Supplementary Data

This supplementary data is a part of a paper entitled "An Electrochemical Aptasensor for the Detection of HER2 as a Breast Cancer Biomarker Based on Gold Nanoparticles-Aptamer Bioconjugates".

Table S1. Box-Behnken design experiment

Exp.	X_1	X_2	X_3	SD/ μA
1	25	90	25	37.535
2	25	30	5	43.970
3	10	60	5	125.568
4	40	60	5	72.925
5	40	30	15	52.675
6	25	60	15	74.660
7	25	60	15	49.775
8	10	60	25	40.115
9	25	90	5	121.240
10	40	90	15	127.172
11	25	30	25	25.290
12	10	90	15	51.715
13	40	60	25	67.205
14	25	60	15	79.200
15	10	30	15	44.870

X_1: MPA incubation time, X_2: bioconjugates incubation time, X_3: aptamer concentration

Using Minitab 18:

$$Y = 95.2 - 6.06\,X_1 + 1.80\,X_2 - 1.96\,X_3 + 0.0459\,X_1^2 - 0.0101\,X_2^2 - 0.018\,X_3^2 + 0.0376\,X_1X_2 + 0.1329\,X_1X_3 - 0.0542\,X_2X_3$$
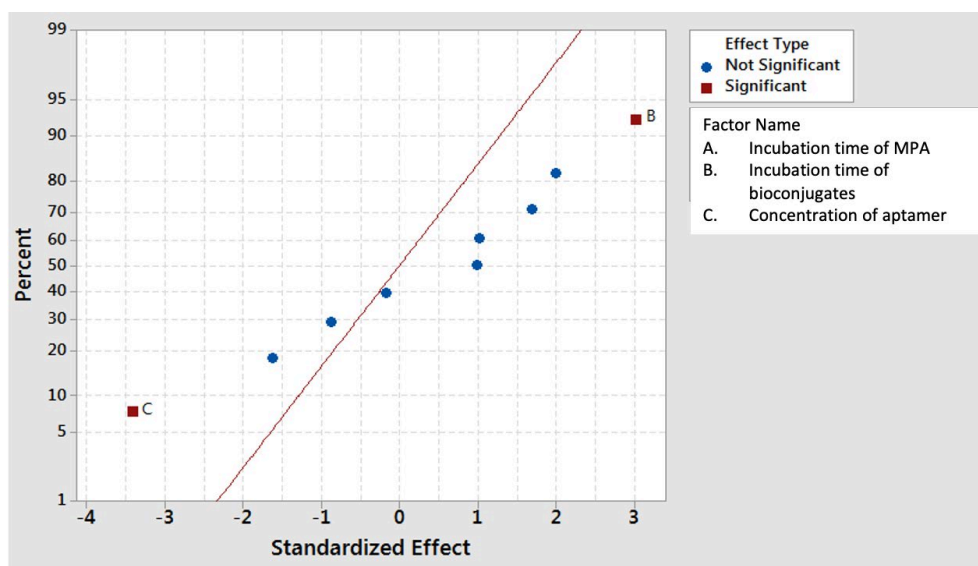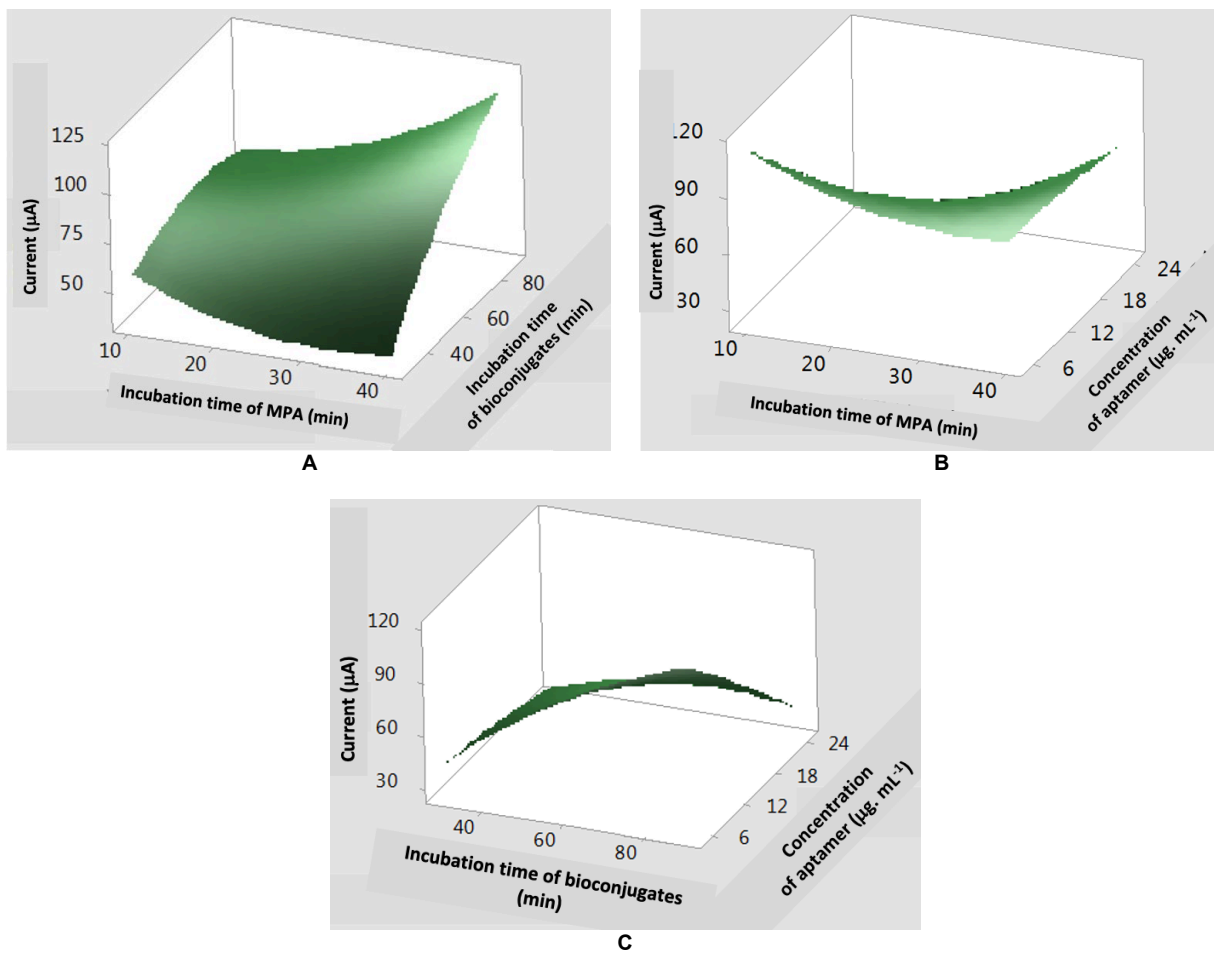

Fig S1. Normal plot ($\alpha = 0.05$)

Fig S2. Surface plot 3D