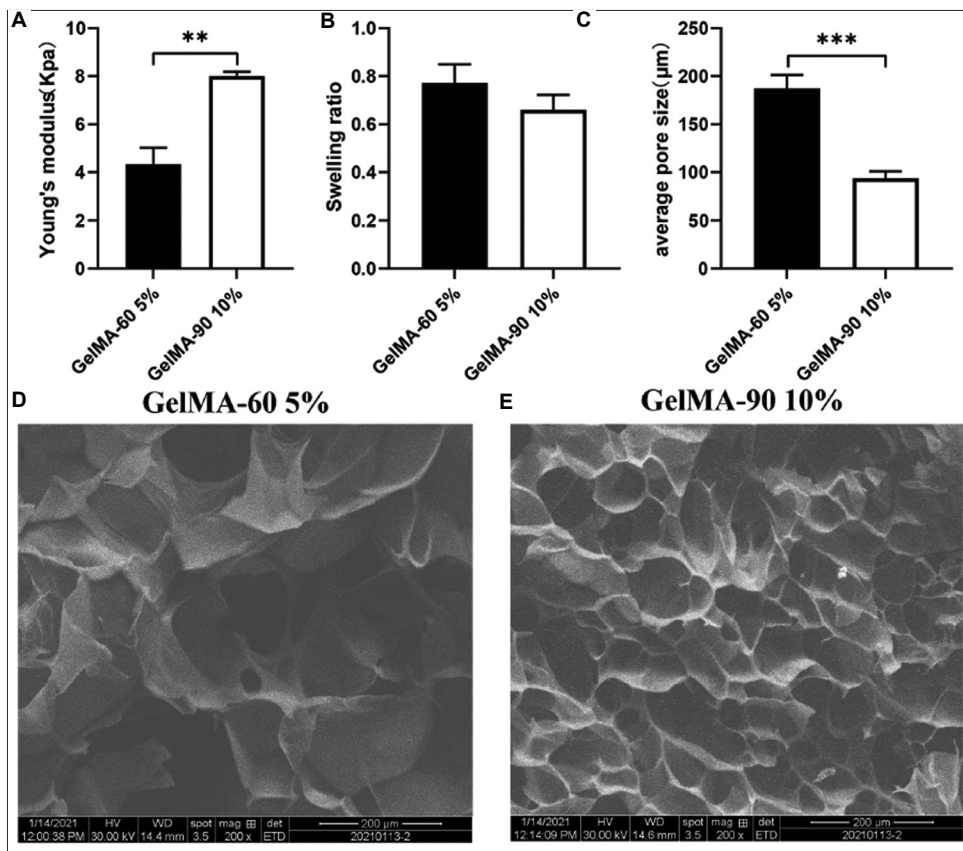


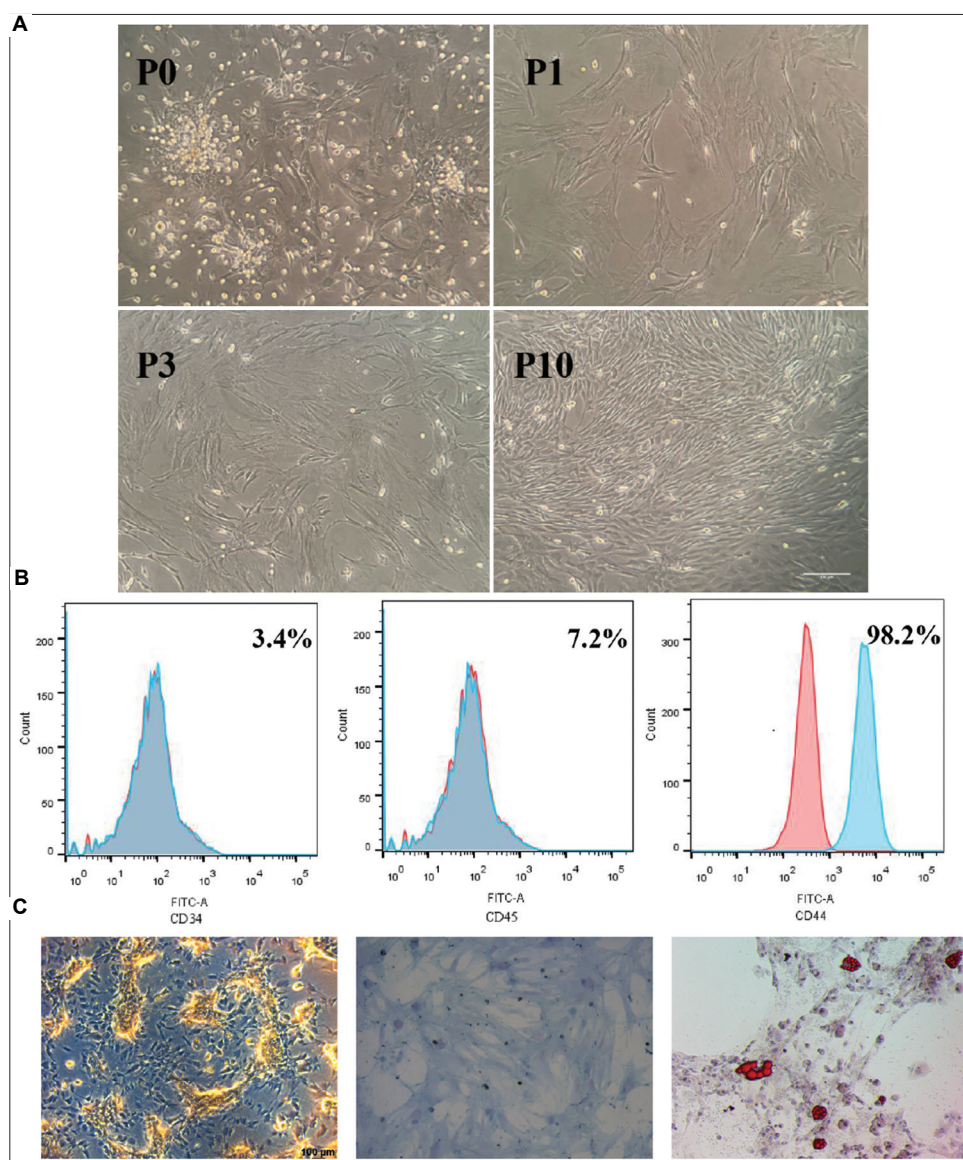
RESEARCH ARTICLE

Experimental study on repair of cartilage defects in the rabbits with GelMA-MSCs scaffold prepared by three-dimensional bioprinting

Supplementary File



**Figure S1.** Characterization of GelMA scaffolds. (A) Compression Young's modulus of GelMA scaffolds. (B) Pore size of GelMA scaffolds. (C) Swelling ratio of GelMA scaffolds. (D and E) Structural performance of GelMA-60 5% and GelMA-90 10% scaffolds under SEM observation.



**Figure S2.** Identification and differentiation of rabbit MSCs. (A) Microscopic morphology of rabbit MSCs at P0, P1, P3, and P10. (B) Antigen detection of MSCs by flow cytometry. The expression rates of CD34, CD45, and CD44, were 3.4%, 7.2%, and 98.2%, respectively. (C) Alizarin red, Alcian blue, and Oil red O staining results of rabbit MSCs after osteogenesis, chondrogenesis and adipogenic induction. Alizarin red, Alcian blue and Oil Red O staining revealed calcium nodules, acid mucin, and red lipid droplets, respectively.

**Videoclip S1.** The three-dimensional culture survival of cells captured by a confocal microscope, in which green is living cells and red is dead cells.

**Videoclip S2.** Process of printing scaffold of three-dimensional extrusion biological printer.