

Supporting information for

**Biomimetic and Immunomodulatory Baicalin-loaded Graphene
Oxide-Demineralized Bone Matrix Scaffold for *In Vivo* Bone
Regeneration**

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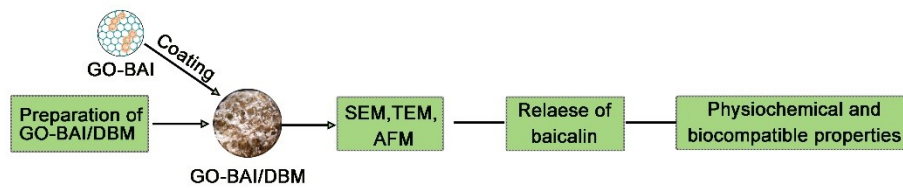
Bing Guo and Xiaodong Feng have contributed equally to this work.

***Corresponding author.**

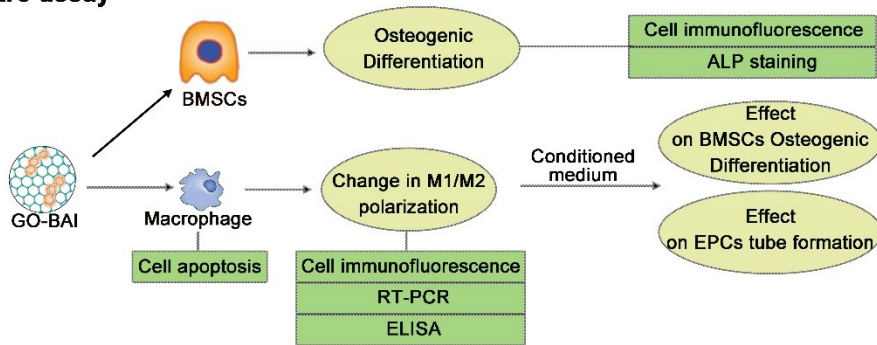
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Supplementary figures and table

Preparation and characterization of GO-BAI/DBM



In vitro assay



Fibrosis formation



Bone defect repair

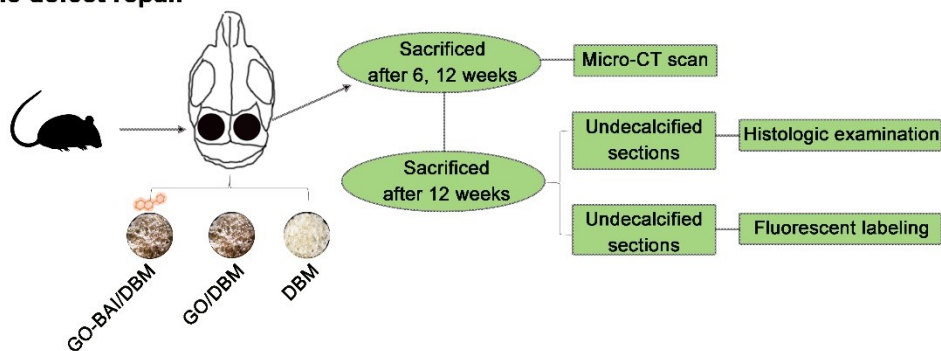


Fig. S1 Flow chart depicting the sequence of experiments conducted in the present study.

