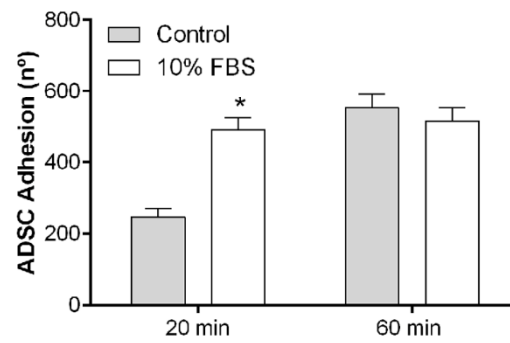
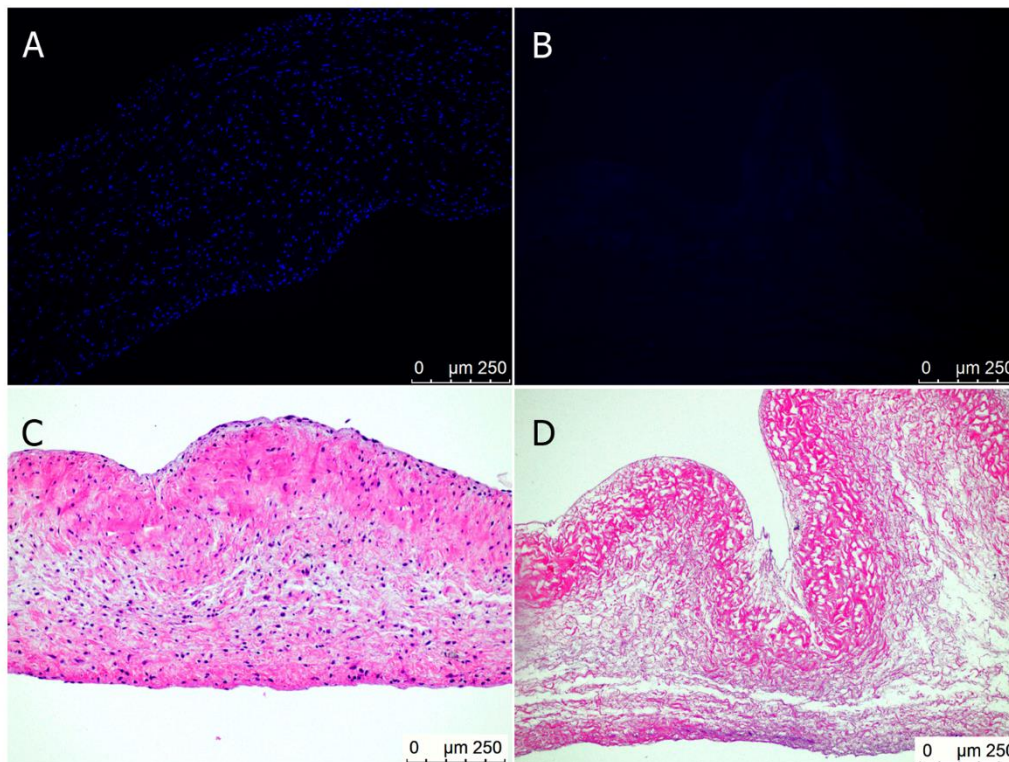


