Laura Glasscock, PhD  
Research Description – Spring 2007

The Role of Thrombomodulin in Prostate Cancer and Angiogenesis

The overall goal of my research is to investigate the protein-protein interactions involved in prostate cancer associated tumor cell metastasis and angiogenesis. I am interested in the role of the transmembrane receptors and their ligands in angiogenesis and tumor progression. An in vitro Matrigel™ model is being used to study how endothelial cell receptors and ligands affect the ability of the endothelial cells to form microtubules. Several in vitro invasion assays are being used to investigate prostate tumor cell line receptors and ligands and their affect on the ability of these cells to migrate. I am also investigating the proteins that facilitate cell-cell adhesion between tumor cells and endothelial cells. The ability of cells to regulate when and where they adhere to each other is important in both in tumor cell metastasis and angiogenesis. Finally, investigating the expression of various prostate cancer proteins in the serum and tissue of patients with prostate cancer.