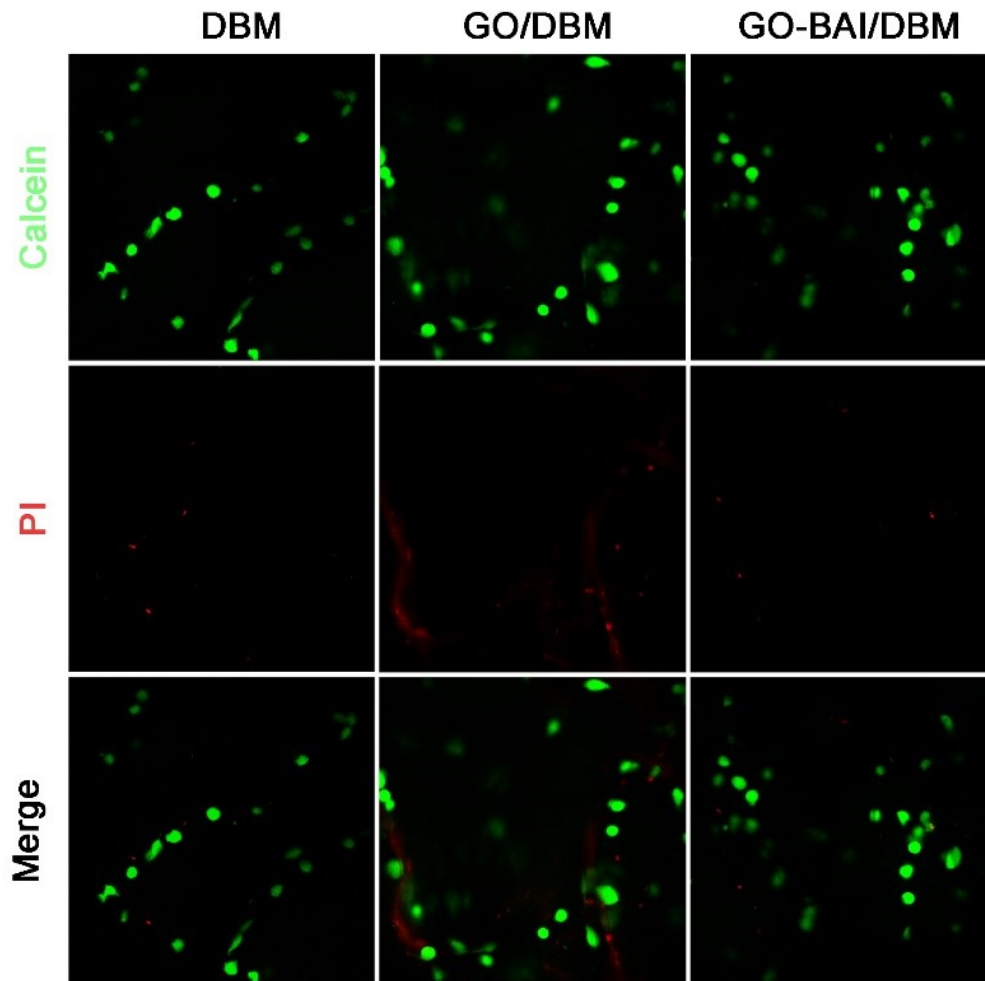


Fig. S2 Viability of HUVECs cells grown on the GO-BAI coated DBM scaffolds. Confocal microscopy imaging of HUVECs that were cultured on the constructs with LIVE/DEAD staining at days 1 (green color: live cells, red color: dead cells).

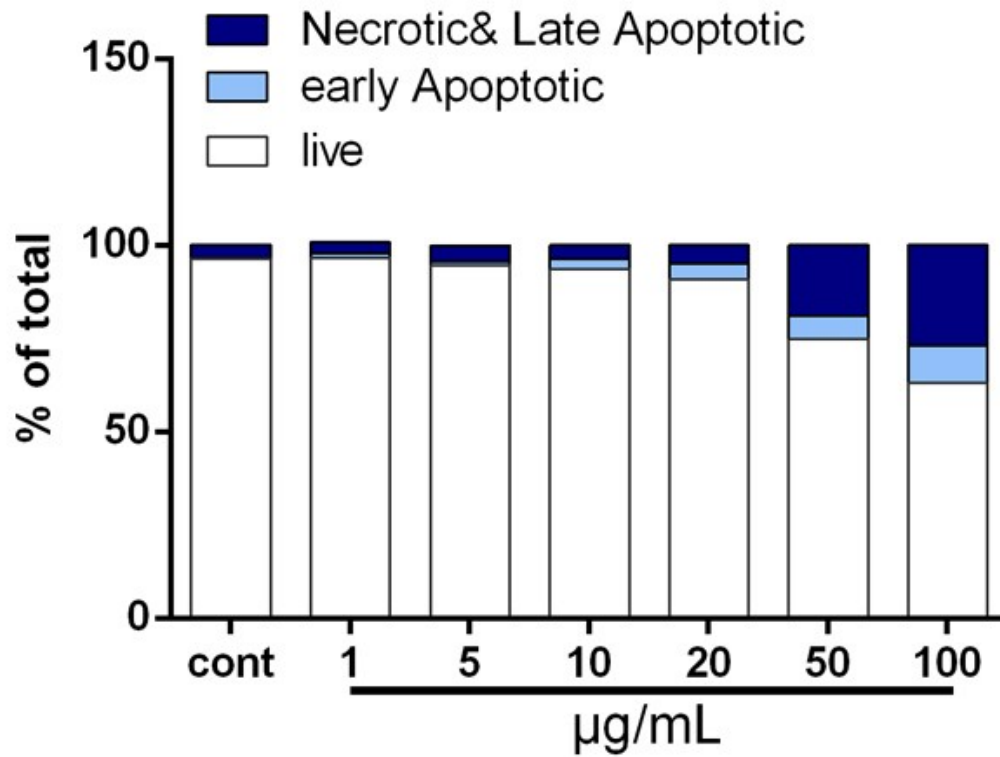


Fig. S3 Cytotoxicity of GO in Raw 264.7 macrophages. Cell viability of Raw 264.7 cells upon exposure to GO for 24 h at various concentrations determined by LIVE/DEAD Viability/Cytotoxicity assay.