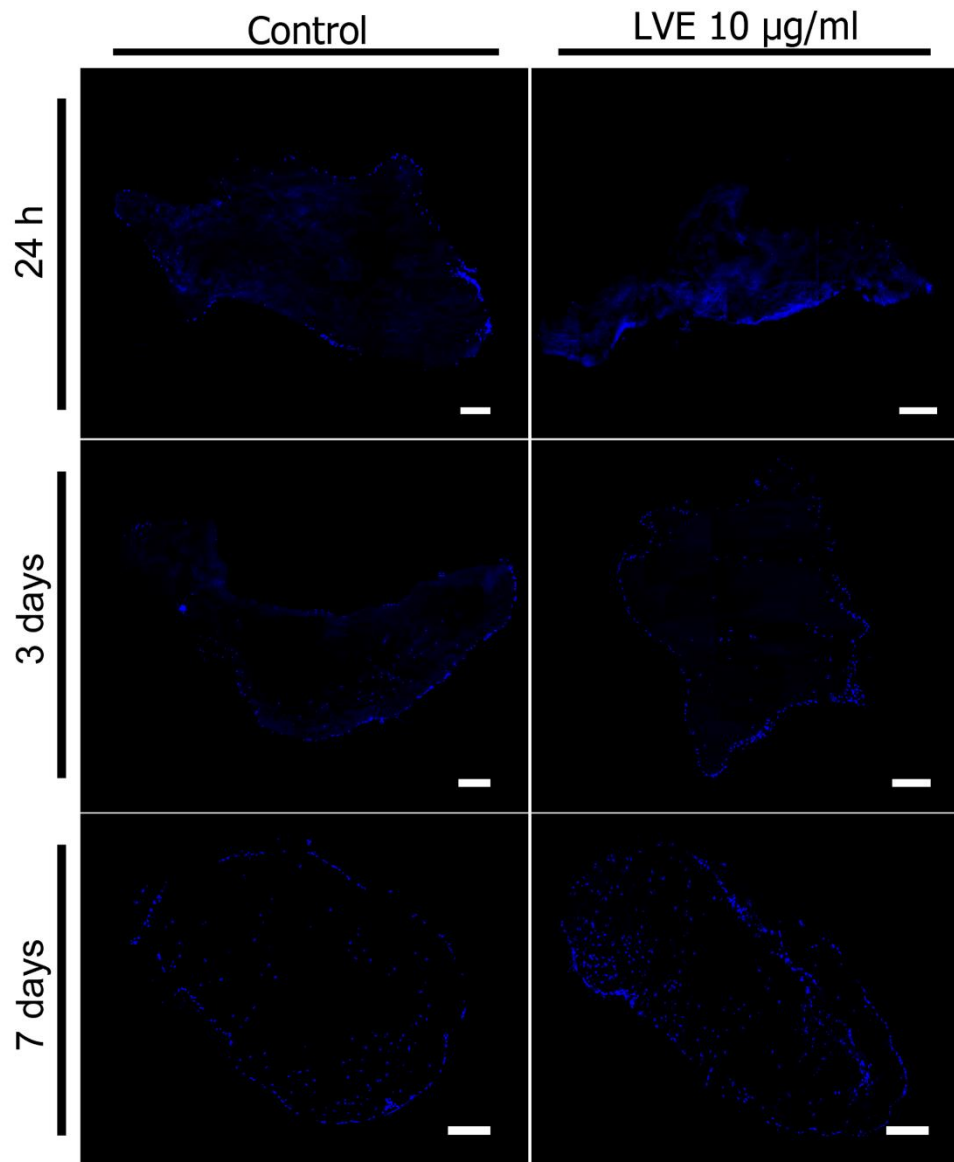
## Supplementary Materials



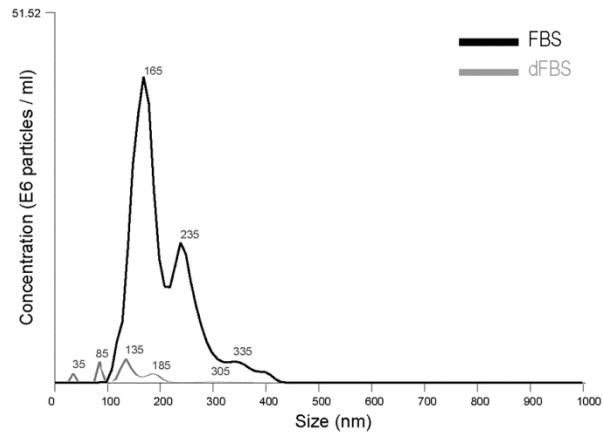
**Figure S1.** Standardization of the cell adhesion assay performed with ADSC cells. \*  $p < 0.05$ .



**Figure S2.** Analysis of the efficiency of decellularization. Representative images from native leaflets stained with DAPI (A) and H&E (C) and decellularized leaflets stained with DAPI (B) and H&E (D).



**Figure S3.** Representative images of recellularized fragments previously coated with 10 µg/ml LVE-EVs and cultivated with ADSCs for 24h; and recellularized fragments cultivated with ADSCs for 24h, stimulated with 10 µg/ml LVE-EVs and then cultivated for 3 and 7 days. Scale bar = 250 µm.



**Figure S4.** Representative graphic from NTA images of FBS and dFBS. The dFBS was obtained from the supernatant of FBS ultracentrifuged at 100,000 g for 20 hours. The samples were prepared at 10% (same concentration used in explant cultures) and diluted 20-fold in PBS before the analysis.