Title: **Formulation of oligoester nanoparticles**

Author: Marcela Černá

Abstract:

The aim of presented thesis is directed on the preparation method of biodegradable oligoester nanoparticles with embedded biologically active ingredient. Our interest was focused on the enlargement of knowledge concrete possibilities of nanoparticles preparation in the sense of parameters related to their pharmacokinetic activity and physical stability, such as particle size and electrokinetic potential. Nanoparticulate systems were prepared by solvent evaporation method (emulsion oil in water), dicloromethane was used as the solvent. Emulsifying agents of four types had been used in various binary mixtures. Four polymeric carriers differing in the branching degree were used. Terbinafine was selected as model drug substance. Size and electorokinetic potential of the prepared microparticles were measured using Zetasizer device (Malvern Instruments). From the presented results of experiments it is possible to conclude the possibility of preparation of stable nanoparticles with the diameter under 200 nm.