

Supplementary Information

1.

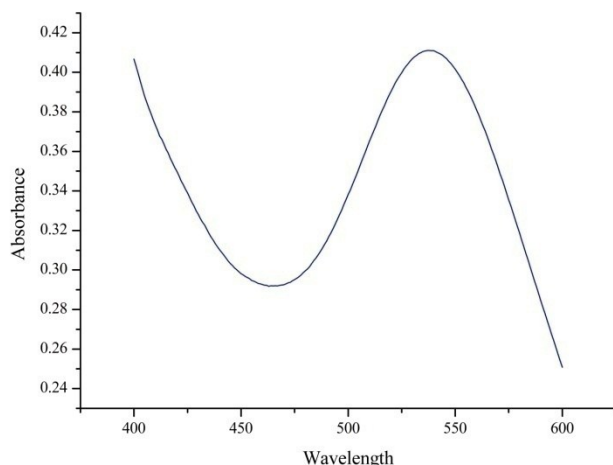


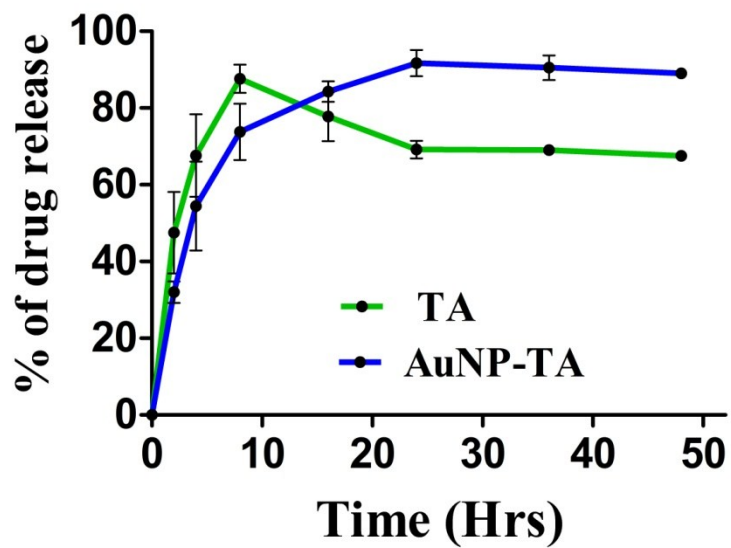
Fig S1: UV-Vis spectra for the AuNP-TA solution after 50 days. The preservation of AuNP-TA was confirmed by a peak at 545nm

2.

Drug release kinetics study: Drug release studies were done using dialysis tubing cellulose membrane with an average flat width of 25 mm and 10,000 MW cutoff (Fisher Scientific, USA). The TA solution and TA capped gold nanoparticles were added to dialysis tubes and subject to dialysis by submerging the tubing into a beaker containing 10 mL 1X PBS at pH 7.4. We chose to evaluate this release in saline solution as it is isotonic to blood and therefore can be used as the standard biological solution. The solution was placed on a magnetic stirrer at room temperature covered with parafilm to minimize evaporation of the solution. At respective time intervals, 1 mL samples of PBS containing drug were removed and replaced with fresh buffer to maintain a constant volume. The concentration of drug in each sample was determined using UV spectroscopy to find out the absorbance at 250nm. Cumulative drug release versus time plot was obtained by the following equation:

$$\text{Cumulative Drug Release (\%)} = ([\text{Tannic acid}]_T / [\text{Tannic acid}]_{\text{total}}) \times 100$$

where $[\text{Tannic acid}]_T$ refers to the concentration of TA release at respective time T and $[\text{Tannic acid}]_{\text{total}}$ is the total amount of TA loaded onto the nanoparticles.



FigS2: Drug release kinetics of TA and AuNPTA whereby AuNP-TA shows a more sustained release of drug as compared to TA. Faster drug release was observed for tannic acid and highest drug release was around 8hrs.TA release from AuNP-TA was slower and sustained, with the highest drug release around 24hrs.