## Engineering 3D-printed core-shell hydrogel scaffolds reinforced with

## hybrid hydroxyapatite/polycaprolactone nanoparticles for in vivo bone

## regeneration

## **Supplementary material**



Figure 1S: Histological examination of tibia samples for different groups using low-scale (X40) magnification at the two- and six-week time points using hematoxylin and eosin (H & E) and Masson's trichrome (MT) (A–H). Sham group (A and B) demonstrated empty defects, while other groups (C–H) showed various tissue reaction and scaffolds remnants. Scale bars: 500 µm. Insets are magnified in Figure 9 and Figure 2S.



Figure 2S: Histological examination of tibia samples for sham group at the two- and six-week time points using hematoxylin and eosin (H & E) and Masson's trichrome (MT) (A–D). H & E (A) and MT (B) representative micrographs at the 2-week time point, revealing empty cavity (EC) and increased vascularity (Vs). Intense diffuse inflammatory (In) infiltrate was observed at the 6-week time points (C) with fibrotic healing detected by heavily collagenized (Col) stroma (D).