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Supporting Information

Porous Li-containing biphasic calcium phosphate scaffolds fabricated by three-dimensional plotting for bone repair

Xiaoheng Guo,[†ab] Huichang Gao,[†d] Xiao Liu,[ab] Jingjing Diao,[ac] Xuetao Shi,[ab] Naru Zhao,[*ac] and Yingjun Wang[*ab]

[a.] School of Materials Science and Engineering, South China University of Technology，Guangzhou 510641, China. E-mail: nrzhao@scut.edu.cn; imwangyj@163.com; Tel: +86-20-87114645, +86-20-22236066.

[b.] Nation Engineering Research Centre for Tissue Restoration and Reconstruction, Guangzhou 510006, China.

[c.] Guangdong Province Key Laboratory of Biomedical Engineering, South China University of Technology, Guangzhou 510006, China.

[d.] School of Medicine, South China University of Technology, Guangzhou 510006, China.

† These authors contributed equally to this work.

SI-1 *in vitro* Li ion release test of Li-BCP samples

To evaluate the release of the Li ion from Li-BCP scaffolds during the cell culture, the specimens were placed in 12-well plates, and immersed in H-DMEM for up to 14 days in an incubator with 5% CO_2 and 95% relative humidity at 37°C. The medium was changed every other day and was collected carefully. Then an inductively coupled plasma atomic emission spectroscope (ICP; Optima 5300 DV, Perkin Elmer, Waltham, MA) was used to measure the concentrations of the released Li in the collected medium.

Table SI-1 illustrated the ion release concentration of Li after soaking the specimens in H-DMEM for 7 and 14 d. A certain amount of Li ion was detected in the H-DMEM from Li-BCP samples, while no Li ion was detected in the control group. Moreover, osteogenic differentiation of mBMSCs was promoted by the released Li. which is in agreement with the results reported by P. Han. et al. (Ref 23).

Table SI-1 Li ion release of Li-BCP scaffolds in H-DMEM

Soaking time	Scaffolds	Li (mg/L)
7 d	BCP	0
	Li-BCP	0.38 ± 0.0006
14 d	BCP	0
	Li-BCP	0.13 ± 0.005