

Figure S1: RONS dynamics in Plasma Treated Solution (PTS) and Plasma Treated Hydrogel (PTH) treatment modalities. (A) Hydrogen peroxide (H_2O_2) concentrations were measured immediately after plasma treatment (0 h) and following incubation periods ranging from 1–72 h for 5 min of plasma treatment. (B) Nitrite (NO_2^-) concentrations were measured immediately after treatment (0 h) and after incubation for 1–72 h for 5 min of plasma treatment. Data are shown as the mean \pm SEM, $*p < 0.05$. Each data point represents one biological replicate.

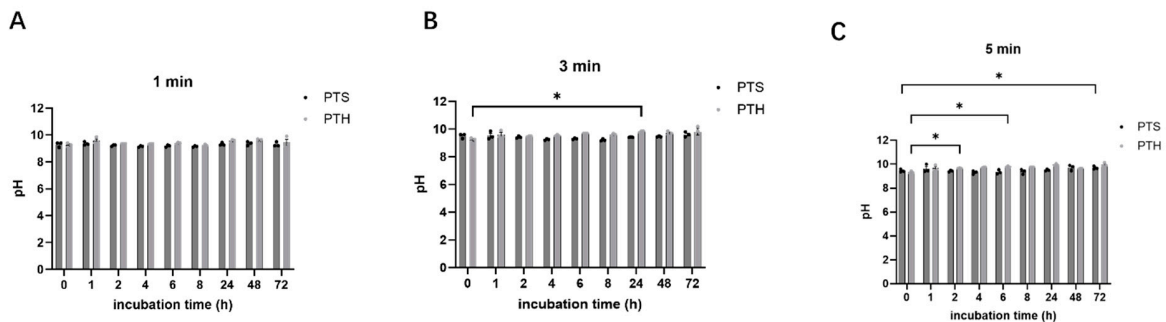


Figure S2: pH dynamics in PTS and PTH treatment modalities. (A) pH levels were measured immediately after plasma treatment (0 h) and following incubation periods ranging from 1–72 h for 1 min of plasma treatment. (B) pH levels were measured immediately after plasma treatment (0 h) and following incubation periods ranging from 1–72 h for 3 min of plasma treatment. (C) pH levels were measured immediately after plasma treatment (0 h) and following incubation periods ranging from 1–72 h for 5 min of plasma treatment. Data are shown as the mean \pm SEM, $*p < 0.05$. Each data point represents one biological replicate.

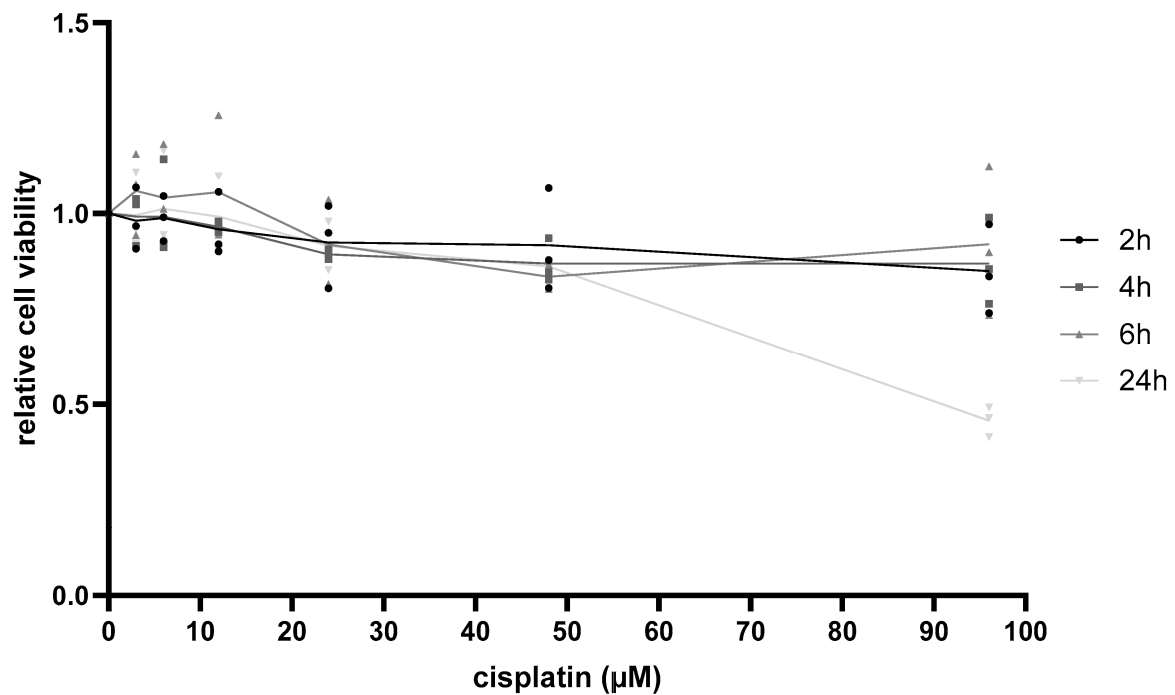


Figure S3: Dose—response curve of cisplatin treated on SW954 vulvar cancer cells. SW954 vulvar cancer cells were treated with increasing concentrations of cisplatin (3–96 μM) to assess dose-dependent effects on cell viability. Cells were incubated for 2, 4, 6, and 24 h to evaluate time-dependent responses. Cell viability was measured using MTS assay. Data are shown as the mean \pm SEM. Each data point represents one biological replicate.