UNIVERSITY OF GENOA
DEPARTMENT OF INFORMATICS, BIOENGINEERING, ROBOTICS AND SYSTEMS ENGINEERING
MASTER'S PROGRAM IN BIOENGINEERING

Thesis Project Form

Title (tentative): Electroporation and nanoparticles in Gene Electro transfer

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Description

Motivation and application domain

Investigation of the influence of nanoparticles properties on the electro-transfer of genes during electroporation.

General objectives and main activities

Explore gene electro transfer in the context of electroporation phenomenon. Influence of nanoparticles, as local enhancer of electric field will be investigated: different composition, charge, shape, size of nanoparticles will be used. Experimental work will be on cell cultures in vitro using flow cytometer, fluorescence microscope, spectrofluorometer. Obtained results will be statistically analysed using software such as Sigmaplot.

Training Objectives (technical/analytical tools, experimental methodologies)

To gain practical experience in the gene transfer techniques, cell culture techniques and techniques for the characterization of the efficiency of the methodologies

Place(s) where the thesis work will be carried out: University of Ljubljana

Additional information

Maximum number of students: 1