ACKNOWLEDGEMENTS

*You are what your deep, driving desire is,*
  *As your desire is, so is your will,*
  *As your will, so is your deed,*
  *As your deed, so is your destiny*

- Brihadaranyaka Upanishad

I have been so lucky to have so many people at my side whose support, encouragement and love made all the difference.

My Research Work and writing this Thesis have been Pilgrimage for me... An educative and a very interesting journey, of course...

I would like to thank the esteemed SRM UNIVERSITY for giving me an excellent opportunity to accomplish my Research Work. I would like to thank Dr T R Pachamuthu, Founder Chairman, Dr R Shivakumar, Chairman (Ramapuram and Tiruchirapally Campuses), Dr K Ravi, Dean, SRM Dental College, Ramapuram, the Vice Chancellor, Dr N Sethuraman, the Registrar, Dr S Ponnuuswamy, Controller of Examinations, Dr R Balasubramaniam, Director (Science and Humanities), Dr D Narayana Rao, Director (Research) and Dr S V Kasmir Raja, Dean (Research), SRM University, Kattankulathur for their encouragement and support.

My special thanks are due to my Research Supervisor, Dr S Nirmala, M Sc, M Phil, Ph D, Professor and Head, Department of Biochemistry, SRM Dental College, SRM University, Ramapuram Campus, for her continuous support, advice and constant guidance. I would also specifically thank her for the enormous task of critically going through the drafts of this Thesis and advising me for improvements.

My sincere thanks are due to two special people, who did the great honour of being my Moral Support and an Infinite Source of Motivation : my Co-guide and Mentor, Dr S Narender Sivvaswamy, M Sc, Ph D, Advisor, SynkroMax.
Biotech Pvt Ltd, Chennai, who had tremendous faith in me and my teacher, **Prof Y Rajalakshmi, MSc, Ph D**, former Dean, Faculty of Science and Humanities, SRM University, Ramapuram Campus, who believed in me and whose support kept me going all these years. It was their bright ideas and encouragement that provided a meaning to my research career and had enabled me to capture the opportunities and achieve my goal today...

I would like to thank the members of my Doctoral Committee, **Dr T S Lokeswari, M Sc, M Phil, Ph D**, Professor and Head, Department of Biotechnology and Department of Biomedical Sciences, Sri Ramachandra University, Chennai and **Dr N Sakthivel, M Sc, Ph D**, Professor and Head, Department of Biotechnology, Pondicherry University, Pondicherry, for their constant and critical evaluation of my research work, meaningful suggestions and support. I take this opportunity to thank the External Expert, **Dr K Arivazhagan, M Sc, Ph D**, Head, Clinical Biochemistry, Cancer Institute, Chennai, for his support and advice.

I had the wonderful opportunity of having some good teachers in my life. I am obviously indebted to them for being my constructive critics and pushing me to realise my potential.

I have been very fortunate to have some **Special Friends**, with whom I had constant brainstorming and who helped me with fruitful and meaningful discussions. I owe my thanks to them.

I, probably, have missed a few people who made this journey possible. I am very sure and hope that every one of you know, how grateful I am to you. I would like to thank every one of them, who were important in the successful realization of this thesis.

**RAJANI GAD**