Supporting Information

Thickness-Encoded Micropatterns in One-Component Thermoresponsive Polymer Brushes for Culture and Triggered Release of Pancreatic Tumor Cell Monolayers and Spheroids

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Video S5. Time-lapse video [90 min; 3 fps] of attachment of reseeded cell aggregates on tissue culture polystyrene.

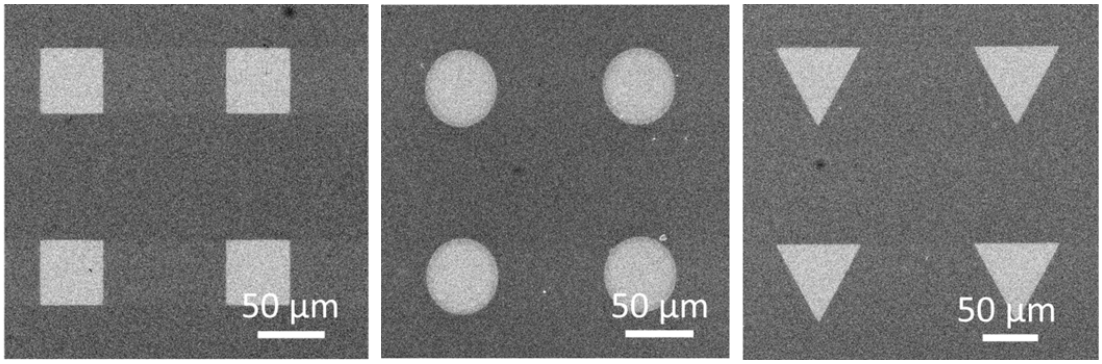

Figure S1. SEM images of micropatterned PDEGMA on gold substrates with different dry ellipsometric thickness (bright gray: 5 ± 1 nm, dark gray: 40 ± 4 nm).

(a) (b)

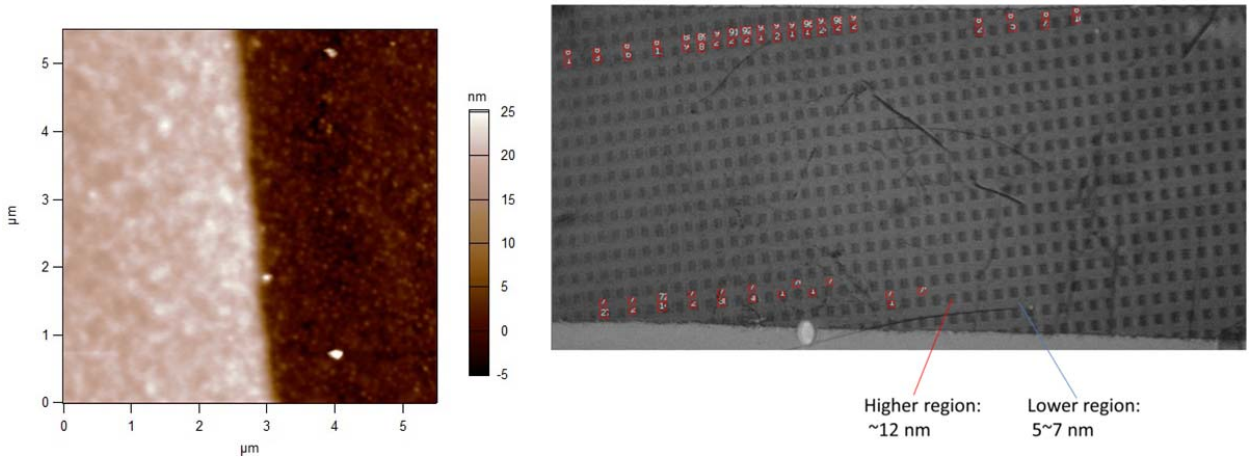

Figure S2. (a) AFM height image of a border region on the PDEGMA micropattern with ellipsometric dry thicknesses of 5 nm and 33 nm. (b) Imaging SPR data for PDEGMA micropattern with ellipsometric dry thicknesses of 7 nm-12 nm.

