

## Electronic Supplementary Information

### Investigation of HSA as a biocompatible coating material for Arsenic Trioxide Nanoparticles

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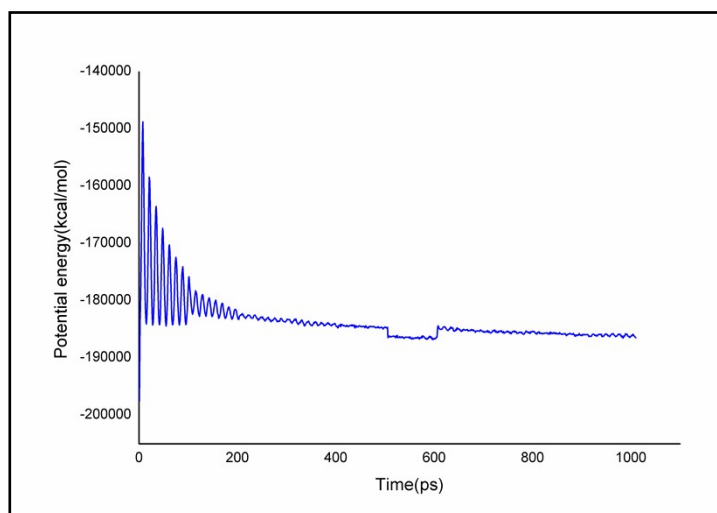
## Supplementary Section

### Colloidal stability of HSA-As<sub>2</sub>O<sub>3</sub> NPs

The colloidal stability of HSA coated NPs was checked in phosphate buffered saline (PBS) for a week (more than the time period of cell culture study). The HSA-As<sub>2</sub>O<sub>3</sub> NPs were found to have colloidal stability for more than 1 week. The ‘+++’ indicates good colloidal stability.

| Concentration of HSA-As <sub>2</sub> O <sub>3</sub> NPs | 0hrs | 3hrs | 6hrs | 24hrs | 48hrs | 72hrs | 1week |
|---|------|------|------|-------|-------|-------|-------|
| 1mg/mL  | +++  | +++  | +++  | +++   | +++   | +++   | ++    |

**Figure S1.** Colloidal stability studies in Phosphate buffered saline (pH-7.4). The ‘+++’ indicates good colloidal stability



**Figure S2.** Time dependence of the potential energy (kcal/mol) during the simulation

