Susan G. Komen
Research Grants – Fiscal Year 2014

This research grant was approved by Komen's national board of directors for FY2014 Research Programs funding. This grant will be funded upon the execution of grant agreements between Komen and the grantee institutions.

Impact of Risk-Reducing Salpingo-oophorectomy on non-cancer outcomes in high risk women

Investigator(s): Susan Domchek, M.D.
Lead Organization: University of Pennsylvania
Grant Mechanism: KS **Grant ID:** SAC100003

Public Abstract:
Genetic mistakes, called mutations, can increase an individual's risk for certain diseases, including cancer. Some genetic mutations may substantially increase an individual's risk of developing a spedficdisease over his or her lifetime. Women with an inherited genetic mutation in the BRCAl and BRCA2 (BRCAl/2) genes are at an increased risk of developing breast and ovarian cancer and face and may, at a young age, need to make significant decisions regarding what strategies to employ to reduce their risk. The ultimate goal of this project is to determine the long term impact of surgical risk reduction strategies, which are surgeries that patients have to reduce their risk of developing a certain condition, in female BRCAl/2 carriers who are at an increased risk for breast and ovarian cancer. While the options of mastectomy (removal of the breasts) and oophorectomy (removal of the ovaries) are known to patients and doctors, there are a number of issues specific to BRCAl/2 mutation carriers that must be resolved before the ultimate goals of the surgeries, which are reducing mortality and improving quality of life, can be achieved. Past research has shown that within the general population an early oophorectomy increases the risks of cardiovascular disease, dementia, and bone loss, as well as impact quality of life. It is important to better understand these risks, how they can be prevented and when they are most likely to occur to help with decision making, particularly with regard to timing of these surgeries. We are examining a large group of BRCAl and BRCA2 mutation carriers who either have already had their ovaries removed or plan to do so. We are collecting information on health outcomes and on quality of life. We will also investigate how other factors such as age, age of and time since ovary removal, specific cancer treatments, and hormone replacement therapy use affect the'1r diagnoses. These data will help us figure out the best way to care for patients, and will help us create models related to optimal timing of ovary removal. Patients will then be able to weigh the benefits of the surgery against known, rather than hypothesized risks, to determine when to proceed with oophorectomy.