Acknowledgements

We can make a better journey to success when you travel together. This thesis is the result of guidance, support and encouragement whereby I have been accompanied and supported by many people because research is a never ending process involving a team of persons. It is a pleasant aspect that I have now the opportunity to express my gratitude for all of them. "If you don't have the right guidance you can never hit a right target." With great sense of gratitude, I take this opportunity to thank my guide, Professor Ramesh K. Goyal, a distinguished pharmacologist and devoted teacher. I have been in association with him since 2006 when I joined my doctoral research. During these years I have known Professor Goyal as not only a great scientist with deep vision but also importantly a kind person. His overly enthusiasm and integral view on research and his mission for providing "only high-quality work and not less", has made a deep impression on me. I owe him lots of gratitude for having me shown this way of research. He could not even realize how much I have learned from him. Besides of being an excellent supervisor, Professor Goyal was as close as my parents and a good friend to me. His inspiration, moral support and care during difficult times go a long way in the successful execution of my research projects. I am really glad to get constant untiring guidance, invaluable suggestions, constructive criticism, encouragement and advice during the course of this work. Words cannot express my deep sense of gratitude. I would like to thank him sincerely.

I whole heartedly thank National Facilities in Engineering and Technology with Industrial Collaboration (NAFETIC) sponsored by All India Council for Technical Education (AICTE), New Delhi, India, for providing an invaluable financial assistance in the form of senior research fellowship which helped me to perform the work.

I would like to sincerely thank Dr. M. C. Gohel, Principal, L. M. College of Pharmacy for providing the necessary facilities for the research work.

I wish to express my appreciation and indebtedness to Dr. Anita Mehta. I thank her for confidence kind advice and encouragement. She was always available when I needed her advice both personally as well as professionally. I would like to thank Dr. M. Daniel for his suggestions and reviewing of thesis.
I take this opportunity to thank Dr. D.D. Santani and Dr. Rajendra Bhatt for their kind concern towards me and the freedom given by them itself is a great inspiration for the students to work in the department.

I am also indebted to Dr. Sunita Goswami and Dr. Parloop Bhatt for their kind advice and encouragement. Special mention of thanks to Roopmadam for her support during my research work.

During this work, I have collaborated with many colleagues for whom I have great regard, and I wish to extend my warmest thanks to all those who have helped me with my work. However, because the list might be too long and by fear of leaving someone out, I will simply say thank you very much to you all. A special thanks to my colleagues Bhoomika, Shailaja, Hitesh, Rakesh, and Sanjay for their help during my research tenure. And of course I could not forget to thank all of my juniors and others for help and the enjoyable moments which I had with them.

I owe my special thanks to the laboratory and technical staff of Pharmacology Department, particularly Chetnaben, Rameshbhai, Krishnabhai, and Shiva bhai for their help and support throughout the study. I also thank Sanjaybhai, Bharatbhai and Joshi kaka, Chirag Bhai, Chavada bhai, and Mehta bhai for help and co-operation.

I cannot finish without saying how grateful I am with my family: My parents, my in-laws and family members, kept confidence in me for my Ph.D. studies. They helped me and blessed with good wishes. Their support allowed me to take courage to complete this piece of work. I take this opportunity to thank them for their constant support and good wishes showered on me.

Lastly, and most importantly, I wish to thank my husband. He has always supported and encouraged me to do my best in all matters of life.

Snehal S Patel