ACKNOWLEDGEMENTS

This investigation was carried out under the supervision and guidance of Dr. Rajesh M. G., Scientist B, Navajyothi Sree Karunakara Guru Research Centre for Ayurveda and Siddha, Uzhavoor, Kottayam (Currently working as Assistant Professor and Head, Dept. of Botany, NSS College Manjeri, Malappuram, Kerala). I wish to express my deep sense of gratitude and indebtedness to him for his guidance, critical suggestions and advice throughout the course of my Ph.D programme.

This research work was initiated under the guidance of Dr. M. Anil Kumar (Currently Asst. Prof. of Botany, UC College, Aluva). His guidance during the initial phase of the work is gratefully acknowledged.

I am deeply grateful and indebted to Swami Gururethnam Jnana Thapaswi, Organizing Secretary, Santhigiri Ashram, Thiruvananthapuram, and Dr. N. Jayan, Manager, Navajyothi Sree Karunakara Guru Research Centre for Ayurveda and Siddha, Uzhavoor for their encouragement and the facilities afforded for carrying out the research.

I express my sincere thanks to (Dr.) Swami Gurudharma Jnana Thapaswi, Shri. Jiby Elias (Scientist B), Shri. Hemand Aravind (Scientist B), Shri. Sujith Abraham Jacob (Scientist B), Dr. Rosi Nandi, Dr. Vivek Andrews and (Dr.) Janani Ramya Prabha for their encouragement and timely help rendered during the entire course of this work. I also extend my sincere thanks to Shri. Janeesh M.P (Office Assistant) Shri. Murali (Gardner) and other colleagues and friends of Navajyothi Sree Karunakara Guru Research Centre for Ayurveda and Siddha for their wholehearted co-operation and help rendered throughout this work.

I am grateful to Dr. B. Sabulal, Scientist & Head, Phytochemistry and Phytopharmacology Division of JNTBGRI, Palode, Thiruvananthapuram for carrying out the HPTLC analysis.

I am also grateful to Dr. R. Kuttan, Amala Cancer Research Centre, Thrissur, for his support in carrying out the *in vitro and in vivo* cytotoxicity /anticancer experiments.

I am indebted to Shri. A. C. Sebastine, Mr. Pramod S. Dr. Sudheesh N, Dr. Shivaprasad Amaravayal, Shri. Rajendran Nair, Ms. Sobhana Bhaskaran and other colleagues in the Department of Science and Technology, New Delhi and Dr. Thomas M. T., St. Thomas College, Thrissur for critical suggestions provided during the preparation of the thesis.

Last but not least, the support provided by my parents and family members throughout the course of the work is gratefully remembered and acknowledged.

I am all too well aware of my limitations. I lift up a grateful heart to acknowledge the loving care of God Almighty, Who sustained me throughout this journey.

Anish N. P.