

Dense Tissue Correlated with More Aggressive Tumors

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Dense tissue is more stiff or rigid than normal tissue in addition to having altered chemical components. The effect of tissue rigidity on cancer aggressiveness is just beginning to be addressed. In a recent study published in the September 9th issue of the journal *Current Biology*, a group at Vanderbilt University led by Alissa Weaver, M.D., Ph.D. showed that a rigid physical environment can promote invasiveness of breast cancer cells. Specifically, the investigators showed that rigid surroundings promoted the ability of breast cancer cells to degrade extracellular matrix (ECM), the protein components that surround cells in tissues and serve as a barrier to cell migration. The implications are that rigid tissue environments, such as dense breast tissue, are likely to augment the aggressiveness and invasiveness of tumor cells.

For more information about Dr. Weaver and her research visit <http://people.vanderbilt.edu/~alissa.weaver/>.