ACKNOWLEDGEMENTS

Accomplishment of my Ph.D. work was only possible due to the contributions made by several people in various forms. Although a mere expression of thanks does not suffice their actual contribution, however, I take this opportunity to appreciate and acknowledge the help and support of each one of these wonderful people in this section of my thesis.

First of all, I express my sincere gratitude to my respected guide, Prof. Tapas Kumar Chaudhuri, Cellular Immunology Laboratory, Department of Zoology, University of North Bengal, for giving me the opportunity to work under his supervision. His valuable guidance and constant motivation throughout the period of my study helped me to complete this work within suitable duration. I am also very grateful to him for his scientific advice and knowledge and many insightful discussions and suggestions. Thank you Sir! For all your help.

I am thankful to my Co-supervisor, Prof. Mridula Chatterjee, Department of Pediatrics, North Bengal Medical College & Hospital, for her immense support particularly in providing adequate number of asthmatic and control subjects for the study. Her valuable suggestions and inputs really helped a lot in giving this shape to my work. I am indebted to her for her kind help, support and encouragement.

I express my sincere gratitude to the Head, Department of Zoology, University of North Bengal, for allowing me to use the central instrumentation facility as and when needed during the course of my study. I also extend my deep sense of gratitude to all my teachers of the Department, Prof. Joydeb Pal, Prof. Ananda Mukhopadhyaya, Prof. Sudip Barat, Dr. Min Bahadur, Dr. Soumen Bhattacharjee, Dr. Dhiraj Saha and Mr. Tilak Saha for their valuable suggestions and kind help.

I enjoyed the company of my fellow scholars with whom I worked in the Laboratory. Specially, I thank Dr. Bisu Singh, Asstt. Professor, Department of Zoology, Sikkim University, for his kind help during the initial stage of my research. I also appreciate and acknowledge the help of Mr. Subhrajyoti Roy, Asstt. Professor, Department
of Zoology, University of Gour Banga, Mr. Pokhraj Guha, Mr. Priyankar Dey, Mr. Somit Dutta, Mr. Avishek Das and Mr. Bijoy Mohanto.

My warm appreciation is due to Dr. Bidhan Ch. Roy, RMO cum Clinical Tutor, Institute of Post Graduate Medical Education & Research, Kolkata, who happened to be my friend. I would like to thank him for all his help during the sample collection.

Thanks are also extended to all the doctors of the Out Patient Department of Pediatrics for their kind help.

I express my indebtedness to my teacher Dr. Gautam Aditya, Associate Professor, Department of Zoology, University of Calcutta, for his kind concern and encouragement. With his kind help and support during my course of study I was able to complete my work.

I extend my sincere thanks to all my senior colleagues, Prof. Padmanava Chakraborty, Prof. Goutam Chandra, Dr. Abhijit Majumdar, Dr. Niladri Hazra, Dr. Anupam Basu, Dr. Sanjiv Ray, Dr. Soumendra Nath Chatterjee, Dr. Anandamay Barik, Dr. Kaushik Ghosh, Dr. Sumedha Roy, Department of Zoology, The University of Burdwan, for their kind help and support.

I would also like to thank Dr. Chitta Ranjan Nayak, Former HOD, Computer Centre, University of North Bengal, for providing assistance in statistical analyses of my experimental data.

Thanks are also extended to all the participant children and their parents for their patience and co-operation during the blood sample collection and filling up the questionnaires.

I express my sincere gratitude to staffs of the Central Library, University of North Bengal, for their services and kind help.

I like to sincerely acknowledge the University Grants Commission (UGC), New Delhi, for providing the financial assistance to carry out my research work.
It is a good opportunity to express my gratefulness to my parents who are my constant source of encouragement and inspiration. Today, I stand here because of their never ending support and encouragement. I remain ever grateful to my brothers and sister-in-laws who have always provided tremendous support.

Last but certainly not least, my dear wife, Samiksha Subba Lama, deserves a special word of appreciation for her moral support, patience and love. She supported me in every possible way to see the completion of this work. Lots of love to my little daughter “NIDHYANA” who has brought a new hope and aspiration in my life.

Dated: 12-09-2014

(Manoj Lama)