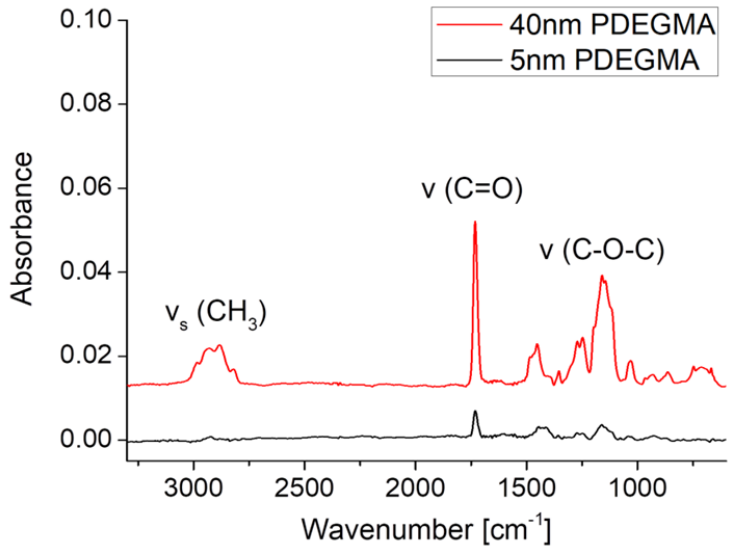

Figure S3. Grazing angle FTIR spectra of PDEGMA on gold substrates with different dry ellipsometric thickness.

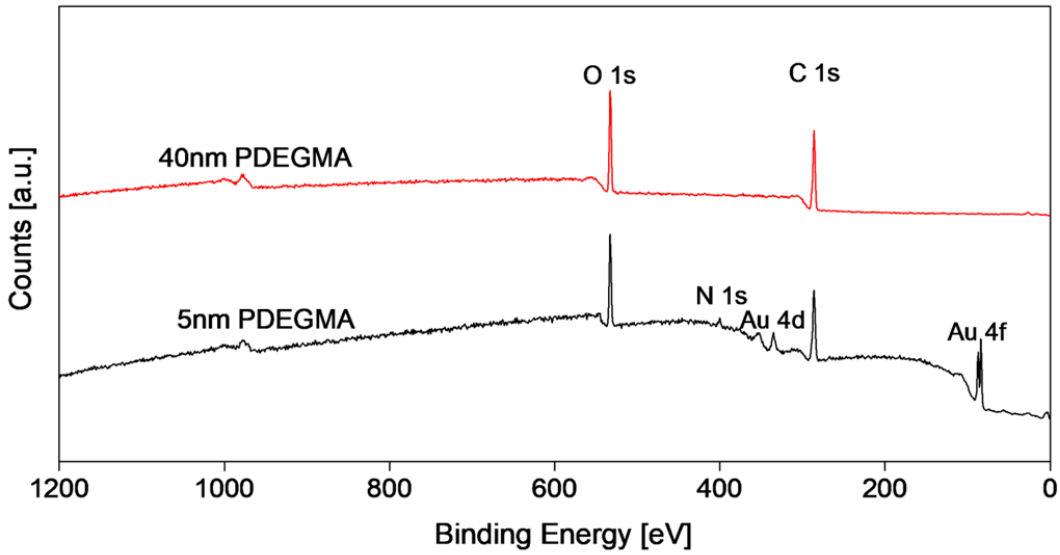

Figure S4. XPS survey spectra of cell culture medium adsorption on two PDEGMA films with an ellipsometric thickness of 5 nm and 40 nm at 37°C.

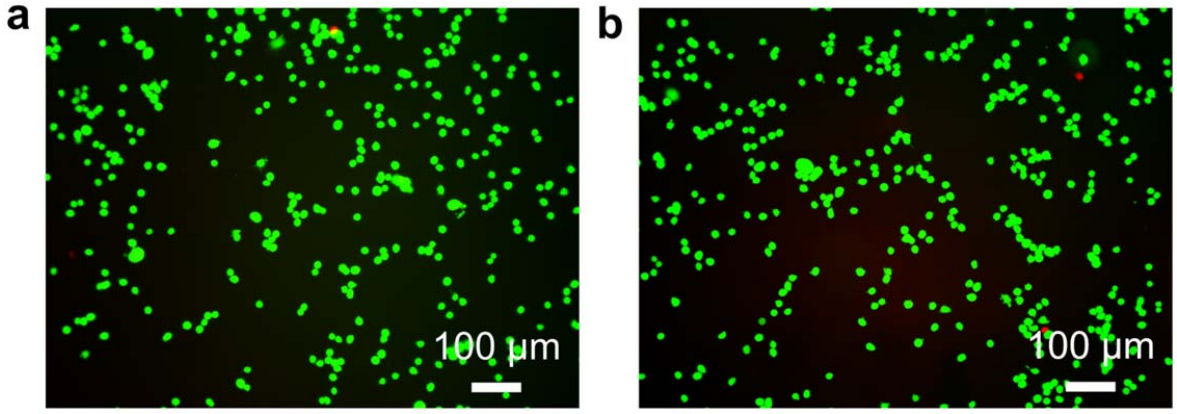

Figure S5. Fluorescence microscopy images of live-dead staining assay on (a) TCPS and (b) 5nm PDEGMA (viable cells: FDA, green; dead cells: PI, red).

