

Bankhead-Coley Cancer Research Program

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*Chemical & Biomedical Engineering
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*2010 Program
Technology Transfer Feasibility
(1-year project)*

Project Title: Million-Cell FISH Array for Evaluation of HER2 Amplification

Project Summary: The long-term objective of this research is to significantly improve diagnosis, prognosis, and treatment of breast cancer by developing a novel assay for molecular diagnosis. This assay is based on extracting cells from a large portion of a breast cancer tumor or an entire tumor, patterning the cells into an array, and performing HER2 fluorescence in situ hybridization (FISH) on the array. The grant seeks to demonstrate the feasibility of this new technique and acquire intellectual property. The specific aims are to: 1) generate the cell array using cultured breast cancer cells; 2) validate HER2 FISH on the cell array; and 3) apply for a comprehensive patent.