Electronic Supplementary Material (ESI) for Nanoscale.

Label free localization of nanoparticles in live cancer cells using spectroscopic microscopy

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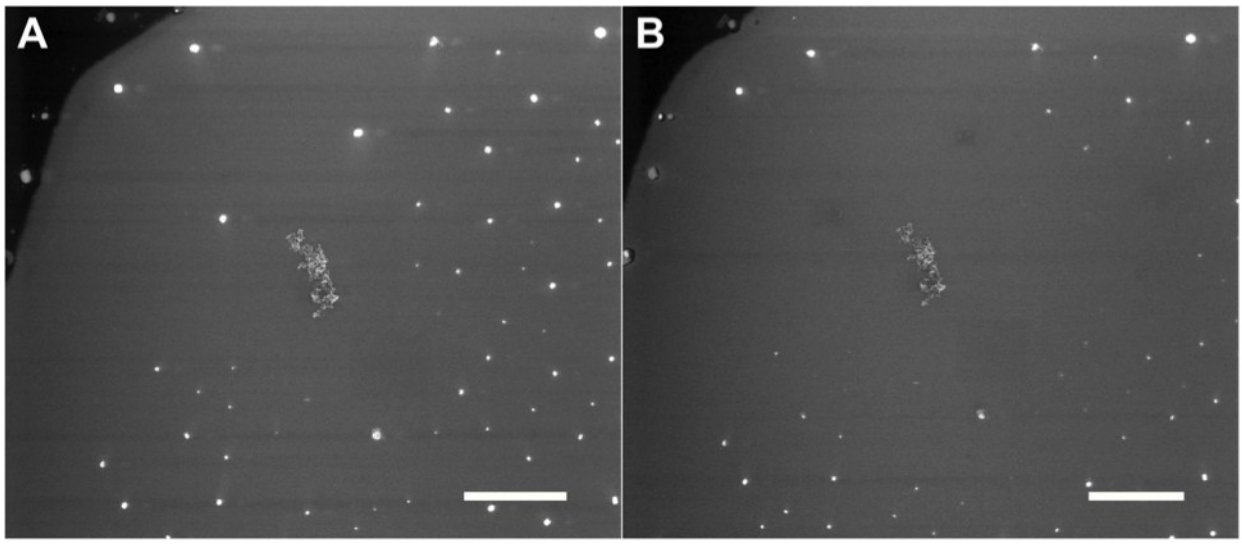
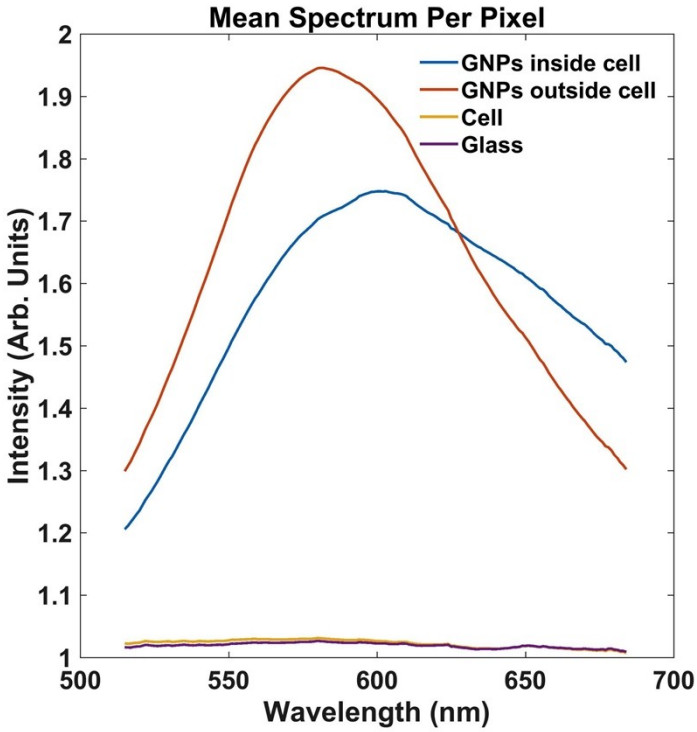
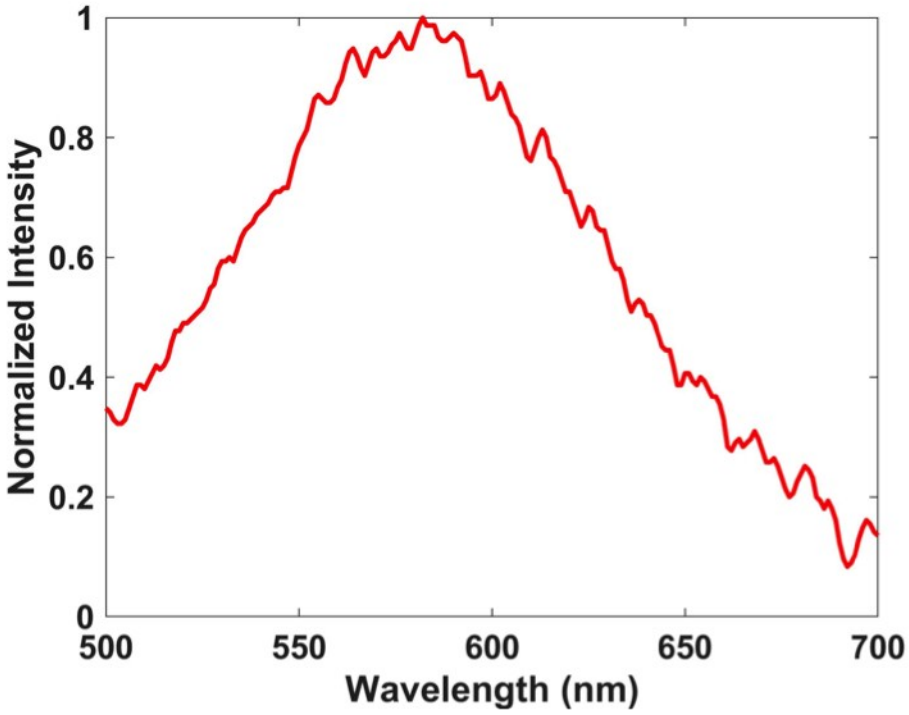


Supplementary figure 1. ESEM images of GNP cluster surrounded by salt crystals (a) before and (b) after electron beam bombardment confirms distinct composition of bright structures in the image. Salt crystals bombarded by the electron beam quickly disappear whereas GNPs remain on the glass slide.



Supplementary figure 2. Averaged scattering spectra from GNPs inside and outside live HeLa cells, along with mean spectra from GNP-free regions of cell and glass slide. We observe a distinct shift in the spectral scattering peak when comparing internalized GNPs to those remaining outside of cells. This distinct shift is present due the interaction between GNR and cytoplasmic protein and GNR aggregation.



Supplementary figure 3. UV-Vis absorption spectrum of stock GNP suspension used for these studies.

Supplementary video S1. GNP motion within the cell through the well-defined contrast provided in the RMS map.