Electronic Supplementary Material (ESI) for Soft Matter.

Probing the nanoparticles-Ago2 interaction for enhanced gene knockdown

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Supplementary Information

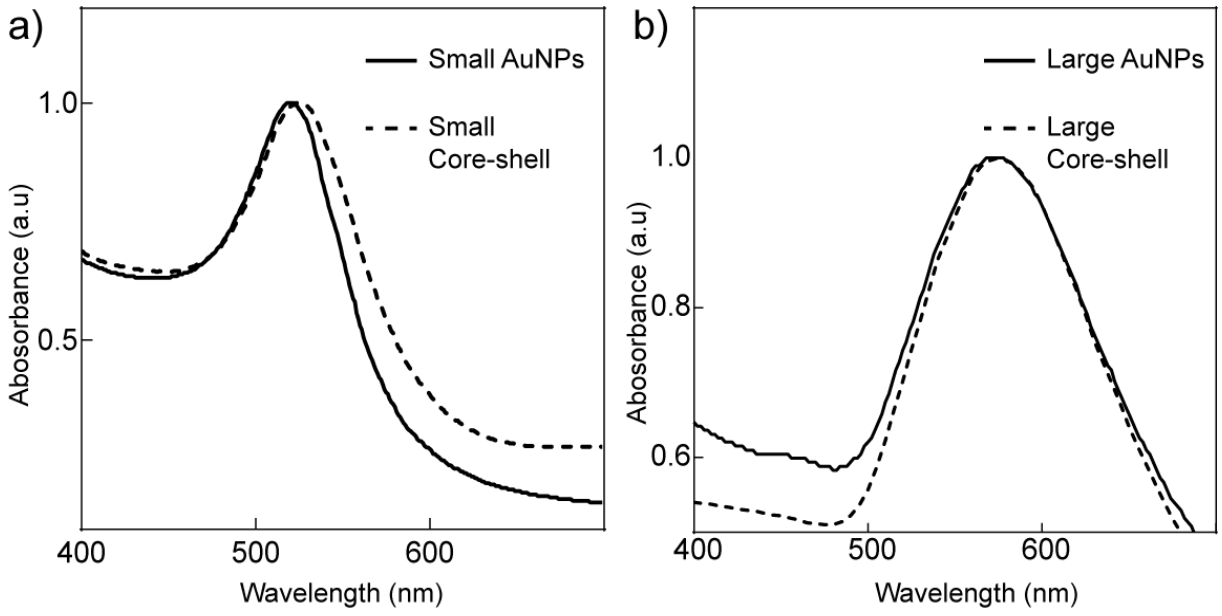

Figure S1: Absorbance spectra of AuNPs, before and after shell synthesis.

