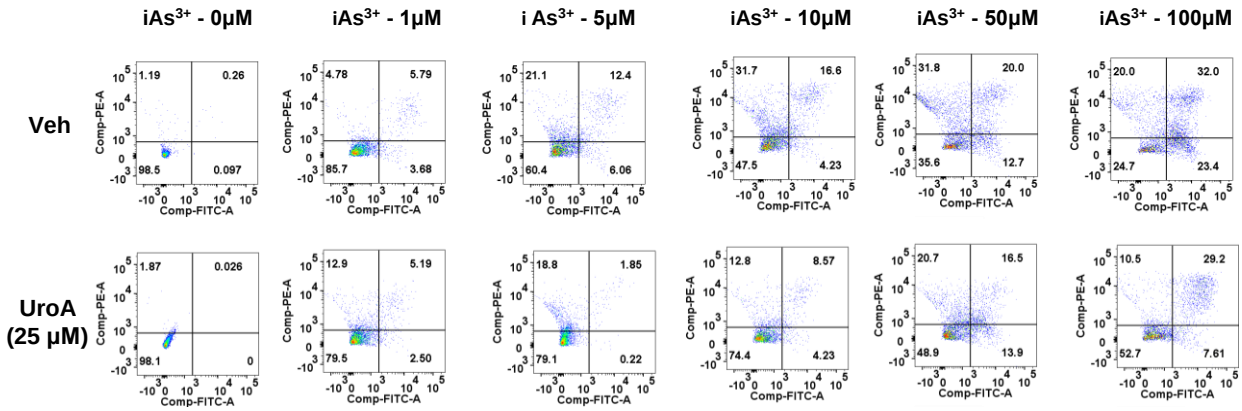
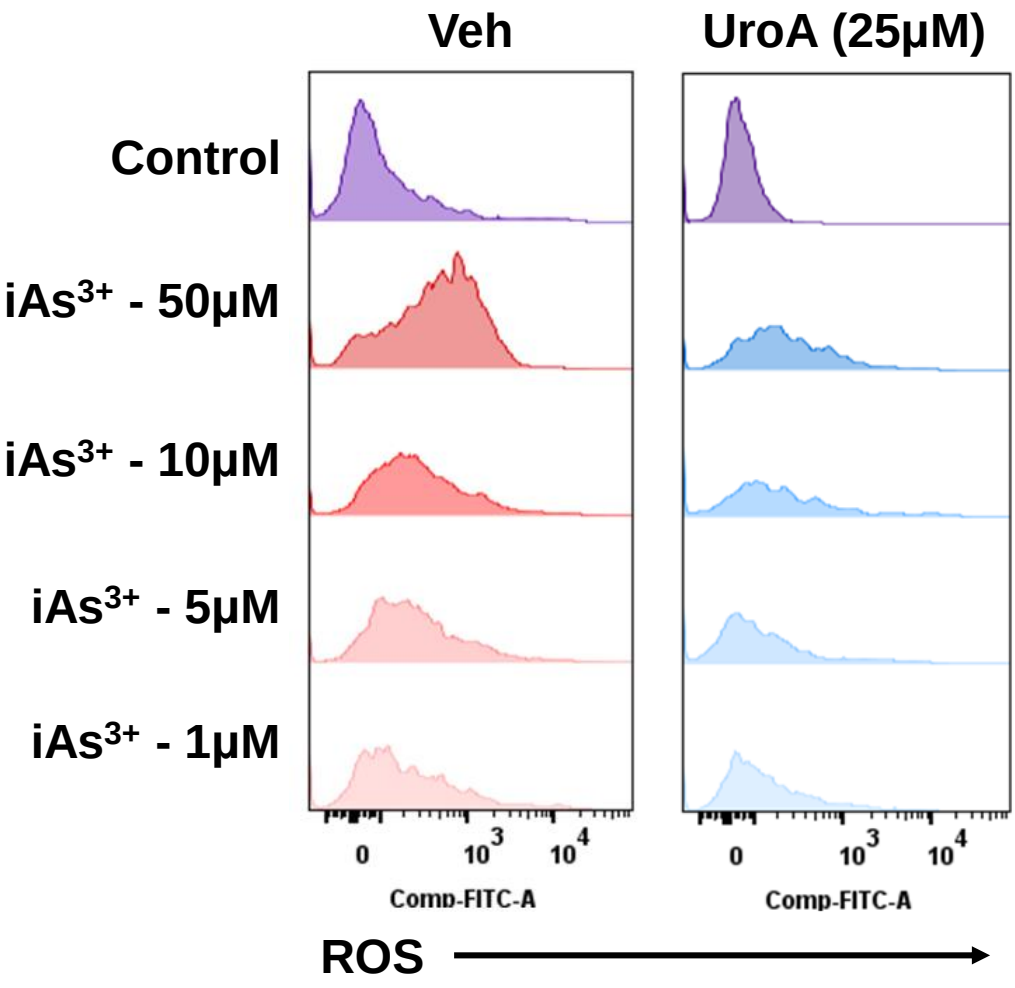
Supplementary Information

