I wish to express my deep sense of gratitude and indebtedness to my supervising teacher, Dr. K. Saraswathy Devi, Professor (Rtd), Department of Biochemistry, University of Kerala, Kariavattom, Thiruvananthapuram for her selfless support and systematic guidance during the period of my work. I am forever indebted to her patience, generosity, criticism, timely advice and inspiring guidance throughout the work.

I am extremely grateful to Dr. R. Rajamohan, Professor and Head, Department of Biochemistry, University of Kerala, Kariavattom, Thiruvananthapuram, for his valuable help and advice. I am also thankful to him for providing the necessary facilities available in the department to carry out my research work.

It is indeed a great pleasure to acknowledge my sincere thanks to Dr. M. Indira, Professor, Department of Biochemistry, University of Kerala, for her support and valuable advice in completing my thesis work.

I would like to acknowledge Dr. Annie Abraham, Dr. G. Muraleedhara Kurup, Dr. S. Mini, Dr. A. Helen and Dr. Arun A. Rauf, Department of Biochemistry, University of Kerala, Kariavattom, Thiruvananthapuram for their valuable advice and co-operation during the thesis preparation.

I express my sincere thanks to Dr. Jayachandran, Veterinary surgeon, and all the members of animal house for helping me in animal experiments.

I owe my gratitude to the ministerial staff, Department of Biochemistry for the unstinted co-operation and help received from them.

I acknowledge with deep gratitude to Dr. K.N. Rajasekharan, Professor, Department of Chemistry, Kariavattom, Thiruvananthapuram, for his valuable suggestions in spectral analysis.

I would especially like to acknowledge the whole hearted co-operation, help, advice and technical support extended by my colleagues, friends and students.

I am deeply obliged to Dr. Valsala Devi, Department of Botany, for the help rendered by her in the authentication of the plant specimen.

I extend my sincere thanks to Dr. Balaraman Nair, Director, DDRC, Thiruvananthapuram, for carrying out the histopathological studies.

Thanks are also due to RSIC, Lucknow for providing C, H, N analysis data and IR, UV, NMR, spectra etc.
I express my love and sincere gratitude to my family members for their support and encouragement in the completion of this thesis work.

Finally, I bow before the God Almighty for giving me the strength and blessings to finish up my work successfully.

HASHIM M. S