

Immune Microenvironment Modulation for Treating Inflammatory Periodontal Bone Defects Using a Dynamic Dual- Responsive Hydrogel

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Supplementary figures

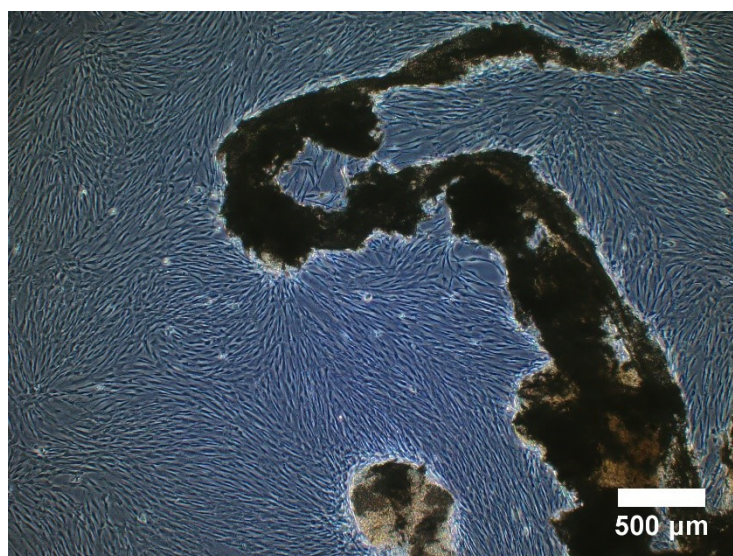


Fig. S1 Microscopic images of primary culture of PDLSCs.

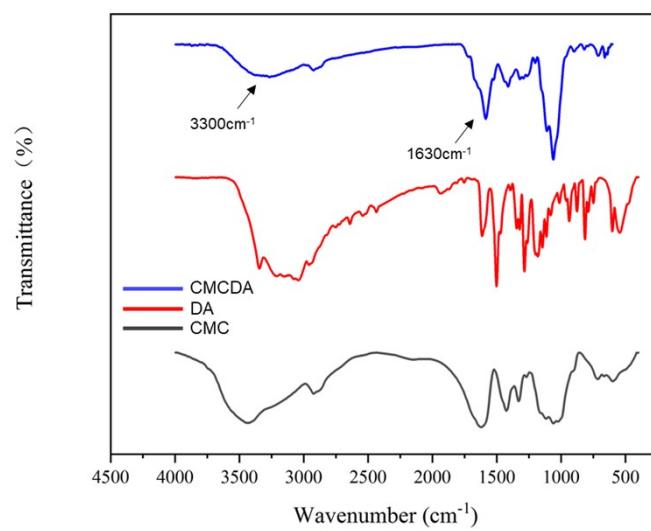


Fig. S2 FT-IR spectra of CMCD and each component.

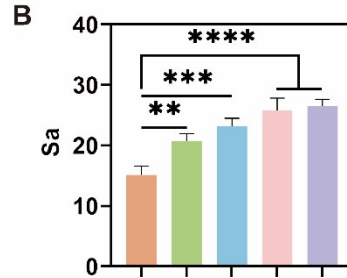
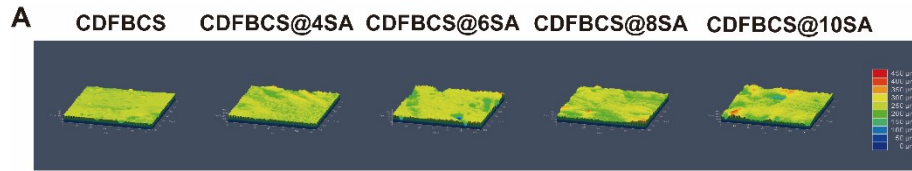


Fig. S3 Surface roughness analysis of CDFBCS@SA. (A) Confocal microscopy images of CDFBCS@SA. (B) Sa value of CDFBCS@SA. Data was expressed as mean $\pm$ SD, $n = 3$, $**p < 0.01$, $***p < 0.001$, $****p < 0.0001$.

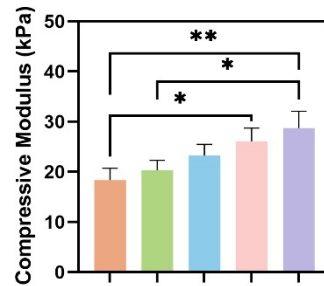


Fig. S4 Compressive modulus of CDFBCS@SA. Data was expressed as mean $\pm$ SD, $n = 3$, $*p < 0.05$, $**p < 0.01$.

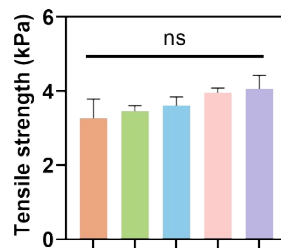


Fig. S5 Tensile strength of CDFBCS@SA. Data was expressed as mean $\pm$ SD, $n = 3$, ns: no significance.