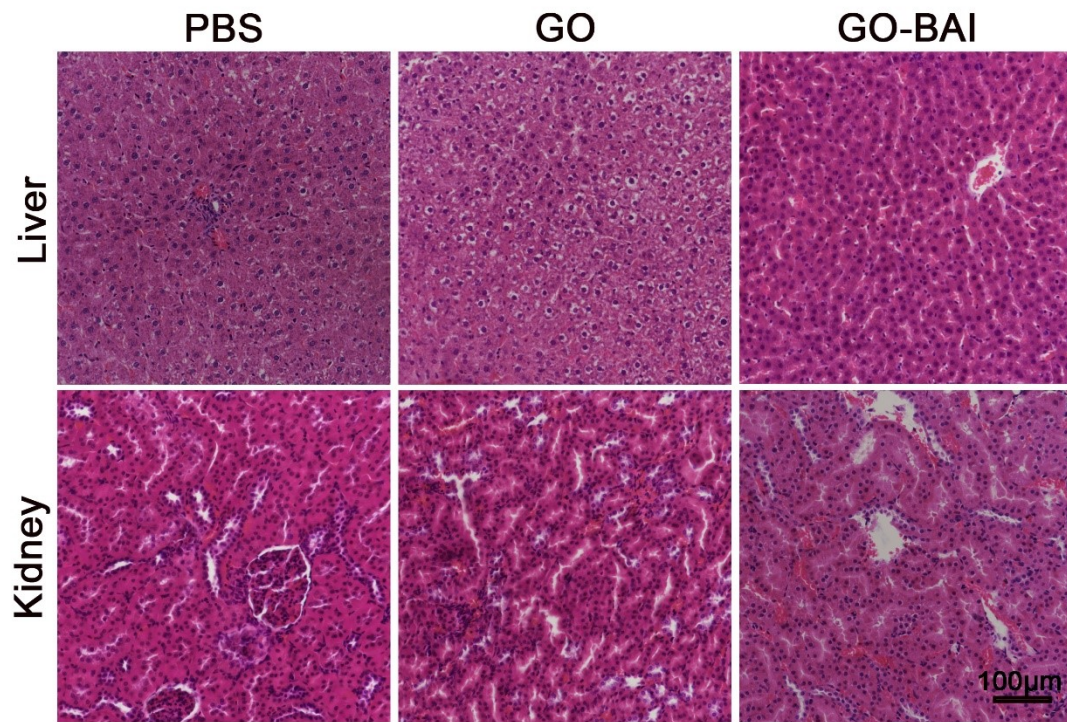


Fig. S4 Biocompatibility of GO-BAI. The liver and kidney showed no obvious pathological changes in HE staining at 1 month after subcutaneous injection of GO and GO-BAI (5 mg/kg in 100 μ L of saline).

Tab. S1. Primer pairs used in the RT-PCR.

Gene name	Direction	Sequence (5'-3')
IL-1 β (mouse)	Forward	GTATGGGCTGGACTGTTTC
	Reverse	GCTGTCTGCTCATTACG
TNF- α	Forward	GTCCATTCTGAGTTCTG
	Reverse	GAAAGGTCTGAAGGTAGG
Arg-1	Forward	CAGAAGAATGGAAGAGTCAG
	Reverse	CAGATATGCAGGGAGTCACC
Retnl- α	Forward	CTTTCCTGAGATTCTGCCCCAG
	Reverse	CACAAGCACACCCAGTAGCA
GAPDH (mouse)	Forward	CACTCACGGCAAATTCAACGGCA C
	Reverse	GACTCCACGACATACTCAGCAC
ALP (rat)	Forward	GAAAGAGAAAGACCCCAGTTAC
	Reverse	ATACCATCTCCCAGGAACAT
OCN	Forward	GAACAGACAAGTCCCACACAG
	Reverse	CAGGTCAGAGAGGCAGAATG
OPN	Forward	CGCATTACAGCAAACACTCAG
	Reverse	GTCATCGTCGTCGTCATCAT
OSX	Forward	CCTCTGCGGGACTCAACAAC
	Reverse	AGCCCATTAGTGCTTGTAAGG
β -actin (rat)	Forward	CCTCTATGCCAACACAGT
	Reverse	AGCCACCAATCCACACAG