Supporting Information

Rapid Fabrication of Poly(DL-lactide) Nanofiber Scaffolds with Tunable Degradation for Tissue Engineering Applications by Air-brushing

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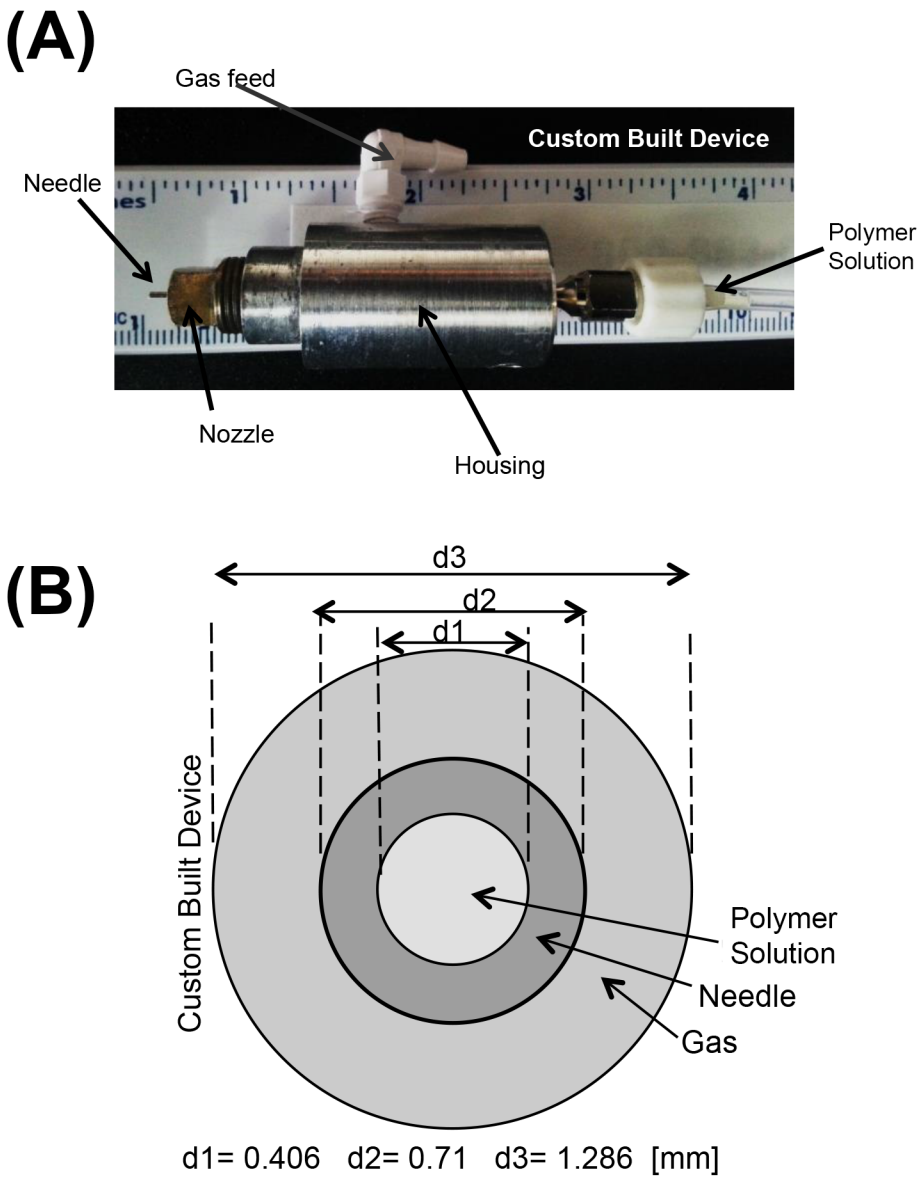

Figure S1. (A) Image of the custom made air-brush apparatus. (B) Diagram showing nozzle dimensions.

