Supplementary Figure S1. Optimization and validation of the techniques used. A, Representative example of PTEN immunohistochemistry of ventral prostate of Pten^loxpP/loxP,Pb-Cre4 male mice. PTEN negative prostate epithelium (Epi) and PTEN negative stroma are indicated. B, Representative examples of PTEN and p53 immunohistochemistry of sections from MCF7 (PTEN and TP53 wild type) and MDA-MB-468 (PTEN null and TP53 mutant) breast cancer cell line-derived xenografts. The PTEN antibody used also recognizes the mouse protein, thus, the PTEN staining observed in MDA-MB-468 PTEN null xenograft is in mouse stromal cells. C, Representative examples of double-immunohistochemistry and immunoFISH of sections from MDA-MB-468 (PTEN null, TP53 mutant, and BRCA1 wild type) breast cancer cell line-derived xenografts. Slides were counter-stained with methyl green to visualize nuclei (green). Asterisk marks PTEN negative human breast cancer cells. D, Graph correlating the predicted percentage of cells with BRCA1 LOH (based on iFISH) and the true percentage of cells with BRCA1 LOH in sections derived from the indicated % mixtures of cell lines with wild type or mutant BRCA1 cells. E, Graph depicting correlation between % BRCA1 LOH defined based on FISH or PCR.