CDFBCS CDFBCS@4SA CDFBCS@6SA CDFBCS@8SA CDFBCS@10SA

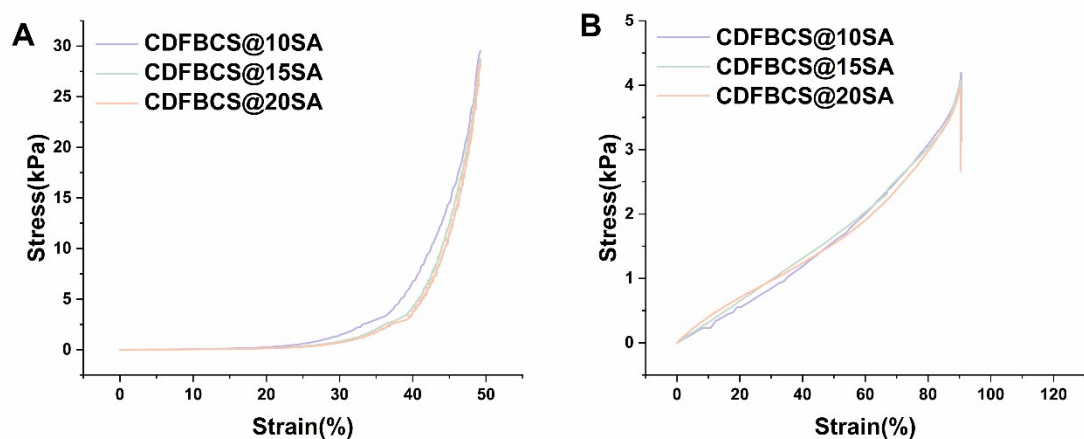


Fig. S6 (A) Representative compressive stress-strain curve of CDFBCS@10, 15, 20SA. (B) Representative tensile stress-strain curve of CDFBCS@10, 15, 20SA.

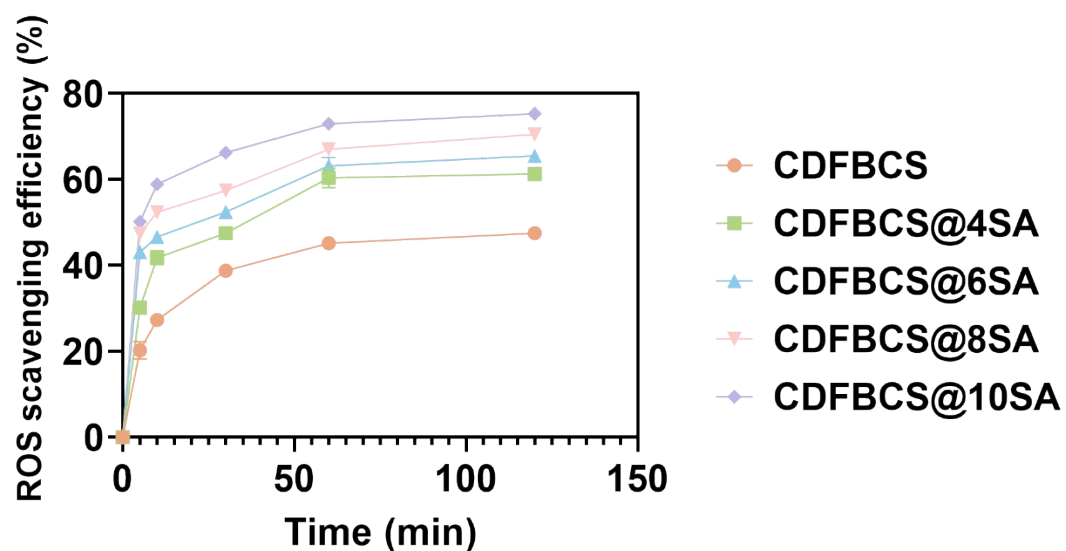


Fig. S7 The time-dependent free radical scavenging curve of CDFBCS@SA.