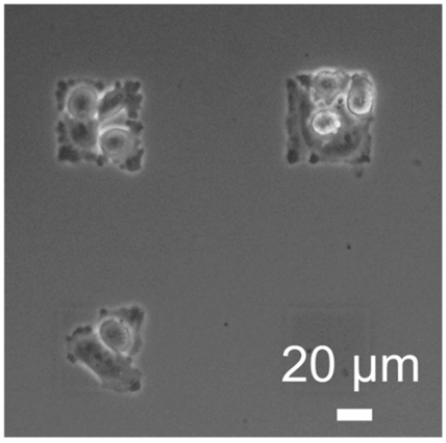

Figure S6. Light microscopy image of PaTu 8988t cells on FN-coated patterns after 24 h incubation at 37°C.

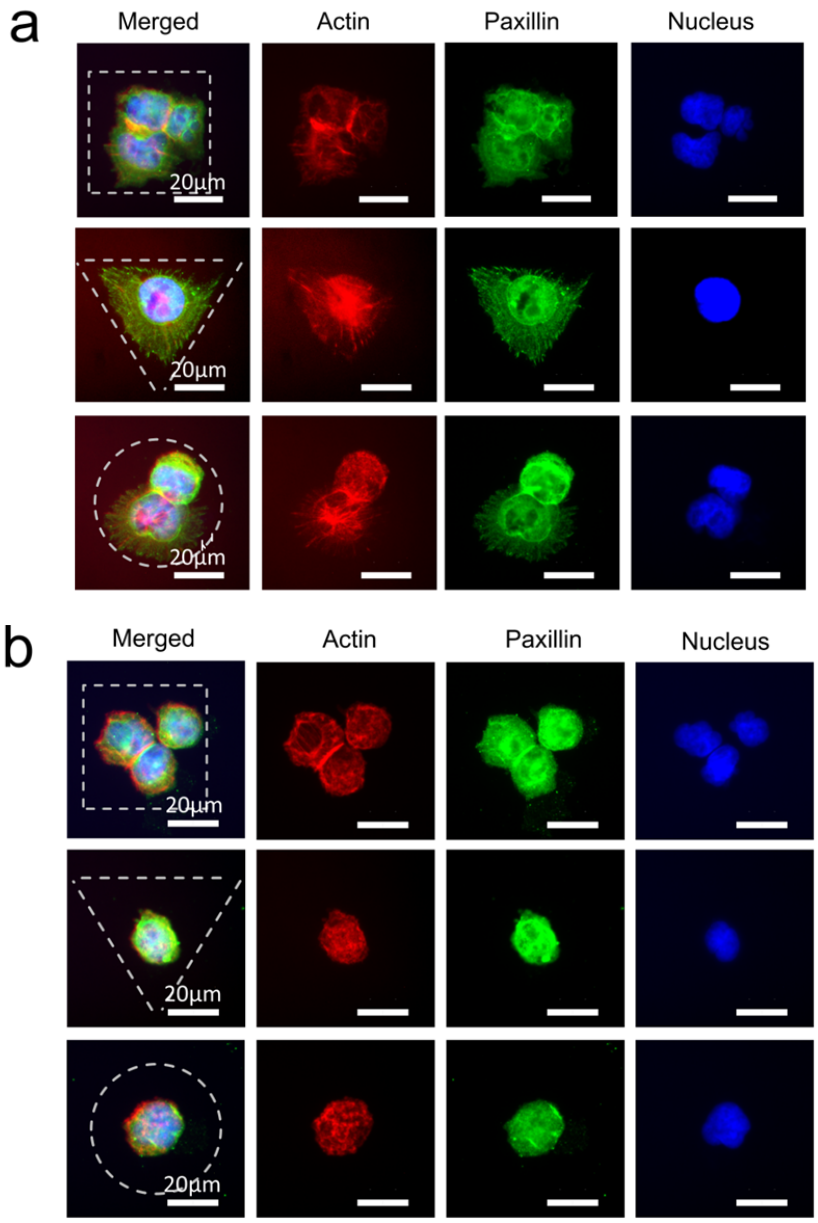

Figure S7. Fluorescence microscopy images of immunostained PaTu 8988t cells on PDEGMA patterns (a) at 37°C and (b) at 22°C. The cell actin cytoskeleton, focal adhesion, and nucleus were stained in red, green and blue, respectively. Scale bar of each image is 20 μm.

