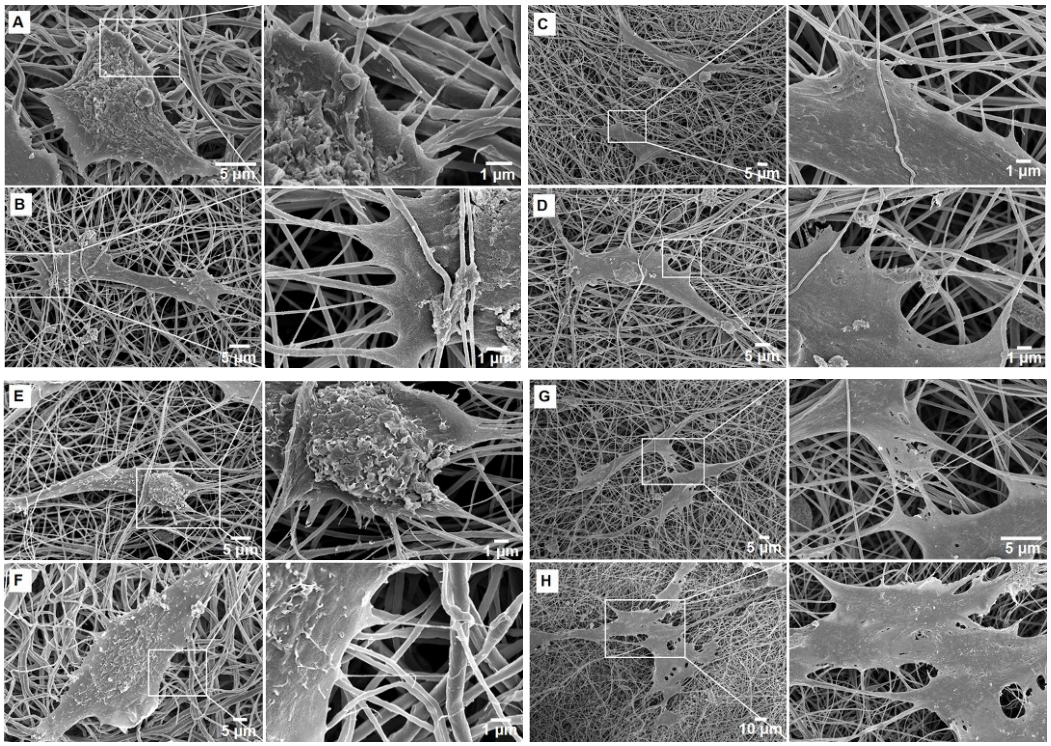

Figure S2: Morphological observation by SEM. HUVECs in the presence with randomly oriented nanofibrous mats coated by $(CS\text{-}Collagen)_n$ after 72hrs incubation: (A) $(CS\text{-}Collagen)_5$, (B) $(CS\text{-}Collagen)_{5.5}$, (C) $(CS\text{-}Collagen)_{10}$, (D) $(CS\text{-}Collagen)_{10.5}$, (E) $(CS\text{-}Collagen)_{15}$; (F) $(CS\text{-}Collagen)_{15.5}$; (G) $(CS\text{-}Collagen)_{20}$ and (H) $(CS\text{-}Collagen)_{20.5}$ Scale bars of the images and the insets were 10 μm and 5 μm, respectively.

