Acknowledgements

While working for this thesis, I came across to a number people without their contribution it would be a difficult task to achieve this important milestone of my life. Now it is a time to convey my gratitude to all of them in my humble acknowledgement.

I take this opportunity to express my humble reverence to my research supervisors Prof. Shailesh R Shah and Dr. Rajesh H Bahekar for their inspiring guidance and constant motivation which helped me to understand better and remain optimistic during the course of my study.

It is my privilege to thank Prof. Neelima Kulkarni, Head, Department of Chemistry, M.S. University of Baroda for her support.

I am grateful to Dr. Ranjit Desai, Dr. Mukul Jain and Dr. Sanjeevkumar for their continuous support during this work.

I would like to convey my special gratitude to Dr. Harikishore Pingali with whom I have been working since last 15 years. Without his guidance, motivation and hearty support this work would have not been completed. He also helped a lot while preparation of manuscript for publication and while writing this thesis.

I am very thankful to Dr. Sanjaykumar for his support. My special thanks to lab mates Pandurang Zaware, Suresh Pola, Baban Thube and Darshit Patel for their untiring and continued support in every aspect throughout this work.

I am also grateful to analytical department, Zydus Research Centre for proving spectral data to characterize the compounds.

I am extremely thankful to Dinesh Suthar, Maanan Shah and Dr. Priyanka Priyadarshini for in vitro biological evaluation of the compounds. I am also thankful to Dr. Suresh Giri and Dr. Chitrang Trivedi for conducting animal experiments and to Mr. Harilal Patel for conducting Pharmacokinetic studies.

I am extremely thankful to Jeevankumar Jamili for his help in molecular modeling studies.
I would like to express my sincere thanks to Kaushik Banerjee for his generous support and encouragement throughout this work.

I would like take this opportunity to thank my friends and colleagues, Dr. Saurin Raval, Dr. Preeti Raval, Dr. Gautam Patel, Dr. Vrajesh Pandya, Dr. Jigar Desai, Dr. Anil Argade, Sanjay Gite, Archana Gite, Amitgiri Goswami, Darshan Mahasay and Dr. Sairam Kalapatapu for their help and encouragement during this work.

I would like to express my deep sense of gratitude to Shri. Pankaj Patel, Chairman and Managing director, Zydus Cadila, for allowing me to conduct this work at Zydus Research centre and for providing the infrastructure and necessary facilities. I would like to extend my heartfelt thanks to the H.R. Department of ZRC for timely help and support.

Words are inadequate to express my reverence for my parents for their love, inspirations, support, and never-ending blessings. No word in the dictionary would be able to express my gratitude towards my beloved wife Birju and lovely daughter Kahani for their unconditional love, never ending support, unfaltering faith and sacrifices that they have shown during this period.

Pankaj Makadia