

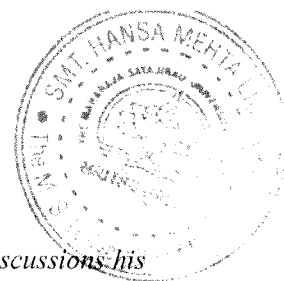
## Expression of Gratitude:

*If I could express my gratitude adequately enough, this would turn out to be the longest chapter of this thesis. My name on the cover of this dissertation seems inadequate by itself; for without the invaluable contribution of a great number of people, this research and thesis would not have been possible. I would therefore like to express my indebtedness to every individual who has been a crucial part of this endeavour.*

*This research and the resulting thesis have been a challenging journey for me from day one; a journey where every step was an experience that brought me closer to the Almighty. Therefore, I offer this humble attempt at the lotus feet of God and our Spiritual Master - **H.D.H. Hariprasad Swamiji** - whose grace and blessings enabled me to focus on my subject of research in a way that made me realize the depth of scientific phenomena and the discipline of scientific method.*

*This dissertation is a great milestone in my academic career. One of the joys of completion of this thesis is to look back over the journey past and remember all the friends and family who have helped and supported me along this long but fulfilling road. It is quite difficult to summarize the extensive list of people who have made this dream come true. It has been a great privilege to spend several years in the **Department of Biochemistry, Maharaja Sayajirao University of Vadodara, Vadodara** and its members will always remain dear to me. I owe my gratitude to everyone who has made this dissertation possible and because of whom my graduate experience has been one that I will cherish forever.*

*Life sometime surprises by giving more than expected. This research began as a dream for me, and today it stands as proof that dreams come true. At this moment of accomplishment I am highly indebted to my research Supervisor, **Prof. G. Naresh Kumar** for accepting me as his student. I have been very fortunate to have him as an advisor who believed in me and my ability; and he encouraged me to be the best that I could be. He taught me how to question thoughts and express ideas. He is one of the best teachers that I have had in my life. He sets high standards for his students and he*



*encourages and guides them to meet those standards. During our various discussions his cognizance of scientific insights made me bow with deep respect.*

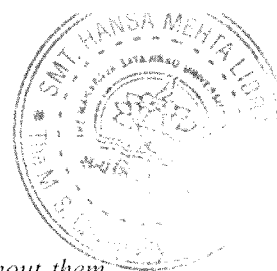
*This work would not have been possible without his amazing patience and support, skillful and proficient guidance, as well as his powerful words of encouragement. I am thankful to him for giving me the confidence to explore my research interests. Under his guidance I successfully overcame many difficulties and learned a lot in the process. His endless zest for science always has provided a positive thrust to my attempts. The tea-time discussions with him on multi-dimensional topics of this universe made our interactions extremely invigorating; while his ever positive attitude and happy demeanour made it a pleasant exercise. One simply could not wish for a better or friendlier supervisor. Fortunate are those who are blessed with the guidance of such a Mentor.*

*I am extremely grateful to him for giving me an opportunity to learn, think and work in a healthy and liberal environment at Molecular Microbial Biochemistry Lab (MMBL).*

*A few words from the repertoire of his expert comments that have the punch to transform habits and attitudes:*

- \* "Make perfection your habit."
- \* "I do not believe in giving the answer; but I believe in drawing out the answer from the student."
- \* "I don't want you to simply get the degree, but I want you to imbibe a training that would enable you to guide others."
- \* "I always believe in solutions."
- \* "Always live in the present, and think of a bright future."
- \* "One has to change himself with the changing time."

*Thank you Sir! For serving as a role model to me. It has been a great and enriching experience rather than merely an opportunity to work during all these years under your guidance. I hope that one day I could become as good an advisor, guide and mentor to my students as you have been to me. I will forever be grateful to you; and I hope to express my gratitude to you through my future work. I therefore humbly state that this is not my thesis, it is our thesis.*



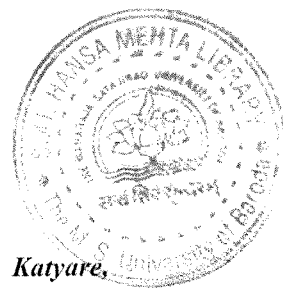
*The success of this study required the help of various individuals. Without them, the researchers might not meet their objectives in accomplishing this study. I sincerely thank **Prof. L. J. Parekh** - Former Dean, Faculty of Science, MSU. He was the first person I met in the Biochemistry Department 27 years ago. All Ph.D aspirants are grateful to him for constantly trying his best to make Ph.D. feasible for teachers having a teaching experience of five years. I thank him heartily for introducing me to the best guide for my research. We wish and pray to be infected with his enthusiasm.*

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*I am highly grateful Prof. G. Naresh Kumar (Head of the Department) for providing the basic infrastructural facilities like the library, internet and other research systems, as well as for developing a great work culture with a sense of teamwork and healthy competition in the department.*

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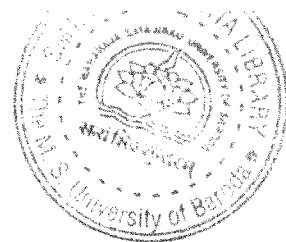
*I also take this opportunity to acknowledge the contribution of **P. Tyagvallabh Swamiji** (Secretary - Management, Yogi Dham) for providing all the facilities required for comprehensive research work. His vision of excellent education is reflected in the development of state of the art laboratory facilities for exclusive research. I am also highly indebted to Prof. A. U. Patel (Principal, Virani Science College, Rajkot) for being highly cooperative in providing us with laboratory facilities and all types of help required to accomplish this work.*



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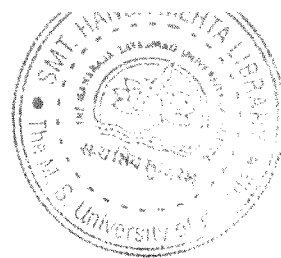
research till the day of submission and felt sincerely that we share 3 thesis. He played a significant role during our research. He is like a brother, teacher and colleague, who taught me the integrities of research, taught me how to solve research problems, laboratory maintenance and so on.... The list is endless. I thank the Almighty for inspiring NK Sir for bringing us all together as a team.

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**"I can do everything through Him who gives me strength." (Philippians 4: 13)**

**You blessed me with your service...**

**You are the doer; I am merely your instrument.**

**And above all - I thank the Almighty for His benevolent blessings and His divine presence that I was fortunate to feel all the way...!!!**

***Praveena***