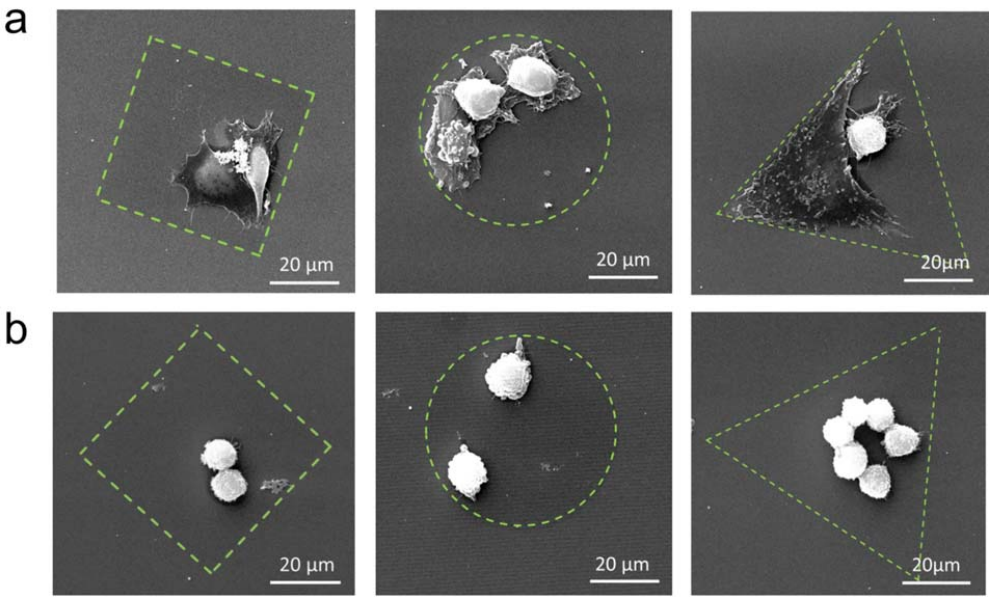

Figure S8. SEM images of PaTu 8988t cells on PDEGMA patterns at (a) 37°C and (b) 22°C.

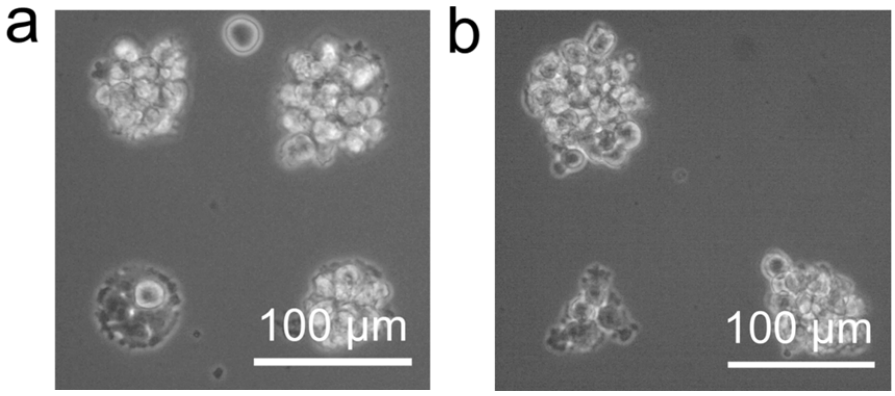

Figure S9. Light microscopy images of PaTu 8988t cell aggregates formation on PDEGMA micropatterns with (a) circular and (b) triangular shape after 3 days cultivation at 37°C

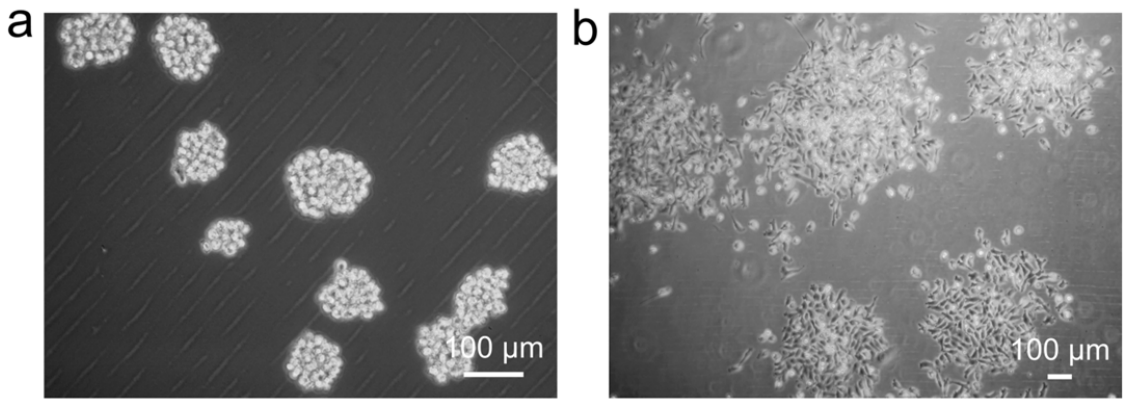

Figure S10. Light microscopy images of PaTu 8988t cell aggregates (a) re-seed on TCPS after 5 min and (b) after 24h at 37 °C.