

## **Αγγλική περίληψη**

### **Business plan for a company that deals with the production and installation of polymeric nanoparticles in medical implants**

The purpose of this thesis is to develop a general concept of Nanotechnology and Nanosciences. To present basic information about the disease of atherosclerosis, arthritis, eye cataract and medical implants required for the treatment of the mentioned diseases. Also to present an innovative solution able to meet the market need for the treatment of inflammation resulting as a negative effect from the use of implants. To produce a new product that will treat inflammation in the affected area with drug delivery PLGA nanoparticles with curcumin, which will be produced and placed on implants stents, hip, knee and intraocular lenses from the company named Development & Progress. The business plan of this company will be developed and presented in most of this thesis. The first part of business plan will present the basic theory of nanoparticles production and the description of the final product produced by the company. Also it will include the European standards which must be fulfilled in order the product to be safe, effective and to obtain CE marking for the European market. Information about the type of company, its profile, the management and production division, the responsibilities of each shareholder and the timetable for the establishment of the company and the production will also be analyzed. The second and most important part of the business plan will present the research of the European implant market and the financial analysis of the company. The market study of implants, stents, hip, knee and intraocular lenses will present the current status of the market and its growth for the coming years. Also it will identify the company's competitors and with the use of the SWOT analysis, company's advantages and disadvantages will be presented. The financial analysis will include the forecast of the revenue derived from the capital of shareholders, European subsidies, sales and expenses divided into start-up costs and operating expenses of the company. Also it will include break even analysis, cash flow and profit and loss forecast. Break even analysis will result conclusions about the number of sales needed in order the company to cover its expenses and to show a profit. Profit and loss forecast and cash flow for time period 2016 to 2018 will result all the information needed for an integrated forecast for the company's financial future. At the end of the thesis it will briefly present the future intentions of the company to entry in a new European market with an innovative product, the implant market for pets.