

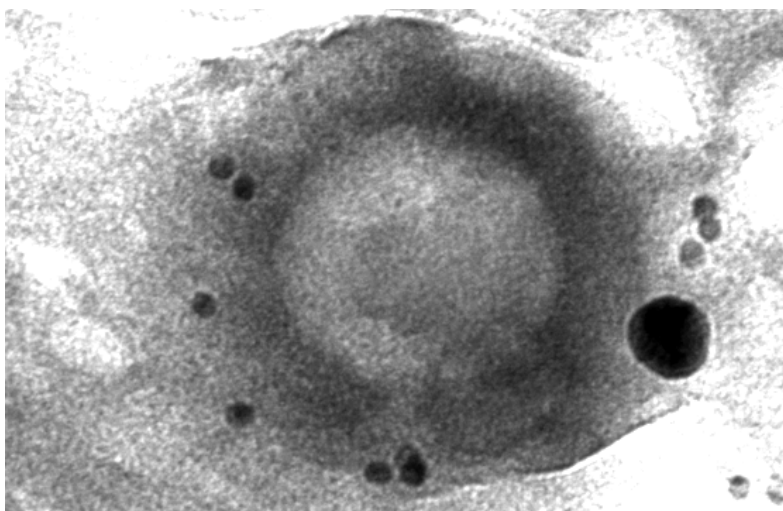
# Surface Functionalized Nanoparticles for Drug Delivery

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NNIN Facility utilized: CharFac

- TEM characterization of surface functionalized nanoparticles
  - ◆ Polymeric nanoparticles have folic acid and biotin on surface
  - ◆ Incubated with gold particles conjugated to either streptavidin or mAb to folic acid



- RESULTS
  - ◆ Both streptavidin-conjugated gold nanoparticles (5 nm) and mAb-conjugated gold particles (20 nm) were found to bind with polymeric particles
  - ◆ Number of biotin molecules on the surface appear to be more than the number of folic acid molecules – needs confirmation by inverting the particle size of the gold particles
  - ◆ Presence of biotin and folic acid on surface verified by surface plasmon resonance
- Publications
  - ◆ Patil, Y., Toti, U., Khdair, A., and Panyam, J. (2008) Facile Single-Step Multifunctionalization of Nanoparticles for Targeted Drug Delivery and Imaging. Communicated.