Acknowledgement

Every journey has an end to come. At the end of a very happy journey of five years of my research, I would be pleased to acknowledge the people who helped and supported me. It is because of these people that I have reached a wonderful destination.

I am indebted to my mentor Dr. Sanjay S. Ingle for allowing me to work under his guidance. He gave directions to my ideas and molded them in constructive way. His belief in me strengthened my confidence to approach difficult tasks in research. I consider myself extremely fortunate for getting an opportunity to work under his guidance at budding stage of my research career. All words are less to express my deep sense of gratitude to Ingle Sir for providing me an endless freedom to work in the direction I wanted. It was because of his patience that I could reach so far.

I would like to express my sincerest gratitude to Prof. Anjana J. Desai, former Head of Department for developing excellent lab facilities and resources. It was her immense effort that led to modernize the infrastructure of department. I am equally thankful to present Head Prof. T. Bagchi.

I am very thankful to my teacher Dr. G. Archana madam for molecular biology exposure in the department, scientific suggestions, and constructive criticism. My heartfelt thanks to teachers Dr. A. S. Nerurkar for motivation, Prof. H. S. Chhatpar for constructive criticism and Dr. Pranav Vyas for spiritual support. I express my deep sense of gratitude to all teachers for enlightening knowledge in me.

I am especially thankful to Dr. Zeigler, BGSC, Ohio State University, USA for providing all the necessary Bt reference strains and cry gene plasmid constructs.

I am highly obliged to Dr. Ashok Mishra, INTAS pharmaceutical for developing experimental planning skills in me. Discussing and planning experiments with him has greatly enhanced my analytical skills.

A special thank to Dr. Prayag who is the ultimate think tank for me. His valuable suggestions since M.Sc. have always given direction to my life.
A special thank to my seniors Dr. Manish for supporting me during my difficult times, suggestions, approachable nature and financial support, Dr. Vipul Gohel for constant encouragement and support, Dr. Arif Khan, Dr. Falguni Joshi and Miss Ruchi Chaturvedi for guidance in molecular biology techniques, Dr. Harish, Dr. Avishek Nath, Dr. Sanket Joshi and Dr. Geetha for timely help and support.

Hands of God can be felt in many ways, I felt them from Mr. Aram Mikigelyan. I am highly indebted to him for all the helps. Without his constant help and support, I would not have reached the highest level of my research.

It gives great pleasure to acknowledge Mr. Aram Mikigelyan, Dr. Kuldeep J. Patel and Mr. Sumant Chaubey who poured life in my stay at the department. I felt immense joy with their presence. Every moment with them was a great enjoyment. I find words insufficient to thank them for nurturing ever enjoying attitude in me. I am equally thankful to Mr. Nandan Chakraborty, with whom I shared every major stage during the journey. Discussing scientific topics and debates with him has greatly improved my conceptual thinking. Space for these people in my life will remain unfilled.

Other persons whom I cannot forget are my colleagues Dr. Aparna, Dr. Anil (Aniparna), Mr. Mururlybai, Mrs. Priya and juniors Mr. Darshan, Mrs. Radhika (Darshika), Mr. Anoop, Mr. Vimal, Miss Pujika, Mrs. Krushi Mr. Ganga Varpu Subrah Mani Ayyam Chaudhary (Subbu), Mr. Jagat and Miss Jayita for being so wonderful friends to me. It was always fun working with them. I thank them for all the cheers and joyful moments that we shared. A special thank to Mr. Murali and especially Mr. Anoop for financial support.

I thank all my students especially Shivangi, Niyati, Unnati, Sejal, Megha, Avani, Chetan, Ketaki, Forum, Chaitanya, Devendra, Vaibhav, and Priyanka for sharing the burden of my research work. Their belief in me and endless help strengthen my confidence. Research was a joyful experience due to them. I specially thank them all for
being with me. It would be unfair not to mention other M.Sc. students especially Sanjay, Arpit and Saurabh, who created joyful environment during their stay.

I am absolutely grateful to the indispensable person of the dept. Mr. Shirish Nagarkar for every academic and non-academic help. Life of research scholar is smooth because of him in the dept. I am equally thankful to Mr. Talatibhai for timely issuing chemicals and books, Mr. Praveenbhai and Mrs. Seema for glasswares, Mrs. Aparna mam for cultures, Mr. Mandvekar for protocols. I thank all other members of non teaching staff for their help and cooperation.

I will not miss an opportunity to thank Mr. Jitubhai and Mr. Jatinbhai for being just a phone call away to get fine chemicals in time. I will remain obliged to them for bearing the due amount of bills for long time and some bills not even paid. It was their kindness to allow me to order without worrying their returns. A special thank to them for not creating a halt without fine chemicals in my research.

I am obliged to my B.Sc. classmates Mr. Bipin and Mr. Ramesh who helped me in the end for free printouts without which thesis writing had been difficult.

A special thank to Mr. Hiren Patel for providing eggs for insect larvae.

No words could describe my deep sense of gratitude to my second Gods, my father and mother, whose constant faith and immense support made me reach this destination. It was their faith and dream to make me a potential person to serve the society. Last but not least my wife Dipali who was with me through the difficult time and given endless helps without expecting any returns. I am deeply grateful to God to have her in my life.

I am indebted to my sister Amisha and Jijaji who took all the responsibility of the family in my absence and provided all the financial support.

I am forever thankful to the Almighty God.

Patel Ketan Devajibhai