ACKNOWLEDGEMENTS

I take this opportunity to deeply thank to various people for giving immeasurable appreciation and deepest gratitude for the help and support who in one way or another have contributed to in making this study possible.

First, I would like to express my sincere gratitude to my supervisor Prof. Bharat B. Chattoo, Distinguished Professor, Centre for Genome Research, M. S. University, Baroda. He always showed me the need to be involved and persistent to achieve any goal. His critical evaluations helped me to generate quality results from the work.

I would like to thank **Prof. Subrato Sinha**, formar Head Department of Biochemistry, All India Institute of Medical Science for teaching me hands on technique on phage display system.

I am obliged to thank Zydus Research Centre for helping me in carrying out cell based assay for Recab at their facility.

I gratefully acknowledge the support of my dear wife **Sushma** for her assistance, suggestions and critical discussions on every experiment and helping me gets through difficult times.

It gives me immense pleasure to thank his deep sense of gratitude to **Sanjay Jha** and Dr Devesh Suthar for their constructive criticism and excellent advice in scientific work.

I thank all my lab seniors including Mehali Pandya, Subhankar Roy-Berman, Harsukh Tank, Bishnu Prasad, Kaminee Ranka, and present colleagues Priya Pillai, Chandra Prakash, Suhail, Varsha, Gaurav, Shalabh, Jay, Hashim, AKhil, Divya, Hiral, Venkatlaxmi, Khyati, Gopika and Gauri for their co-operation during work as well as creating a stimulating and fun environment to make my stay here memorable.

I owe my regards to all the members of Department of Microbiology and Biotechnology Centre, Baorda, for their assistance in one way or the other. I specially thank Mr. Jaykumar Nair, Mr. Amwillsu Varghese, and Mr. Nitesh Bhatt for their administrative and technical assistance. The co-operation extended by Girish Bhai and Ramesh Bhai are gratefully acknowledged.

I acknowledge the financial support for this research project from the Department of Biotechnology, Ministry of Science and Technology, Govt. of India.

This work could not have been completed without the support, patience and encouragement of my parents, my sisters especially, Asha and of course Reena, Nikunj, Payal who have been with me with me through thick and thin. They always showed trust in me and boosted up my spirits to make me stronger in every way.

I would like to express my special thanks to my in laws, and Sapana for their support, patience and appreciation I thank them for all their love, support and endurance.

A word of gratitude is also extended towards all my **teachers** who shared their knowledge and guided me towards the scientific path.

Lastly, I thank The Almighty for giving me patience and courage to accomplish my endeavor.