Acknowledgements

In The Name of Allah, The Most Gracious and Most Merciful. I bow my head in reverence and submission to Him. The accomplishment of this endeavor would not have been possible, without the will of Almighty. I am humbly thankful to the Almighty.

It gives me immense pleasure to express gratitude and regards to my co-supervisor, Prof. Shamim Ahmad, Institute of Ophthalmology, Gandhi Eye Hospital Campus, JN Medical College AMU Aligarh for his vigilant guidance, sustained interest, inexhaustible encouragement and valuable suggestions throughout the course of this study. I would not have been able to do my job smoothly without his guidance and support.

It is my privilege to express my deep sense of gratitude to Prof. Javed Musarrat, Former Chairman Department of Agricultural Microbiology and Dean Faculty of Agricultural Sciences, who has always been a source of Inspiration, moral support and valuable suggestions. I am also thankful to my teachers Dr. Iqbal Ahmad, Dr. Mohammad Saghir Khan & Dr. (Mrs) Almas Zaidi for their suggestions and fruitful advice throughout the course of study.

Thanks are also due for Mrs. Shaba Qamar Ansari, Mr. Fazal-ur-Rehman Khan and Ms. Shaba Qamar for their technical guidance and support. I also thank Ms. Darakshan Noor for making it possible to have an easy access to all the books whenever needed.

I will always be indebted to Mr. Farrukh, Ms. Farah, Mr. Saquib, Mr. Wani Mr. Sajjad, Mr. Imran, Ms Saema Mr. Munees, and Mr. Sourabh for their help, guidance and support during the entire period of study.

I am thankful to Mr. Fahad Mabood Husain who took pain in writing/arranging the bibliography of the thesis. Dr. Mohammad Azhar Khan is also acknowledged for analyzing DNA sequences. Mr. Ovais, Mr. Ees and several others also deserve acknowledgement.

I am also thankful to S.A.I.F at Indian Institute of Technology, Bombay and A.I.I.M.S New Delhi for carrying out GCMS and TEM at their respective centers.

I fail to choose proper and appropriate words for expressing my gratitude to my beloved mother, brothers and wife who have been a lifetime source of support, encouragement and inspiration to me.

(Mohammad Zubair Alam)