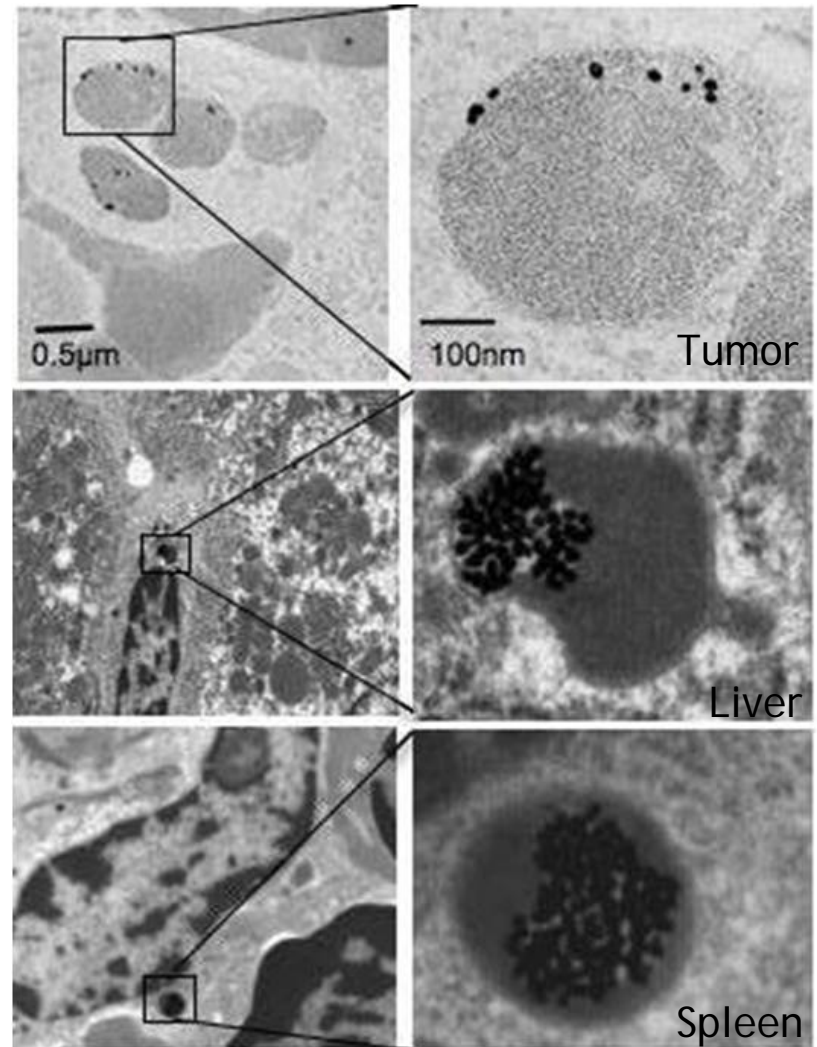


Biodistribution of TNF-alpha Coated Gold Nanoparticles in an In Vivo Model System

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NNIN Facility utilized: Characterization Facility

- The goal is to investigate the in vivo biodistribution of TNF-alpha coated gold nanoparticles.
 - ◆ Tumor, liver and spleen samples were collected from mice three days after injection and TEM analysis was performed.
 - ◆ Transmission electron microscopy (TEM) was performed on mice tissues to visualize the gold nanoparticles.
- Major observations
 - ◆ The particles were noted to be present individually or in small groups (< 5) in the tumor tissue but were detected as big clusters (> 5 particles) in the liver and spleen (Figure 5), which indicates difference in uptake mechanisms.
 - ◆ This result is also consistent with the higher gold nanoparticle uptake observed in the liver and spleen in quantitative analysis.
- Publications
 - ◆ Goel, R., Shah, N., Visaria, R., Paciotti, G., Bischof, J. Biodistribution of TNF-alpha coated gold nanoparticles in an in vivo model system. Nanomedicine (in press) 2009.



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