Lecture 8: Technologies for measuring nanomedical systems on/within cells

I. Introduction to measuring technologies for nanomedical system interaction with cells
   A. The importance of quantitative or at least semi-quantitative single cell measurements to detect presence and location of nanomedical systems
   B. Below "optical limit" imaging
   C. Requirements on the NMS to have X-ray dense, fluorescent, metallic, or magnetic cores
   D. Can you study living cells?

II. Technologies – Advantages and disadvantages
   A. Flow cytometry – a "zero order" imaging device
   B. Scanning and Transmission electron microscopy
   C. Confocal microscopy – one and two-photon
   D. Surface Plasmon Resonance (SPR) Imaging
   E. Atomic Force Microscopy
   F. Magnetic Sorting/MRI contrast agents for in-vivo imaging

References


