ACKNOWLEDGEMENT

It is with utmost pleasure that I express my sincere gratitude to God and my parents for graceful blessings showered upon me for the successful completion of this work.

Writing a dissertation can be a lonely and isolating experience, yet it is obviously not possible without the personal and practical support of numerous people that have supported during the research development in my career. The journey was not always trouble-free, riddled with pitfalls and disappointments, but somehow I managed to persevere and learn so much about life along the way. I could never have completed this goal without the help, support, guidance and efforts of many people.

It is great privilege to express my sincere and deep sense of gratitude and indebtedness to my research supervisor Dr. J. Karthikeyan M.Sc., M.Phil., Ph.D., Scientist cum Assistant Professor, Department of Biochemistry, PRIST University, Thanjavur for suggesting the problem, designing the plan of the work, invaluable and untiring guidance with a touch of human splendour, scientific freedom, meticulous efforts in the procurement of research materials, scholarly advice, constant encouragement, invaluable comments and discussion in every phase of my research career. This thesis is largely a result of his diligent and meticulous approach in each and every step of work. The way I was treated and the association with him made my life at home and there were no words to express my thanks for his deep sense of cordial affection towards me.

My sincere thanks to Prof. P. Murugesan, Hon’ble Chancellor, PRIST University, Thanjavur, Dr. N. Ethirajalu, Vice-Chancellor, Prof. C. Nagarajan, Hon’ble Pro-Chancellor (Academic), Dr. P.S.M. Kannan, Pro-Chancellor (Administration), Registrar, Dr. P. Thangavelu, Former Dean, PRIST University (East campus), Dr. G. Kuppuswamy, Director, Centre for Research and Development (CRD) for their encouragement and inspiration throughout the course of my study.

I extend my gratefulness to Dr. R. Suja Pandian, Head, Department of Biochemistry for her meticulous suggestions as a Doctoral Committee member and to Dr. P. Prabhakaran, Head,
Department of Microbiology for his continual support and encouragement as University nominee for my Ph.D. programme. I also extend my thanks to Prof. S. Rajasekar, Dean (Pharmacy) and Mr. M. Karthikeyan, Assistant Professor (Pharmacy) for their constant support and encouragement.

My sincere gratitude to Mr. S. Ilavenil, Scientist cum Assistant Professor, CRD, Mr. S. Srigopalram, Research scholar, Department of Biochemistry, Kongunadu Arts and Science, Coimbatore, Mr. Lalit Rajan Samant and Mr. V. Giftson Raja, Research Scholars, Department of Biochemistry, PRIST University for their compassionate support, help and goodwill provided at the time of my research work.

I extend my heartfelt thanks to my friends Dr. G. Bupesh Bharathidasan University, Trichy, Mr. M.J. Raviraman and Dr P. Palsamy, Post Doctoral Fellows, USA for all the support extended during the course of my research work.

I extend my gratefulness to Dr. Padmanathan, M.D. (Pathology), Thanjavur Medical College, Thanjavur for histopathological studies. I thank (Late) Mr. Mayandi, Animal House in-charge, Tamil University, Thanjavur for helping me in the care and maintenance of the albino rats used in the study.

My special thanks are due to my loving wife B.Sathya, who supported me during my Ph.D. work, without whom, I would have been unable to complete my research work. Lastly, I have to thank my little daughter B.Hariska, whose arrival was the only source of inspiration to complete my study at the earliest. I sincerely submit my thanks to my uncle Mr. P. Arumugam, Ms. A. Selvi and brother Mr. K. Sellamuthu.

In this study, direct or indirect help and suggestions were received from a large number of individuals, books and published works. Sincere efforts have been made to acknowledge or to refer them. Still it is not unlikely that some of them have not been acknowledged due to inadvertence. I thank each and every soul behind the endeavor of mine.

K.BALAMURUGAN