



# *Acknowledgement*



## Acknowledgements

Undertaking the PhD has been truly a life challenging experience for me. It is a milestone in more than five years of work at CSIR-IITR. My experience at IITR has been nothing short of amazing. Since the First day during mid September to now at end of the day, to come up as a good researcher is the result of work by dozens of people, who I wish to thank. A number of peoples supported, encouraged and lessened me to accomplish my goals. This page is specifically designed to note my appreciation for those people who stand out most notably in my mind as contributing to the content of my thesis. I would therefore like to offer my sincere thanks to all of them. *Above all, I owe it all Almighty God for granting me the wisdom, health and strength to undertake this research task and enabling me to its completion.*

At this moment of accomplishment, First and foremost, My deep gratitude goes first to my supervisor, **Dr Vinay K. Khanna**, Senior Principal Scientist, Developmental Toxicology Laboratory, Systems Toxicology & Health Risk Assessment Group, CSIR - Indian Institute of Toxicology Research, Lucknow, for his scholarly inputs and consistent encouragement that I received throughout the research work and his unwavering enthusiasm that kept me constantly engagement in my research work. Any word or phrase falls short in expressing my gratitude to him. My cordial thanks sir for accepting me as a PhD student, and for your warm encouragement, thoughtful guidance, critical comments.

I would like to say a very big thank to my Co-supervisor Dr Manjul Pratap Singh, Senior Assistant Professor, School of Pharmacy, Babu Banarsi Das University, Lucknow for the patient guidance, encouragement, advice he has provided throughout and for sharing their pearls of wisdom during the course of this research.

I gratefully acknowledge Professor Alok Dhawan, Director, CSIR-Indian Institute of Toxicology Research and Dr K. C. Gupta, Former Director, Lucknow for his great vision and for providing necessary infrastructure and resources to accomplish my research work.

I would also like to show our gratitude to the Honorable Director Dr Rajeev Gupta for giving me the opportunity for PhD enrolment and for his valuable suggestions to improve the scientific quality of the entire thesis.

I want to pay sincere acknowledgement to vice-chancellor Dr Arun Mittal, BBD University, Lucknow for permitting me to register myself for PhD program at the university. My deep thanks goes to my PhD coordinator Dr Ahmad Ali, for his guidance and support, he provided me during my whole PhD tenure. I want to pay my acknowledgement to RDC Committee members for their valuable comments and suggestions they provided me to improve the quality of my thesis.

I am also extremely indebted to Dr Devendra Parmar, Chief Scientist & Head Developmental Toxicology Laboratory, Systems Toxicology & Health Risk Assessment Group, CSIR - Indian Institute of Toxicology Research, Lucknow, His unflinching courage and conviction will always inspire me, to continue to work with his noble thoughts. I would like to express my deepest gratitude to Dr Aditya B. Pant, Principal Scientist, Developmental Toxicology Laboratory for his understanding, encouragement and personal attention which have provided good and smooth basis for my PhD tenure. I also want to pay my sincere thanks to Dr K.C. Khulbe, Head RPBD and Mr BD Bhattacharjee, Former Head, RPBD for extending unconditional help all the time.

I have no words to pay me gratitude and sincere thanks to Dr Rajendra K. Shukla, Senior Resident, AIIMS, Bhopal, for his continuous encouraging support, patient motivation, providing stimulatory environment through out and incented me to strive towards my goal. It is really a blessed to work with such a tremendous and understanding person.

My appreciation extends to my seniors Dr Lalit P. Chandravanshi, Dr Vivek Gupta, Dr Ansuman Singh, Yogesh Dhuriya for their expertise that greatly assisted my research. I want to pay my thanks to my friends Ankita Pandey, Aprana, Chetan Singh Rajpurohit, Astha Seth, Sharddha Prakash for their constant support and for providing a stimulating and fun filled environment. I also want to thanks my lab members Pranay Srivastava, Anugya Srivastava and Anima Kumari. My great regard goes to Mr Ajay Kumar, Mr B.S. Pandey and Mr Puneet Khare for technical

assistance throughout my whole time period. Besides, I also want to pay my sincere thanks to all the all other members of Developmental Toxicology Laboratory for their continuous support.

I take this opportunity to sincerely acknowledge to CSIR for providing financial assistance in the form of Senior Research Fellowship which buttressed me to perform my work comfortably and to CSIR-Indian Institute of Toxicology Research, Lucknow for providing resources to carry out the research work. I am thankful to the Babu Banarasi Das University, Lucknow for providing me a plateform to complete my PhD in pharmacology.

Above ground, I am indebted to my family. Words cannot express how grateful I am to my parents for all of the sacrifices that they have made. Their prayers for me were what sustained me thus far. I would also like to express the deepest appereatation to my bother Rishabh, Dr Raghvendra, Priyank and my sister Surabhi and cute Sanvi who continuously and convincingly conved a spirit of adventure in regard to lifting me uphill on this phase of the life. Besides this, several people have knowingly and unknowingly helped me in the successful completion of this thesis.

*Finally, I would like to acknowledge all the experimental animals that silently sacrificed their lives for my experimental work.*

Thank You all for your support,

**(Richa Gupta)**