

Supplementary Materials

Combination of Single Walled Carbon Nanotubes/Graphene Oxide with Paclitaxel: A Reactive Oxygen Species Mediated Synergism for Treatment of Lung Cancer

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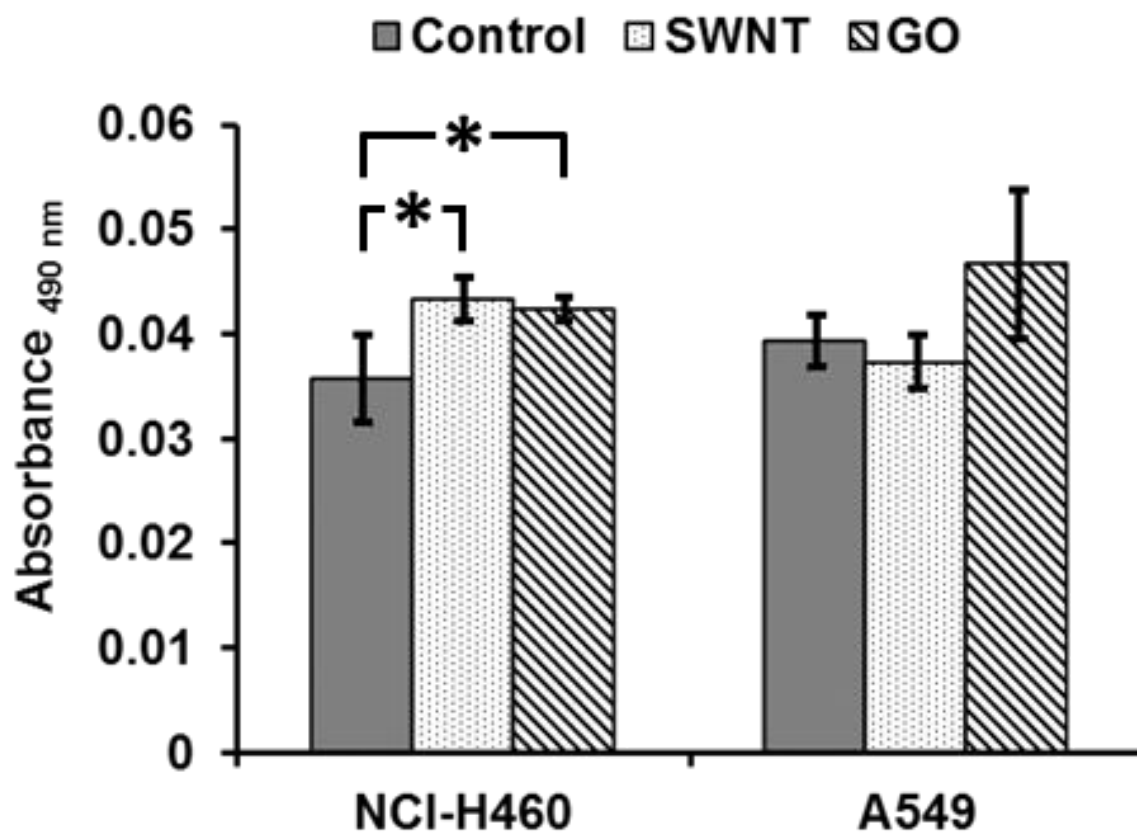
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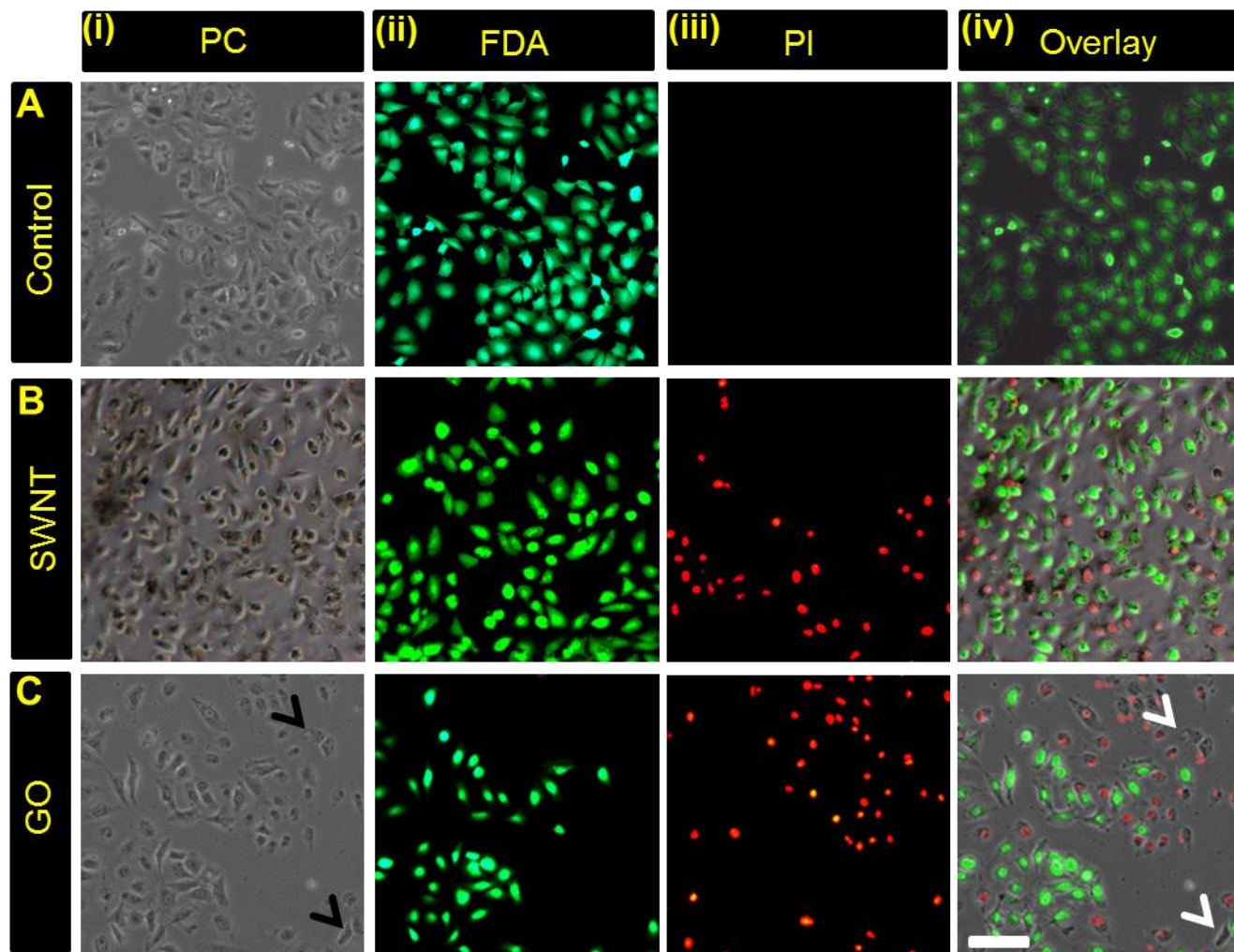
