



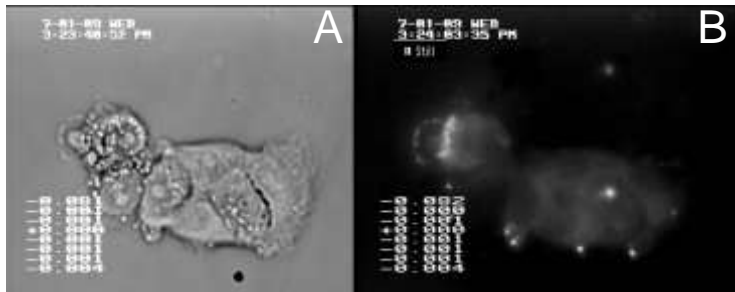
INSTITUTE FOR CELLULAR ENGINEERING

Surfaces for Dynamic Selective Signaling of Breast Cancer Cells

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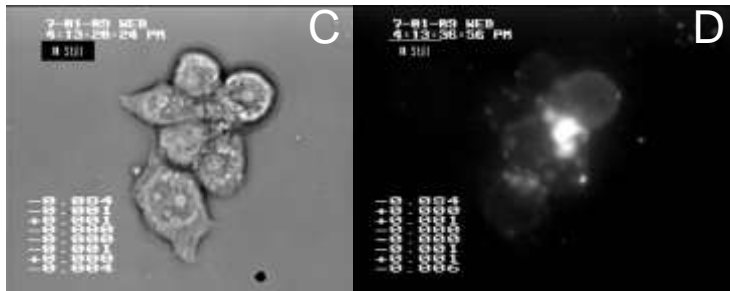
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A) MCF-7 250 ppm PLL-Rd

B) MCF-7 250 ppm PLL-Rd, under fluorescence



C) TMX2-28 250 ppm PLL-Rd

D) TMX2-28 250 ppm PLL-Rd, Under fluorescence

Breast cancer is one of the top 10 causes of death in women in the United States. MCF-7 is breast cancer cell line that contains an estrogen receptor (ER) that promotes cell proliferation. However, TMX2-28 does not contain an ER and uses alternate pathways for cell propagation. TMX-228, in particular is highly metastatic while MCF-7 is not.

Prior work in the Santore lab has found selective adhesion of TMX-228 cells over MCF-7 cells on electrostatically patchy surfaces. This summer project seeks the mechanism for selectivity by probing the cell surface itself for heterogeneities. A fluorescent marker was developed in this program which would adhere to cell surfaces in ways that would allow electrostatic heterogeneity to be visualized, if it did indeed occur.