

Supporting Information

A novel multifunctional dexamethasone carbon dots synthesized by one-pot green method for anti-inflammatory, osteogenesis and osteoimmunomodulatory in bone regeneration

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Table S1. QY of the DCDs dispersed in distilled water.

Samples	Integrated emission intensity (I)	Abs. (A)	Refractive index of solvent (n)	QY(φ)
Quinine sulfate	1261278901	0.0831	1.334	0.54
CDs	273492635	0.0451	1.334	0.40

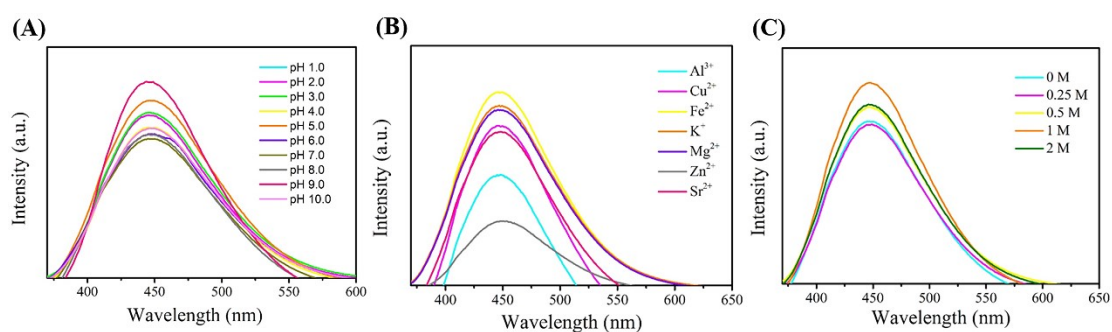


Fig. S1 Stability of DCDs.(A) dispersion in the solutions of different pH values; (B) mixing with cations and anions;(C) NaCl solution with different concentrations.

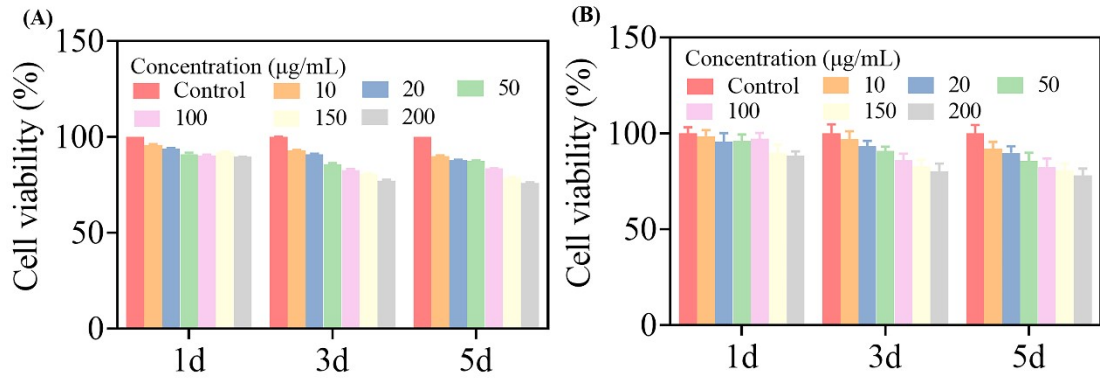


Fig. S2 Cytotoxicity assays of ACDs and FCDs. (A) CCK-8 assays of ACDs(n=5); (B) CCK-8 assays of FCDs(n=5).

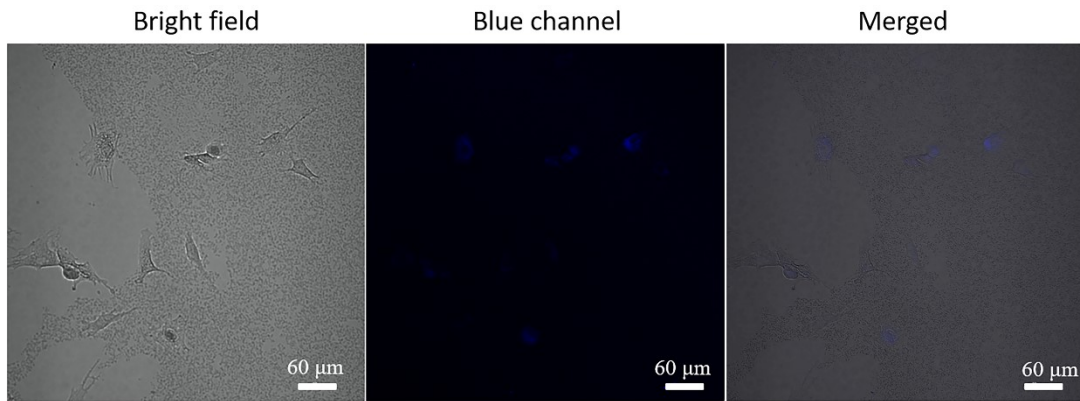


Fig. S3 Confocal images of rBMSCs cultured with DCDs for 6h under the blue channel.

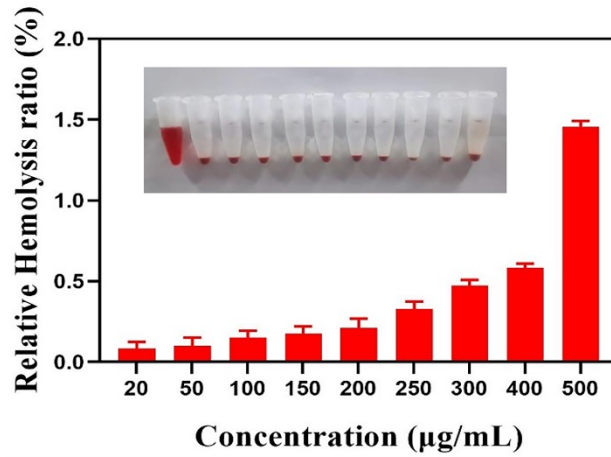


Fig. S4 Hemocompatibility of different concentrations of DCDs.

