

Ligand Slope, Density and Affinity Direct Cell Polarity and Migration on Molecular Gradient Surfaces

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Supplementary Data:

Supplementary Figure 1. A fluorescent image of patterned cells aligned with the density profile of the corresponding underlying peptide gradient. (A) Gradient mask generated from powerpoint. (B) Optical micrograph of the microfiche gradient pattern. (C) Fluorescent micrograph of Rhodamine immobilized to a 1% NVOC, 99% tetra-ethylene(glycol)alkanethiol surface after photodeprotection, electroactivation and immobilization of the dye. (D) Micrograph of cells stained after adhering and migrating on the gradient surfaces. Cells initially adhere to the high density regions and then migrate down the gradient to their final position (after 48 hours). (E) Cells attach, migrate and position themselves according to the slope and density of the peptide gradient. The final cell position permits the determination of the minimum ligand density required for adhesion on a given slope.

