

Seminario di Dipartimento mercoledì 25 gennaio 2017, ore 11.00 stanza 24 (IV piano NEC, Ed. Caglioti)

Nanoparticles in Biotechnology

Prof. Gulsah Sanli Mohamed Dipartimento di Chimica Università di Izmir, Turchia

Abstract

Nanoparticles are of great scientific interest as they are, in effect, a bridge between bulk materials and atomic or molecular structures. Nanoparticle research is currently an area of intense scientific research, due to a wide variety of potential applications in biomedical, optical, and electronic fields. Development of nanoparticle based research for various biotechnological applications has attracted great attention, recently. In the giving talk, four different application of nanoparticles synthesized and characterized in our laboratory will be presented in the field of biotechnology. They will be discussed for their utilization as drug carrier, bioimaging application and enzyme immobilization carrier. First, preparation and characterization of chitosan nano-particles as carrier for the immobilization of doxorubicin incorporated magnetic albumin nanspheres will be presented. Third, chitosan nanoparticles for the encapsulation of natural antioxidants extracted from olive leaf and their effects on cancer cell lines will be shown. For the fourth application, development of chitosan nanoparticles with a fluorescent probe for the purpose of bioimaging applications will be discussed.

Prof. Gulsah Sanli Mohamed is currently Associate Professor of Biochemistry, at the Department of Chemistry, İzmir Institute of Technology. His topical areas of expertise cover Protein expression, purification and characterization, Protein structure, function and engineering, Industrially important enzymes. His research interest focus at present on the synthesis and Characterization Nanoparticles, application of Nanoparticles in Biological Systems, Drug Delivery.

proponente llaria Fratoddi