

Supporting Information

Patterned Poly(dopamine) Films for Enhanced Cell Adhesion

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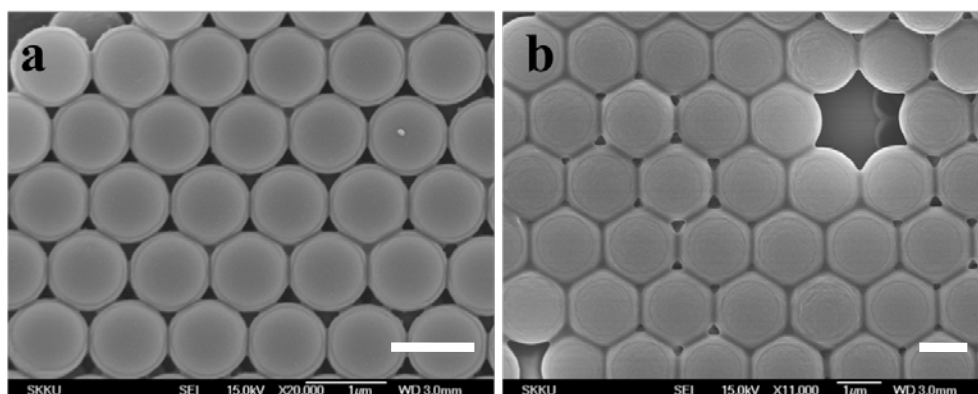


Figure S1. SEM images of a PDA/PS film derived from PS template particles with diameters of (a) 0.8 μm and (b) 1.7 μm . Scale bars 1 μm .

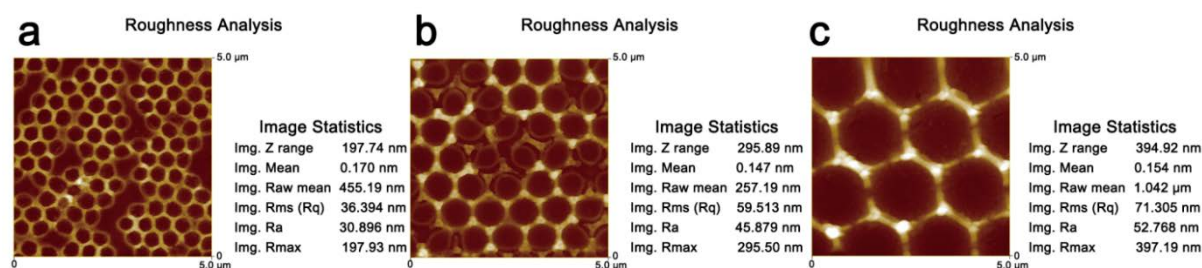


Figure S2. AFM analysis of the surface roughness of PDA films prepared with particles of size: (a) 0.5 μm ; (b) 0.8 μm ; and (c) 1.7 μm . The observed root mean square (rms) roughnesses can be compared to that reported for unpatterned polydopamine coatings: $\sim 3 \text{ nm}$.¹

