PROJECT TITLE: **Axillary Breast Cancer Metastases Relative to Receptor Profile: What Subset Lacks Nodal Extension?**

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**Project Description**

Preliminary data from other sources suggest that certain subsets of breast cancer may be associated with few to no axillary nodal metastases. Current standard of care dictates that at least a sentinel lymph node biopsy (averaging 2-3 nodes) be performed in the setting of invasive breast cancer surgery if surgery is performed initially. Certain types of breast cancers such as tubular cancer characterized (ER+/PR+/HER2-), or early adenocarcinoma characterized (ER-PR-/HER2+/-) may be less prone to nodal involvement, for different reasons; the first because of its minimally aggressive nature and resemblance to normal ducts, and the latter because ER- tumors tend not spread via blood vessels rather than lymphatic vessels. The project will entail looking retrospectively at our breast cancer database to identify these patients, their sentinel node results, whether they had a completion node dissection, and their survival. These results will be compared to the Cincinnati community at large, through the Greater Cincinnati Breast Cancer Registry, validating these results on a more regional basis, in an effort to identify a subset that may benefit from no nodal surgery up front.