



Fig. S1. Effect of H₂O₂ on ROS levels (A) and human sperm motility (B~D), DNA fragmentation (E), vacuolization (F), viability (G), and morphology (H). Sperm samples (n=5) were treated with different concentrations of H₂O₂ ranging between 0 and 40 μM and for different incubation periods. Differences among groups were evaluated using the non-parametric Two Way ANOVA test further evaluated by Tukey test for post hoc pairwise comparisons. Data are represented as mean±SD. *p<0.05; **p<0.01; ***p<0.001; ****p<0.0001 for significance between sperm treated with 10, 20 or 40 μM H₂O₂ and the non-treated group (0 μM H₂O₂) at a same time-point. •p<0.05; ••p<0.01; •••p<0.001; ••••p<0.0001 for differences between sperm exposed to the same H₂O₂ concentration for different incubation periods and sperm immediately analyzed after collection (0 h incubation time).