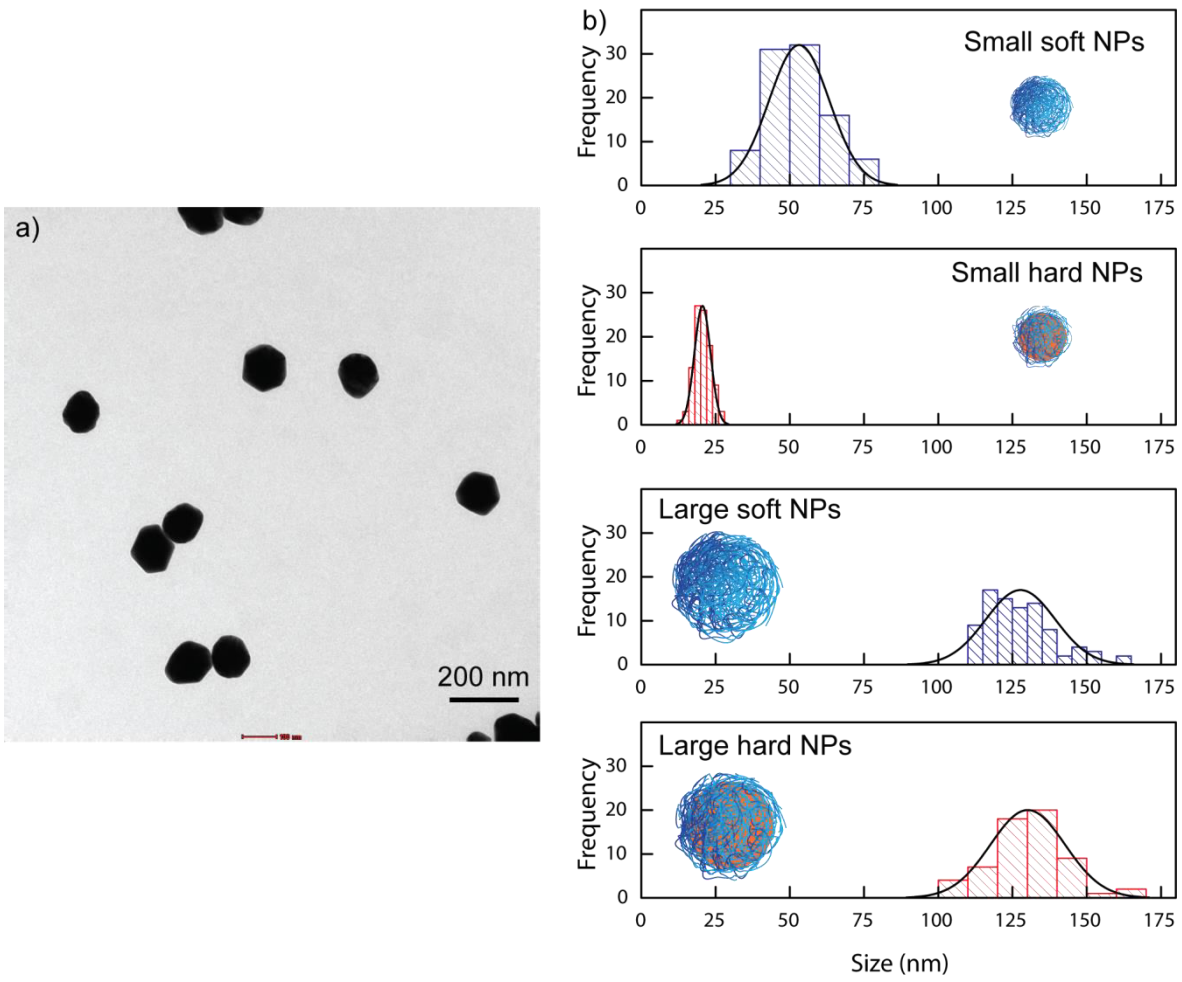

Figure S2. a) TEM micrograph of $Hard_{Large}$ nanoparticles. b) Size distribution of nanoparticles by TEM micrograph analysis. Atleast 60 nanoparticles were used for analysis.

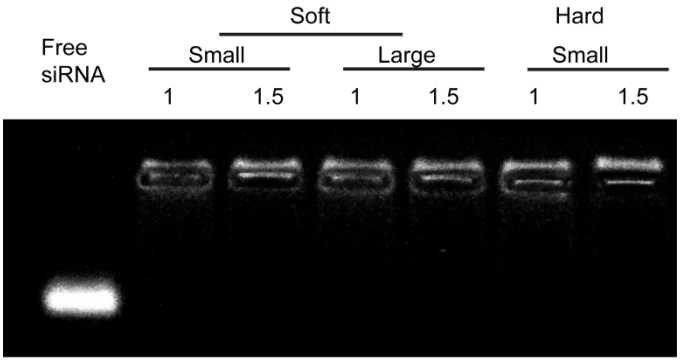

Figure S3. Optimization of siRNA loading in the nanoparticles by agarose gel electrophoresis

