

ACKNOWLEDGEMENT

No research is ever the outcome of single individual's talent or efforts. This work is no exception. It provides me pleasure to convey my gratitude to all those who have directly or indirectly contributed to make this work a success. I must make special mention of some of the personalities and acknowledge my sincere indebtedness to them.

With a deep sense of gratitude, I express my indebtedness to my guide **Dr. Rajashree C. Mashru** reader in Pharmacy, Pharmacy Department, Faculty of Tech. & Engg. The M. S. University Of Baroda for her valuable guidance, boundless enthusiasm and constant inspiration throughout the entire course of the work. It is with affection and reverence that I dedicate often beyond the call of the duty. It was pleasure of working under her guidance.

I would like to special thanks to the **Stemcure laboratory** (Ahmedabad, India) for their skillful assistance and providing **cytotoxicity study** facility during the present investigations.

I am also thankful to **Metallurgic Deparment** and **Dept. of Textile Engg.** The M. S. University of Baroda for providing facilities for **XRD analysis** and **bioadhesion studies** respectively.

I am immensely thankful to **M/s Intas Pharmaceutical Limited**, Ahmedabad, India and **GO-ISH Remedies Limited**, Baddi, H.P., India for providing drugs as gift samples.

I would like to express my cordial thanks to **Dr. (Mrs.) S. J. Rajpoot, Prof. A. N. Misra and Prof. S. H. Mishra** for their timely help and useful guidance which helped me to achieve my target.

I would also like to thank **Dr. R. Balaraman**, Professor and Head of the Department, The M. S. University of Baroda, Vadodara, for extending all the facilities during the present study.

I would like to acknowledge the valuable support & co-operation of my colleagues, Mr. Atul Badhan, Ms. Arti Thakkar, Mr. Punit Shah, Mr. Sameer patel, Mrs. Pallavi Lavale, Mr. Adwait Dixit, Sheetal, Abhishek, Greeshma and Deepti during this work.

Words are inadequate to express my thanks to Mr. Mayur patel, Mr. Nasir Vadia and Mr. Gaurav Sanghavi for their valuable support & co-operation during this work.

At this moment how can I forget Dr. Vijay Sutariya, and Dr. Manish Umerathiya a source of inspiration, encouragement and moral support throughout the work.

I am also thankful to **Rameshwardasji Birla Smarak Kosh**, Mumbai, for providing me research fellowship during my Ph. D work.

I would like to thank my friends Mahesh, Parth, Dakshay, Jigar, Ashish, Vaibhav, Kiran, Mukesh, Aman, Kaustub, Gaurang, Bhavik, Prashant, and Chetan for their silent help.

My most especial thanks, to **my family** who have always supported me with great understanding. "It was moral support and constant motivation by my **beloved wife, parents & Brothers** which encouraged me in completing this research work successfully."

Further, I would like to thank my wife and our little honey (my daughter), with whom I share my fondest dreams, fun and laughter that keeps me fresh every time.

In preparing this dissertation I have received great help from many of my professors, friends and colleagues in a number of ways. I take this opportunity to thank all of them.

NITIN B. DOBARIA