



### **Relationship of the expression of immune system related metagenes and response to neoadjuvant chemotherapy.**

Pre-therapeutic breast cancer samples (n=198) from patients treated with neoadjuvant chemotherapy were stratified according to the ER status of the tumor and analyzed for expression of IgG and LCK metagenes in a scatter plot. Patients which achieved a pathological complete response (pCR) are represented by red dots. 6 of 8 samples (75%) with highest expression of both metagenes in the ER negative group displayed a pCR as compared to 37 cases with pCR among all 92 ER negative samples (40.2%,  $P=0.057$ ). When the confounding effect of the ER status was not taken into account and ER positive samples were pooled with ER negative tumors only 45 of all 198 samples (22.7%) achieved a pCR ( $P=0.002$ ).