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.

**Phase II study of 5-azacytidine and entinostat (MS-275) in patients with advanced breast cancer**

**Investigator(s):** Vered Stearns, M.D.

**Lead Organization:** Sidney Kimmel Cancer Center at Johns Hopkins University School of Medicine

**Grant Mechanism:** KS

**Grant ID:** SAC110042

**Public Abstract:**

How the body interacts with drugs depends on how the body expresses many different genes. One gene, CYP2D6, makes an enzyme that changes how the body uses common drugs. It is possible that breast cancer patients with a low score in CYP2D6 will not have the same benefit from tamoxifen compared to patients with a moderate or high score. We will examine that relationship, and test several other genes that could also affect tamoxifen's benefit. We have also initiated a clinical registry to study other endocrine agents and to encourage African-American patients to enroll, because including a diverse population gives a better idea of the many ways the human body can work.