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Supporting Information for Evaluation of the role of polyelectrolyte deposition conditions on growth factor release

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Confocal Fluorescence Microscopy

Cells cultured for 7 days were stained and imaged with confocal fluorescence microscopy. Cells were fixed for 15 min in 4% paraformaldehyde, washed in PBS, permeabilized with 0.1% Triton X-100 at 4°C for 15 min and washed three times in PBS. NIH3T3 cells were additionally blocked in 3% BSA for 30 min. F-actin was stained with Alexa Fluor® 488 and cell nuclei were stained with TO-PRO®-3. Confocal micrographs were obtained with a Leica TCS SP confocal scanning system (Leica) with a 100× oil immersion objective (numerical aperture 1.4). Confocal fluorescence microscopy images are shown in Figure S1.

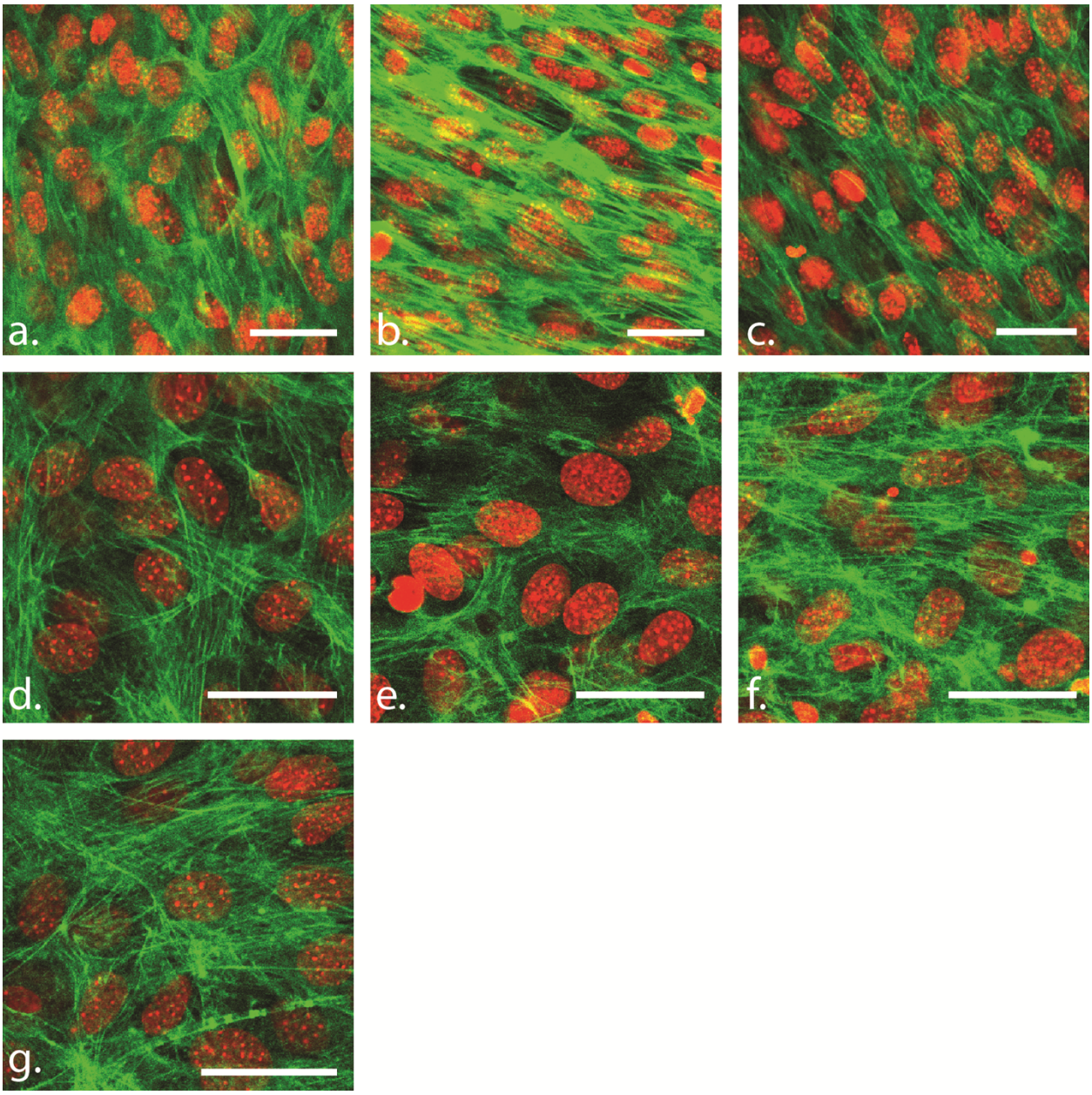

Fig. S1. Confocal fluorescence microscopy of stained MC3T3-E1 cells on different surfaces after 7 days of culture. a. Anodized titanium; b. PE; PE-B; PE-6; PE-B6; PE-N; PE-BN. Scale bars represent 50 μm.