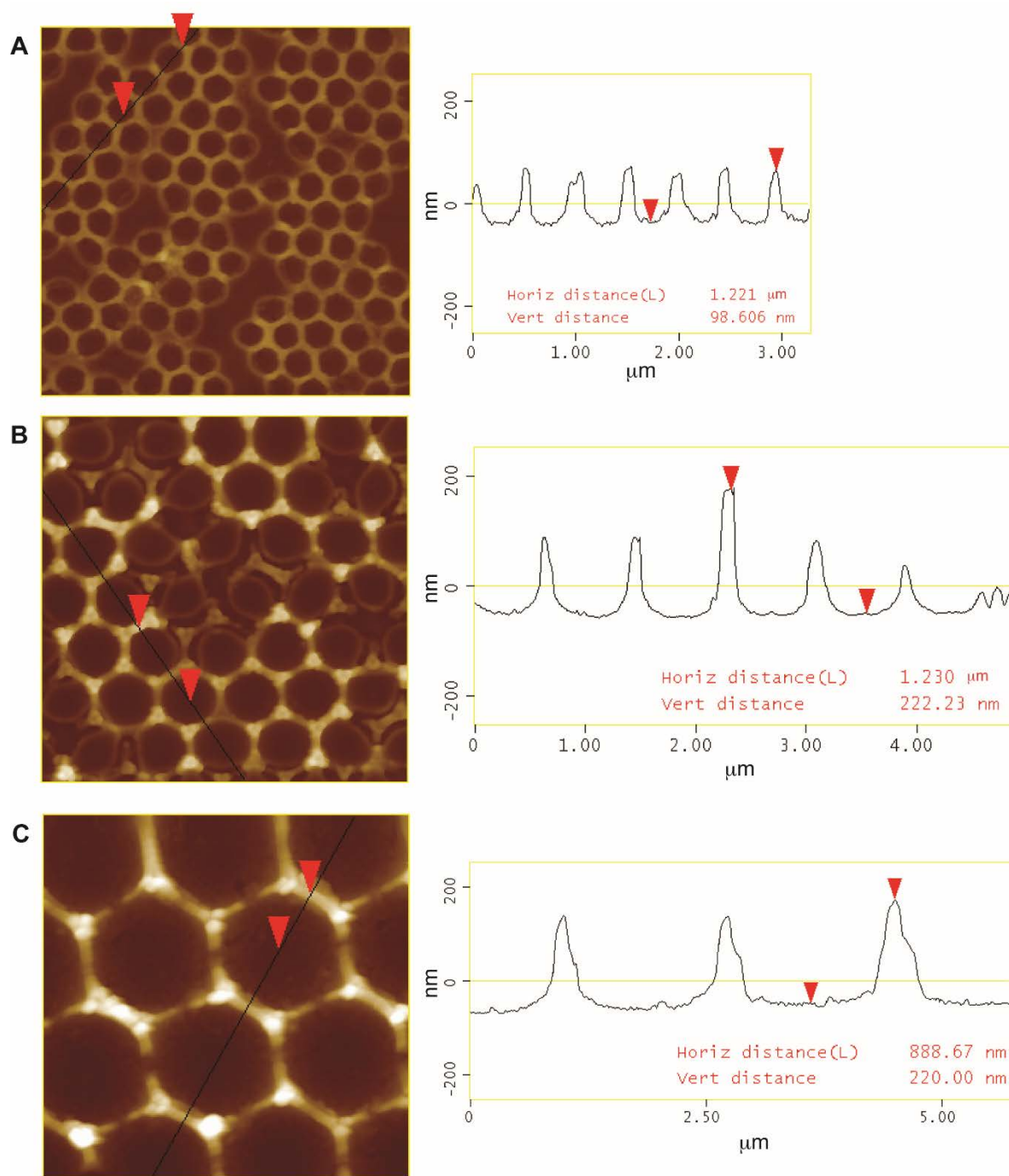


Figure S3. AFM line profile analysis of PDA films prepared with particle templates of size: (a) 0.5 μm ; (b) 0.8 μm ; and (c) 1.7 μm .

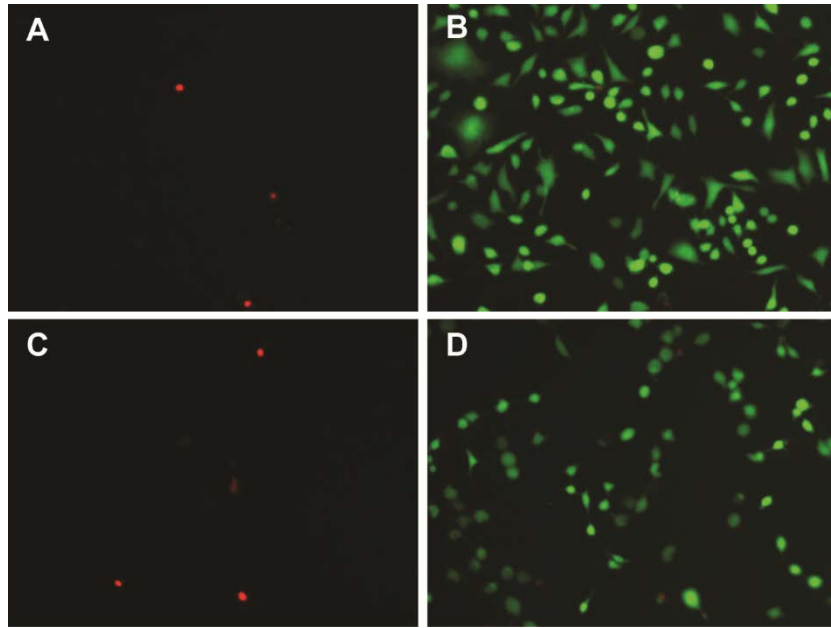


Figure S4. Representative images of HeLa cells (A, B) and MSC (C, D) treated with calcein AM (green) and ethidium homodimer-1 (red) to quantify live and dead cells, respectively.