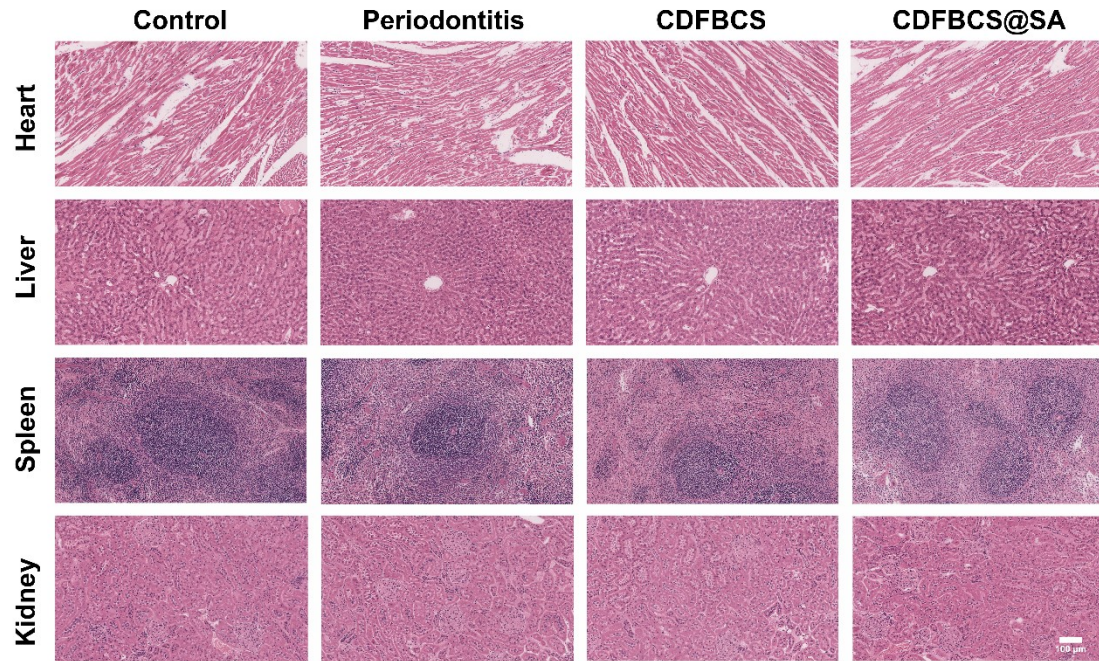


Fig. S8 The representative H&E staining images of heart, liver, spleen and kidney.

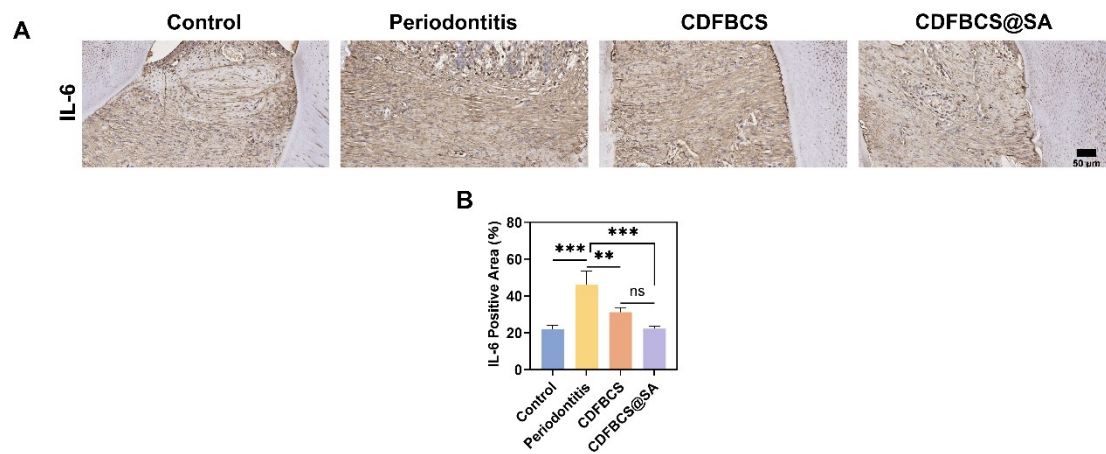


Fig. S9 The expression of IL-6 in periodontal tissue by IHC. (A) Representative immunohistochemical images of IL-6. (B) Quantitative analysis of IL-6 IHC staining. Data was expressed as mean $\pm$ SD, $n = 3$, ** $p < 0.01$, *** $p < 0.001$, ns: no significance.

Supplementray Table

Table S1 Primer sequence list.

<i>Gene</i>	Forward primer (5' → 3')	Reverse primer (5' → 3')
<i>COX-2</i>	CAGGACTCTGCTCACGAAGG	ATCCAGTCCGGGTACAGTCA
<i>CD206</i>	ATGGATTGCCCTGAACAGCA	CTCGTCACCCCAGTTAG
<i>IL-1β</i>	GCCTGTGTTTTCCTCCTTGC	TGCTGCCTAATGTCCCCTTG
<i>TNF-α</i>	CGGGCAGGTCTACTTTGGAG	ACCCTGAGCCATAATCCCCT
<i>iNOS</i>	GCCAACATGCTACTGGAGGT	TGGAGCACAGCCACATTGAT
<i>TGF-β3</i>	CCTCCTGCCTTCCTTCTTGG	CAACGGGGTCTAGGGTAGGA
<i>IL-6</i>	CTGCAAGAGACTTCCATCCAG	AGTGGTATAGACAGGTCTGTTGG
<i>IL-10</i>	AAGCTCCAAGACCAAGGTGTC	ACGAGGTTTTCCAAGGAGTTGT
<i>OCN</i>	CACTCCTCGCCCTATTGGC	CCCTCCTGCCTGGACACAAAG
<i>ALP</i>	CACGAGCAGAACTACGTCCC	CTCAGAACAGGACGCTCAGG
<i>OPN</i>	CCCTGATGCTACAGACGAGG	GTGGGTTTCAGCACTCTGGT
<i>OPG</i>	CCTGGCACCAAAGTAAACGC	ATTGCTGAGGGGATGCAAGAG
<i>COL-1</i>	TCTGGAGCAAGTGGTGAACG	CCCCTCACGTCCAGATTCAC
<i>RUNX-2</i>	CTCCCCGAAAAGTCAGGGTC	GTGGCCTACAAAGGTGGGTT