

## *Acknowledgements*

وَاتَّكُم مِّنْ كُلِّ مَا أَلْتُمُوهُ وَإِنْ تَعُدُّوا نِعْمَتَ اللَّهِ لَا تَحْصُوهَا

And He gave you of all that you asked for, and if you count the Blessings of Allah, never will you be able to count them

First of all, I would take this moment to thank you my Allah for all that wonderful people and things that you have blessed me with and obviously I would never be able to acknowledge all of your countless blessings even if I dedicate my whole life to it.

Words wouldn't suffice to express my gratitude for my parents without whom I would have accomplished nothing. They have raised me in all the difficulties and who have stayed by my side with the kind of love one could never imagine of. My brother is the loveliest, the kindest and the noblest man on the face of earth who would do anything if I ask him to do. He bolstered me with all his love and supported me with all his strengths whenever I needed him.

All that I am today and will be will always be due to Misra Sir (Prof. Ambikanandan Misra), the wisest man I have ever met, the man of honor, the man of principles and the man of vision. His wit and wisdom are unparalleled. I would consider him not only as my mentor but as my teacher as he has taught me everything that's needed for now and for future. Thanking him for just successful completion of the dissertation would be my stupidity as I have learned the lessons of life from him. In the umbrella of his greatness, we, all his students, have learned, fostered and grown. I may fail to express my gratitude to him but he will always be in my heart now and forever.

By definition, a mentor means a wise and trusted guide. Nirav Khatri has proved that in many ways. With true qualities of being one, he has always helped me foster. Never pushing me, he has let me explore myself while always keeping an eye on me. He pushed me when i needed a push and guided me to the right direction when i was stray. He trusted me with many things i would not trust myself with, making me grow stronger. What sets him apart yet is that he makes himself a friend when i need one for discussing my personal matters that I cannot share with others.

Dipesh Bardiya, who was a stranger to me when i joined, became a great colleague and my roommate whose room i joined with a thought of staying for a month only and stayed till the day he left for the job almost after a year. Sharing that Room no. 42, we shared everything whether it be great talks, late night coffees, Tuesday afternoon juice centre moments, eating at 12 in the night, concert moments, garba moments, parties, outings etc. His company always kept me attentive and focused on my tasks.

How intelligent you become is determined by how intelligent people you stay in the company of. And that goes with Sushilkumar Patil, the beautiful mind, the man of principles, the one who reads a lot, who thinks a lot, who is diligent, who is always well prepared, who is always determined. His company has always pushed me ahead and

ahead every day and who has always taken care of me even when not expected. He had supported me in every activities, would be sarcastic at times when needed. Looking for something or stuck with some trouble, I run to him and it turns out he has really good suggestions i can always count on. He was, he is and he will be the one who i will consult for almost any matter.

Words would not fit if I try to thank my friends Rohan Lalani and Priyanka Bhatt the ones I have shared all the good times and the hard times. Memories shared with Rohan; the one I can call Lala, Lalla and many other crazy names that one can't even imagine of; will always be remembered and savoured. He would be the one I could run to, to unload my frustrations, to share my feelings (some of them would be even indescribably weird), to share crazy moments, to share weird thoughts on almost anything. The one i can count on and sometimes not ;-). He has always been a good companion since i started my academic journey. Never saying no, he has always been a helping hand in my practical and all other kinds of works.

Saying about Priyanka, I will have to mention that of all the girls I have ever come across, she is the one with the best attitude. She is a little sparrow that keeps everyone around her happy. She takes care of everyone around her including me. She will remind me if I have eaten if she sees that I might miss my lunch. I will always savour the taste of the food that she always used to bring in large quantity for everyone. Apart from that, she has always been a helping hand in all my experiments that would not have been successful without her.

