Supplementary Information (SI)

Assessment of cell viability and functionality of human placental trophoblast cells *in vitro* after exposure to label-free graphene oxide

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Light microscopy images of BeWo cells after 48 h exposure to GO
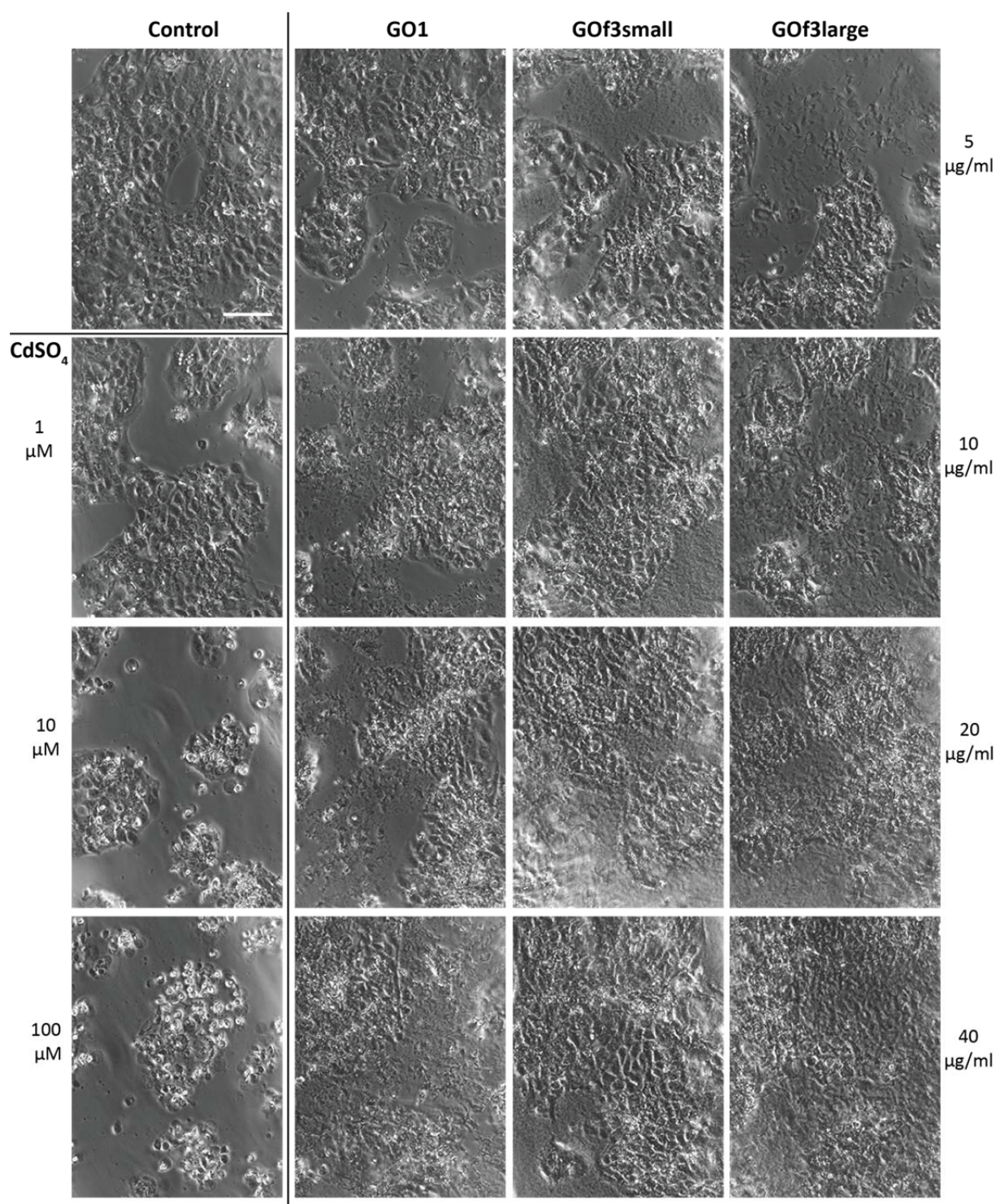

Figure S1. Light microscopy images of BeWo cells after exposure to GO for 48 h. $CdSO_4$ was applied as positive control. At high GO concentrations cells are nearly completely covered by GO sheets and hardly visible. All images were taken prior to any washing step and at identical camera settings. Scale bar = 100 µm.

