



ANNALISA TIRELLA

BIOtech Research Center, Department of Industrial Engineering, University of Trento & University of Manchester (UK)



SEMINAR

March, 10th 2.00 p.m. Room A104 Povo 1 via Sommarive, 5 Povo, Trento

FORMULATION OF NANOPARTICLES FOR THE SELECTIVE DELIVERY OF NUCLEIC ACIDS TO CANCER CELLS

The selective delivery of small nucleic acid sequences in target cells using nanoparticles has been proven challenging. Nanoparticles can be engineered and formulated to enhance target-ligand interactions and internalization, and promote intracellular release to effectively address the clinical need. This talk will focus on a strategy to optimise nanoparticles design to deliver small nucleic acid sequences to cancer cells. Polycations varying in physicochemical properties were complexed with small nucleic acid sequences, and then coated with hyaluronic acid to exploit the interaction with CD44-expressing cancer cells. Nanoparticles characterisation and use of in vitro models to prove targeting and silencing will be presented in the talk, discussing design criteria and properties of nanoparticles selected for further in vivo studies.

Via Sommarive, 9 Povo -TN Tel. 0461 281809-3995 comunicazione.cibio@unitn.it