

### **305c Application of Nanotechnology to Diagnostic Devices**

*Gil U. Lee*

The scale at which we study and manipulate matter has dramatically changed in the last two decades. Scientists routinely design and produce macromolecules using molecular biology and organic chemistry, while engineers are using micromachining techniques to pattern surfaces with nanometer resolution. The convergence of scales on which we work has the potential to produce a paradigm shift in biological and chemical technology for diagnostics. This presentation will review recent developments in the study of nanometer scale science and diagnostic techniques that have resulted from these developments. In specific, I will review recent advances in the development of diagnostic devices based on nanometer scale electromechanical systems and novel nanoparticles with unique chemical and physical properties.