



ACKNOWLEDGEMENT

It is my immense pleasure to express my gratitude towards my guide, Prof. S. S. Katyare. His help, stimulating suggestions and encouragement has helped me in all the time of my research. I would like to thank him for making me grow and develop a scientific attitude. He has always showered his knowledge, provided a motivating, enthusiastic, and critical atmosphere during the many discussions we had. It would not have been possible for me to achieve my scientific endeavor without his constant guidance and support. It was a great pleasure for me to conduct this thesis under his supervision.

I would like to thank our ex Heads of the Department, Prof. Tara Mehta and Prof. S. D. Telang, and continuing Head Dr. G. Nareshkumar who had provided me with all the scientific and departmental facilities and enabling me to finish my research work without any inconvenience.

This work would not have been possible without the support of Mr. Suresh Nate, Ramesh Parmar and Shankarbhai who has provided me with the essential animal resource for carrying out my experiments successfully.

It would not be fair if I don't express my gratitude towards my senior colleagues cum friends, Dr. Subhash Katewa and Dr. Jignesh Pandya. In the beginning of my Ph.D. they have helped me a lot imparting right kind of training to me. They have always been there to help and support me as well as indulged in enthusiastic discussions throughout my research work.

I would also like to thank my classmate and colleague Mr. Munjal Acharya who have supported and advised me throughout my tenure in the lab and created a very friendly and lively environment to work in.

Special thank to my two junior colleagues Mr. Hiren Modi and Ms. Minal Patel who have helped me a lot in my experimental works and without whom this long tenure of research work would not have been so enjoyable and memorable.

Special thanks to Vidya Akhileshwer with whom I have carried out a part of my research work.

I would also like to thank my senior colleagues and friends Keyur, Vikas, Vihās, Jyoti, and Siddharth for providing me with kind support encouragement.

I thankful to my friends Aditi, Gopit, Chirayu, Hemendra, Prashant, Shajil, Iqbal, Saiyad, Divya, Jisha, Niraj, Prakash, Maulik (Rock), Namita, Mukta, Rajani, Mayur Parmar, Prakash Maroo, Pradeep, Hina and Jyotika, have always extended their help whenever I needed. I want to thank them for their help, support and assistance that helped me in completing my thesis writing.

A special thanks to Samir Dave and Jayeshbhai who has helped me in computer related problem.

I would also like to thank Mr. Vanraj Patel, who helped me a lot in Thesis printing in short time.

I also thankful to the office staff of the Department.

I wish to thank Shri Leuva Patidar Kanam Seva Samaj for providing me Scholarship for my initial period of Ph. D.

At last but not least I give special thanks to God, my parents and my wife who made it a possibility for me I am today.

Samir P. Patel