ACKNOWLEDGEMENTS

The most pleasant part of a completed work is to put on record the debt of gratitude owed to people who made this task possible.

It is with profound respect and immense gratitude that I acknowledge my indebtedness to my Guide and supervisor Prof. S.P. THYAGARAJAN M.Sc., Ph.D., D.Sc., M.D. (Cophgn), FIMSA, FABMS, FNASc, MNyAsc. Professor and Head, Department of Microbiology, Dr.ALM PGIBMS, Taramani, Chennai - 600 113 for his meticulous guidance, constructive criticism, affectionate treatment, whole hearted encouragement and his pragmatic suggestions at every stage of my work, and most of all for sharing his precious time with me.

With immense gratitude I wish to thank my doctoral committee member Dr.V.Sampath, Director, Integrated Coastal & Marine Management, National Institute of Ocean Technology, Chennai for all the help and suggestions rendered during the course of my work.

I thank Dr.P.Rajendran, Professor Department of Microbiology, Dr.ALMPGIBMS. Taramani Chennai - 600 113 for all the help and encouragement rendered to me for the completion of this work.

My sincere thanks to Dr.Thangam Menon for all her help, guidance and constructive criticism during the tenure of my study.

I deem it a great privilage to thank Dr.P.Muthusamy, Director, Dr ALG PGIBMS, Taramani, Chennai - 600 113 for the support and permission granted to work in this institute.
My sincere gratitude to Dr.K.Baba Krishnan and Dr.A.Namasivayam, Former Directors, Dr.ALM PGIBMS Taramani, Chennai - 600 113 for their support and encouragement during my study.

I would like to thank whole heately Dr.T.Sundararaj, Dr.S.Ananthan and Dr.Usha Ananda Rao for the help and encouragement rendered to me.

I deem it a great privilege to thank sincerely and whole heately Dr.K.Kumanan Associate Professor, Department of Animal Biotechnology, Madras Veterinary College, TANUVAS for his constant encouragement, valuable suggestions and well wishes.

I sincerely thank my teachers Dr.Shankar Shashidhar, Dr.R. Ravindran, Dr.A.Jyothis, Dr.M.Haridass, Dr.S. Latha and Dr.N.Kurup for moulding me as a microbiologist.

My sincere thanks to Dr.Daisy Vanitha, Dr.Selvakumar, Mr.Ravi Shankar, Mr.Mohan Raj and Mr.R.Velmurugan for valuable suggestions & timely help rendered to me during this study.

I whole heately thank Ms.S.Asha, Mrs.V.Jyothi Mrs. Sharada Devi and Dr.R.Kauchana for their well wishes and constant encouragement during this work.

It is my pleasure to acknowledge my senior Colleagues Dr.K.V.K.Mohan, Dr.N.P.Pramod, Dr.R.Hari and Dr.K.G.Murugavel for all the help and encouragement rendered during my study.

My sincere thanks to my friends Mrs.A.Subha, Mrs.Reena M, Ms. Uma Maheswari, Mrs.Preethi J, Mrs.E.Dhevahi and Mr.S.Dharmalingam for all the help and encouragement during my study.
I would like to thank my colleagues Mr.M.S.Sripathy, Mr.V.Vijayakumar, Mr.E.Vikram Reddy, Mr.M.Palanikumar, Mr.S.Niren Andrew, Mr.Selwyn Anand Raj, Mr.S.Sateesh, Mr.B.M.Kantesh and Subadhra Nandakumar for all the help rendered for the completion of this work.

The quality of manuscript could never been realised without the help of my colleagues Mr.R.Parthiban and Mr.S.Saravanan.

My sincere thanks to Mr.K.Veeramani for his stenographical assistance and constant encouragement and help rendered to me.

My special thanks to Mrs. Kownhar, Mrs. Geetha and Mrs.Ramani for their timely help.

I sincerely thank Mrs.A.Kalaiselvi, Mrs.S.Radhiya and Mrs.P.Alice for all the encouragement and help rendered to me during this study.

My sincere thanks to Mr.Pradeep Kumar Jhadev for the help rendered for compiling the manuscript.

My special thanks to my sister M.T.Neethi and brother M.T.Vinayan for all their encouragement, help patience and love that knows no bounds.

And finally my profound gratitude to my parents for their patience, tolerance, faith and all care and hope they have placed on me.

SEEMA MADHUMAL THAYIL