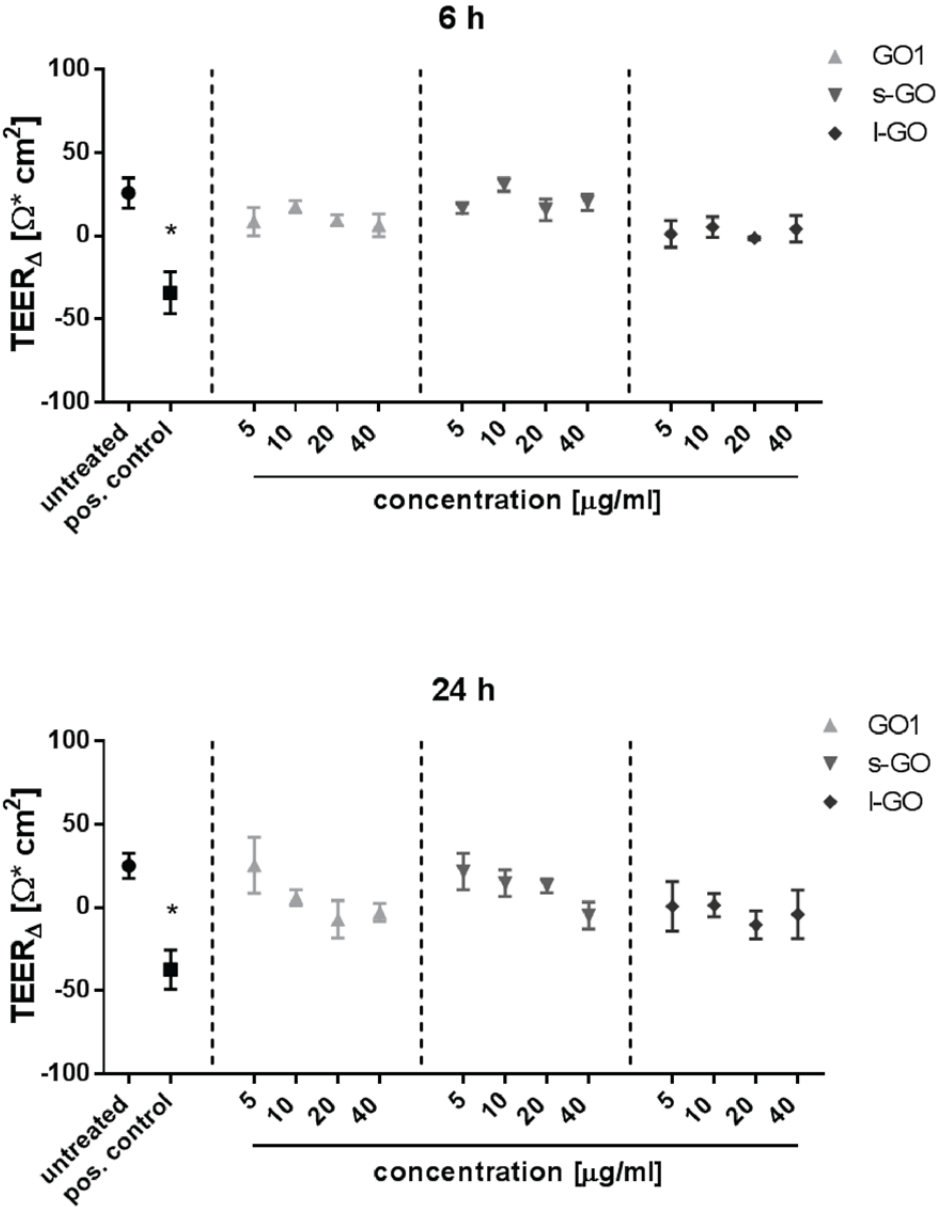**Transepithelial electric resistance measurement (TEER)**

Figure S2: Influence of GO treatment on TEER. $TEER_\Delta$ describes the difference between the TEER value measured before and after the Graphene treatment ($TEER_{after}$ - $TEER_{before}$). Data is represented as the $M \pm S.E.M.$ from 3 biologically independent experiments. A one-way ANOVA followed by Dunnett`s multiple comparisons test was performed to determine statistical differences between the untreated control and each treatment group. P-values < 0.05 were considered statistically significant. Analysis was done using GraphPad Prism version 6 (GraphPad Software, La Jolla California USA, https://www.graphpad.com).