Carbohydrate coated, folate functionalized colloidal graphene as a multifunctional nanocarrier for hydrophobic and hydrophilic drugs

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Figure S1. FTIR spectra of the reduced graphene oxide and G@C. The presence of –N-H bending at 1580 cm⁻¹ and C-C skeleton vibration at 1020 cm⁻¹ confirms the presence of two carbohydrate molecules on graphene sheet.
**Figure S2.** Image of HeLa cells after G@C-folate based delivery of nile red, doxorubicin and curcumin. Cells are incubated with dye/drug loaded G@C-folate for 3 hrs and then washed cells are imaged under bright field (BF) or fluorescence (F) and then merged (M). Appearance of green fluorescence (for curcumin) or red fluorescence (for nile red, doxorubicin) indicates the successful cellular delivery of dye/drug.
Figure S3. Image of HeLa cells after G@C based delivery of nile red, doxorubicin and curcumin. Cells are incubated with dye/drug loaded G@C for 6 hrs and then washed cells are imaged under fluorescence (F) or bright field (BF). Insignificant green fluorescence (for curcumin) or red fluorescence (for nile red, doxorubicin) indicates the unsuccessful cellular delivery of dye/drug.
Figure S4. Image of CHO cells after G@C-folate based delivery of nile red, doxorubicin and curcumin. Cells are incubated with dye/drug loaded G@C for 6 hrs and then washed cells are imaged under fluorescence (F) or bright field (BF). Insignificant green fluorescence (for curcumin) or red fluorescence (for nile red, doxorubicin) indicates the unsuccessful cellular delivery of dye/drug.
Figure S5. Image of CHO cells after incubation of FITC-G@C-folate for 6 hrs. The absence of green fluorescence of FITC indicate that graphenes are not delivered into cell.