Dedicated

to

My father for his uncompromising principles that guided my life
ACKNOWLEDGEMENTS

I wish to express my sincere gratitude to my head supervisor
Dr. D. Vasudevan, Chief of Neurology & Clinical Neurophysiology,
Dr. Kamakshi Memorial Hospital, Chennai, who besides possessing a vast
knowledge in the field of neurology, gave an intelligent and detailed critique and
believed in me during these years and also for inspiring me to think and work
independently. Most of all, I thank him for his incredible patience and understanding
nature.

I also express my thanks to my co supervisor Dr. R. Jayakumar, Scientist
EII and Senior Assistant Director and Head, Bioorganic and Neurochemistry Lab,
Central Leather Research Institute, Chennai, for his endless support and constructive
advice during these years. I respect him a lot for his sharp and creative mind and for
his great commitment towards research.

I am thankful to my research committee expert Dr. P. Selvaraj, Scientist EII
and Assistant Director, Tuberculosis Research Centre, Chennai, for his support
despite the distance and for his valuable comments during the methodology exams.

I would like to extend my thanks to Dr. Solomon FD Paul, Professor and
Head, Department of Human Genetics, Sri Ramachandra University, Chennai, for
his consent to be a member of research committee to conduct the methodology exam
in the absence of Dr. R. Jayakumar and for giving me an opportunity to do part of
my research work in his department. It has been a pleasure in working in such a
warm environment for research.

I would like to thank Mr. V.R. Venkatachalam, Chancellor, and
Mrs. Radha Venkatachalam, Registrar, Sri Ramachandra University, Chennai, for
providing infrastructural facilities for carrying out my research programme.
I would like to extend my thanks and immense respect to Dr. S. Rangaswamy, Vice chancellor, Dr. K.V. Somasundaram, Dean of faculties, Dr. Vijayalakshmi Thanasekaran, Controller of Examination, Sri Ramachandra University for their support during the tenure of my research programme.

I sincerely thank Mr. B’joe Baben, Tutor, Department of Biochemistry, SRU, Chennai, for his good friendship, cooperation and valuable support. I am very much thankful to him for always being with me and always listening in good and bad times.

A word of special thanks to Mrs. Mallika Jacob, Deputy Registrar, SRU for her prayers and friendly advice. My deepest respect and gratitude goes to her for all the support and encouragement during these years.

I wish to thank Dr. M. Ravi, Assistant Professor, Department of Human Genetics, for his technical support and always willing to help and for taking the time to help me in carrying out fluorescence experiments.

I am thankful to Dr. Jothi Malar, Professor, Department of Biochemistry, SRU, Chennai, for supporting me to work during the tenure of my research programme.

I would like to thank Dr. Charles E Jebaraj, Assistant Professor, Department of Biotechnology, SRU, Chennai, for his expert reading of my thesis and Mrs. Hemalatha, Department of Bioinformatics, SRU for linguistic correction of this thesis.

I am thankful to Dr. M. Anbazhagan, Chief Biochemist, Dr. Nalini Ganesan, Professor, Department of Biochemistry, Dr. Santhi Silambannan, Associate professor, Department of Biochemistry, Dr. Hannah R. Vasanthi, Assistant Professor, Department of Biochemistry and Dr. Vijaya Srinivasan, Assistant Professor, Department of Biochemistry, SRU for their help and advice during the tenure of my research programme.
I would like to thank my senior colleagues at CLRI, Chennai, 
**Dr. J. Gunasingh Masilamoni**, and **Dr. Philip Jesudasen** for their constant 
encouragement and support given to me throughout my research programme. It gave 
me strength to believe in myself. Many thanks for co-authoring me in their research 
publications.

Many grateful thanks to my colleagues at CLRI, **Mr. Senthilkumar**, and 
**Mr. Dhandayuthapani**, for their constant help and encouragement and making the 
long hours in the lab more enjoyable during the tenure of my research programme. 
I am thankful to especially **Mr. Senthilkumar** for providing the antibodies and 
helping me in the crucial stages of the thesis.

Special thanks to **Mr. V. Sendhil**, Distance Education, SRU for his help in 
computers whenever approached.

I owe a lot to my beloved family for their constant sacrifices, encouragement 
and valuable support. From them i learned that you can do anything as long as you 
have the will and perseverance.

My heartfelt gratitude goes to all the patients, their families and the healthy 
volunteers who have participated in the study. These individuals have helped with 
the ultimate contributions- their time, patience and unconditional participation.

Lastly I would like to sincerely thank every person who directly or indirectly 
has contributed to this thesis and to all my friends around the globe thanks for 
sending the articles and good wishes.

*(Ben Sundra Ashok)*