ACKNOWLEDGEMENT

I express my sincere, profound and heartfelt gratitude to my research guide Dr. V. Rama Koti Reddy, Professor, Department of Botany, Bharathiar University for the continuous guidance and advice extended for the meticulous completion of this work. He was exceedingly forthcoming with timely and valuable inputs and corrections. This task would not have been successfully fulfilled but for his prudent suggestions and rectifications.

My sincere thanks are due to Dr. V. Narmatha Bai, Professor and Head, Department of Botany, Bharathiar University for providing the necessary facilities to carry out my work. It is my pleasure to thank Prof. S. Manian our former Head of the Department who was very supportive and inspiring to me throughout this project. I also acknowledge Dr. V. S. Ramachandran (Rtd.), Dr. A. Rajendran, Dr. T. Parimezhagan, Dr. T. Muthukumar, Dr. T. Sekar, Dr. K. Vasanth, Dr. R. Sivalingam and the non-teaching staff members, Department of Botany, Bharathiar University for their unstinted support and encouragement.

I am deeply indebted to Dr. Indira Balachandran, Project Director, Centre for Medicinal Plants Research (CMPR), Arya Vaidya Sala, Kottakkal, Kerala, India for permitting me to carry out part of this work and to use the laboratory facilities of CMPR. It is with heartfelt thanks I do remember the help and suggestions made by Dr. Geetha S. Pillai, Dr. A. B. Remashree, and Dr. Jayanthi A, Senior Scientists and Mr. K.M. Prabhukumar (Scientist) of CMPR throughout this work.

The help rendered by Dr. Ramadasan Kuttan, Research Director, Amala Cancer Research Centre for the in vitro Pharmacological analysis is acknowledged with a grateful heart, also I thank Mr. Bineesh and
Mr. Rishad, Unibiosis, for their valuable help in undertaking the DNA fingerprinting studies.

Friends like Dr. Satheesh George (Department of Botany, St. Joseph’s College, Devagiri, Kozhikode) and Dr. Sulaiman C.T (Scientist, CMPR) are gifts of a life time. Words are not sufficient to express my gratitude for their generosity and hardwork towards the completion of this thesis. They took me to new horizons when I was doubtful and encouraged and inspired me when I was down. This project would not have been possible without their persistent support and assistance.

With great pleasure I acknowledge the support and encouragement of the CMI congregation to which I belong to. With due respect I recall the inspiring support of our Provincial Rev. Fr. Joseph Vayalil and all the members of his council, Fr. Sebastian Adichilath, Fr. John Kanjirathinkal, Fr. Paul Kureekattil, Fr. George Padannamackal, Fr. Thomas Peruvelil and all other members of the CMI St. Thomas Province, Kozhikode.

The staff, parents, and the students of Silver Hills Public School, Kozhikode merit due credit for their unconditional love. I thank Ms. Margaret, Mr. Arun D’cruz, Mr. Pratheesh, Mr. Rajeeesh, Mr. Ramakrishnan and Mr. Jithin for helping me out in very many ways in the course of my research.

I would also like to thank all my friends and well-wishers for their support, love and encouragement throughout this endeavour. Sincere gratitude to my friends Dr. Kannan, Mr. Binu, Mr. Sajeesh and Mr. Sathiyaraj of the Department of Botany, Bharathiar University for all the help, support and above all their friendship.

I bow down before the Almighty God who profusely blessed me with sufficient energy and courage to complete this work.

Biju John