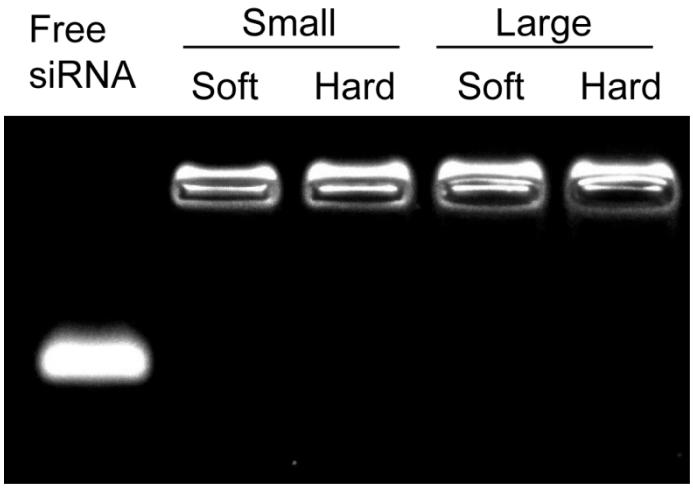

Figure S4: Loading of siRNA in the nanoparticles

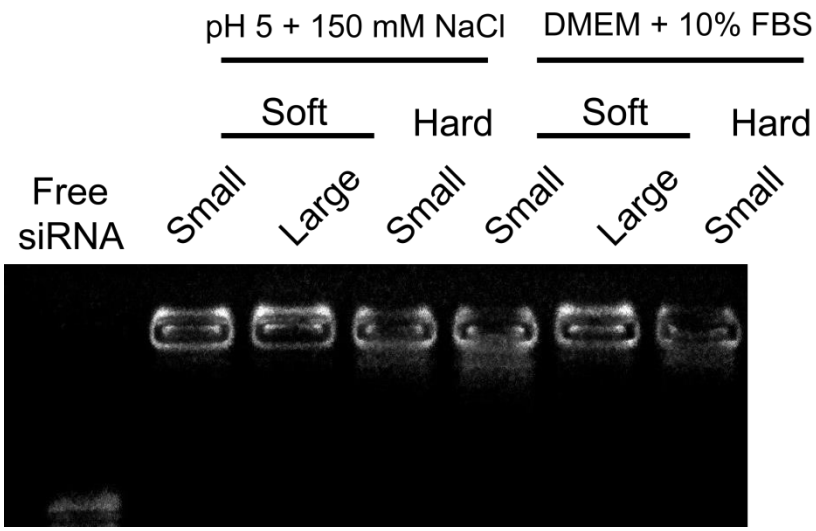

Figure S5. Electrophoretic mobility assay stability of siRNA in FBS supplemented media and at higher ionic strength and low pH.

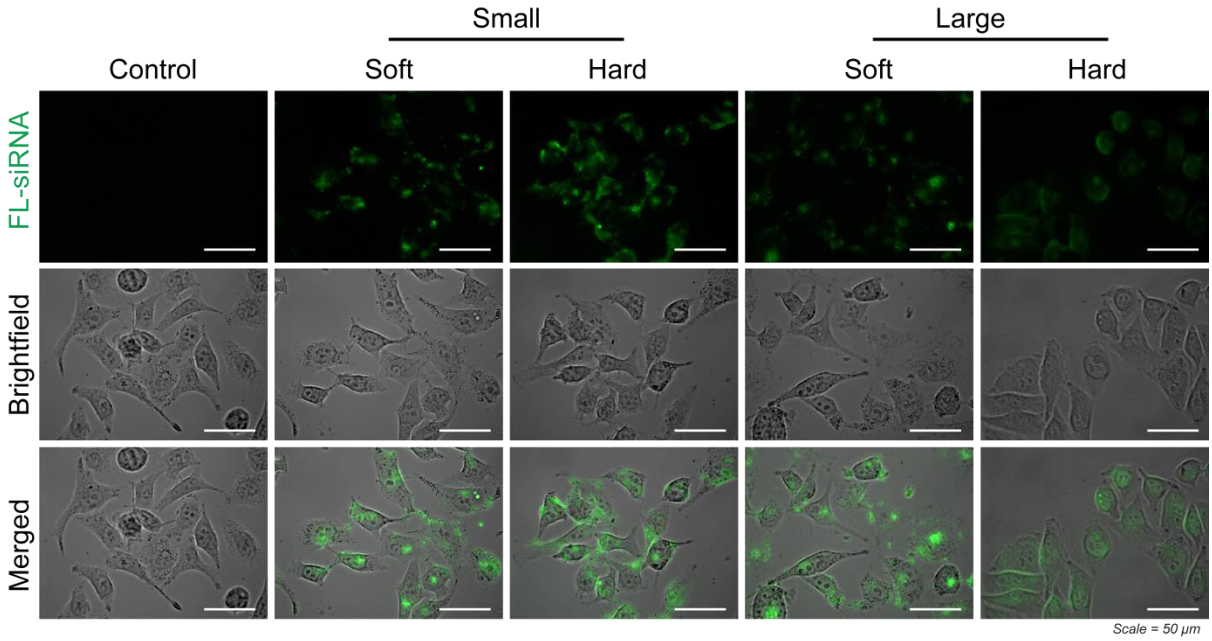

Figure S6: Uptake of FL-siRNA loaded nanoparticles by HeLa cells by fluorescence microscopy.

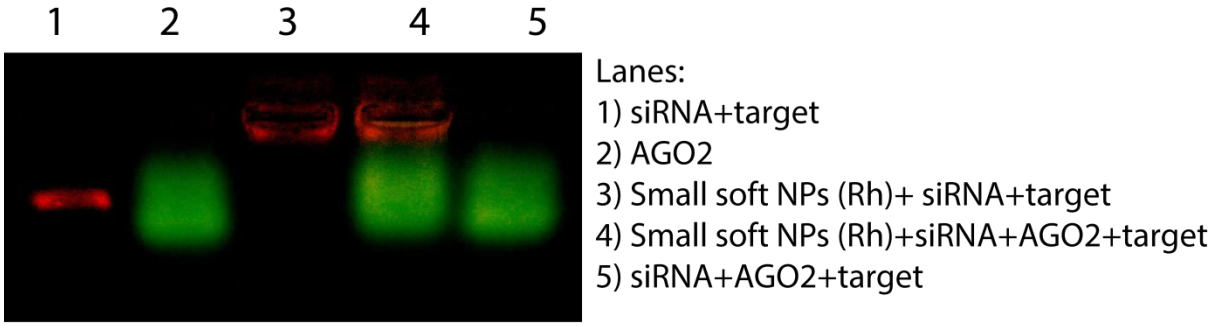

Figure S7. Colocalization of rhodamine (Rh) tagged small nanogel and fluorescein labelled AGO2 in presence of siRNA and target, by electrophoretic mobility assay.

