



CHEMISTRY SEMINAR SERIES FALL 2015



TIME: 12:30-2:00 PM **PLACE: SCIENCE HALL WEST 301**

WHEN: THURSDAY, NOVEMBER 12TH, 2015



Dr. Ramanathan Nagarajan

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US Army-Natick Soldier Research
Development and Engineering Center
(NSRDEC)**

“SOLDIER S & T BASED ON SOFT NANOMATERIALS”

I will first present a brief introduction to NSRDEC to outline the importance of research for materials development that can benefit both soldiers and civilians. This will be followed by a discussion of our work involving soft nanomaterials, taking advantage of the self-assembling behavior of block copolymer molecules. I will briefly outline theoretical modeling on the stabilization of carbon nanotubes in water on the basis of the mechanism of solubilization in micelles. The results from this work suggest the intriguing possibility that nanotubes can be separated by their size and chirality, based on solubilization, allowing for new technology opportunities. A second area is the possibility of enhancing the stability of enzymes by incorporating them into self-assembling systems. These results suggest that a nanoparticle framework within which the enzyme is confined may serve as a generic approach to improving enzyme stability.

For additional information please contact:

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