Acknowledgments

Before getting into the thick of things, I would like to express my heartfelt sense of gratitude to all the people who have helped me directly or indirectly in completion of this work. First of all I would like to thank my PhD supervisor Dr. Sunil K. Lal for giving me the opportunity to work in his lab and supporting me in every possible way, throughout the duration of my graduate study. I shall continue to seek his support in future and hope for a teacher-disciple relation for life time. I am equally grateful to Dr. Suryaprakash Sambhara (Influenza Division, CDC, Atlanta, USA), whose kind help and advice has very significant contribution in completion of this thesis. I am also thankful to Dr. Amit Sharma, Dr. Naveen Khanna and Dr. K. Natarajan for their support and guidance.

I am greatly thankful to Dr. Shahid Jameel, Dr. Vijay Kumar and Dr. Sunil K. Lal for creating an excellent research group, Virology at ICGEB. They have ensured a relaxed yet disciplined work culture, where students are shielded from any sort of lab hardship. I am especially thankful to Dr. Shahid Jameel for allowing me access to the P3 lab and confocal microscope facility. I acknowledge the constant and unbiased efforts of Ravi Sir, Purnima di, Kedar Ji, Tenzin Mam and Nazim in keeping the labs in running condition. I would like to thank Prof. V.S. Chauhan, under whose stewardship ICGEB has become and remains one of the best research places in India. The exciting scientific seminars by eminent researchers and cultural programs by renowned artists were always great breathers from the lab ho-hum. I would also thank ICGEB administration members for their cordial help, whenever needed. I am sincerely thankful to Council for Scientific and Industrial Research, Govt. of India for supporting me financially during my graduate study. I feel extremely lucky that I got the opportunity to work as a graduate student, in this fabulous Institution. I am proud that ICGEB is my alma mater.

I am thankful to my past and present lab members Adarsh, Bhavna, Himani, Imtiyaz, Jyoti, Kamran, Kirti, Kulbhushan, Namita, Neha, Rashmi, Ruchi, Ruhel, Sanchari, Shipra, Vahid, and Vandana for their co-operation and lively company. It wouldn’t have been possible to complete this research work without the help of
Kulbhushan, Kirti, Jyoti, Surendra, Shipra, Adarsh, Bhavna, and Purnima. I am thankful to Virology group members Abdul, Ankita, Anoop, Deepali, Ekta, Ganesh, Grace, Imran, Jamal, Kartik, Kaveri, Madeeha, Nagisa, Nehul, Nabab, Paresh, Prasida, Rahul, Saif, Shikha, Swarna, Vijaya, Vivek and Zain for making my stay in ICGEB, an enjoyable experience. I would like to thank my PhD batchmates Samit, Vandana, Obaid, Richa, Deepti and Anamika who made the ICGEB academic program fun to go through and also helped me in keeping reference of my progress as PhD student. I should thank the badminton club members at ICGEB, Paresh, Shrikanth, Javed, Nishant and Harshesh. The evening session of great badminton games with them, helped me a lot to vent out all negative energy, and staying fit as well.

Members of Influenza division at Centers for Disease Control, Atlanta, USA need special mention for their genuine help and support. I am deeply grateful to Dr. Jacqueline Katz and Dr. Shiva Gangappa for their kind support and guidance. The help from Juan, Jenish, Keyur, Priya, Weiping, Bill, Aseem-Neetu and Jin is greatly appreciated.

Words fail to express my indebtedness to my parents and brother whose unconditional love and support has always been with me, in whatever I have chosen to do in my life. I am especially grateful to my fiancée Ekta, who has supported me wholeheartedly all this while. Finally I thank God for bestowing me with such great family, friends, PhD guide, lab-members and giving me the strength and wisdom to complete this research work.

Shashank Tripathi
February, 2012