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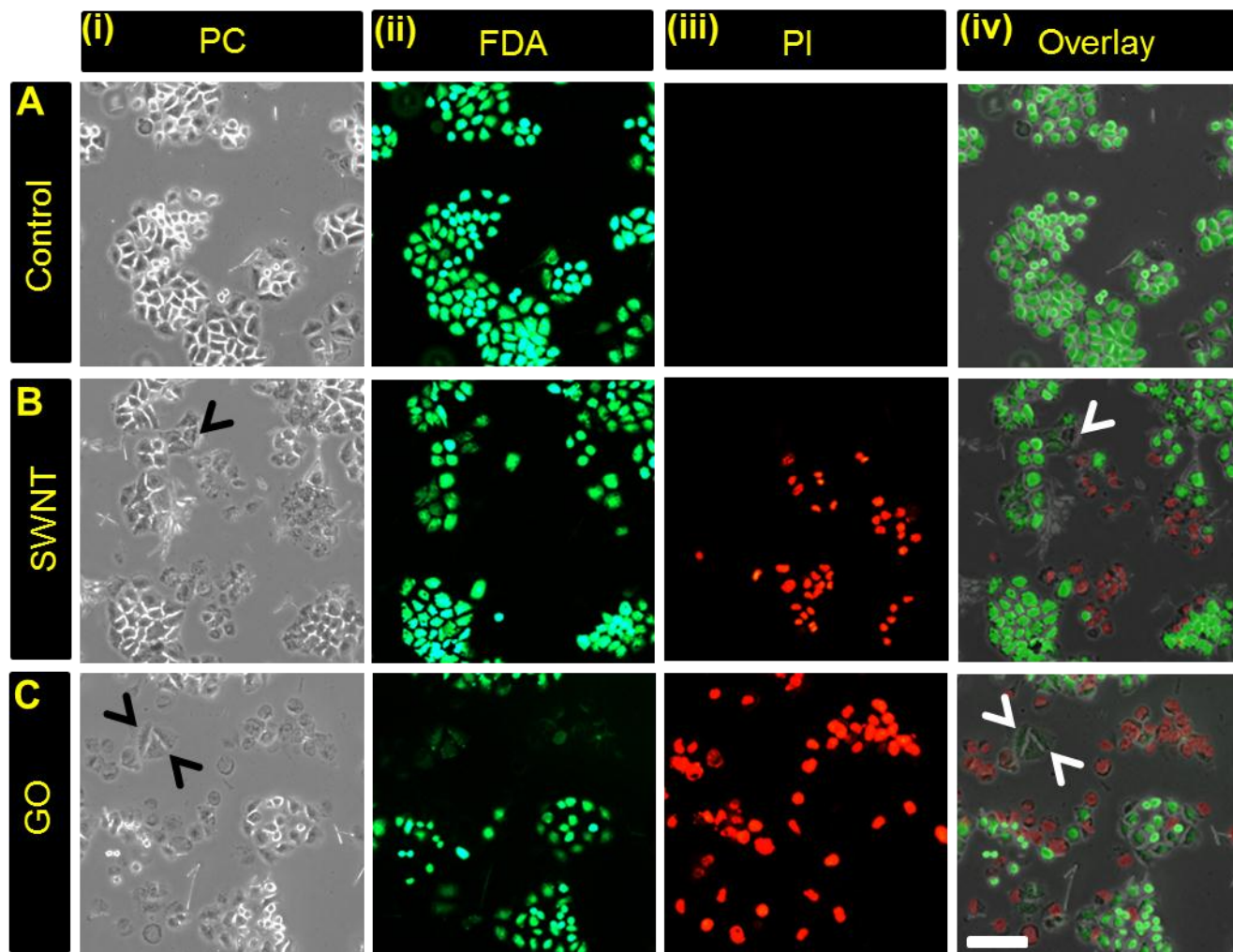
Supplementary Figures



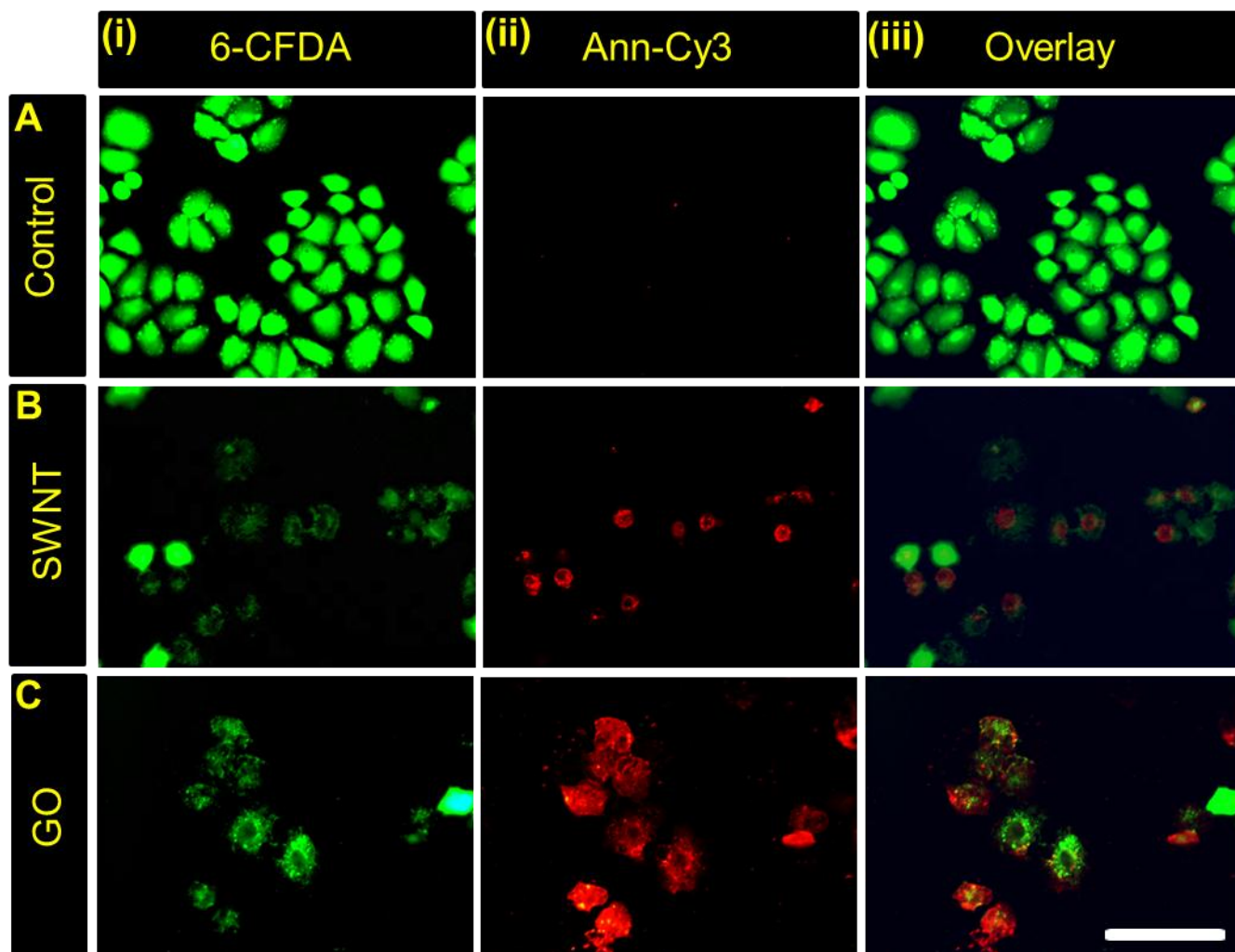
Supplementary Figure 1. Effect of SWNTs (100 μ g/ml) and GO flakes (100 μ g/ml) on lactate dehydrogenase release from A549 and NCI-H460 cells at the end of 24 h. [* indicates significance ($P < 0.05$) between untreated and treated NCI-H460 cells] (n=3).



