ACKNOWLEDGEMENTS

First and foremost, I am very much thankful and acknowledged to my respected mentor and supervisor, Prof. Shail K. Chaube for his constant support, inspiration, encouragement, guidance and supervision during entire duration of my research work. I would like to thank him for providing all the requisite facilities that gave me generous access to carry out research work. He always encouraged me to pursue my research work and also helped me in spite of his busy schedule to achieve a clearer structure. I am feeling blessed that he gave me opportunity to carry out research work under his guidance on such an interesting topic. His relentless zest for science always encouraged me towards my research work. I am able to complete my research work and thesis without any hindrance because of his persistent help and support.

I extend my sincere thanks to past and present heads of the department Prof. C. M. Chaturvedi (Past) and Prof. C. Haldar (Present) for providing me the departmental and official facilities. I would like to thank my research progress committee (RPC) members Prof. J. K. Roy, Prof. A. K. Singh, Department of Zoology as internal subject experts and Prof. A. Kumar, Department of Biotechnology and Dr. A. Mukherjee, Department of Molecular Human Genetics as external subject experts for their valuable suggestions during my entire research work. I would also like to thank Dr. B. Koch for his suggestions, encouragement and support during my research work.

I bestow my heartfelt thanks and regards to Ex. Prof. S. Haider, Department of Zoology, Banaras Hindu University, for his intense motivation during my research work. I am grateful to all faculty members of the department for their direct or indirect support during my research work.

I am very much obliged to Mrs. Chanchala Chaube, my “guru maa” who has been so lavish to me and always embrace me with smile.

I am thankful to my respected seniors Dr. Ashutosh N. Pandey, Dr. K.V. Premkumar, Dr. Anima Tripathi for their support and encouragement during
my study. I am also thankful to Mrs. Ritika Prasad, who introduced me to this department and to my supervisor. I am thankful to my dear juniors Ms. Meenakshi Tiwari and Ms. Anumegha for their help and motivation. I would also like to thank all those M.Sc. dissertates of several reputed universities who have helped me during this study. I would like to acknowledge the support of our laboratory assistant Mr. Pancharatna Upadhyay and attendant Mr. Sujeeet Kumar for care and maintenance of animal house in absence of which my study would not have been possible.

I pay my heartfelt regards to respected parents, Mrs. Nishi Prasad and Mr. Bakul Prasad for their enormous love, blessings, sacrifice and support during all the thick and thin times during my study. I am thankful to my lovely grandma Mrs. Manorama Devi for her blessings, care and encouragement. I am also very much thankful to my friends and colleagues who have always encouraged me during my study.

This Ph.D. thesis contains the results of research undertaken at the Department of Zoology, Institute of Science, Banaras Hindu University, Varanasi, UP, India. This research was carried out within the framework of the programme funded by the Department of Biotechnology (DBT), Ministry of Science, Government of India. I am thankful to DBT for providing me JRF and SRF and UGC for Research Fellowship (under Scheme S-5012). I would have never been able to complete my research work for thesis without the help, blessings, encouragement and support of others.

Shilpa Prasad