Acknowledgements

I am sincerely grateful to:

My guide and mentor, Dr. P.S Rajini, Senior Principal Scientist, for her invaluable guidance, patience, enthusiasm, keen interest, constructive criticisms, scientific freedom of thought and for inculcating the element of sustainability in me throughout my stay in her laboratory. I am highly indebted to her for her valuable support and encouragement rendered during my research at CFTRI.

The Department of Science and Technology (DST), New Delhi, India, for the award of the DST Woman Scientist Scheme-A (DST-WOS-A) Fellowship.

Dr. Ram Rajasekharan, Director, CSIR-CFTRI, Mysore, for giving me the opportunity to work for my Ph.D programme at CFTRI.

Dr. K. Ramaswamy, Head, FPIC for facilitating me to carry out my research work successfully at the department.

Dr. Muralidhara, Chief Scientist, B&N for extending laboratory facilities, and for his constant support, encouragement and valuable suggestions during my research work. Thank you sir immensely.

The staff of Central Instrumentation Facility & Service for their help extended for instrumental analysis. -Mr. Mukund Laxman Padmere for HPLC-ECD and Mr. Anbalagan for microscopy.

The Scientists and supporting staff of FPIC who have directly or indirectly helped me in my research work.: Mr. John Periera, Mr. Akmal Pasha, Dr. HM Shivaramaiah, Dr. S. Sumithra Devi, Mr. HE Krishnaiah, and Mr. N. Subbaraya.

Head, HRD, for all the support rendered.

Staff of FOSTIS, Computer Center and staff of the Electrical Section and Stores and Purchase Section for all their help.

The Controller of Administration and the staff in administration for their help rendered to me throughout my stay in CFTRI campus.

Dr. Theresa Stiernagle, for promptly sending the worms and protocols from the Caenorhabditis Genetics Center (St. Paul, MN, USA), which is funded by the NIH, National Center for Research Resources for the supply of worms used in the study and Dr. Amir Nazir (Scientist) CSIR-Central Drug Research Institute, Lucknow-(CSIR-CDRI) for his constant support.
M/s Hyderabad Chemical Supplies Ltd., Hyderabad, India, and M/s United Phosphorous Ltd., Mumbai, India, for generous gift of synthetic pyrethroids used in these studies.

Prof. Cletus D. Souza, University of Mysore, Mysore, for his valuable suggestions during my Ph.D course work at the Department of Biochemistry.

Staff of Research & Development and Finance Section, University of Mysore, Mysore, for their help.

My friends and labmates: Dr. Apurva Kumar R. Joshi-for his valuable suggestions during my experiments, Mr. Raju. Nagaraja- for being there to share my jokes (mostly on him!), Ms Chinnu Salim-the little angel sent by Allah…I couldn’t have done it without you!!, Mrs Vismaya and Dr. Guruprasad for their cooperation.

My husband- Dr. Mir Arshad Ali, for being the wind beneath my wings and propelling me to move on and for teaching me the art of saying “never give up”. Thank you Arshad, I couldn’t have done it without you.

My daughter-Mysha Ali- for giving me the purpose to work hard and for enduring with me during hectic days at work. Thank you Mysha!!

My parents-in-law, my brothers-in-law, Aslam and Asif, my sisters-in-law, Roohi and Gullu, and co-sister, Jabeen Zehra. Thank you all for your encouragement and support. A special thanks to Aslam bhai for all his encouragement and readiness to come to my rescues all the time. Dilshad thank you for taking care of my house, my child and husband in times of need.

Last but not the least, I immensely thank mummy- for being my most trusted friend and the best mother in the world, my brother Arshad Jafri for teaching me the larger dimensions of life and the art of living. Thank you very much Chiggubhai. My younger brother- Abid Jafri for his encouragement. My younger sister and younger brother-in-law- Nusrat Jafri Roy and Sumit Roy- for all their love and support. Sona, thanks a million for the photoshops. I specially need to mention my elder sister Itrat Harrold and my elder brother-in-law, John Harrold for all their love, help and support given to me unconditionally. Thank you all. God bless.

Shaheen Jafri Ali