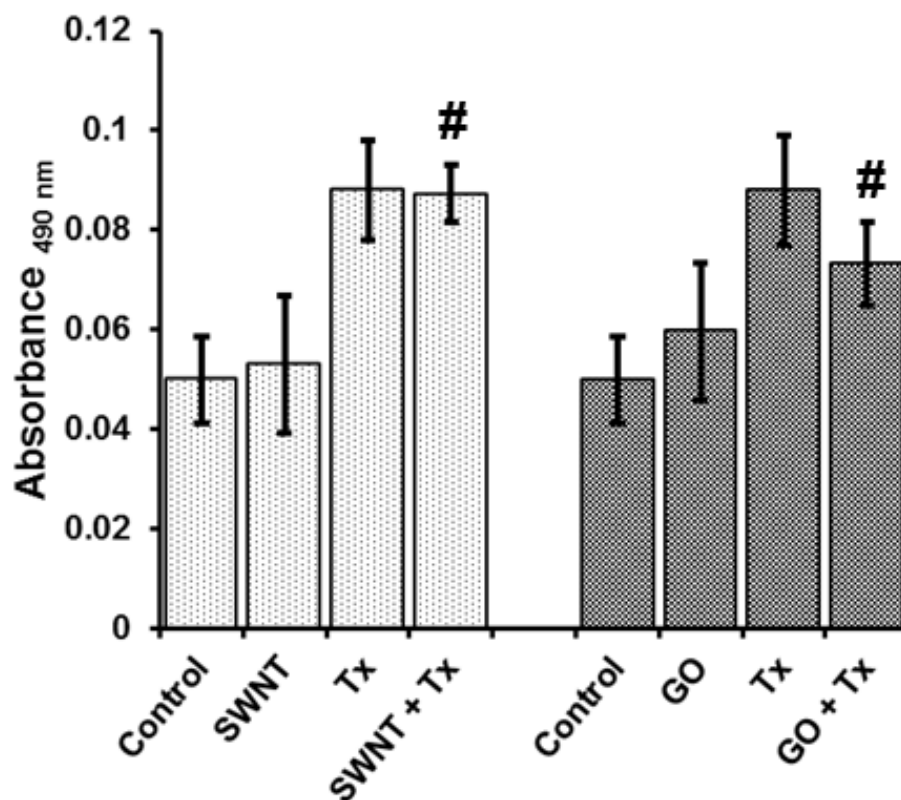
Supplementary Figure 2. FDA/PI double staining on A549 cells following 24 h treatment with (A) untreated control (B) SWNT (100 $\mu\text{g}/\text{ml}$) and (C) GO (100 $\mu\text{g}/\text{ml}$). In the overlay images [phase contrast (PC), blue and green filter], green colour (FDA staining) indicates live cells, red colour (PI staining) indicates late apoptotic or necrotic cells and no colour (presence of cells without green or red colour) indicated apoptotic cells (arrows depict apoptotic cells). (Scale bar – 100 μm) (n=3).



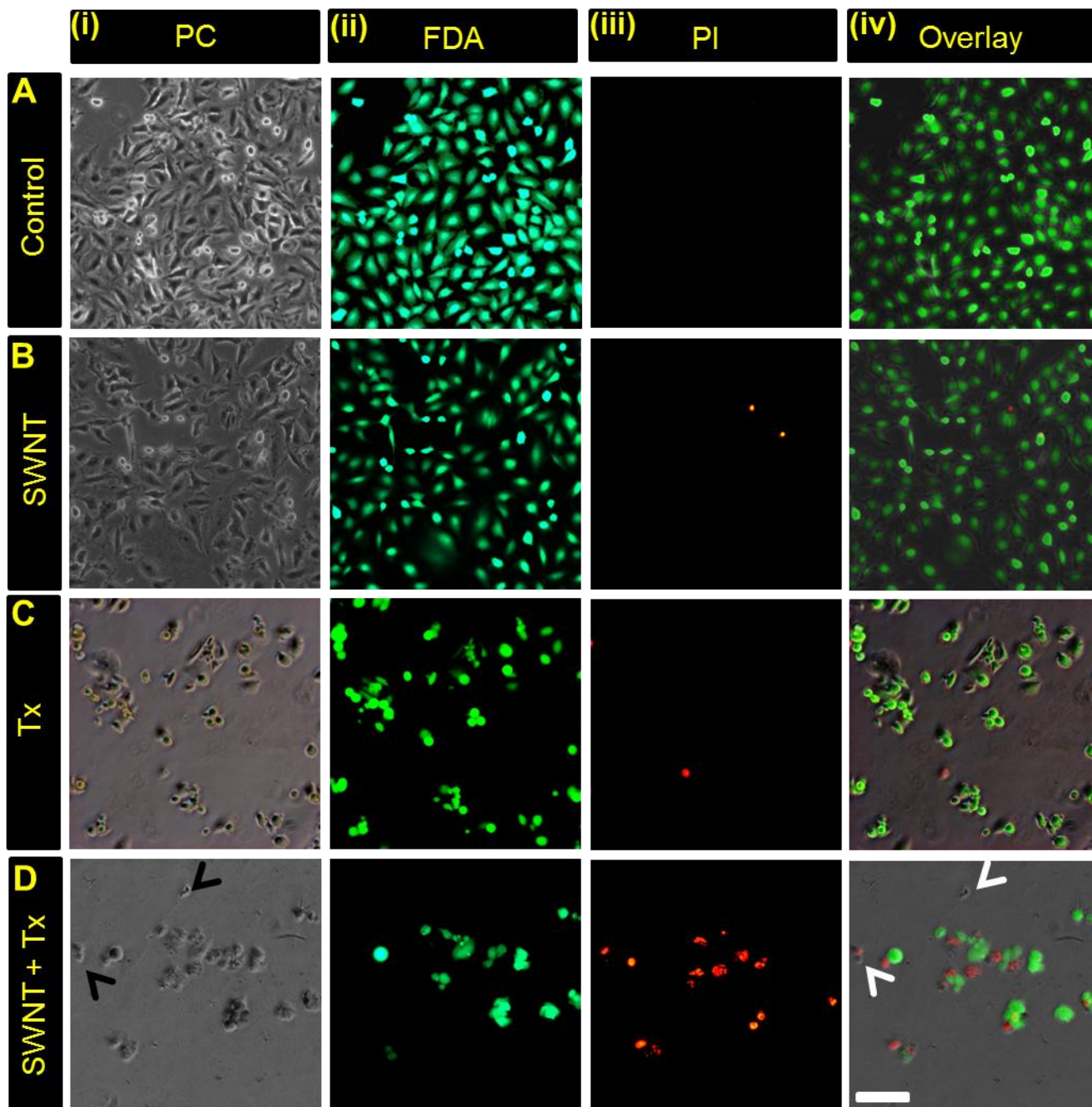
Supplementary Figure 3. FDA/PI double staining on NCI-H460 cells following 24 h treatment with (A) untreated control (B) SWNT (100 µg/ml) and (C) GO (100 µg/ml). In the overlay images, green colour (FDA staining) indicates live cells, red colour (PI staining) indicates late apoptotic or necrotic cells and no colour (presence of cells without green or red colour) indicates apoptotic cells (arrows depict apoptotic cells). (Scale bar – 100 µm) (n=3).



