

No research is ever the outcome of single person's talent or effort. This work is no exception. Several people have been instrumental in making this project a success allowing this project to be completed.

Today at the acme of my thesis, I remember all my well wishers without whom this thesis would not have taken shape. Although, it is not possible for me to name and thank them all individually, I must make a special mention of some personalities and acknowledge my sincere indebtness to them.

I offer flowers of gratitude to the Almighty God who has been the source of strength throughout my life.

I express my warmest gratitude to my esteemed Guide, Prof. R.S.R. Murthy, Pharmacy Dept., The Maharaja Sayajirao University of Baroda, Vadodara, for introducing me to the interesting world of Nanotechnology for improvement of cancer chemotherapy. I thank him for his invaluable guidance and endless optimism during these years. His constructive criticism, perpetual encouragement, timely advice and meticulous attention were the real driving force throughout the course of my work.

I gives me immense pleasure to express my heartfelt thanks to Prof. R. Balaraman, Head Pharmacy Dept., Prof. Rajani Giridhar, Coordinator, Prof. A N Misra, Professor in Pharmaceutics, Prof. M R Yadav, Professor in Medicinal Chemistry, Prof. S.H. Mishra, Professor of Pharmacognosy, Dr. (Mrs.) Krutika Sawant and other teaching staff for their kind co-operation during the study.

My sincere thanks are due to the Dean, Faculty of Technology and Engineering, M. S. University of Baroda, Vadodara for providing me with the necessary facilities required for my research work.

Special thanks are due to Indian Council of Medical Research, New Delhi (ICMR) for funding this project.

I owe special thanks to Dr. Dhananjay Patankar (Head, Intas Biopharmaceuticals Ltd., Ahmedabad) for providing me with best facilities to carry out the cell line studies. My sincere thanks to Dr. Susobhan Das (Intas Biopharmaceuticals) for his invaluable guidance and encouragement throughout my cell line studies. A special thanks to everyone from Biocharacterization Dept., Intas Biopharmaceuticals Ltd. for their kind support and co-operation during my cell line studies.

I am thankful to Mr. Prabhakar Lahare (Head Analytical Development, Alembic Research Centre, Vadodara) for providing me with the best analytical facilities for analysis of plasma and organ samples and Mr. Sandep Gadewar and Mr. Mehul Pathak for their kind help in carrying out the HPLC analysis.

I am very thankful to Sun Pharma Advanced Research Company Ltd. for provding me a gift sample of Paclitaxel. I am grateful to Tong Shen Enterprise Ltd., Taiwan for proving a gift sample of the butyl cyanoacrylate monomer and also for financial assistance for travelling to Canada for poster presentation.

My heartfelt thanks to Dept. Of Science and Technology, Govt. Of India, New Delhi for providing me financial assistance for travelling to Canada for poster presentation. Special thanks to ERDA, Vadodara and AIIMS, New Delhi for analysing the sample for XRD and TEM respectively.

I will be untrue if I fail to acknowledge the most valuable technical assistance and morale support extended to me by my colleagues especially Mr. Yogesh Raichandani and Mr. Prudhviraju Dantutluri during my research. I would like to express my sincere thanks to Mr. Kiran Chaudhari, Mr. Jigar Lalani, Mrs. Manisha Lalan, Mr. Vaibhav Patel, Mrs. Gitanjali Sharma, Mr. Prashant Murumkar, Mr. Atul Badhan, Mrs. Smita Pimple, Mrs. Rupa Prabhu and other colleagues for extending their support during the course of my work. I am thankful to all the M. Pharm students (2007-2009) for their kind cooperation. I am also thankful to the entire non-teaching staff of the Pharmacy Dept. for their cooperation during the course of my work.

My deepest thanks belong to my dearest parents for their kind blessings, unbound affection and constant inspiration. No thanks would be enough to appreciate the moral support, immense patience and unfailing encouragement by my husband to make my work smooth and hassle free. My daughter Tanvi deserves a special mention for bearing with me. Special thanks are due to my dearest brother and loving sister-in-law for their unfailing encouragement and moral support. I would like to thank my in-laws for their support.

There are people who were not present with me but kept sending me the wishes to keep going on. I extend my heartfelt thanks to all of them as I cannot mention each one of them individually.

Last, but not the least, I express my gratitude and apologize to everybody whose contributions, I could not mention in this section.

(Neha Mihir Shah)