



TOR VERGATA
UNIVERSITÀ DEGLI STUDI DI ROMA

Dipartimento di Scienze e Tecnologie Chimiche

SEMINARIO

Prof. Frank Caruso

*Department of Chemical Engineering
The University of Melbourne*

Bio-Nano Science – Insights for Nanomedicine

25 Ottobre 11:00-12:00

Aula Magna “P. Gismondi”

Proponenti: Prof. Francesca Cavalieri, Prof. Mariano Venanzi

Bio-Nano Science – Insights for Nanomedicine

Frank Caruso

Department of Chemical Engineering, The University of Melbourne



Self-assembly technologies have been used extensively to engineer a diverse array of particles for biological applications, including therapeutic delivery. This presentation will focus on our research on the development of particles and their interactions with biological barriers. Aspects of the physicochemical properties of the particles, post-assembly biological modification, ligand targeting, and the formation of protein coronas will be covered. Particle variants based on metal-ligand complexation will also be highlighted. Our studies are aimed at obtaining detailed knowledge of complex bio-nano interactions to aid in the rational design of nanoengineered materials for applications including HIV, hearing loss, and cancer targeting.