ACKNOWLEDGEMENT

All the wells where I quenched my thirst were not dug by me and all the fire that kept me warm on a cold night were not lit by me. In my journey to the PhD degree I was immensely helped by a number of generous people. I am extremely thankful to my guide **Prof. Aruna G. Joshi** for teaching me the concepts of plant tissue culture, facilitating my research and all the motivating and stimulating discussions on the topic. My sincere gratitude to my guide for giving me the freedom to work at my own pace and time. Beyond academics thank you madam for teaching me many life's valuable lessons which I am sure will help in my future endeavour.

My heartfelt gratitude is to **Prof. G. Sandhya Kiran** (Head, Department of Botany) for her help and support during all these years. She made sure that I was never short of any research facilities of the department. Sincere gratitude is also offered to **Prof. Arun Arya** (Ex-Head, Department of Botany) for his help and generosity. I am grateful to **Prof. S.R. Yadav** (Emeritus Scientist, Kolhapur University, Maharashtra) for identification of plants.

I am also grateful to **Prof. V.M Roale**, **Dr. P.S. Nagar** and other faculty members of the department for their benevolence and help in various ways. Besides my own department I am also grateful to the faculty members of other departments as well. I am thankful to **Prof. Manoj Limaye** (Department of Geology) for helping in the photography of my slides, **Prof. Neelima Kulkarni** (Head, Department of Chemistry) and **Prof. Rakesh Srivastava** (Head, Department of Statistics) for explaining the concepts of Chromatography and Statistics respectively.

I have no words to express my gratitude to **Mr. Dilip Patil** (G.M. Research and Analytics) and **Mr. Samir Dedaniya** (Manager-ADD) of Sun Pharmaceuticals Ind. Ltd. for teaching me the technique of Gas Chromatography. Their patience and perseverance in removing my doubts about the technique is gratefully acknowledged. The research scholars of the department, the non teaching and garden staff have been equally supportive of my studies and I thank all of them. I also appreciate the timely supply of glassware's and chemicals facilitated by **Bhanubhai** and **Bhavinbhai** and thank them for it.

I am grateful to the members of my laboratory Ms Darshini Trivedi, Mr. Ashutosh Pathak, Mr. Gaurang Kale and Ms. Swati Patel for their help and support.

My family members have been a pillar of encouragement and care. My heartfelt gratitude are to Dr. Rekha Saxena, Ms. Roli Srivastava, Mr. Kapil Srivastava, Mrs. Kshama Nagraja Rao, Vir and Neel for always encouraging me to press forward and move ahead in my work.

Thanks are also meant to my friend **Mrs. Lata Sabharwal** for having an instinct to help and guide me even if I don't ask for it. I am also grateful to my **BSG friends** for their encouragement and motivation.

The PhD journey was a long one and the two people who have been my companions from the onset are my husband Mr. Swadesh Saxena and my daughter Ms. Aditi Saxena. They have practically lived each and every day of my PhD life. Thank you so much both of you for your patience, perseverance and understanding.

Last but not the least I wish to acknowledge the financial help received from University Research Scheme of The Maharaja Sayajirao University of Baroda Vadodara, to carry out my research.

While writing my acknowledgement it has suddenly drawn on me that I am so blessed to have such wonderful people in my life. Thank you God for everything!!

Archana Srivaitava

(Archana Srivastava)