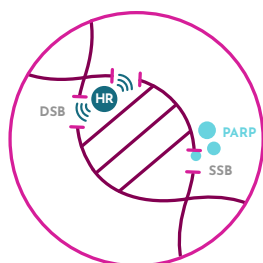


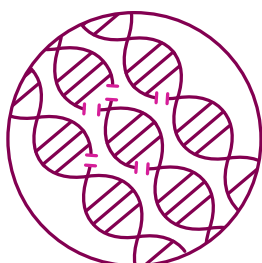
HAVE YOU CONSIDERED THE UNIQUE LINK BETWEEN PARP-MEDIATED DNA REPAIR AND BRCA-MUTATED METASTATIC BREAST CANCER?^{1,2}

PARP proteins play an integral part of the tumor DNA repair process.^{1,2} BRCA-mutated tumor cells rely on PARP and, subsequently, may be particularly vulnerable to PARP disruption.^{1,2} Disrupting PARP may lead to accelerated cancer cell death.^{1,2}



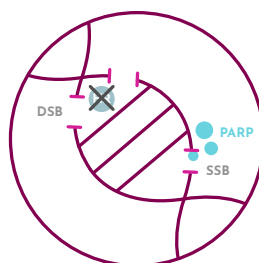
HEALTHY DNA

DNA Damage and Repair Occur Naturally³



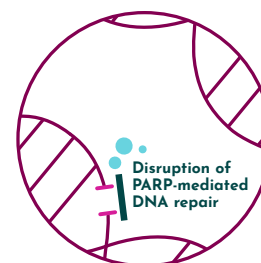
BRCAm DNA

DNA Repair May Be Compromised in Tumor Cells^{1,4}



BRCAm DNA

BRCA-Mutated Tumors Rely More on PARP to Repair DNA¹



BRCAm DNA

Targeting PARP May Prevent DNA Damage Repair and Result in Selective, Accelerated Cancer Cell Death^{1,2}

Early identification of BRCA status may offer important information.⁵

DSB=double-strand break; HR=hormone receptor; PARP=poly (ADP-ribose) polymerase; SSB=single-strand break.

REFERENCES: 1. Bryant HE, Schultz N, Thomas HD, et al. Specific killing of BRCA2-deficient tumours with inhibitors of poly(ADP-ribose) polymerase. *Nature*. 2005;434:913-917. 2. Farmer H, McCabe N, Lord CJ, et al. Targeting the DNA repair defect in BRCA mutant cells as a therapeutic strategy. *Nature*. 2005;434:917-921. 3. Dexeimer TS. DNA repair pathways and mechanisms. In: Mathews LA, Cabarcas SM, Hurt E, et al, eds. *DNA Repair of Cancer Stem Cells*. Dordrecht, Netherlands: Springer Science+Business Media; 2013:19-32. 4. Pikor L, Thu K, Vucic E, et al. The detection and implication of genome instability in cancer. *Cancer Metastasis Rev*. 2013;32:341-352. 5. BRCA1 and BRCA2: cancer risk and genetic testing. National Cancer Institute website. <https://www.cancer.gov/about-cancer/causes-prevention/genetics/brca-fact-sheet>. Accessed September 27, 2017.