This acknowledgement would not be complete if I forget Jitendra Amrutiya, my partner, who has been my companion since my Master's. A true partner, for accompanying me in all the things whether it be garba or parties or discussions. I have been harsh to him many a times and yet he has never talked ill about me or borne ill will against me. I respect him for that. He has always helped me on everything whenever i needed him. His friendship will be cherished forever with all those crazy conversations and foolish talks and funny times we have shared.

Another person I wouldn't be able to thank enough is Hinal Patel who has always lent a hand whenever I needed. Though she was my senior, she never let me feel so. Rather, she always stood by my side as a friend in trying times. I truly acknowledge her support in completion of my dissertation and her company would always be cherished remembering the lunch time chats and party moments.

I would require a lot of adjectives to describe THE Riddhish Patadia, the man of honour, who is not afraid of admitting his own flaws and pointing out yours, the one who I can reach out to for suggestions, the one who I reach out for advice on almost anything, the one who always tries to bring out the good in you, one who has always boosted me up whenever I felt that things are not going to work out. He has always been the one I can go to talk to on almost anything almost anytime (even at 3 am in the morning).

I cannot forget my departmental as well as hostel colleagues, Mahesh Baramde, Mayank Sharma and Mohit Sir, who have been more of my friends than colleagues. All

that crazy moments shared with them at V. S. Hall of Residence will never ever be forgotten. Those words “Imran bhai, biriyani kab khila rahe ho?” (by Mahesh), “Imranbhai chai pine chale? (by Mayank Sharm)” will always echo in my head. I also thank Mahesh for his constant help for spectroscopic analyses of the synthesized compounds. Mohit Sir’s always smiling face and kindest words will always be remembered and cherished. Asking him for favor never seems difficult as the conversation ends at his simplest reply “Are kar denge” followed by “aur bata Imran, aur kya chal raha hai?” never lets you feel troubled in reaching him ever.

That wouldn’t be possible if I miss mentioning Ajay Rathod, my Rowdy Rathod friend, the one who is indeed a friend in need and when not in need as well ☺. I call him up and tell him everything; everything meaning every little thing and every big thing and all the things in between. Having him by side is awesome. I board on a train/bus/any vehicle to Ahmedabad and call him up to inform him that I am coming and as soon as I put my leg on the lands of Ahmedabad, there he comes from wherever he is, leaving everything whatever he’s doing to get me, like a genie. I truly cherish my friendship with him. He has acted as a boost for me always and I would not be able to thank him enough for all the things he had done putting his life into it.

On this auspicious time, I do not want to acknowledge my mesmerizing, tantalizing, fighting, tremendous, wonderful, bugging, annoying, awful, awesome, awesomely awful and awfully awesome, ever-appreciating, any-time ready to not-at-all ready, friends Vasim and Aamir for who the list of adjectives would go even more longer than the digits in the value of  $\pi$ . Alas, I don’t even want to mention them. Actually, I don’t remember anything about them...not even the late night teas and coffees at railway station, Mohini corner, Hotel Kashmir, Ekta hotel or even at Madhuban Resort ...I don’t even recall those words (“Dr Imran” by Aamir and “jordaar” by Vasim) that they say to me every time filling me with zeal and making me feel special...that I am doing something special...and for that I don’t want to thank them. And I am not even thinking of thanking them...may their soon-coming (too-soon-coming) married life be soooooo awful that they spend more time with me.... ;-)

Thanks are also due to Rathod Sir, Co-ordinator, Sri G. H. Patel Pharmacy Building for extending his continuous support on easing the facility improvements whenever required that was of immense help accomplishing various tasks of my dissertation.

I would also like to thank Dr. Kirti and Prachi Kariya for their support for Animal studies starting from protocol preparation to getting the approval from the CPCSEA. I personally extend my thanks to Jatin Machhi and Sagar Patel who have helped me in accomplishing the animal studies successfully putting extra-time into it whenever required. Thanks also go to Dr. Hardik Patel and Dr. Anshuman Sinha who have always guided me in animal studies since my M.Pharm and during my PhD.