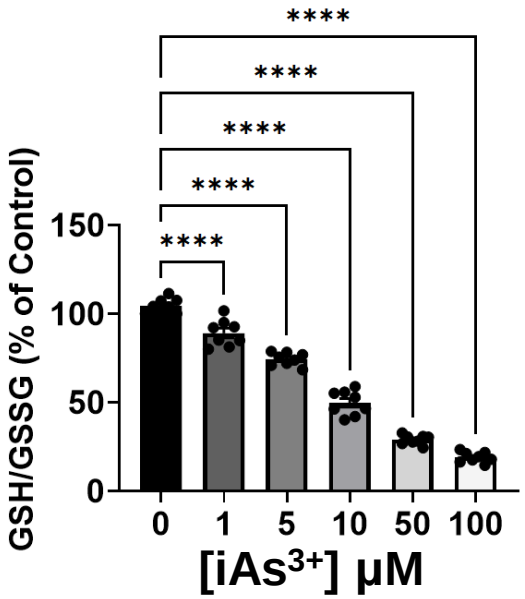
Ghosh et al



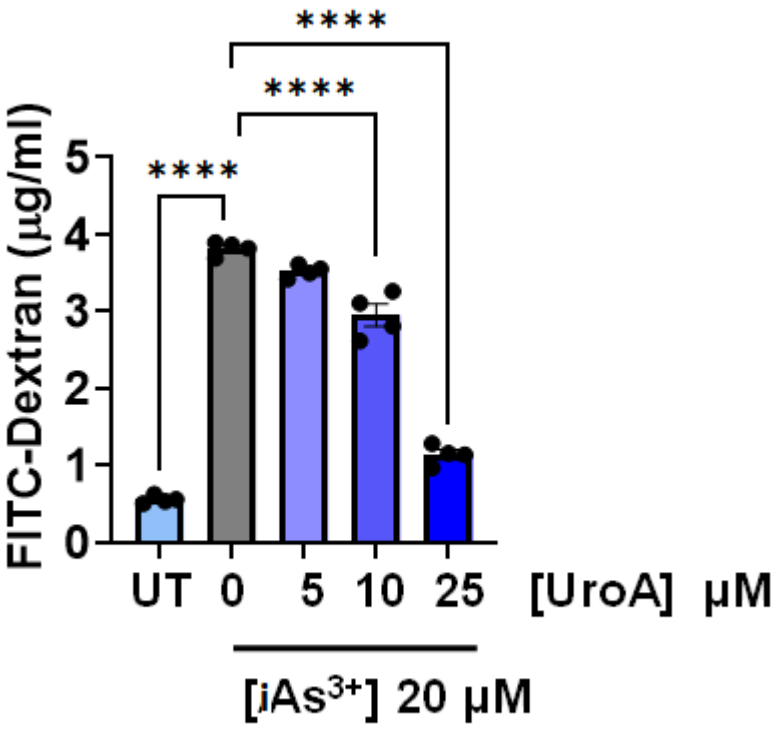
Supplementary Figure 1: UroA protects against iAs^{3+}- induced apoptosis in colon epithelial cells. Flow cytometry dot plot representation of apoptosis after T84 cells were treated with iAs^{+3} (0, 1, 5, 10, 50, 100 µM) in presence of vehicle (DMSO-0.01%) or UroA (25 µM) for 48 h. Results are representative of three independent experiments.