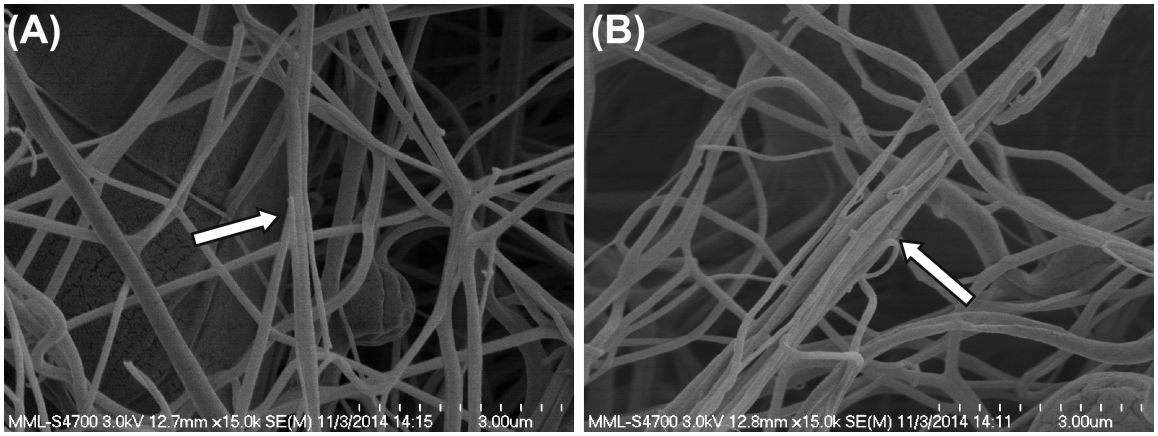

Figure S2. Scanning electron micrographs showing homogeneous fibers frequently banding together to form segments of larger diameter fibers that then disperse again (white arrows).

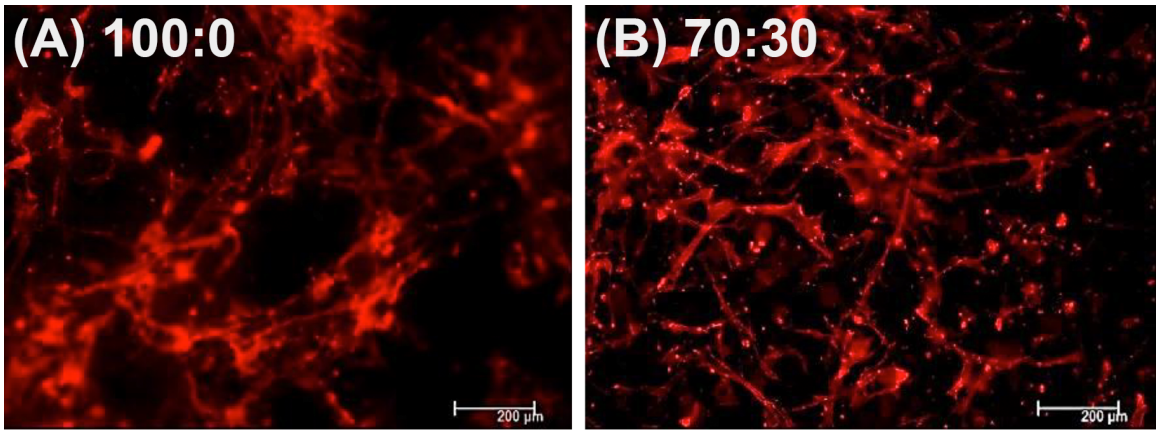

Figure S3. Fluorescent micrograph of primary human bone marrow stromal cells seeded on 100:0 and 70:30 nanofiber scaffolds. Cells were stained for F-actin (AlexaFluor 546-phalloidin). Scale bars represent 200 μm.

