PREFACE

This thesis summarizes the research work on acyclovir using biodegradable and non-biodegradable polymers and its in-vitro evaluation. The work presented in this thesis was carried out between June 2006 and September 2011, in the laboratories of R.V.S College of Pharmaceutical Sciences, Coimbatore and Al Shifa College of Pharmacy, Perinthalmanna, India. The main theme of the Ph.D work was to prepare and evaluate an antiviral acyclovir drug formulation using excipients such as Saccharomyces Cerevisiae (Baker's yeast), Guar gum, Egg albumin and Ethyl cellulose.

The thesis is divided into five chapters. Chapter-I contains the Introduction and objective of the work done. The introduction describes the scope of sustained action preparations, microencapsulation, natural microcapsules and its characteristics. The reason of selecting acyclovir as a drug of choice among the other anti-viral drugs those fall in the same category. A brief description of pharmaceutical suspensions and its quality control tests. The objective describes the need of selecting this work with the novelty of the work, and the observations that prompted us to formulate and evaluate microcapsules of acyclovir using the various excipients.

Chapter - II is the review of literature related to the drug acyclovir and excipients as Saccharomyces Cerevisiae (Baker's yeast), guar gum, egg albumin and ethyl cellulose.

Chapter - III describes the materials and methods adopted to achieve the above said objectives.

Chapter - IV includes results obtained from the experiments that are discussed with relevant scientific evidences. Chapter - V gives the summary of the main findings discussing the possible applications. Chapter – VI is the bibliography.

(P. N. Krishnan)