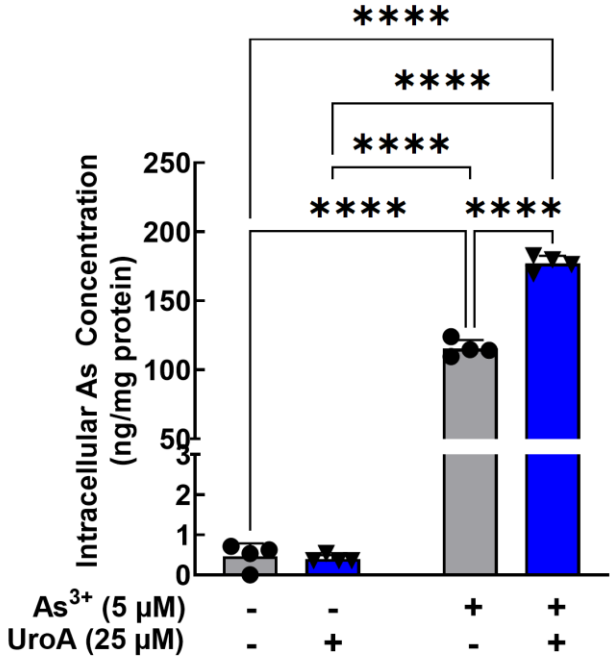
Supplementary Figure 2: UroA impairs iAs^{3+} induced ROS generation. T84 cells were treated with iAs^{+3} (1, 5, 10, 50 μM) in presence of vehicle (DMSO-0.01%) or UroA (25 μM) for 12 h. Representative flow cytometry histograms are showing ROS generation as green fluorescence from DCFDA stained T84 cells. Results are representative of three independent experiments.



Supplementary Figure 3: iAs^{+3} induced dose dependent reduction in GSH/GSSG levels. T84 cells were treated with different concentration of iAs^{+3} (1, 5, 10, 50, 100 µM) for 24 h. The levels of GSH and GSSG were measured and the GSH/GSSG ratio was calculated. Results are representative of three independent experiments. $*p < 0.05$, $**p < 0.01$, $***p < 0.001$, Statistics performed using one-way ANOVA in GraphPad Prism software. Error bar, mean ± SEM (n=4-8)



Supplementary Figure 4: Dose dependent protection of UroA against iAs^{3+} induced barrier permeability. Monolayer T84 cells on transmembranes were treated with iAs^{+3} (20 µM) in presence of UroA (0, 5, 10, 25 µM) for 24 h. FITC-dextran was added to these cells (top of the membrane) and incubated for 2 h at 37°C and FITC-dextran levels in the bottom chamber well was measured. $*p < 0.05$, $**p < 0.01$, $***p < 0.001$, Statistics performed using 2way ANOVA in GraphPad Prism software. Error bar, mean ± SEM (n=4)



Supplementary Figure 5: Intracellular levels of arsenic. T-84 cells (90-95% confluence) in 6-well plate were treated with treated with vehicle (0.05% DMSO) or iAs^{3+} (5 µM) or UroA (25 µM) or iAs^{3+} (5 µM) + UroA (25 µM) in quadruplicates for 24 h. The cell lysates (n=4 per treatment) were prepared and measured intracellular arsenic using Agilent 7800 ICP-MS instrument. The standard curve was obtained by serial dilution of a commercially available standard stock solution., Statistics performed using 2way ANOVA in GraphPad Prism software. $*p < 0.05$, $**p < 0.01$, $***p < 0.001$. Error bar, mean ± SEM (n=4)