ACKNOWLEDGEMENTS

This thesis is the end of my journey in obtaining my Ph.D. During the entire course of my investigation, starting from its inception and finally the crystallization of the results, there has been a constant source of encouragement of numerous people including my well wishers, my friends, colleagues and various institutions.

I accredit my sincere thanks to The Chairman, Department of Zoology for providing necessary infrastructure, resources and constant help which he bestowed upon me to demystify the hurdles falling on my way to accomplish my research work.

I am thankful to my supervisor Dr. G.G.H. Shadab for scholarly advice, constant encouragement, invaluable comments and discussion in every phase of my research career. This thesis is largely a result of his diligent and meticulous approach in each and every step of work.

I tender my immense indebtedness and obligations to all my esteemed teachers, Prof. Irfan Ahmad, Prof. Iqbal Parvez, Prof. Wassem Ahmad Faridi, Prof. Asif Ali Khan, Prof. Wasim Ahmad, Prof. Mohammad Afzal, Prof. Wajihullah, Prof. Mukhtar Ahmad Khan, Prof. Qudsia Mahseen, Prof. S.M.A. Abidi, Dr. Mohd. Kamil Usmani, Dr. M. Afzal Khan, Dr. Shahid bin Zeya, Dr. M. Khalid Saifullah, Dr. S. M. Abbas Abidi, Dr. Malik Irsadullah, Dr. Raj Ahmad and Dr. Yasar Hasan Siddique for their help and cooperation in all possible ways to make this work a success. This list is incomplete without acknowledging Dr. Kamal Kumar Saxena, Dr. Mahesh Verma, and Dr. Javed Abdul Wajid, who were the source of inspiration for me in my early days and who taught me many things.

The road to my Ph.D. started with training at NBFR, Lucknow. I take this opportunity to say heartfelt thanks to Dr. Nagpure and Dr. Kushwaha for providing me experimental Hands-On Training on Current Tools for Genotoxicity Assessment and building confidence in me and expertise me in chromosomal aberration, micronucleus as well as in comet assay techniques.

Most of the results described in this thesis would not have been obtained without a close collaboration with few laboratories. I owe a great deal of appreciation and gratitude to Dr. Anup Kumar Tewari, Department of Parasitology and Dr. A. G. Telang, Division of Pharmacology and Toxicology, IVRI, Bareilly and Dr. Sarika Singh, CDRI, Lucknow for providing me instrumentation facilities to carry out part of my research work at their institutes. My warm appreciation goes to all the research students of those labs.
I convey special acknowledgment to my trainee friends and respected teachers, Dr. Vijeyta Tiwari (IVRI), Ramanjeyulu (Piramal Life Sciences Limited, Mumbai), Dr. Anurag (NBFGR, Lucknow), Muheeb Beg (CDRI, Lucknow), Krishna Kumar (MGDC, Tam узнать), who were always there when I really needed. Their enthusiasm and heart-warming welcome will always remain fresh in my memory.

I would also like to thank some people from early days of my research tenure. Dr. Hifzur Rehman siddique, Dr. Mumtaz Jabeen, Dr. Fauzia Khan and Dr. Asma Farhat Sherwani were among those who kept me going at the beginning. It's my fortune to gratefully acknowledge to Dr. Md. Mahnoor Khan and Subuhi Ahidi, who helped me a lot. I, specially, would like to thank Dr. Shoeb Ahmad for their incredible help and assistance.

I am indebted to my many student colleagues for providing a stimulating and fun filled environment. I am thankful to Areeba Ahmad, Nazia Nazam, Monica Sharma, Fakirha Firdous, Reena Fatima, Mohammad Aatif, Mahino Fatima, Falak Naz, Nisha Sharma, Uzma Tanveer, Uzma Rafi and Yusra Zaidi. My special appreciation goes to Dr. Habeeba and Ms. Seemab for their friendship and encouragement. I wish to thank my best friends, Pooja, Suratya and Smita for their love, care and moral support.

I would also like to extend huge, warm thanks to my roommate, Kusumika Sarcar for her support, generous care and the homely feeling at hostel. She was always beside me during the happy and hard moments to push me and motivate me.

It is indispensable for me to express my heartfelt gratitude, which goes to my hostel friends, Aisha, Nazish, Naseem-Us-Saba, Shehba, Shagufta, Sana, Farheen, Nilofar, Nida, Farah, Gazala, Afsha Aapa, Gazala Aapa, Zeenat Aapa. Thank you doesn’t seem sufficient but it is said with appreciation and respect to all of them for their support, encouragement, care, understanding and precious friendship.

I must express my thanks to the staff of the Department and Hostel for their cooperation and assistance.

Words cannot express my deepest gratitude to my parents for their love, patience, support and sacrifices, which is vested on every page of this study and is pivot in the completion of this task. They always stood behind me during all sweet and sour moments of my life. Whenever I get tired and desperate, I found them ready to provide me courage and consolation. Finally, I cannot leave out my sister, Ms. Uzma and brothers, Dr. Moazzam and Shah Nawaz who have always been there for me with their prayers and advice.

I am grateful from the core of my heart to all those persons who knowingly and unknowingly helped me in the completion of this work.

Nuzhat Parveen