Acknowledgements

It is a great pleasure to acknowledge with my deepest appreciation and sincere gratitude to all those who have contributed in shaping up this dissertation.

My sincere thanks to Director, C.D.R.I., for providing me excellent facilities and infrastructure.

I take this opportunity to thank my mentor and supervisor Dr. Girish Kumar Jain, Head of Department, Pharmacokinetic and Metabolism Division, for leading me through all years. Words would be inadequate to express his generosity, encouragement, and excellent scientific support, personal and professional advice. His beguiling suggestions and scientific temperament were of great help, which motivated me to learn more and develop intensive logical reasoning. I will always be thankful to him for providing me necessary freedom during my research work.

I am extremely grateful to Dr. Jitender K. Sexana, Dr. Ashok K. Khanna and Dr. Anju Puri (Biochemistry Division) for their contribution to this study. Their generous help and support has been a cornerstone in this endeavor.

I am highly obliged to Dr. S. K. Singh, Dr. Jawahar Lal and Dr. Pratima Srivastava for their support and constant encouragement.

I express my gratefulness to Mr. S. K. Pandey, Mr. Narendra Kumar, Mrs. Deepali Chauhan (pharmacokinetic & Metabolism Division) and Mr. Karunesh Rai & Mr. A. K. Dubey (Laboratory Animals Division) for their kind cooperation during the work. The help extended by our laboratory staff Chandramani bhaiya, Rambhajan ji, Shivlal ji, Pankaj da, Akhilash ji and Mr. Ram Sunder is quite unforgettable.
I am highly obliged to my affectionate seniors Dr. Bharat Agarwal, Dr. Satyawan B. Jadhav, Dr. Anil Gayakawad and Dr. Sabarinath for ever-enjoying sessions, scientific discussions, constant help and encouragement.

A warm thanks to my friends M. Lakshmi, Devender Dubey, R. S. P. Singh and Dr. Anshuman Dikshit, for their kind cooperation, unconditional help and suggestions. Without their help, it would have been enormous task for me to complete this work on time.

A special thanks to my friends R.P. Singh, Satyendra, Nagsen, Nitin, Vipul, Whajuddhin, Smriti, Sheelendra, and Amrutha for extending their kind support and timely help. I enjoyed the company of all my trainees, Gopi, Sudeepa, Parul, Neha, Preetha, Sadanand, Shashi, Vijay, Mandakini and Arti, for their inquisitive mind and enthusiasm.

I am highly thankful to Kiran, Amol, Ashok, Manish, Shiva, Satyananda, Willam, Jitender, Ritu, Vikas and Akanksha for making my life at C.D.R.I. wonderful and memorable. All of them have helped me by boosting my moral at difficult times.

The financial assistance in the form of Research Fellowship from Council for Scientific and Industrial Research (CSIR) during my research life is gratefully acknowledged.

I express my infinite gratitude to my family for their blessings and support throughout my efforts. Their love, understanding, care, and blessings at all junctures have encouraged me to wholeheartedly pursue the research life.

(Rabi Sankar Bhatta)