

Acknowledgement

I avail this opportunity to render my deep sense of gratitude to my research supervisor Dr. Shubhangi S. Soman, Department of Chemistry, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara, for her valuable guidance and persistent encouragement throughout the course of the research work. I record with pleasure her stimulant contribution and perfect direction during the entire course of investigations.

I am thankful to Prof. Surekha Devi, Head, Department of Chemistry; Prof. A.V. Ramachandran, Dean, Faculty of Science, The Maharaja Sayajirao University of Baroda, and Prof. A. C. Shah, former Dean, for providing me the necessary facilities available in the department.

I also offer my sincere thanks to Dr. S. R. Shah, Dr. Amar Ballabh, Dr. Ashutosh Bedakar, and other teachers of the Department for their kind encouragement.

I am thankful to late Dr. S. S. Madhav Rao for his valuable suggestions, timely elemental analysis and IR spectra.

I am thankful to Dr. Merlin Thomas, Head, Industrial Chemistry Department, ISTAR, V. V. Nagar for showing me the right direction in the initial stage of my career.

I am very thankful to B. V. Patel Pharmaceutical Education and Research Development (PERD), Ahmedabad for antiinflammatory studies, Regional Research Laboratory (RRL), Jammu for anticancer screening, and Central Drug Research Institute (CDRI), Lucknow for DNA Topoisomerase inhibition studies.

I am also thankful to Sun Pharma and Bio-Arc Alembic, Baroda for providing the NMR spectras and CSMCRI, Bhavnagar for Single Crystal X-ray analysis.

I take the privilege to thank the Director, SAIF, Punjab University, Chandigarh, for providing the NMR spectras of the compounds.

I am also thankful to Dr. B. P. Chaurasia, Team Leader, TEVA and Dr. S. K. Dubey, Vice President, Jubilant Chemsys for inspiring me to join research.

I am thankful to my research colleagues Niken Desai, Sachin Joshi, Amit Jayswal, Tirth Thakar, Angshuman Pal, Sunil Shah, Dr. Dinesh Nair, Sudhanva Navathe, Dr. Nikunj Bhatt, Sunil Vasdev, Dr. Vinod Acharya and all other friends for their cooperation and pleasant company.

I am thankful to my friends Hardik Patel and Hitesh Gujjar, Torrent Pharma and Virendra Raut, Sun Pharma for NMR spectras.

I would also like to thank Jayesh Bhanubhatt and Revathi Ganesh, Chemistry Department, for their cooperation during my tenure.

The financial support obtained as a fellowship from the University Grants Commission (UGC), New Delhi and National Doctoral Fellowship, AICTE, New Delhi is acknowledged gratefully.

And above all, the blessings and best wishes of my father, my mother, my elder brothers, my sisters in law, my nieces, my nephew and my fiancée who strengthened my determination to achieve my goal.

Jagdish Maganlal Patel