



## ACKNOWLEDGEMENTS

*To fulfill a dream, it needs to be first converted to an aspiration, then executed and further nurtured to accomplish into an achievement. The task of research is not effortless, requiring ability, inspiration, perspiration, patience, perseverance, blessings, good wishes and prayers. The task was not easy, but the journey was made easier by help, support, concern, stimulation and rejuvenation of precious populace. Words are scarce to express my gratitude to people who have helped and supported me. This is done as an accustomed gesture of acknowledgement. I am heartily gratified to:*

*Honorable Sir Sayajirao Gaekwad, the founder of The Maharaja Sayajirao University of Baroda, for establishing such a wonderful and multidisciplinary education foundation.*

*Pharmacy Department, The Maharaja Sayajirao University of Baroda, which nurtured me as a PhD research fellow.*

*My mentor and esteemed guide, Dr. Ambikanandan Misra, Professor of Pharmaceutics, Pharmacy Department, The Maharaja Sayajirao University of Baroda for his privileged guidance, freedom to explore my ideas, eternal encouragement, timely impetus, requisite facilities, meticulous attention, tacit emotional and mental support whenever I needed throughout the course of this work. I am privileged to work under his guidance and improve my intellectual and managerial skills.*

*Dr. M.R. Yadav, Head and Professor, Pharmacy Department, The Maharaja Sayajirao University of Baroda for providing me the necessary facilities for the research work.*

*Dr. R.S.R. Murthy, Professor in Pharmaceutics, Dr. (Mrs.) Rajani Giridhar, Professor in Pharmaceutical Chemistry, Dr. R. Balaraman Professor in Pharmacology, Dr. S.H. Mishra, Professor in Herbal Drug Technology, Dr. (Mrs.) K.K. Sawant, Professor in Pharmaceutics, Dr. (Mrs.) S.J. Rajput, Professor in Pharmaceutical Quality Assurance and Dr. RC Mashru, Reader of Pharmaceutical Quality Assurance, Pharmacy Department, The Maharaja Sayajirao University of Baroda for their invaluable support during the research work.*

*The non-teaching staff of Pharmacy Department, for their kind cooperation during the work.*

*Council for Scientific and Industrial Research (CSIR), New Delhi for awarding me with senior research fellowship.*

*Brig. Dr. R.P. Tripathi, Director, Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi for providing me permission to carry out radiolabeling experiments in his laboratory.*

*Dr. A.K. Mishra, Joint Director, Head – Division of Cyclotron and Radiopharmaceuticals, INMAS, Delhi, for his constant encouragement and support during my course of work at INMAS, Delhi.*

*Mrs. Krishna Chutani, Mr. A.K. Babbar for their help during my work at INMAS, Delhi.*

*Boehringer Ingelheim for gift sample of poly-(lactide-glycolide)-copolymer, Wockhardt Ltd. for gift sample of Tramadol, Lamotrigine and PVA, Sakamoto Yakuhin Kogyo Co., Ltd., Japan for gift sample of SR-4GL polyglycidyl glycerol ether.*

*All India Institute of Medical Sciences (AIIMS), for help in getting the transmission electron micrographs done.*

*Dr. Girish Achiliya, Senior Manager, Alembic Research Centre, Alembic, Vadodara for motivation.*

*Dr. Yogesh Raichandani, my friend and colleague, from moral support to technical discussions, data interpretation, manuscript preparation and thesis compilation*

*My friends Guru, Chacha, Chhalla, Mota with whom I shared my day to day experiences, for their adorable support, refreshing times and valuable advice*

*My friends Bhavik Shah, Sandeep Chavan, Gaurang Patel, Kaustubh Jinturkar for constantly helping and encouraging me during the work.*

*My friends, Dr. Ambrish, Nilio, Bhuro, K.K., Tabal, Panklo, Mitio for the precious and timely good wishes*

*My friends, Vaibhav, Hardik for assisting in animal studies.*

*My friends Abhishek, Mohan, Kailash, Abhinesh, Piyush, Kiran, Niraj, Manjappa, Mukesh, Anand, Vishal, Ashish, Hiamnshu, Atul, Girish, Chetan, Nirav, Raju, Deepa, Prashant, Shrinidh, Ram, Chetan, Harshad, Divyen for their help and encouragement.*

*Dr. Vijay Kulkarni, Dr. Sham Dodiya, Dr. Ashtosh Pathak, Dr. Prudhvi Raju, Dr. Florence, Dr. Neha Shah for their motivation and guidance.*

*My friends, Yomesh Patel, Viral Vaidya, Chirag Kansagara, Chirag Ghodasara, Hemant Patel for their motivation.*

*I am feeling extremely petite of words to express my thanks for the support of my family. My emotional gratitude to my dearest Nani for showering her blessings from heaven. My affectionate gratitude to my respectable parents, bhaiya, bhabhi, didi, jijaji for their unconditional love, constant inspiration and tacit patience for being the backbone for achievement of this Hercules task. I thank them for many a times bearing with me. No words of thanks enough to express my deepest & most loving thanks to my wife, Riddhi for her constant encouragement, support and dynamic cooperation throughout my PhD duration. Special thanks to my niece, Tulsi and nephew, Aaditya for their smiling gestures which made me feel free of lots of worries.*

*I thank almighty God for empowering me with courage, perseverance and strength to take up and accomplish the task.*

*Finally, my sincere apologies to all those name could not be included in this section. No names have been intentionally missed out. My heartfelt thanks to one and all*

*Jigar Lalani*