ACKNOWLEDGEMENTS

At the end of Ph.D., when I look at my 5 year journey, I have mixed feelings, happy to achieve the goal and feeling sad to leave this great place called "Biochemistry Department". I have many people to thank who contributed at various stages of my Ph.D.

Words are not enough to describe my guide Dr. G. Naresh Kumar and his contribution in shaping up my Ph. D. He is simply great as person and as a scientist. He made me learn to do keen and critical analysis of each experiment. His analysis and criticism made the work much more interesting. Discussion with him over the tea-time was much more fruitful for me to develop as a person.

Thanks are also due to Prof. Tara Mehta, Ex-Head, Dept. of Biochemistry for making all departmental facilities available.

My sincere thanks to Dr. Jayashree pohnerkar who helped me a lot throughout my bench work, whenever I had problem.

Thanks are due to Dr. James W. Golden, Texas A&MU, USA, for providing the plasmids and strains during the course of investigation.

Thanks to Dr. S.K. Apte, Head, Departement of Biotechnology, BARC, Mumbai allowing me to work in his lab on the GFP related work. Thanks are due to Dr. Archana Gayatri, Dept. of Microbiology for her timely help, constructive analysis and comments all along the project.

All the teachers of the department, Rasheeda madam, Sarita ,Madam, Telang madam, Katyare Sir, Acharya Sir, Jani Sir, Pushpa Madam, Ratna Prabha madam have helped me in direct or indirect way. Many thanks to all of them.

My Phd would not be possible with out the help of my lab mates, especially Prashant, who is big brother for me. My association with him is more than a lab mate. He was always there whenever I need him. Many thanks to Vikas for his help in various experiments, Divya my co-author in arranging the parties in lab, Aditi & Jisha for their ever supporting nature. Both of them have made my stay in the lab more enjoyable. Many thanks to Sonal mam, Pravina mam, Jigna & Prasant for their support.

My seniors have a special role in my Ph.d. Thanks to Amitbhai who suggested me this place, Siddharth who make my early days very enjoyable. He was a true senior all the way. Many thanks to Dr. Jignesh, Dr. Subhash, Dr. Vihas, Dr. Jyoti, Dr.Anil, Dr.Luxmi priya, Dr. Meena, for their help.

Big thanks to my buddies Chirayu and Hemendra, with whom I have enjoyed some of the best moments of my Ph.D. life. I have enjoyed everything in their company. Many thanks to Hiren, with whom my association is from B. Sc. days. I truly cherish the company of friends like gyan guru Keyur, Shajil, Neeraj and Maulik with whom I had great tour of Diu. Thanks to Sameer who helped me a lot. Many thanks to Pradeep, Prakash, Namita, Saiyed, Mukta madam, Minal, Purva, Heena, Jyotika Naresh, Mitesh, Swapanalee, Maneesh. Thanks to Akhilesh and Kayzad for making my stay in Bombay enjoyable.

Thanks to my friends Kishor, Megha, Meet, Devesh, Chetan, Naina, Dhruv and Nikunj who has not contributed to the thesis directly but helped me to keep my social life alive.

The write up would be incomplete without acknowledging Ashish who worked with me during the project. I had gala time teaching him.

Many thanks to all the staff of the Department.

I also acknowledge University Grants Commission for providing the research fellowship.

Without love and support of my parents and family members this work could not be possible, especially my little princesses Hritva and Hritvi.