## **Supporting Information**

## **Multifunctional Fibrous Scaffolds for Bone Regeneration**

## with Enhanced Vascularization

Chong Wang<sup>1,2</sup>, William Weijia Lu<sup>3</sup>, Min Wang<sup>1,\*</sup>

<sup>1</sup> Department of Mechanical Engineering,

The University of Hong Kong,

Pokfulam Road, Hong Kong, Hong Kong SAR, China

<sup>2</sup> School of Mechanical Engineering,

Dongguan University of Technology,

Songshan Lake, Dongguan, Guangdong, China

<sup>3</sup> Department of Orthopedics and Traumatology, Li Ka-Shing Faculty of Medicine,

The University of Hong Kong,

Sasson Road, Hong Kong, Hong Kong SAR, China



Figure.S1 (a) structure of Ca-P nanoparticles; (b) XRD pattern of amorphous Ca-P nanoparticles; (c) EDS-X ray spectrum of Ca-P nanoparticles.



Figure.S2 Live and dead images of HVUECs on different scaffolds after 7 days of culture.



Figure.S3 Live and dead images of hBMSCs on different scaffolds after 7 days of culture.



Figure.S4 In vivo results of the Sham group 2-month after surgery: (a) CD31 expression in defected site of Sham group; (b) μ-CT images of the defected cranial tissue 2-month after surgeru; (c) H & E staining of the regenerated tissue 2-month after surgery.