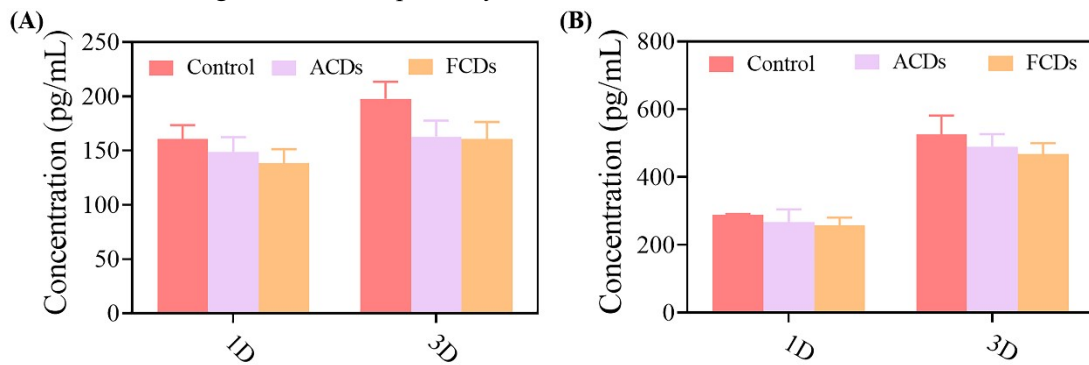


Fig. S5 Inflammatory cytokines detected by ELISA; (A) TNF- α , (B) IL-1 β .

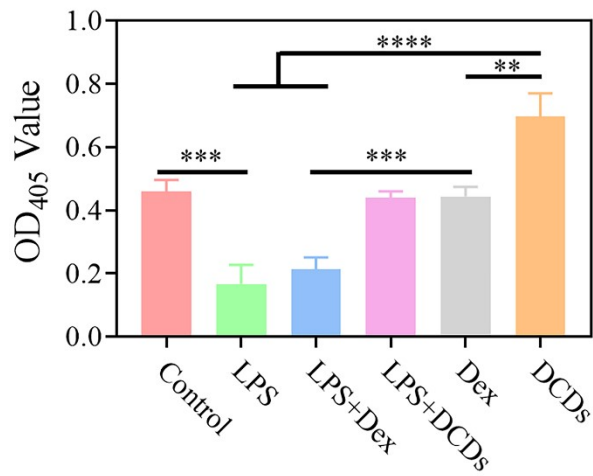


Figure S6 Quantitative analysis of ARS.

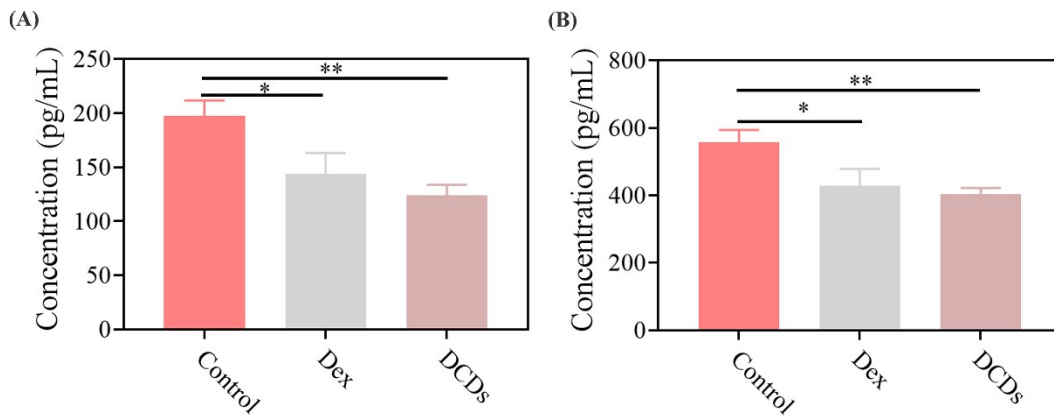


Fig. S7 Pro-inflammatory factors secreted by polarized macrophages . (A) TNF- α ;(B) IL-1 β .

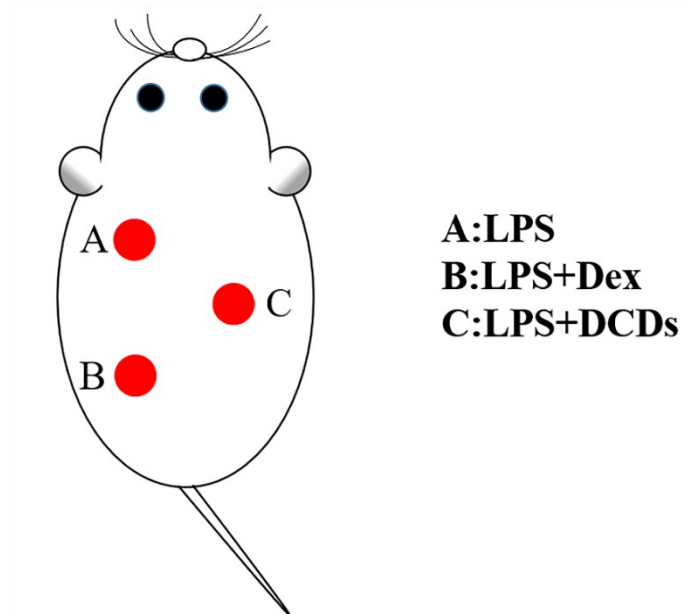


Fig. S8 Schematic diagram of material samples implanted in the back of SD rats.