Supporting Information

A hybrid 3D-printed aspirin-laden liposome composite scaffold for bone tissue engineering

Yan Li,[a,b] Yanjie Bai,[*c] JijiaPan,[a] Hui Wang,[d] Hongming Li,[e] Xiao Xu,[b] Xiaoming Fu,[b] Rui Shi,[b] Zuyuan Luo,[a] Yongliang Li,[b] Qian Li,[a] Jerry Y H Fuh [d] and Shicheng Wei[*a,b]

[a] Laboratory of Biomaterials and Regenerative Medicine, Academy for Advanced Interdisciplinary Studies, Peking University, Beijing 100871, China

[b] Central Laboratory and Department of Oral and Maxillofacial Surgery School and Hospital of Stomatology, Peking University, Beijing 100081, China

[c] Department of Stomatology, Peking University Third Hospital, Peking University, Beijing 100191, China

[d] National University of Singapore Suzhou Research Institute, Suzhou 215123, China

[e] College of Life Science, Mudanjiang Normal University, Mudanjiang 157011, China

*** Corresponding Author**

Dr. Yanjie Bai

Department of Stomatology, Peking University Third Hospital, Peking University, Beijing 100191, China

Tel & Fax: 01082266889; E-mail: yanjiebai@126.com

Prof. Shicheng Wei

Laboratory of Biomaterials and Regenerative Medicine, Academy for Advanced Interdisciplinary Studies, Peking University, Beijing 100081, China

Tel & Fax: +86 10 82195771; E-mail: sc-wei@pku.edu.cn

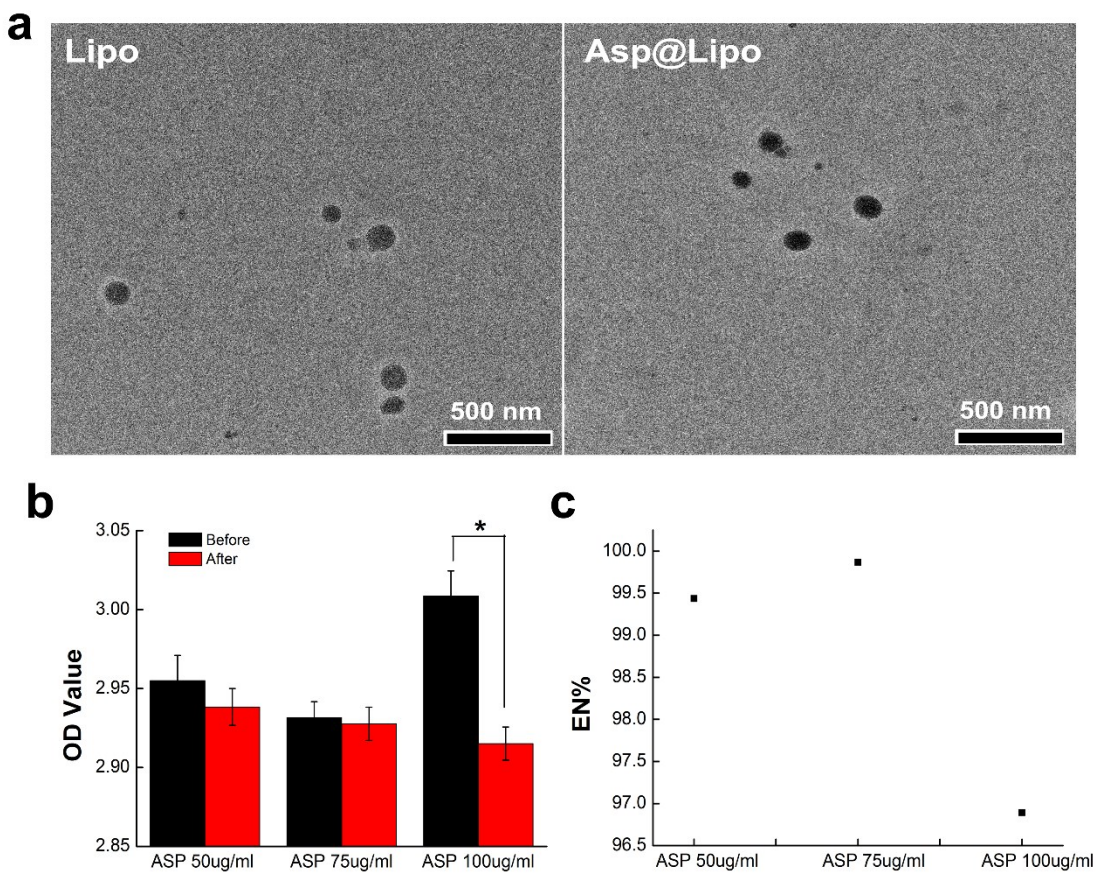

Fig. S1. (a) TEM images of liposomes (Lipo) and aspirin-loaded liposomes (Asp@Lipo), (b, c) the encapsulation efficiency (EE) of aspirin (50, 75, 100 ug/ml) in liposomes. (*) $p < 0.05$. Results are representative of at least three independent experiments.

