

## **Nano-Bio Interfaces: From Therapeutics to Remote Transducers**

Over the last few decades, nanomaterials have been developed and studied for their fundamental physio-chemo properties. Based on our increased understanding of nanomaterials, researchers have been developing these materials into “nanotools” for both basic research and clinical applications. However, the greatest challenges that researchers face in interfacing nanomaterials with biological systems is developing scalable, biocompatible, green synthesis methods for the materials. In this talk we will discuss biological “friendly” synthesis methods and the applications of various types of nanomaterials including combined effects of nanoparticles and electromagnetics toward the development of remote transducers for control in biological systems as well as understanding therapeutic aspects of nanomaterials.