

## Supplementary Information

### Improving cartilage phenotype from differentiated pericytes in tunable peptide hydrogels

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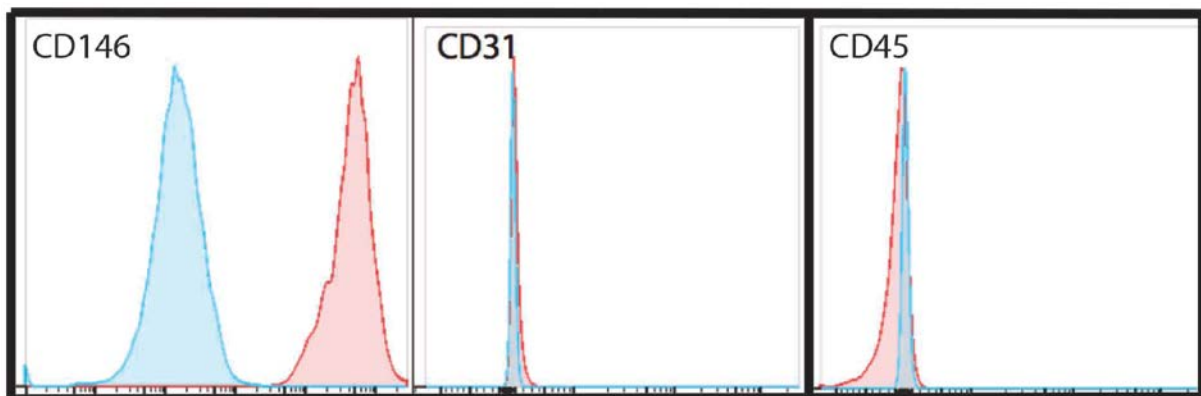
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**Supplementary Table S1:** Demographic data and cell metrics from the 3 donors used in this study.

Donor	Sex	Age	Total nucleated cells in SVF per 100cc of adipose tissue	% viability	% pericytes
1	M	35	$50 \times 10^6$	72.8	7.3
2	F	44	$48 \times 10^6$	81.3	8.5
3	F	50	$52 \times 10^6$	92.8	11.5

**Supplementary Figure S1:** Demonstration of purity of pericyte cultures using flow cytometry. Passage 3 pericytes demonstrating uniform positive expression of CD146 (>99.99%), and negative expression of CD31 and CD45 versus isotype control. CD146-Alexa647 (1:100, AbD Serotec, Raleigh, NC), CD45 APC-cy7 and CD31-FITC (1:100, all from BD Biosciences, San Jose, CA).



**Supplementary Figure S2:** Confocal microscopy images of F<sub>2</sub>/S hydrogels immunostained for either aggrecan or type II collagen. Pericyte cells were cultured for 28 days within the F<sub>2</sub>/S hydrogels prior to staining. Images were obtained from hydrogels which contained no cells (control, F<sub>2</sub>/S), hydrogels which contained cells and cultured in basal media (F<sub>2</sub>/S -) and chondrogenic induction media (F<sub>2</sub>/S +).

