



**Susan G. Komen
Research Grants – Fiscal Year 2014**

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Carolina Breast Cancer Study

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Lead Organization: University of North Carolina at Chapel Hill

Grant Mechanism: OG

Grant ID: OGUNC1202

Public Abstract:

The Carolina Breast Cancer Study (CBCS), which began in 1993, was at the time the largest population-based study of African American breast cancer. Phases I-II of the CBCS, which ran from 1993-2000, continue to generate publications, including several seminal findings that inform current research in breast cancer and disparities in outcome. These findings include the increased incidence of the poor-prognosis basal-like cancer in younger African-American women, description of a unique risk factor spectrum in basal-like compared with the more conventional luminal cancers (meaning that breast cancer epidemiology must take intrinsic subtypes into account), and the recent demonstration of profound disparity in African-American women regardless of subtype, in particular that the most marked difference in survival actually occurs in the best prognosis luminal cancers. These luminal cancers are those in whom several years of endocrine therapy is key to optimal treatment, so differential access to care and adherence may be particularly relevant.

The Carolina Breast Cancer Study (CBCS) Phase III is built upon findings from Phases I-II and on track to be the largest population-based studies of breast cancer in African-American (AA) and Caucasian women. Enrollment began in May 2008 and over 1800 women with breast cancer have been enrolled, with a goal of enrolling 3000 women. The study keeps the basic CBCS methodology, rapid case ascertainment through the state tumor registry, informed consent, a two-hour home visit with questionnaire, anthropomorphic data, germline DNA, and tissue blocks for intrinsic genetic subtyping. The major expansion is quite ambitious: obtaining clinical treatment and outcomes data from these population accrued cases, which involves working with health care providers across the state of North Carolina extracting the records for chemotherapy, hormonal therapy regimen completion, radiotherapy, and surgical approaches. Women will be followed yearly with phone interviews for at least 10 years. The comprehensive epidemiologic, tumor and germline genetic, breast cancer-specific treatment and health services and outcomes will yield generalizable findings not obtainable through hospital cohorts. Comprehensive, expanded follow-up of CBCS III patients would yield health outcomes information at an unprecedented level of detail for a diverse, at-risk population. The study would be the first to address how treatment decisions, access to care, and financial or geographic barriers impact breast cancer outcomes among African-American breast cancer patients in low income and rural areas. Furthermore, CBCS III combines health outcomes with breast cancer molecular subtype information to provide a systematic evaluation of breast cancer prognosis in younger African-A