

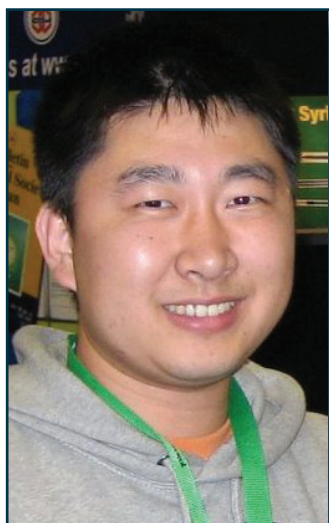


UNIVERSITY OF MINNESOTA
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Department of Chemistry

Seminar

9:45 a.m. Thursday, January 13 • 331 Smith Hall



Senior Research Fellow

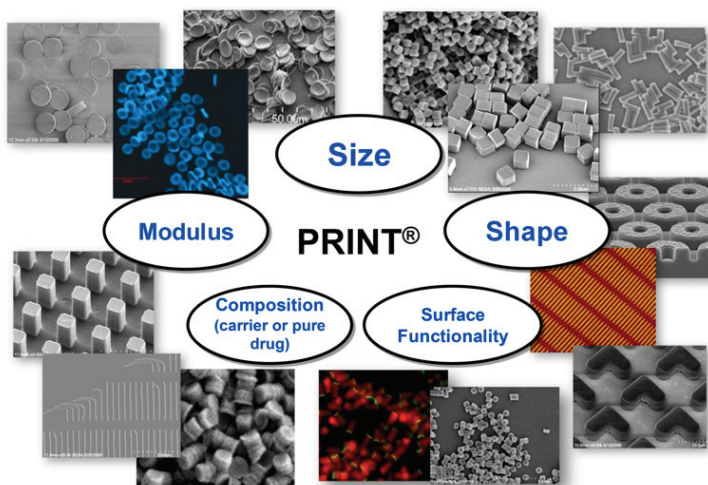
Jin Wang, Ph.D.

University of North Carolina, Chapel Hill

*Translating the Precision
of Microelectronics to the Production
of Highly Uniform,
Shape-Specific Nanomedicines*

Abstract

Polymer research and modern medicine are at a critical juncture. Many state-of-the-art, small molecule therapeutics are difficult to deliver effectively because of poor solubility and rapid elimination by the reticuloendothelial system. In addition, many old therapies are in need of repackaging. As a result, researchers are turning to alternative methods for therapeutic delivery. Herein, we employ a top-down particle fabrication technique called Particle Replication In Non-wetting Templates (PRINT) to fabricate unique biocompatible/-biodegradable particles with distinct therapeutic properties based on their composition, size, shape, and modulus. The particles can be tagged with a targeting ligand such as transferrin and transferrin receptor antibody, to achieve targeted drug delivery. I will also discuss the complex role of multivalency in nanoparticles targeting the transferrin receptor for cancer therapies.



Host: Professor Christopher Cramer
Refreshments will be served prior to the seminar.