Supplemental References

**Figure 1** An overview of the discovery and validation cohorts for platelet function outcomes and samples analyzed by microarray analysis (dashed outline). Healthy volunteers cohorts (HV1 and HV2) were challenged with 325mg/day aspirin at Duke University Medical Center as previously described (1). Outpatient cardiology (OPC) patients were treated with 81mg/day aspirin at The George Washington University. Three subgroups within the OPC cohort were selected for microarray analysis based on VerifyNow Aspirin Response Units (ARU): aspirin resistant (AR, ARU > 550), High normal (HN, 500 < ARU < 550); and Aspirin sensitive (AS, ARU < 550). **HV2 subjects were screened with a test dose of 325mg aspirin and those in the 1st and 4th quartile of the 3 hour platelet function score (PFS) were selected to continue through the study protocol. *Three HV2 subjects had participated in HV1 and were dropped from the HV2 cohort.**
Two patient cohorts from within the CATHGEN (http://cathgen.duhs.duke.edu) biorepository were available for microarray analysis. In 2009, an observational cohort of 224 banked, sequential samples were selected, of which 190 were available for analysis. In 2010, a nested case:control cohort of 250 cases of death/myocardial infarction and 250 age-, sex-, and race-matched controls who were free of death/MI > 2 years after cardiac catheterization was identified as part of the MURDOCK Horizon 1 Cardiovascular Disease Study(2), of which 397 were available for analysis. In 2011, dates for death, myocardial infarction, and last follow-up were ascertained from the Duke Databank for Cardiovascular Disease as previously described(3).