SEM

SEm micrographs were taken of all investigated surfaces. These micrographs are shown in Figure S2.

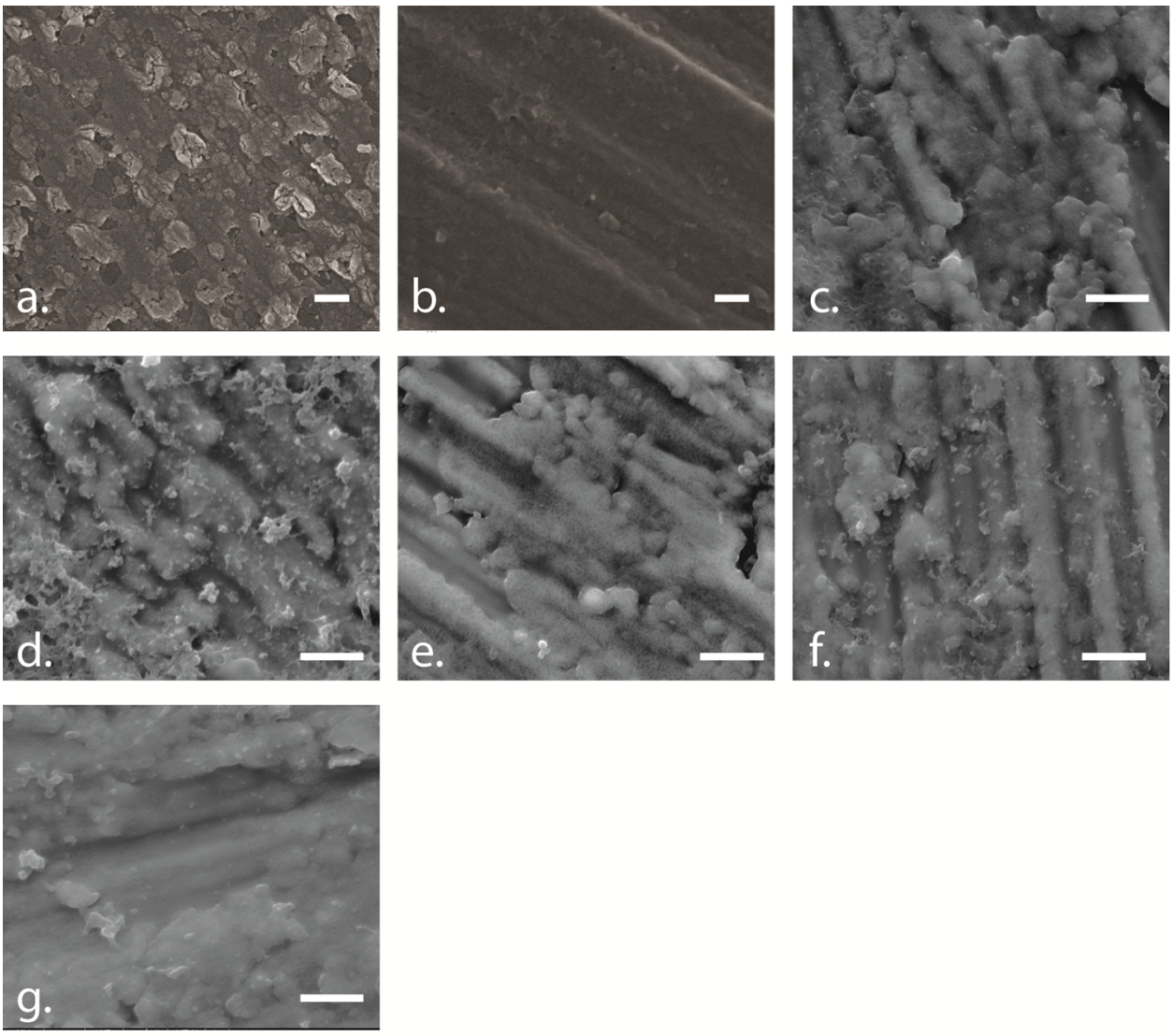

Fig. S2. SEM micrographs of different surfaces. a. Anodized titanium; b. PE; PE-B; PE-6; PE-B6; PE-N; PE-BN. Scale bars represent 100 nm.

Contact Angle Analysis

These contact angle (CA) values were obtained from sessile drop experiments. The contact angles from at least four drops were averaged for each point.

Sample Name	Static CA	Advancing CA	Receding CA	CA Hysteresis
Ti	80.1	84.2	50.0	34.2
PE	71.4	74.8	55.9	18.9
PE-B	76.6	79.3	52.9	26.4
PE-6	44.4	48.5	32.9	15.6
PE-B6	74.1	75.4	46.2	29.2
PE-N	67.4	69.7	54.7	15.0
PE-NB	68.8	71.8	48.1	23.7