



## Supplementary Materials: Electrochemical DNA Sensor for Sensitive brca1 Detection Based on DNA Tetrahedral-Structured Probe and Poly-Adenine Mediated Gold Nanoparticles

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	Sequences (from 5' to 3')
DNA-t (BRCA1)	GAACAAAAGGAAGAAAAATC
DNA-r	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGATTTTCTTC- biotin
TSP-A	CTTTTGTTCAAACATTCCTAAGTCTGAAACATTACAGCTTGCTACA
	CGAGAAGAGCCGCCATAGTA
TSP-B	SH-TATCACCAGGCAGTTGACAGTGTAGCAAGCTGTAATAGATGCGA
	GGGTCCAATAC
TSP-C	SH-TCAACTGCCTGGTGATAAAACGACACTACGTGGGAATCTACTA
	TGGCGGCTCTTC
TSP-D	SH-TTCAGACTTAGGAATGTGCTTCCCACGTAGTGTCGTTTGTATTG
	GACCCTCGCAT
DNA-miRNA21	TAGCTTATCAGACTGATGTTGA
DNA-miRNA155	TTAATGCTAATCGTGATAGGGG

Table S1. Sequences used in the work.



**Figure S1.** Characterization of the AuNPs-DNA-r. TEM images of (A) AuNPs and (B) AuNPs-DNA-r after sonication before sample preparation with the scale value of 100 nm. TEM images of (C) AuNPs and (D) AuNPs-DNA-r after sonication before sample preparation with the scale value of 50 nm.