Acknowledgements

This Thesis is by far the most significant scientific accomplishment in my life and it would have been impossible without people who supported me and believed in me. Therefore, I could not think of a better place than this segment of my PhD thesis to acknowledge them.

Firstly, I would like to thank my supervisor Dr. (Mrs) Krishna Das Saha, Principal Technical Officer, Division of Cancer Biology & Inflammatory Disorder, CSIR-Indian Institute of Chemical Biology, Kolkata for offering me the opportunity to work in her laboratory under her supreme guidance. I would like to express my deep sense of gratitude to my esteemed supervisor without whose constant guidance, day to day supervision, valuable advice, constant inspiration, endless encouragement and generosity I would not have achieved my goal.

Secondly, I would like to express profound regard and highest gratitude to my joint-supervisor, Dr. Bikas Chandra Pal, Emeritus Scientist (CSIR), NIPER-Kolkata for introducing me to the exciting field of natural products, providing me space in his esteemed laboratory, for teaching me to implement my thoughts and hypotheses into action, and last but not the least to explore the ever-exciting spirit of research. This work could not have been completed without his insistence, discipline, patience and faith in me. Thank you sir, for teaching me to think positive and giving me the strength to cope up with all odds.

I am immensely thankful to Dr. Basudeb Achari, Ex-CSIR Emeritus Scientist, for his supreme guidance, valuable advice, constructive criticism, constant motivation and endless encouragement.

I wish to extend my sincere thanks to Prof. Siddhartha Roy, Director, IICB for providing all the facilities required by me during the period of my research.

I am indebted to the Council of Scientific and Industrial Research (CSIR) for giving me the fellowship and financial support for my work.

I wish to express my deep sense of gratitude and respectful regards to Dr. J. R. Vedasiromoni, Registrar, NIPER-Kolkata, for his inspiring words, useful suggestions and solace in the moment of frustration.

I also extend my sincere thanks to Dr. Ashis K. Banerjee, Project Director, NIPER-Kolkata. I am indebted for his useful suggestions and criticisms during this work.
I express my special thanks to my brother like junior Deepak for his constant cooperation in various ways throughout this work.

I thank Kaushik, Sayantani and Suman for their constant support. I do not have enough words to express my gratitude to three of you but all I can say is 'Thank You' for being there every time when it was needed.

I would like to thank my senior, co-workers and juniors in the lab Mriganka da, Rudra, Abhishek, Subhadip, Sumit, Nabanita, Dipayan, Somnath, Debashree and Sujata for their cooperative attitude and sharing mentality.

I would also like to thank those wonderful colleagues Prasun Da, Papiya di, Sujoy Da, Susmita, Ranjita, Sarita, Maitreyee, Sanjukta, Zarin, Biswajit, Arup, Saptarshi, Anjon, Devawati, Raghuvir, Rinku, Ashish, Vijyan, Deblina, Tuhin and others. I found their help invaluable during my research tenure.

I would like to thank the staff members of IICB from the library, instrument section, and animal facility, who have helped me untiringly to complete my project.

I understood the meaning of “friendship” only when my life was being painted colourful by my very good friend Rashmita. Thank you very much for being there with me through thick and thin.

I am thankful to Mr. S. Khan, Technical assistant, and Mr. Pasupati Midya for helping me at various stages of my research work.

Words are not enough to thank my Maa and Baba who inculcated the basic foundations of life in me and always have faith in me; without their sacrifice I would not have reached this stage.

It is a great opportunity to express my deep gratitude to my sisters Sonia, Sutikshya, Manmeet and brother Srijansil for their constant support, encouragement and co-operation.

Last but not the least, I want to express my special thanks to the almighty "GOD" without whose blessings I wouldn't have completed this journey.

(Sumana Mallick)

17/10/2012