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Mismatch repair protein mobility in human cancer cells[1] KEITH BONIN, JUSTIN SIGLEY, MARTIN GUTHOLD, Wake Forest University — Here we plan to report on the mobility of the mismatch repair protein msh2 in cells from a cell line that has normal, immortal, and tumorigenic cells. Additionally we have measured the mobility of the protein in metastatic MDA-MB-231 cells. Specifically, we plan to report on the diffusion coefficients of msh2 as measured using Raster Image Correlation Spectroscopy, a single molecule technique that takes advantage of the natural scanning nature of confocal microscopes. Results will be reported on all four cell types, with separate measurements for both cytoplasmic and nuclear cell regions.

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