The pCR rate was similar in both arms (vorinostat 25.8%, placebo 29%). Patients were stratified by estrogen receptor (ER) status. Eighteen patients received additional pre-operative treatment with doxorubicin HRD has been investigated to date in BRCA-associated breast cancer and TNBC, Homologous recombination deficiency (HRD) is a promising predictor of response to platinum agents in TNBC. Platinum-sensitivity may relate to underlying defects in DNA double-strand break HRD has been investigated to date in BRCA-associated breast cancer and TNBC, Homologous recombination deficiency (HRD) is a promising predictor of response to platinum agents in TNBC. Platinum-sensitivity may relate to underlying defects in DNA double-strand break. 

We hypothesized that HRD (high HRD score ≥ 42 and/or tumor BRCA mutation) will predict clinical benefit in patients with HER2-negative early breast cancer treated with platinum-based chemotherapy. Our results also support prior observations that HRD status is a promising potential predictive biomarker of response to platinum-based chemotherapy. Furthermore, this study was motivated by the observation that patients with ER-positive, HER2-negative early breast cancer treated with platinum-based chemotherapy.