ACKNOWLEDGEMENTS

I take this occasion to thank Dr. K. J. Mukherjee for his courage to stand against all odds and to go out of the way to help me out in an academic crisis and for giving me an opportunity to work with him. I am indebted to him for his guidance and freedom to realize my scientific ideas and help me in every possible way to finish my PhD work in required time frame. Spending time with him has been an education in itself, the most inspiring aspect of his personality I discovered is, his being head strong, honest and humble at the same time, I sincerely wish to inculcate his poise, affable nature and humbleness.

I thank the present chairman Prof. Uttam K Pati, and former chairmans, Prof. Rakesh Bhatnagar and Prof. S. K. Kar for providing all the necessary facilities in CBT. I specially thank Prof. Rakesh Bhatnagar for taking care of my academic interests being the chairman of CBT, in a very just and fair way. I thank, Prof. K. B. Roy, Dr. K. J. Mukherjee, Prof. Rakesh Bhatnagar, Prof. Aparna Dixit, Prof. Rajiv Bhat, Prof. Uttam K Pati, Prof. S. K. Kar, Dr. Subba Rao and Dr Chari (BIC) to help me to sharpen my concepts of biotechnology as a M.Sc student. Informal social outings of Dr.Devapriy Choudhary with our lab group, those sometimes heating and sometimes encouraging discussions about scientific bureaucracy and bureaucractic science have always been enjoyed by me.

I would like to acknowledge Prof. Rakesh Bhatnagar once again for extending his lab facilities that has immensely helped me in carrying out my research work. I thank Dr. Meera (Deshbamduh college, DU) to help me understand immunology and develop an interest in the field, which actually led me till this far in my academics. I take this opportunity to thank Mrs. Mouli Majumdaar making me learn more about myself. Her enlightening teachings helped me cope up difficulties and fears of my life. She set my mind free and taught me to handle odds of life. I will always be grateful to her for being a teacher in true sense.

I thank all the past and present students of CBT especially Nidhi, Praveen, Prasanna, Atul, Smriti, Vibha, Aparna, Jagdish, Moshin, Ramanuj, Sanjeev, Samar, Rajvir, Sarita, Vandana, Prerna, Sangeeta, Gaurav, Suneel, Aditya Sen, Rajesh Mishra, Sujata, Ramani, Aruna, Tanuja, Neeraj, Rajkumar, Mohan, Saurabh, Swapnil, Neda, Subhash, Megha, Sheeba, Jeetendra, Manpreet, Veenu, Amjad, Anuj, Anup, Rajkumar, Tejram, Dhirendra, Anjana, Deepa, Dheeraj, Suman (M.Sc), Dileep, Parul, Nora and others for their love they extended unconditionally and made my stay in CBT memorable. My seniors in the initial years of PhD who helped me establish myself in an immunology lab, Ramanuj, Sanjeev, Shuchi, Shobbhita, Bimal, Vikas and Himanshu deserve a special mention. I am indeed thankful to Ramanuj for solving always my immunology related problems and that to promptly. The care, concern and friendship extended by Vikas is very special to me. I admire his courage to speak against wrong. The affection and care lend by Nidhi, Praveen and Prasanna, will always be remembered by me. I will also fondly remember my
batchmates, Amardeep Khushoo, Puneet, Gautam, Alii, Azhar, Hossain, and Mehboob who always lend their hand of help to me, whenever I needed. I enjoyed the time we all spent together while we took up classes at ICEGB, JNU. I always cherish those memories.

Members of my present lab need an extraordinary mention for helping me out of the everyday hassles and distress, the very characteristic of research - Yogi, Amar, Palash, Poonam, Sangeeta, Thangminlai Vaiphai, Sanjay, Sujeet, Chaitali, Dr. Pooja Rathi and Ramsukhji. I wish them all a successful future. My juniors Anjana, Pratibha, Rajkumar, Shalu, Nitin, Moin, Shalini, Amarendra Pegu, Amardeep, Poonam, Kshama, Raghav, Leena, Veera, Rashmi, Parul, Pushpendar, Suman, Dilip, Bhavna, Chandresh, Megha, Sheeba, Subhash (deserves a special mention for his unconditional help always), Anuj, Anup, Swapnil and others have always made my surrounding lively by just being there. I wish them happiness and success in their lives.

I also acknowledge the help provided by the CBT staff – Tyagi ji, Vedpal ji, Sindhu madam, Yadav ji, Mr. Aiyer, Dilbagh ji, Mr. Sajan, Mr. Tewari, Geeta ji, and Mrs. Geeta Joshi. Everyday support provided in C.I.F by Naipal Singh ji and by lab attendants Bishu dada, Umesh ji, Ameresh ji, Anil ji, Rajesh (canteen) and others is also duly acknowledged. Pandey ji and Raju ji working at the animal house of JNU has been always nice and helpful. I am really thankful to them to help carry out animal related experiments.

Friendly traders like Mr. Rajeev (Pinnacle), Mr. Naresh Sahu and Mr. R. K. Jain have gone a long way in easing the work pressure.

The dabas and canteens are the lifeline of JNU, I thank Mr. Gopalan, Ajay, Michael (library canteen), for their love, care and service.

Financial support provided by CSIR (Council for Scientific and Industrial Research) is sincerely acknowledged.

My life line for nearly eight years on the JNU campus, my friends, Mamta, Yogi, Dheeraj, Mukesh, Deepika, Amar, Puneet, Neeraj (Mishra Ji), Saurabh (Raja shahib) and Kshama are very close to my heart and I will always be. I will miss them all. Yogi has been a special friend (the most valuable gift I got from this university), a support in distress, strength in difficult times, a constant source of energy. He’s been simply and greatly always there, I have seen so many things change in my life but his friendship, I really cannot imagine stay on this campus without him. I wish him and his family great life ahead.

My childhood friend Vatsalta deserves a special mention for being a special friend to me. I can never forget the love she herself and her family, uncleji, auntljl, Vishvaytanam bhaiya, Safalta and Kushalta didi and bhabiji, has bestowed upon me. I feel really lucky to have them all in my life. That is my second family. I wish them happiness and health in their life.
My family – Papa, mumma, Nishu and Raman – is my soul. I am nothing without them. I express my gratitude to them for being with me. They are God’s blessings to me and precious to me more than my own life.

Suman Tapryal.