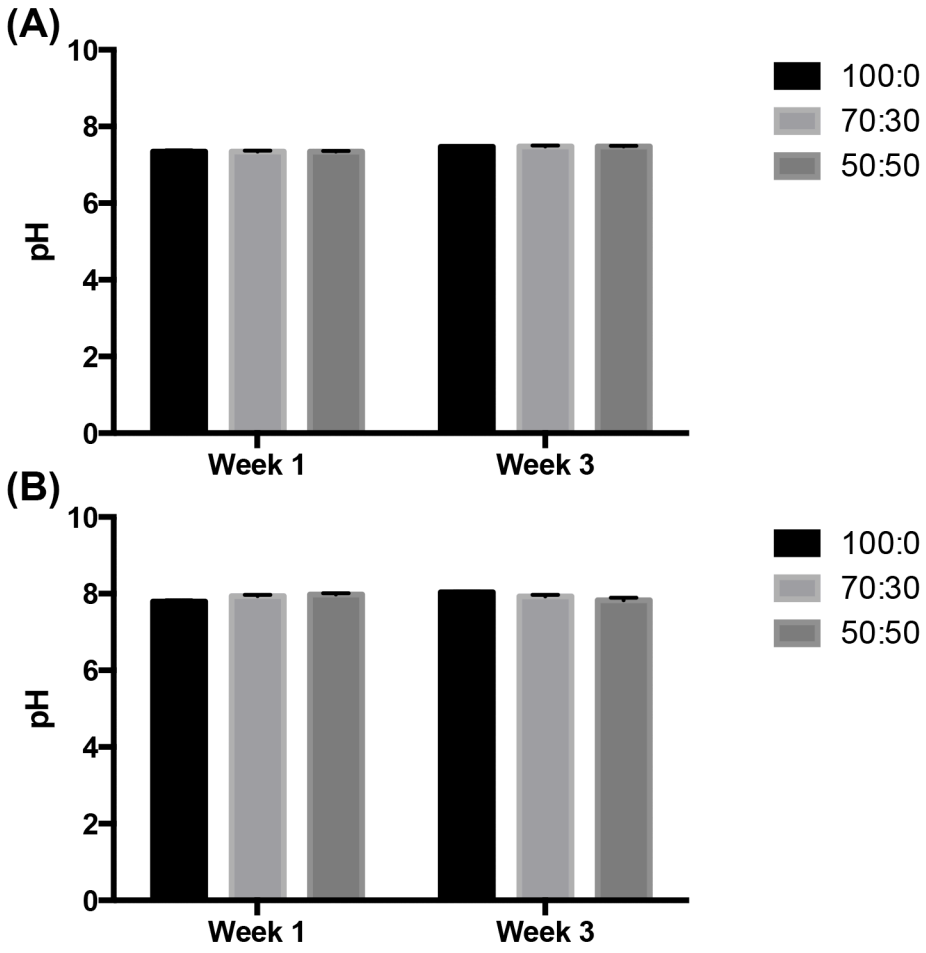

Figure S4. Supernatant pH at week 1 and week 3 after PDLLA nanofiber degradation in either (A) PBS or (B) cell culture medium. Neither case resulted in large pH changes over the studied timeframe.

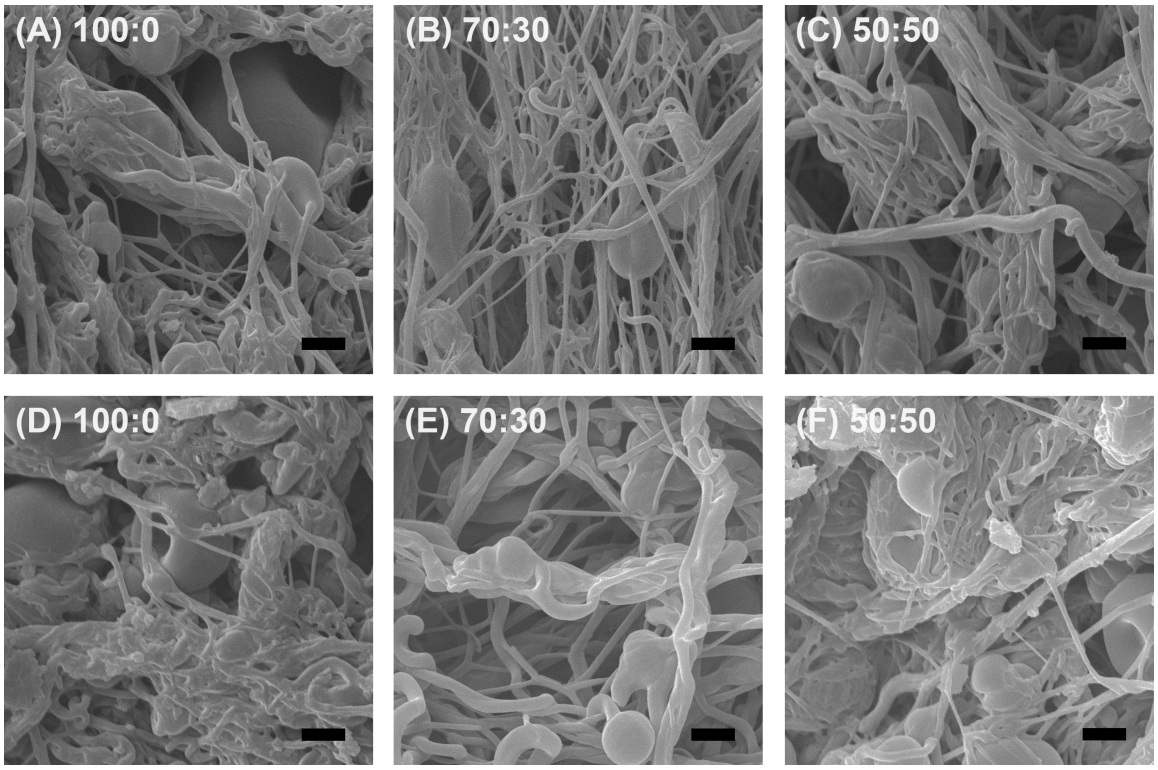

Figure S5. SEM of PDLLA nanofiber degradation in PBS at week 1 (A-C) and week 3 (D-E) for each blend.

