

Supplementary Figures

Figure S1: ASO design for ZNF703 mRNA targeting and selection ASOs by WB analysis.

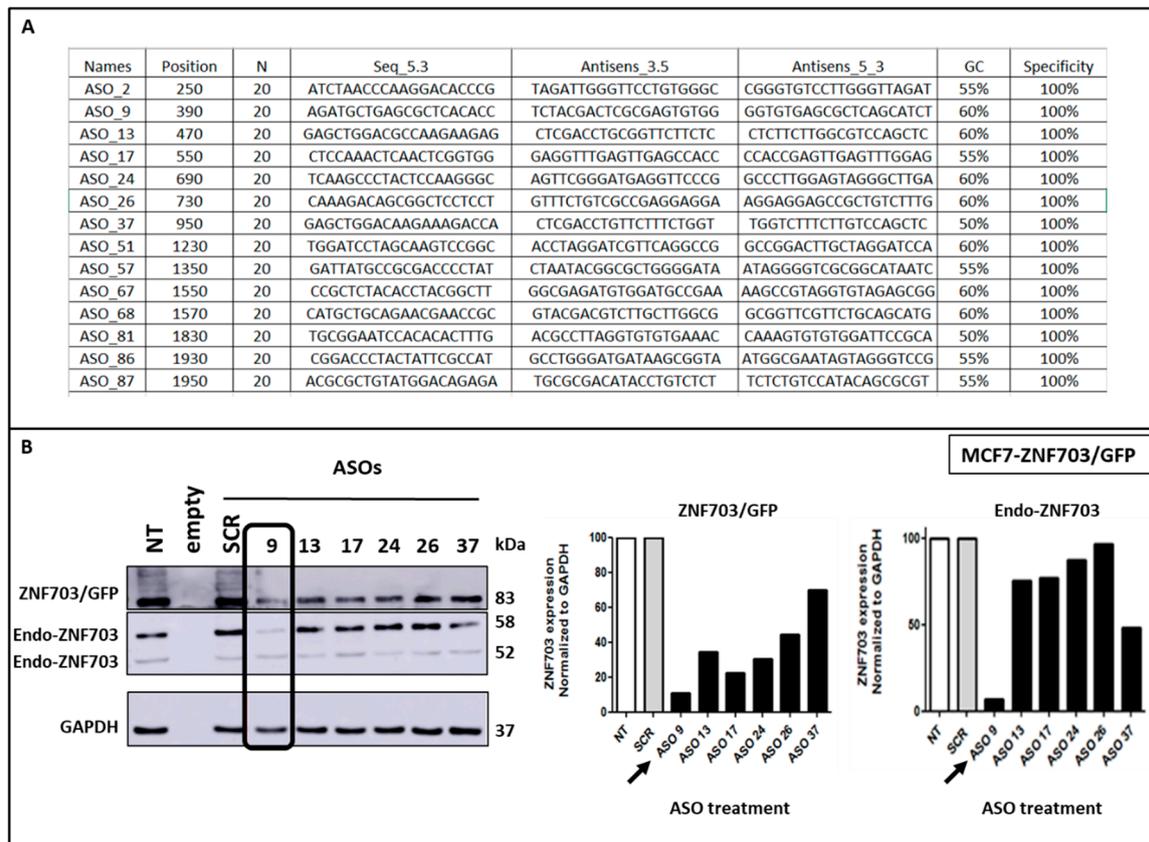


Figure S1 - Udu-Ituma *et al.*

Legend of Figure S1: ASO design for ZNF703 mRNA targeting and selection ASOs by WB analysis. The table lists 14 ASO designed for *ZNF703* mRNA targeting as well as their characteristics (A). Protein lysates of MCF7-ZNF703/GFP BC cell line treated with 100nM of each of them (here ASO9, 13, 17, 24, 26, 37) or control-ASO (scrambled, SCR) are analysed to assess ZNF703 expression by WB (B). WB images showing ZNF703 band signals intensities were respectively quantified for ZNF703/GFP (83kDa) and endo-ZNF703 (58kDa) by Image J, normalized to GAPDH and represented as bars. ASO9 was clearly identified to show higher downregulation efficiency and effectively represses both the endogenous and exogenous *ZNF703* mRNA.

Figure S2: IC50 calculation for ASO9 in five breast cancer cells.