I would like to extend my thanks to Prof. M. R. Yadav, Prof. Krutika Sawant, Prof. Sadhana Rajpoot, Late. Prof. Rajini Giridhar, Dr. Rajashree Mashroo, Dr. Hetal Thakkar,

Dr. Prashant Murumkar, Dr. Pankaj Nagar, Hemal Madam and Bhavik Chauhan Sir who have always been keen in professional excellence of the students of the department. I would also like to extend my gratitude for Dr. Prashant Murumkar who helped in plagiarism detection in the published and submitted articles.

I would like to personally thank my departmental colleagues, Dr. Girish Kore, Dr. Atul Kolate, Dr. Chetan Yewale, Dr. Mohan Rathi, Jagruti Desai Ma'am, Abhishek Sir, Chintan Sir, Karan Mittal Sir, Prachi Bhamre madam, Madhuri madam, Pravin Srivastava Sir, Rahul Dhande, Arpita ma'am, Aditi Poddar, Vijay Pawar Sir, Nitish Agrawal sir, Mahesh Shidore sir, Navneet Prajapati Sir, Ashish Kanhed Sir, Nirav, Dushyant, Veenu Mundada madam, Abhijeet Pandey, Mitali Patel and Ritu for their support and for great time I had with them at G. H. Patel Pharmacy Building.

I also take opportunity to extend my gratitude for Jigar bhai (Jigar Shah), Microbiology Department, Faculty of Science, The Maharaja Sayajirao University of Baroda for his guidance on plasmid amplification and isolation as well as helping in conducting experiments at his lab whenever required.

I am thankful to Prof. Sarita Gupta, Co-ordinator, Dr. Vikram Sarabhai Science Center, M. S. University of Baroda for her support to carry out Ultracentrifugation, Mass Spectrometry and cell line studies i.e. fluorescent microscopy and FACS. Pradip Sarkate has extended his unprecedented support for carrying out Mass spectrometric analysis of synthesized phospholipids. I would thank Dr. Tushar Shah, Dr. Komal, Dr. Akhilesh, Pooja for their continued guidance and practical support on the cell line studies.

I would like to acknowledge Sun Pharma Advanced Research Center, Vadodara for supporting on TEM and mass spectrometry. I thank Dr. Sachin Naik and Dr. S. Bhounick for their support for the TEM analysis of the developed formulations. I would personally thank Dr. Sachin for his continued guidance for the dissertation. I also recognize the support extended by Dr. Krishnamurthy and Virpal for their support for Mass spectrometric analysis of the compounds. I personally thank my friend and companion since my Bachelor's degree, Virpal for his assistance in carrying out Mass Spectrometry of some synthesized compounds and his guidance on interpretation of the spectra.

I also thank Sophisticated Analytical Instrumentation Facility, University Institute of Pharmaceutical Sciences, Panjab University for support in carrying out Proton NMR studies of some compounds.

This acknowledgement would be incomplete if I do not mention my students, Nishita Mistry, Priti Patel, Pratiksh Patel, Chandrali Bhattacharya, Atul Pandey, Dhaval Shah, Karishma Patel, Kaushal Upadhyay, Bhavesh Patel, Kaushik Domadiya, Nirav Pancholi, Geetanjali Rohit, Disha Shah, Milan Karena, Milind Shan, and through whom also I have learned a lot.

I am indebted to Vaishali Madam and Pravin bhai for their assistance in all the financial and administrative aspects. I owe a special thanks to all office and laboratory staff (Hasumati Madam, Heena Madam, Chandrakant bhai, Chandrakant, Nagin bhai, Jagdish bhai, Pravin bhai and Pramod bhai of the department of pharmacy, M.S. University of Baroda, for their constant help. I am indebted to Pragnesh Prajapati for his constant support in maintenance of labs and equipment.

Last but not the least I express my gratitude and apologize to everybody whose contribution I could not mention.

With love,

Imran Vhora