ACKNOWLEDGMENTS

I would like to acknowledge my PhD supervisor **Prof. Bharat B. Chattoo** for introducing me to the world of molecular biology and providing the excellent infrastructure to pursue my research work. I feel inspired by his knowledge and enthusiasm for scientific research.

I should also acknowledge **Dr. Dídíer Tharreau** for hís help and support during my work in CIRAD, Montpellier, France. Also, thanks to **Dr. Thomas Kroj, Joelle Mílazzo** and **Henrí Adreít** for helping me whenever I needed it.

Also, thanks to the members of my PhD advisory committee **Prof. Archana Gayatrí** and **Dr. Johannes Manjrekar** for their crítical analysis of my work.

I am indebted to my M. Sc teachers especially **Prof. A M Shah, Prof. K I Andrabi, Prof. B A Ganai** and **Prof. M A Zargar** for teaching us wholeheartedly.

I would like to thank my seniors **Dr. Sanjay Jha, Dr. Bishun Deo Prasad,** and **Dr. Harsukh Tank** for their help and support.

Many thanks to my colleagues **Divya Purohit, Hashim Reza, Akhil Thaker, Chandra Prakash, Khyati Mehta** and **Hiral Shah** for their support in the lab.

I would like to thank the non teaching staff of our department **especially Mr. J** K Nair, Mr. A. Verghese and Mr. Nitesh Bhatt for their help. Special thanks to Girish Bhai and Ramesh Bhai for their assistance.

I am grateful to my friends **Willayat**, **Karíshma**, **Ansarullah**, **Asíf**, **Iftíkhar** and **Mashkoor** who made my life easier during the difficult times in Baroda.

I would like to thank **Department of Biotechnology, Govt of India** for providing the financial assistance for this research work.

My sincere thanks to the European Molecular Biology Organization (EMBO) for awarding me the short term fellowship.

I appreciate my family especially my brothers **Dr. Feroz** and **Moosa Hayat** for being there for me. I am most grateful to my parents for showing the immense patience with me during these long years outside my home.

Suhaíl Muzaffar