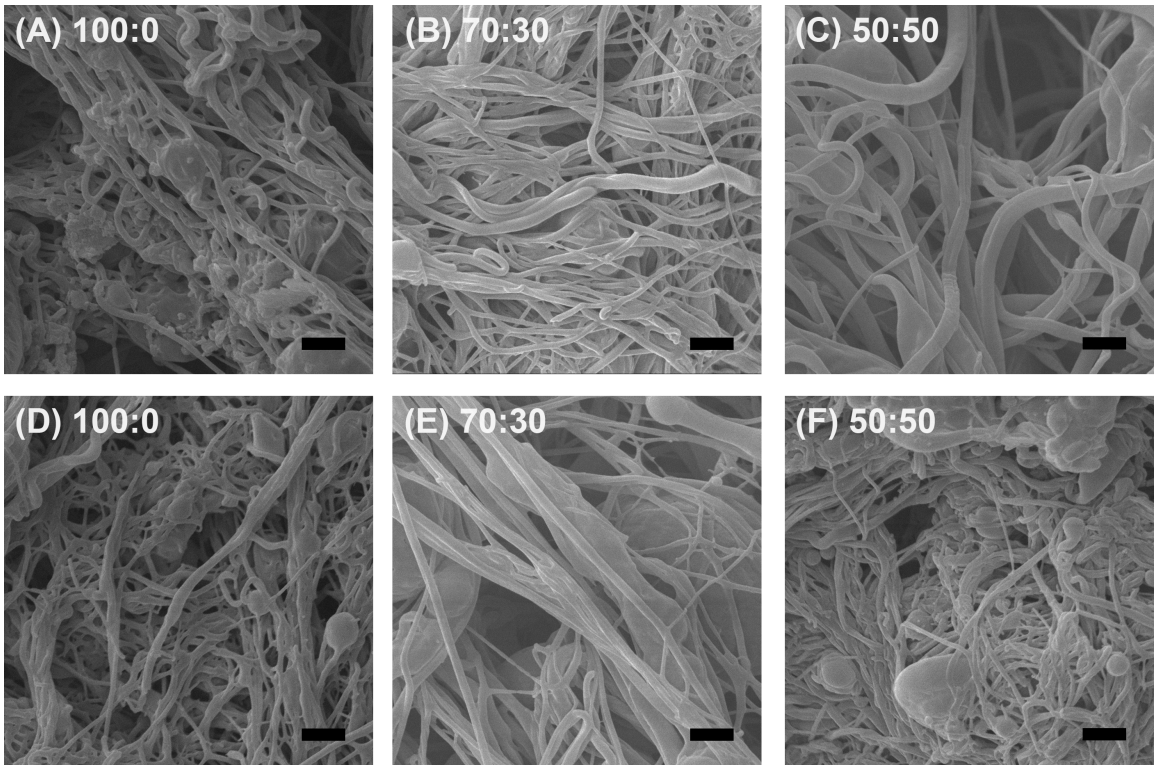

Figure S6. SEM of PDLLA nanofiber degradation in cell culture medium at week 1 (A-C) and week 3 (D-E) for each blend.

Table S1: Nanofiber Scaffold Composition

	100:0	70:30	50:50
Theoretical M_w (g/mol)	101,500	78,470	63,090
Measured M_w (g/mol)	102,800	70,810	60,850
Difference (%)	1	10	4

Theoretical M_w was determined by taking the composition-weighted average of the polymer blends using the measured molecular weights of the as received high and low molecular weight PLGA. This was then compared to the measured molecular weights of the nanofiber scaffolds after fabrication.

Table S2: P-Values for Comparisons Between Treatments

	100:0 vs 50:50	100:0 vs 70:30	70:30 vs 50:50
P1 Diameter	0.775	0.255	0.106
P2 Diameter	0.786	0.142	0.060
Mean Pore Size	0.413	0.887	0.236
Percent Porosity	0.964	0.327	0.238
Intersection Density	0.246	0.932	0.156
Characteristic Length	0.227	0.846	0.112