Acknowledgement

With deep sense of respect, I express my sincere gratitude to my supervisor Dr. Meenakshi Bawari for rendering valuable guidance, constant inspiration, encouragement without which this work would not have been completed.

I would like to express heartfelt thanks to Prof. Satya Bushan Paul for his valuable ideas, suggestions and support that helped to a great extent to complete this degree programme.

I extend my sincere thanks to Prof. Gauri Dutta Sharma for his kind suggestions and advice. I am also thankful to SAIF, NEHU, Shillong for allowing Electron microscopic analysis and to the department of Life Science and Bioinformatics for providing necessary equipments during my research work.

I am pleased to thank the Head, Department of Life Science and Bioinformatics, Dean, School of Life Sciences, Assam University Sichar and all other respected teachers of this department for their encouragement and useful suggestions.

I am also thankful to Prof. J.Rout of Department of Ecology and Environmental Science, Assam University Sichar.

I am also indebted to the technical staff of the Department of Life Science and Bioinformatics, my labmates and colleagues for their great help and co-operation.

I must acknowledge Pasture Institute, Shillong for providing mice which is the animal model for the present research work.

I express my deep sense of gratitude to University Grants Commission (UGC), New Delhi for the fellowship.

Lastly, I would like to show my heartiest gratitude and regards to my brother, my beloved parents, other family members and my dear and near ones whose blessings, silent prayers and moral support has led to the completion of this work.