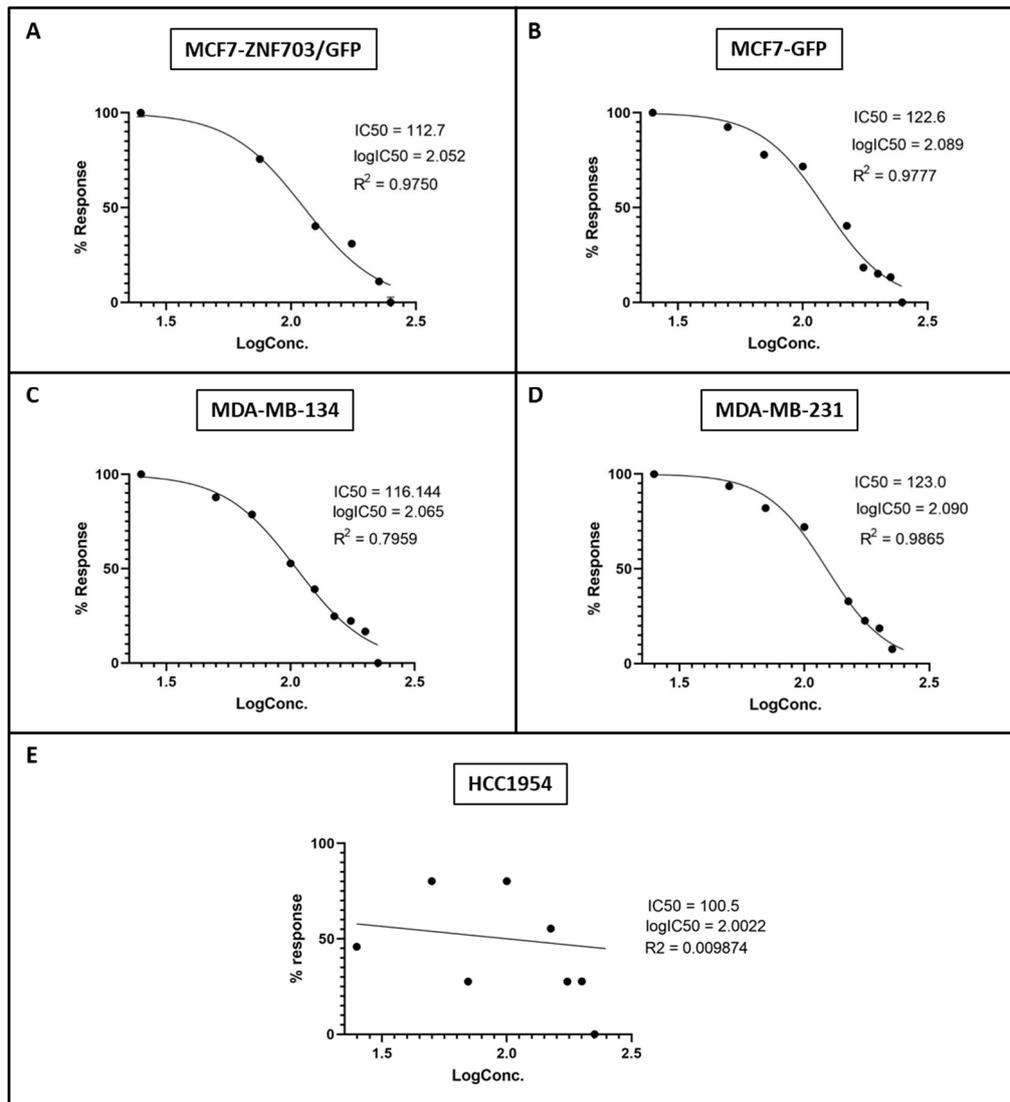
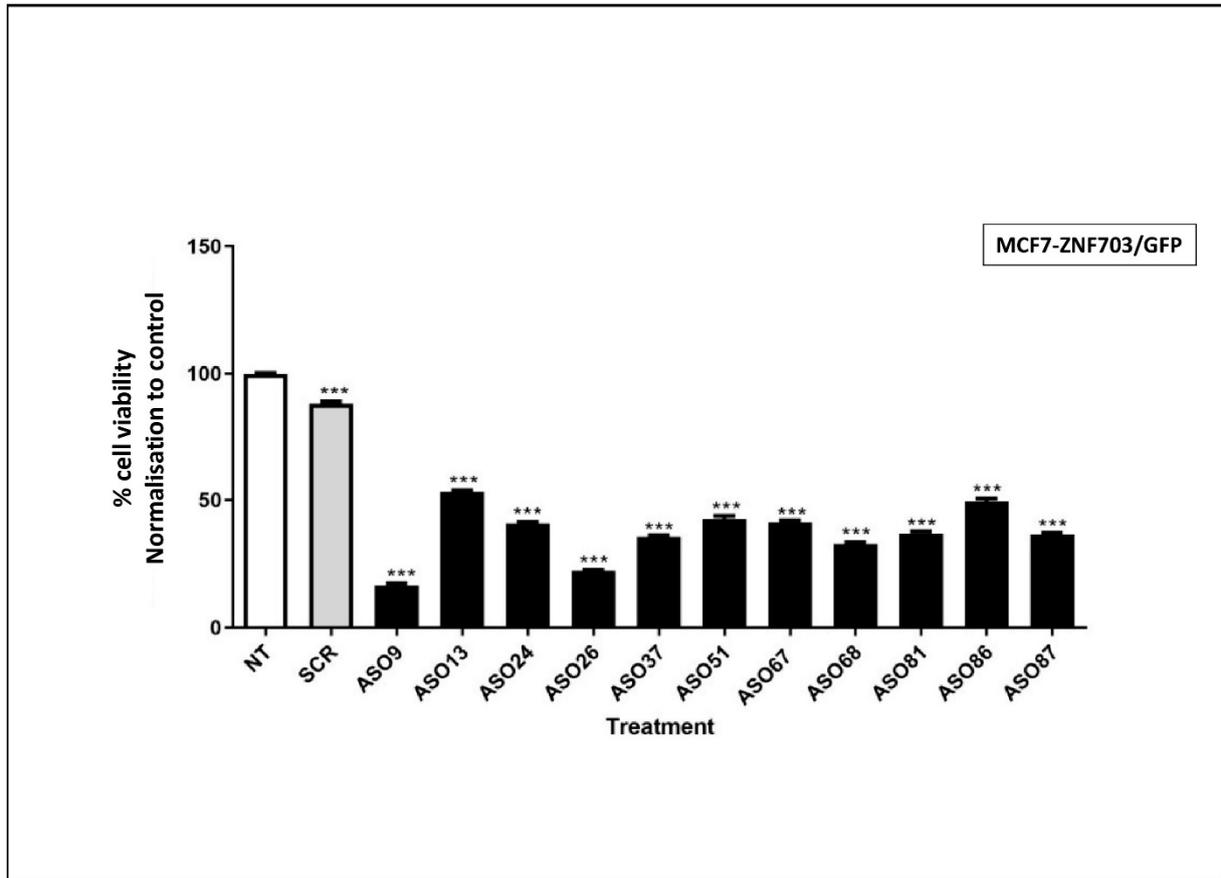


Figure S2 - Udu-Ituma *et al.*

Legend of Figure S2: IC50 calculation for ASO9 in five breast cancer cells. IC50 calculation for ASO9 was done in MCF7-ZNF703/GFP, MCF7-GFP, MDA-MB 134, MDA-MB 231 and HCC1954 breast cancer cells. Each experiment was done in triplicate. MCF7-ZNF703/GFP exhibited the most sensitive response to ASO9 (112.7 nM). IC50 values 122.6, 116.1 and 123 nM were established for MCF7-GFP, MDA-MB-134 and MDA-MB-231 (A-D), respectively. HCC1954 cell line was used as a negative control (E)



Legend of Figure S3. Cell viability tests on MCF7-ZNF703/GFP after treatment with 11 various ASOs against *ZNF703* mRNA. Cell viability assessment on MCF7-ZNF703/GFP cells was measured with MTT assay after treatment with 11 various ZNF703-ASOs (200 nM) against *ZNF703* mRNA and compared with SCR. This evaluation was done in triplicate. SCR exhibited weak toxicity. All ZNF703-ASO induces a significant decrease in cell viability (Student's t-test, *** $p \leq 0.001$). ZNF703-ASO9 was the most efficient ASO. SCR treatment exhibited only weak toxicity.