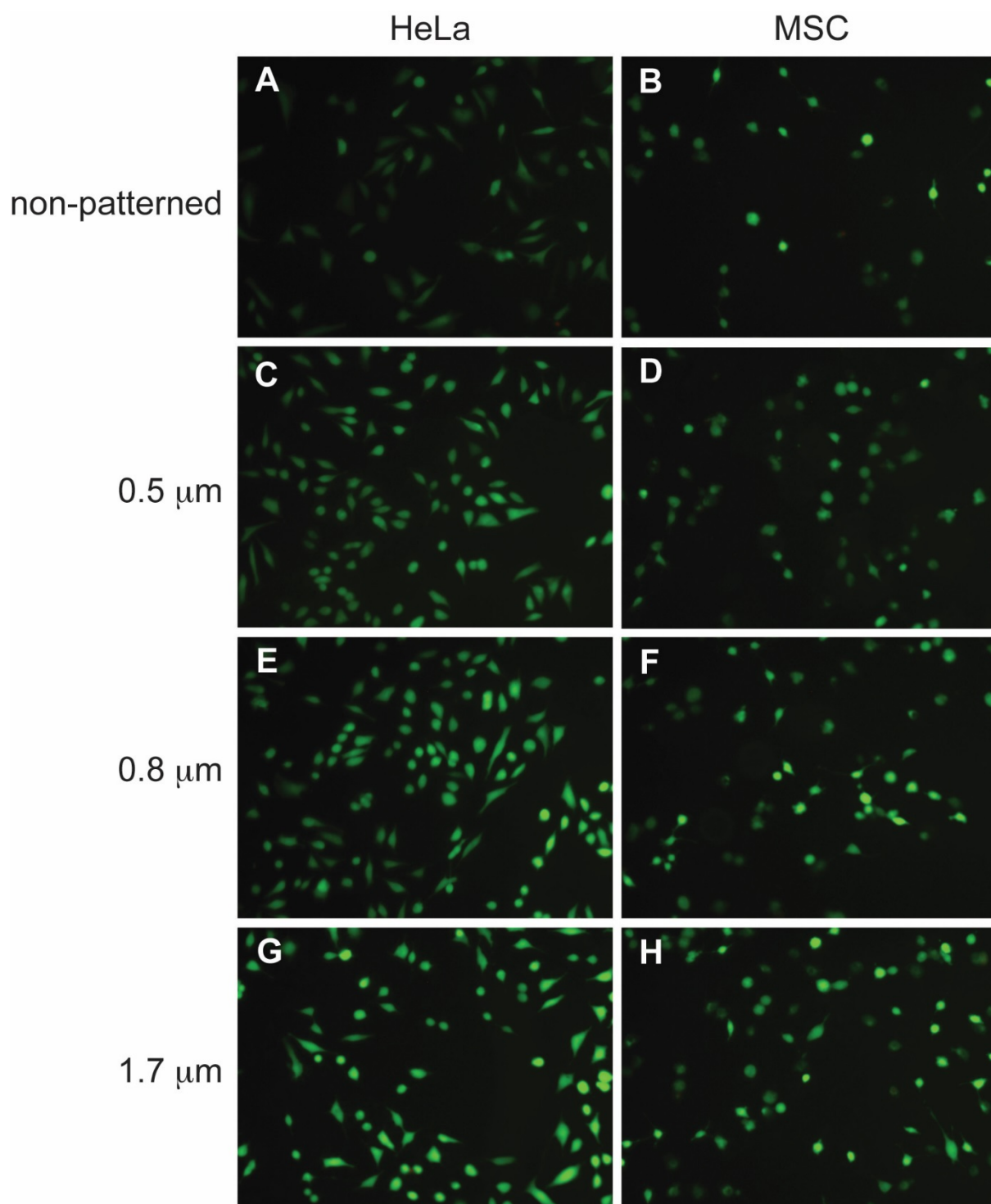


Figure S5. Morphology of HeLa cells (A, C, E, G) and MSC (B, D, F, H) grown on (A, B) non-patterned, and patterned films prepared with particles of size: (C, D) 0.5 μm ; (E, F) 0.8 μm ; and (G, H) 1.7 μm . Note that these images are intended to show the morphology of the cells cultured on the different films, to obtain accurate cell density measurements larger areas (i.e., more microscopy images) were analyzed.

References

1. Lee, H., Dellatore, S. M., Miller, W. M., and Messersmith, P. B. (2007) Mussel-inspired surface chemistry for multifunctional coatings. *Science* 318, 426-430.