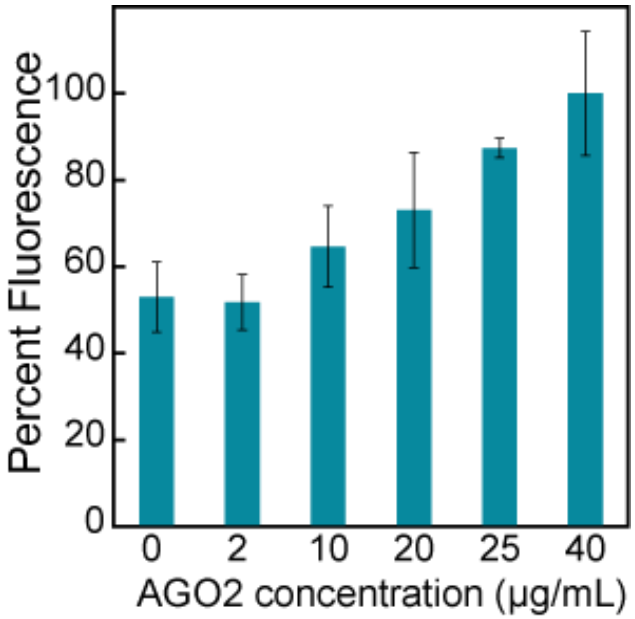

Figure S8. Assay showing AGO2 concentration depended increase in fluorescence in AGO2-siRNA interaction study.

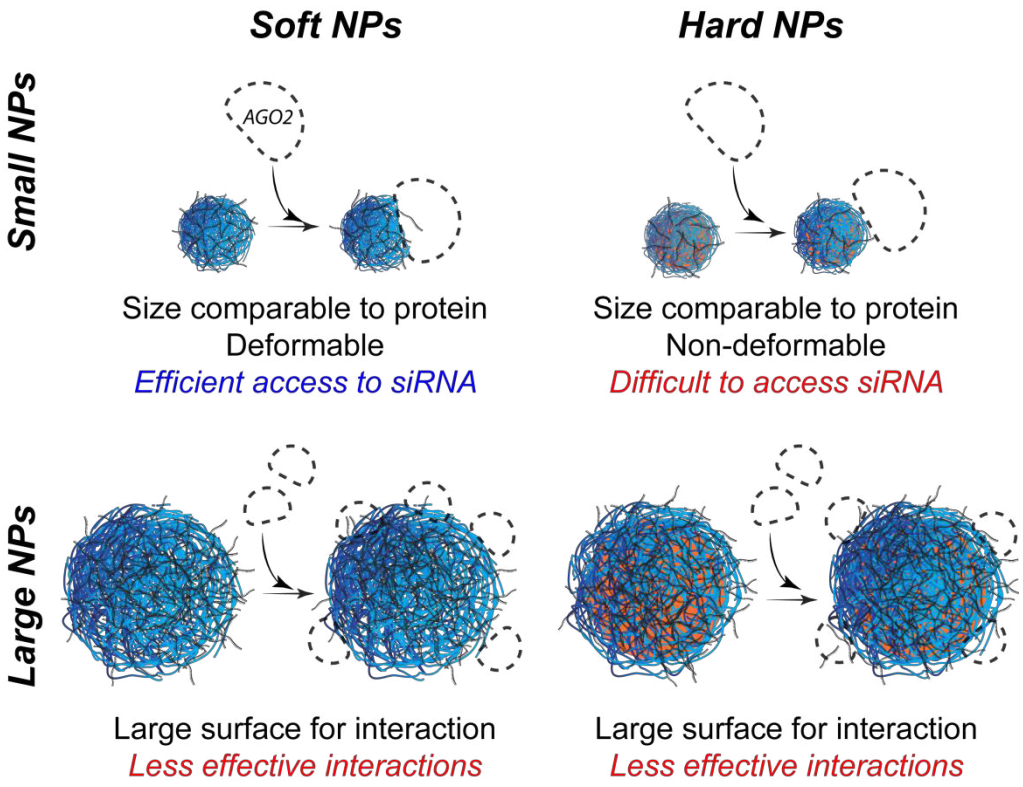

Figure S9. Schematic representation of the hypothesis for interaction of nanoparticles of different size and softness