ACKNOWLEDGEMENTS

To me, it is a proud and privilege and singular opportunity to ventilate my deep sense of gratitude to my esteemed guide and mentor, Dr (Mrs) Saroj Sharma, Professor and Head, Department of Microbiology, Government Medical College, Chandigarh, who with her keen insight and invaluable suggestions with vast knowledge in her field was always a source of inspiration throughout the execution of this study.

I am especially indebted to Dr. N.K. Ganguly, Professor and Head, Department of Experimental Medicine and Biotechnology, Postgraduate Institute of Medical Education & Research, Chandigarh, who is a treasure of creative ideas, for invaluable suggestions and providing necessary laboratory infrastructure in his department to carry out this study. Without his guidance, constructive criticism and meticulous scrutiny, this work would not have seen light of the day.

I am thankful to the Chairman, Department of Microbiology, Panjab University, Chandigarh for his kindness and timely execution of his duties for me.

I extend my sincere thanks to Dr Kusum Joshi, Professor and Head, Department of Pathology, Postgraduate Institute of Medical Education and Research, Chandigarh for helping in histopathological work included in this thesis.

My fervent thanks to Dr Sanjay Chibber, Reader, Department of Microbiology, Panjab University, Chandigarh for his help rendered in writing this manuscript.

I wish to express heartfelt thanks to Dr Sukhbir Kaur, Dr Harpreet Vohra, Dr Rama Gupta, Dr Amninder Kaur, Dr Kusum Harjai and Dr Sujata Ghosh for their kind cooperation.
My sincere thanks are due to my friends and colleagues, Mr Dinender Singla, Mr Sudhir Gupta, Mr Jarnail Singh, Mr Srinivas, Mr Ashish Gupta, Mrs Upasna Chopra, Ms Amrisha Mittal, Mr Navneet Agnihotri and Mrs Dharam Bala Sharma, all from the Department of Experimental Medicine and Biotechnology for their invaluable help in completion and compilation of this work.

I gratefully acknowledge the technical assistance and help rendered by Mr C.S. Maini, Mr J.P. Sharma, Mr J.B. Sharma, Mr N.D. Bhatia, Mr Prabh Dyal and Mr Rajinder Pal.

I am thankful to the official staff, store incharge, library incharge, Mr Vinod Kumar and other members of the Department of Microbiology, Panjab University, Chandigarh for their cooperation throughout the period of this study.

I offer my sincere thanks to numerous friends and well wishers particularly hostel friends, Bantoo, Kalra and Chugh, who always made me cheerful during my difficult times.

The financial assistance conferred by the University Grant Commission (UGC) is gratefully acknowledged.

Last but not the least, I am thankful to Mr R.C. Sharma for excellent typing of this manuscript.

Varinder Kumar