



„THE STUDY OF SCIENTIFIC RESEARCH POSSIBILITIES OF ELECTRO-SONOPORATION FOR MEDICINES AND GENES DELIVERY“ PROJECT

PROJECT CODE: VP2-1.3-ŪM-01-K-02-149

MEDELKOM Ltd. have finished work on „The study of scientific research possibilities of electro-sonoporation for medicines and genes delivery“ project which was partially financed by European Union European Regional Development Fund and governmental budget of the Republic of Lithuania in accordance with the Economic growth actions program and its 1 priority “Scientific research and technological development for economic growth and competitiveness” measure “Idėja LT“.

Project duration: 2010 , September 16th – 2011 May 16th

Project financing: Up to 142 794 litas from the special Economic growth and competitiveness program of European Union European Regional Development Fund were allocated for Project implementation. Overall amount of Project appropriate expenditures made 190 392 litas.

Project description: There are two main trends of EU nanomedicine strategic research agenda (see EU NanoMedicine Strategic Research Agenda) - medicines and genes objective delivery (MGOD) and diagnostic imaging based on nanotechnology (DIN).

The last scientific research showed that cells and tissues electroporation and sonoporation are effective method for practical solution of MGOD.

At present time there is no any effective MGOD methodical or hardware solution at the market. Therefore development of new methods and their practical usage at clinic, applying of devices based on these methods is the vital nano-medicine goal at present time. The project is devoted to analysis of electro-sonoporation methods of MGOD to the cells and tissues, technical conditions and also to planing of necessary scientific research (SR) for hardware development.

Coordinating electroporation with sonoporation makes it probably possible to develop fundamentally new method for tumors‘ healing, which make possible effective treatment of depth localization tumors. Also it allows imaging of healing tumors, more effective delivery of genes to cells and tissues while achieving of biotechnological goals.

Project status: Project activities were finished. The study of technical possibilities was prepared as planned. Also patent search ref. to technical solution of electro-sonoporation scientific research hardware was performed.