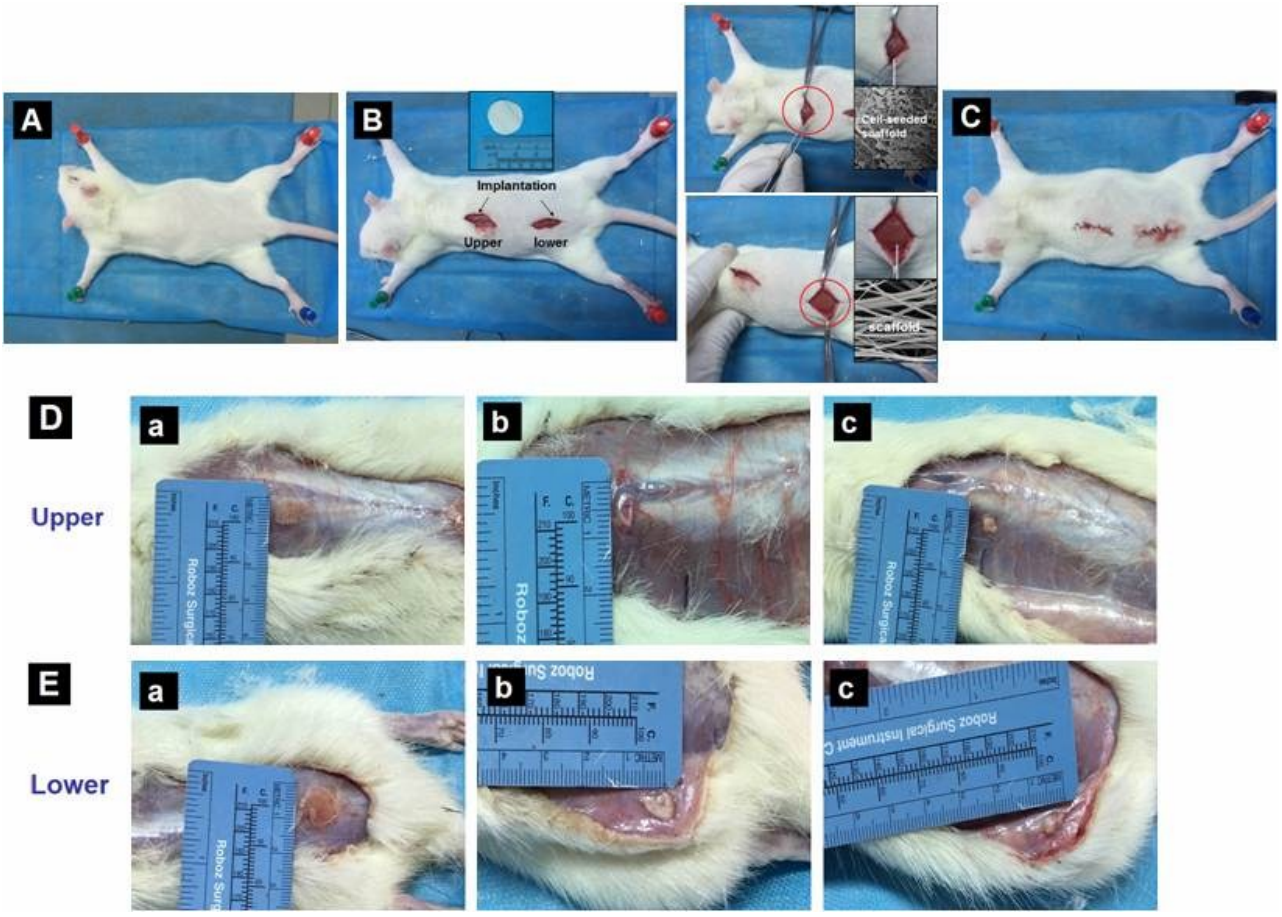

Figure S3: The schematic diagram (A-C) of the *in vivo* implantation of prepared isotropic nanofibrous meshes; The remained cell-seeded scaffold (D) and pure scaffold (E): (a) PCL-cellulose mats and nanofibrous mats coated by $(CS\text{-}Collagen)_n$: (b) n=5; (c) n=20.

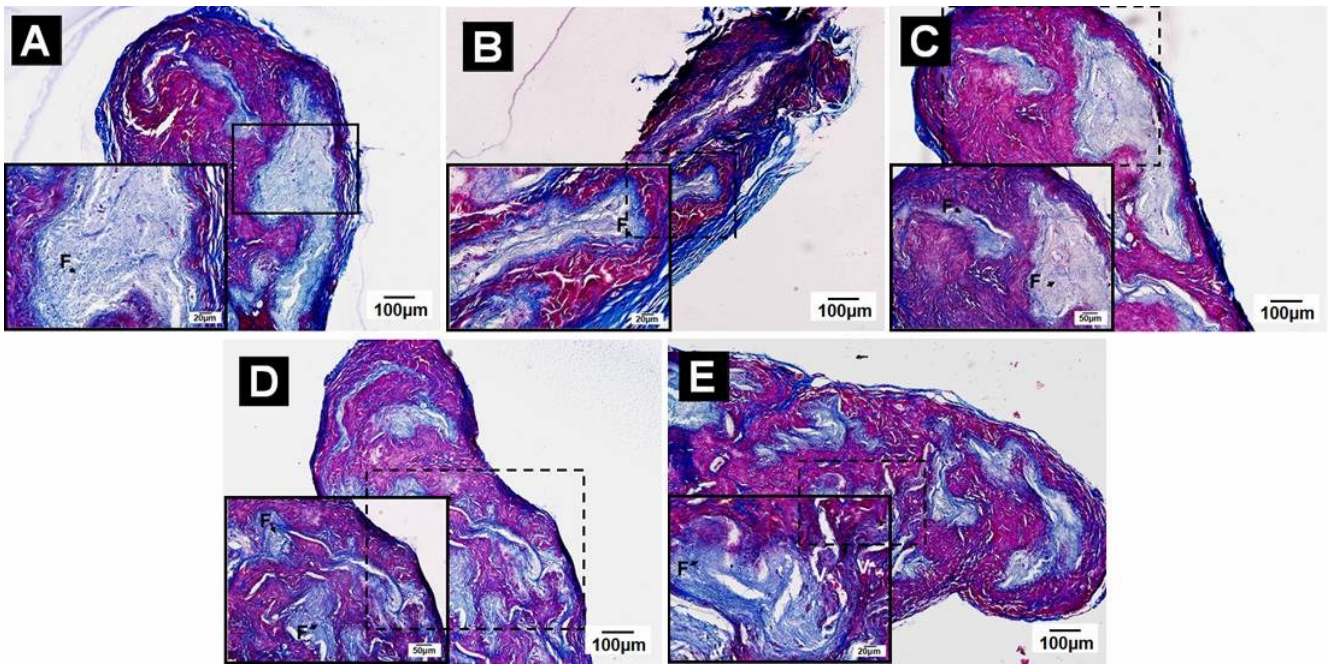

Figure S4: Masson Trichrome staining of the isotropic (A) PCL-cellulose and nanofibrous mats coated by $(CS\text{-}Collagen)_n$: (B) $(CS\text{-}Collagen)_5$, (C) $(CS\text{-}Collagen)_{10}$; (D) $(CS\text{-}Collagen)_{15}$; (E) $(CS\text{-}Collagen)_{20}$ together with wound areas after subcutaneous implantation for 2 weeks. The black arrows represented remaining scaffolds, and white ones represented signs of vascularization.