Acknowledgment

This thesis arose in part out of years of research that has been done since I came to Department of Biochemistry, Shivaji University, Kolhapur. By that time, I have worked with a great number of people whose contribution in assorted ways to the research and the making of the thesis deserved special mention. It is a pleasure to convey my gratitude to them all in my humble acknowledgment.

In the first place I would like to record my gratitude to my research guide Dr. Mrs. Jyoti P. Jadhav for her supervision, advice and guidance from the very early stage of this research as well as giving me extraordinary experiences throughout the work. Above all and the most needed, she provided me unflinching encouragement and support in various ways. Her truly scientist intuition has made her as a constant oasis of ideas and passions in science, which exceptionally inspire and enrich my growth as a research student. I am indebted to her more than she knows.

At the same time I would like to thank Prof. S. P. Govindwar, Head, Department of Biochemistry, Shivaji University, Kolhapur, for his excellent advice, invaluable discussion, and the time and effort, he invested in helping with carrying out the experiments. I would also like to thank Dr. A. U. Arvindekar, Dr. P. M. Gurao, Dr. K. D. Sonawane, Dr. Mrs. P. B. Dandage, Prof. V. A. Bapat and Dr. J. S. Ghosh whose suggestions were always useful to me. I would like extend my thanks to all my teachers who shaped my life and served a constant source of inspiration.

I am thankful to Jawaharlal Nehru Memorial Fund, New Delhi for awarding me with JNMF scholarship for doctoral studies during the course of my research work.
I also wish to acknowledge the co-operation and constant support of Rane Sir, Sonandkar sir and all non-teaching staff during the entire course of my research work. I would also like to thank Mohite sir and Kalas sir, Common Facility Center, Shivaji University, Kolhapur, for their constant support.

I am grateful to all my research colleagues and research scholars of the Biochemistry department for their constant encouragement and valuable suggestions during the research work. I will never forget the memorable days spend with all my friends during my under graduate, graduate and post graduate studies. I would like to thank my dearest friends for giving such a lovely memories that boosted me whenever I get stressed, and finally all their love, blessing and support helped me to achieve the goal.

Where would I be without my family? My parents deserve special mention for their inseparable support and prayers. My Father is the person who put the fundament my learning character, showing me the joy of intellectual pursuit ever since I was a child. My Mother is the one who sincerely raised me with her caring and gentle love. I express my deep sense of love to my sweet little sister Shweta and all the members of my family.

Finally, I would like to thank everybody who was important to the successful realization of thesis, as well as expressing my apology that I could not mention personally one by one.

Swapnil...