

# Conference

## Vincent ROTELLO

Organic Chemistry  
Biomedical and Materials Applications of Nanosystems

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## Interfacing Nanomaterials with Biology: From CRISPR to Antimicrobials

A key issue in the use of nanomaterials is controlling how they interact with themselves and with the outer world. Our research program focuses on the tailoring of nanoparticles of surfaces for a variety of applications, coupling the atomic-level control provided by organic synthesis with the fundamental principles of supramolecular chemistry. Using these nanoparticles, we are developing new strategies for biological applications. This talk will focus on the interfacing of nanoparticles with bio-systems, and will discuss the application of self-assembled nanoparticles as delivery vehicles. We will demonstrate the delivery of proteins and nucleic acids into the cytosol, including functional CRISPR systems. Finally, this presentation will also feature the use of nanoparticles as therapeutics against multi-drug resistant bacteria, providing a potential strategy for combatting this emerging threat.

Wednesday July 5<sup>th</sup> , 2017 - 11:00 am  
AMPHI 2 - bât A ENSCBP