**Supplemental Figure 1: Number of Cycles Received by Best Response and Biomarker Group**  
Each bar represents an individual study subject. Subjects’ best response on the trial is indicated on the x-axis. PD=progressive disease, SD=stable disease <6 months, 6moSD=stable disease >6 months and PR= partial response. Blue bars indicate subjects with HR+/Her2- tumors; red bars indicate subjects with HR+/Her2+ tumors; green bars represent subjects with HR-/Her2- tumors.

**Supplemental Figure 2: Representative biomarker staining**

Immunohistochemical staining for the biomarkers of interest is shown, with representative positive and negative staining tumors based upon cut-points described in the manuscript. These include A) retinoblastoma protein, B) p16 and C) KI-67.