ACKNOWLEDGEMENTS

I would like to express my special thanks and gratitude to my respected and admirable guide to Dr. Jayesh Sheth, Chairman, FRIGE's Institute of Human Genetics, Ahmedabad, Gujarat, for giving his constant help, valuable advice, able guidance and critical analysis of this study and also for bringing it into a successful conclusion. He is a tremendous scientist and guide for me. His scientific researches are always beneficial for the society. He made his student to dream high and work hard to achieve the success. I am glad that I got opportunity to work under his guidance. I would like to thank him for encouraging my research and for allowing me to grow as a research scientist. His advice on both research as well as on my career have been invaluable. I am very thankful to him for giving suggestions and he always gave freedom to grow academically and in research. I am very thankful that he encourages me and given me moral support in hardtime and under pressures. He understands the situation and helps me at every step and made my journey successful. It has been great opportunity in life to be his student. Thank you so much sir for helping at each step of journey.

I am extremely grateful and thanks to my co-guide Prof. Sarita Gupta, Head, Department of Biochemistry, The M.S. University of Baroda, for her kind support, consistence guidance, valuable suggestions, intensive encouragement which altogether molded this thesis in to successful completion. I am deeply appreciative her for care and support throughout. She always gave us the encouragement and suggestions throughout the tenure. I am very thankful that she has helped us lot by giving her guidance.

I am glad to take this opportunity to acknowledge with gratitude and affection to Dr. Frenny Sheth, Director, FRIGE's Institute of Human Genetics, for her continuous moral support and advice during my study. She always encourages me to do sincerely good and competitive work. She always takes care of our minute things and made us for the best quality of work. She made me to strive for perfection in work. I am deeply grateful to Dr. Sunil Trivedi, Academic Professor, at FRIGE, for his kind support and continuous encouragements and suggestions throughout my work.

I am thankful for the guidance and training provided by senior scientist Dr.

Parag Tamhankar at Genetic research centre, NIRRH, Mumbai for providing me the opportunity to work in his Institute. I would also like to thank to all the staff members of the Institute.

I am sincerely thankful to all teachers of the Biochemistry Department, MSU Prof. Sarita Gupta, Prof. G. Nareshkumar, Prof. Rasheedunnisa Begum, Prof. Pushpa Robin, Prof C. Ratna Prabha, Dr. Jayashree Pohnerker, Dr. Pushpa Robin, Dr. Acharya, Dr. Laxmipriya Nampoothiri, Dr. Rajesh Singh, Dr. Ravi Vijayvagaria, Dr. Jyoti Vasu, Dr. Gopalji Gopal, Dr. Devesh Suthar and Dr. Prakash Pillai for their valuable suggestions, their criticism for betterment of work. They all had helped and given the support during the course work study as well as during annual presentation. They all had helped me throughout the tenure by giving suggestions as and when needed.

I am thankful to all visiting and collobrative scientists of FRIGE's Institute of Human Genetics, Dr. Harsh Sheth, Dr. Rheem Medh and Dr. Jheem Medh for giving valuable guidance, supports and scientific expertise whenever needed.

I would especially like to thanks my colleague Mehul Mistri who has given me great support and help at each stage when needed. He has also helped me in practical work. Whenever I was facing any problem in any scientific work he used to help me.

I am very grateful to acknowledge my colleagues for their help and support whenever needed especially Nrupeshbhai Oza, Harsh Patel, Riddhi Bhavsar, Ankna Shah, Manishaben Desai, Bhumi Patel and other labmates at FRIGE's Institute of Human Genetics, Ahmedabad. I am appreciating the help of Harsh and Anamika during my practical work at Institute. I am very thankful to NrupeshOza for his valuable guidance whenever needed. I am also grateful to all my other colleagues for being there whenever I needed.

I would also like thanks to administrative staff at FRIGE, Jigar Parikh, Deepak Sheth, Rajubhai and Govind Ray for their precious help whenever needed.

I am feeling glad in acknowledging the endless help and support received from my friends and colleagues especially Dr. Tushar Patel, Dr. Akhilesh Prajapati, Ragitha Chruvattil, Abhay Srivastava, Muskan Belani, and other colleagues for their help to me whenever needed. I thank all my other colleagues for being there whenever I needed. I appreciate the help of office bearers at Biochemistry department for their support whenever required.

A very special thanks to my family. I would like to express my gratitude towards my family for the encouragement that helped me in the completion of work.

Words cannot express how grateful I am to my father Manoj kumar B Ankleshwaria who has admired me and given me moral support throughout my work. He is the one who has put seeds for this entire work. I am very thankful to my mother Meena M Ankleshwaria whose help at each stage in my needs and her prayer for me was what sustained me thus far. I would also like to thank my brother Rajan and his wife Vinni for helping me in my work by giving their time.

My beloved and supportive husband, Jigar D Patel, who is always by my side when times I needed him the most and helped me a lot in making this study. He has supported me for everything, and especially I can't thank you enough for encouraging me throughout this experience. To my beloved and cute son Riaan, who served as my inspiration to pursue this undertaking. I am grateful to my father in law Dhirubhai A Patel for his support. I would like to thanks and dedicate to my late mother in law Ila D Patel who is always wishing for completion of my work and god give rest and peace to her divine soul.

A very precious thanks to all patients who has participated in the study. Without their support this study could not be possible.

Finally, I want to offer this endeavor to our **GOD Almighty** for the wisdom bestowed upon me, the strength, peace of my mind and good health in order to finish this research. Thank you, Lord

Chitra M. Ankleshwaria