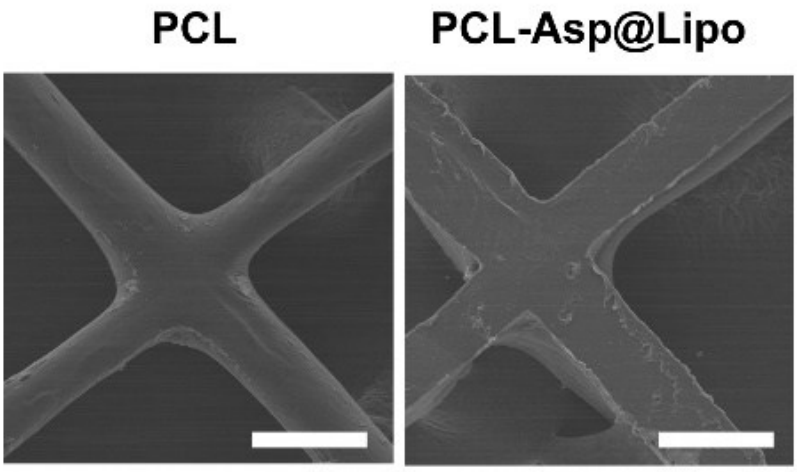

Fig. S2. SEM images of morphology of pristine and functionalized PCL scaffold surfaces. Scale bars indicate 100 μm.

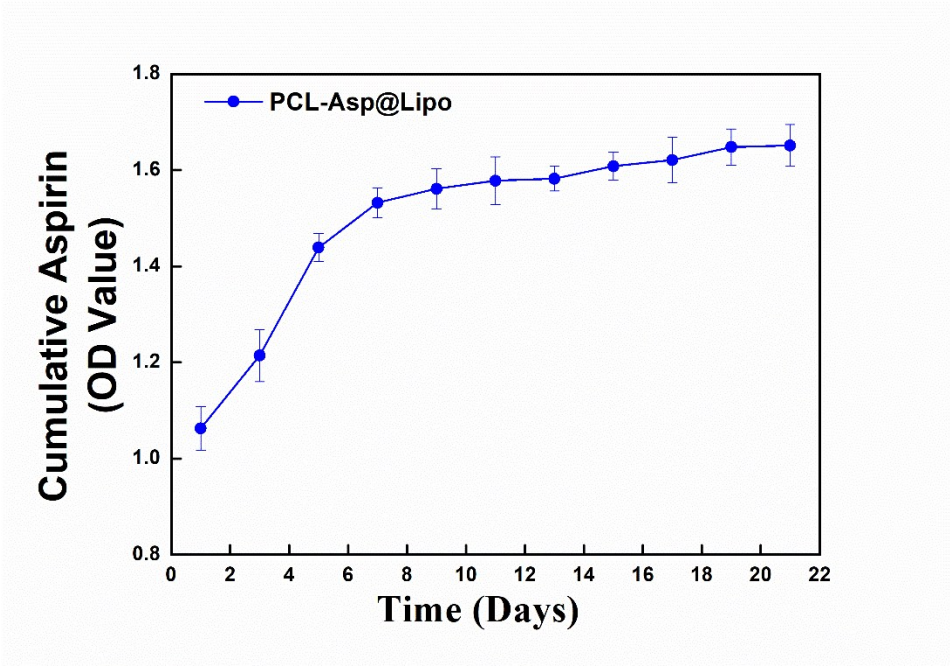

Fig. S3. In vitro cumulative release of aspirin from Asp@Lipo immobilized on the surface of PCL substrates.

1

Table S1. Primer sequences used for RT-PCR analysis

Genes	5′-3′	Primes
Col1a1	forward	AGACACTGGTGCTAAGGGAGAG
	reverse	GACCAGCAACACCATCTGCG
OCN	forward	CCTGAAAGCCGATGTGGT
	reverse	AGGGCAGCGAGGTAGTGA
ALP	forward	CAACCCTGGGGAGGAGAC
	reverse	GCATTGGTGTTGTACGTCTTG
Runx2	forward	AGGAATGCGCCCTAAATCACT
	reverse	ACCCAGAAGGCACAGACAGAAG
OPG	forward	CTGGAACCCCAGAGCGAAAT
	reverse	GCCTCCTCACACAGGGTAAC
RANKL	forward	GGTTGGGCCAAGATCTCCAA
	reverse	TCCGGATCCAGTAAGGAGGG
β-actin	forward	CCCAGAGCAAGAGAGG
	reverse	GTCCAGACGCAGGATG

2