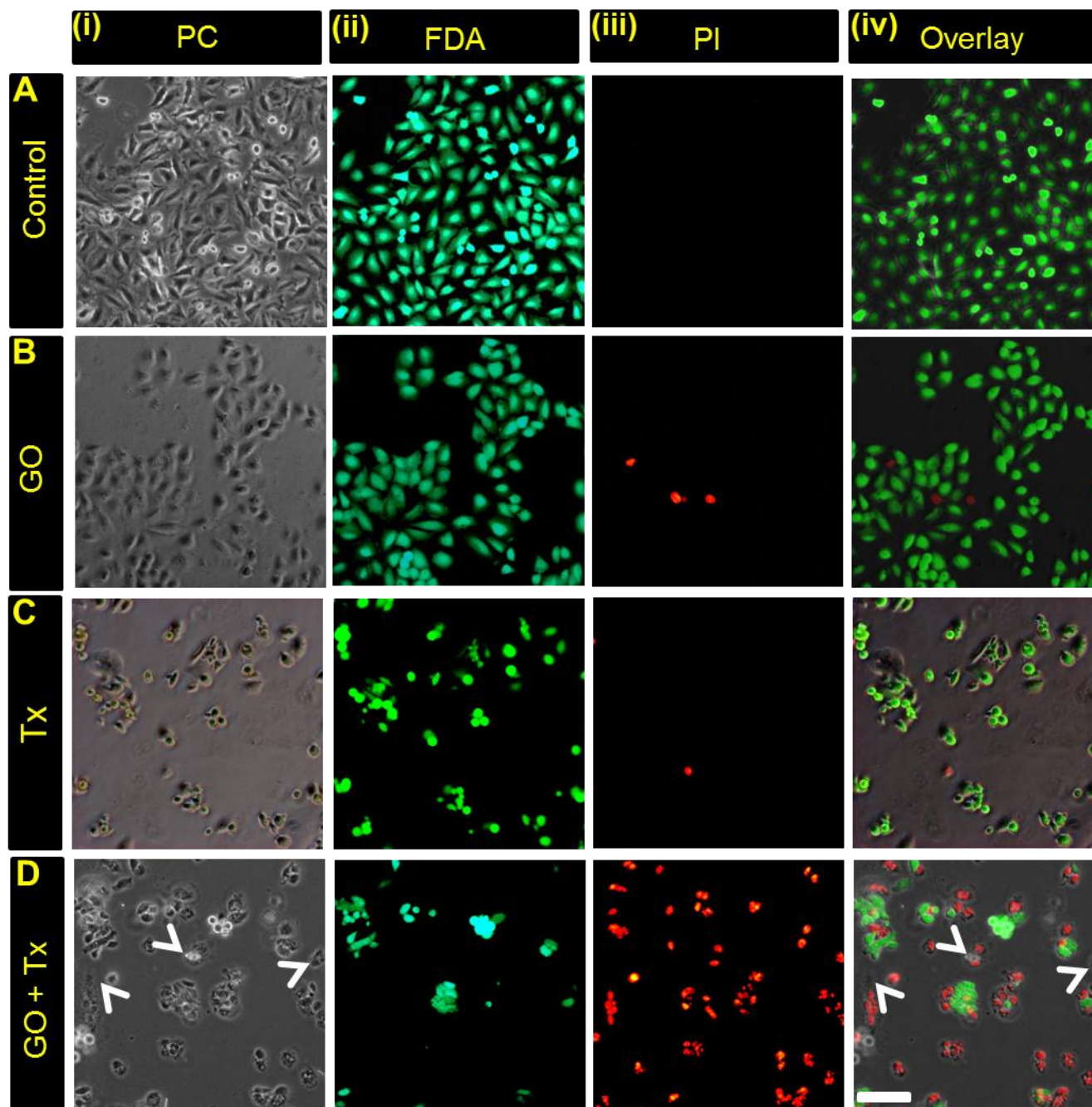
Supplementary Figure 4. Ann-Cy3/6-CFDA staining in NCI-H460 cells following 24 h treatment with (A) untreated control (B) SWNT (100 $\mu\text{g}/\text{ml}$) and (C) GO (100 $\mu\text{g}/\text{ml}$). In the overlay images, green colour (6-CFDA staining) indicates live cells, red colour (Annexin V staining) indicates necrotic cells and presence of both colours indicates apoptotic cells. (Scale bar – 100 μm) (n=3).



Supplementary Figure 5. Lactate dehydrogenase release from A549 cells following 24 h treatment with SWNT/GO (10 $\mu\text{g/ml}$), Tx (50 nM) and their combinations [SWNT/GO (10 $\mu\text{g/ml}$) + Tx (50 nM)].[# indicates no significance ($P>0.05$) between the additive effect of SWNT/GO and Tx when treated individually v/s their combination](n=3).



Supplementary Figure 6. FDA/PI double staining on A549 cells following 24 h treatment with (A) untreated control (B) SWNT (10 $\mu\text{g}/\text{ml}$) (C) Tx (50 nM) and (D) SWNT (10 $\mu\text{g}/\text{ml}$) + Tx (50 nM). In the overlay images, green colour (FDA staining) indicates live cells, red colour (PI staining) indicates late apoptotic or necrotic cells and no colour (presence of cells without green or red colour) indicates apoptotic cells (arrows depict apoptotic cells). (Scale bar – 100 μm) (n=3).



Supplementary Figure 7. FDA/PI double staining on A549 cells following 24 h treatment with (A) untreated control (B) GO (10 $\mu\text{g}/\text{ml}$) (C) Tx (50 nM) and (D) GO (10 $\mu\text{g}/\text{ml}$) + Tx (50 nM). In the overlay images, green colour (FDA staining) indicates live cells, red colour (PI staining) indicates late apoptotic or necrotic cells and no colour (presence of cells without green or red colour) indicates apoptotic cells (arrows depict apoptotic cells). (Scale bar – 100 μm) (n=3).