



---

## ACKNOWLEDGEMENT

*Research is an arduous task which involves consistent and dedicated mind with regards to the strenuous and hard labor put into it.*

*While success depend in a large measure upon individual initiative, exertion and hard work, but it won't be an exaggeration to say that nothing can never achieved without the guidance, support, love and care of those in who you place your trust.*

*With all humbleness and reverence, first and foremost my profound, endless and sincere thanks to my esteemed supervisor's Dr. Ambikanandan Misra, Professor, Pharmacy Department, MSU, Baroda and Dr. Sebastien Lecommandoux, Professor, LCPO, University of Bordeaux, Bordeaux whose continuous encouragement, invaluable guidance, precious suggestions, crucial help, benevolent attention and tireless efforts enabled me to execute this project successfully.*

*I sincerely acknowledge my regards to Prof. R. Balaraman, Head, Pharmacy Department, MSU, Baroda and Prof. Henri Cramail, Director, LCPO for providing the necessary infrastructure and work place.*

*I am thankful to Prof. R. S. R. Murthy, Prof. S. H. Mishra, Prof. M. R. Yadav, Prof. (Mrs.) Krutika K. Sawant, Prof. (Mrs.) S. J. Rajput, Prof. (Mrs.) Rajani Giridhar and Dr. Rajashree Mashru for their help whenever sought for.*

*With great pleasure and reverence, I express my profound gratitude to Dr. Jean-François Le Meins and Dr. Christophe Schatz, LCPO, University of Bordeaux, for help, encouragement, valuable suggestion and moral support.*

---

---

*I express my sincere thanks to Madam Catherine Roufinat for uncountable help, being there in France for me, just like mother.*

*My special thanks to Prof Pierre Voisin and Ms. Véronique Bouchaud for their help in cell line study protocol design, encouragement, suggestion and cooperation, which really kept me going on to complete this tedious job.*

*I am thankful to Dr. Anil K. Mishra and Dr B.S Dwarakanath for allowing me to carry out in vitro cell line studies and in vivo animal studies at Institute of Nuclear Medicine & Allied Sciences (INMAS), Delhi. I am also thankful to Mrs. Krishna Chutani and Mrs. Ankur Kaul for their help in carrying out these studies.*

*I was lucky to cherish the moment spent with Dr. Anant Narayan Bhatt, Amit Verma, Abdula Farooque, Anand Pandey and other colleagues in INMAS for their love, care, help and support, whenever I needed.*

*Words can never acknowledge the warmth and friendly help I derived from Willy, Charles, Stephanie, Jerome, Emilio, Sandra, Nicolas and other colleagues in LCPO whose love, affection and care for me was peerless. They were stand beside me to resolve every thick and thin problem.*

*My special thanks to Vijayakrishna Kari, Mumtaz, Harikishna, Dakshing and Dnyaneshwar Palasker for their help and valuable suggestion. I cannot forget the happiest moments (Like cricket, group dinner) in Bordeaux, FRANCE with my dearest friends.*

*I owe my heartiest thanks to Dr Ajay J. Khopade, for encouragement, valuable suggestion and time to time help whenever I needed.*

---

---

*I wish to acknowledge, Sachin, Yogesh, Sanjay Patil and Florence for making everything worthwhile and also thanks to every friend who helped me directly or indirectly.*

*My special thanks to Himanshu, for his love, care, and genuine concern towards me.*

*I want to give heartiest thank my parents, wife Prabha for their love, support, unlimited faith and confidence that has made me whatever, I am today. There are no words, which can acknowledge for that, they provided me throughout my academics. Through writing, only I can convey my heartfelt gratitude's and emotions to them which otherwise would have been impossible to do.*

*Lastly thanks to the Almighty, who listened to my silent prayers, whose external blessings and divine presence helps me to fulfill all goals.*

*Finally, I am thankful to all, who love, care and have faith in me.*

*Fellowship in terms of NDF by AICTE (All India Council for Technical Education, New Delhi, India) and Sandwich PhD fellowship by Science and Technology Department, French Embassy in India are duly acknowledged.*



*Kamal Kumar UPADHYAY*

---