Acknowledgement

“Gratitude is the heart’s memory”. At this moment when I am winding up my Ph. D. thesis I wish to express a few words of gratitude for these people who gave their unflinching support with dedicated spirit and have been part of my life as teachers, friends and colleagues.

I take this opportunity to express my sense of respect and immense gratitude to my guide, Prof. Anjana J. Desai, Head, Department of Microbiology, M. S. University of Baroda, for her excellent guidance, constant encouragement and valuable criticism in caring out this study in its present form. She has been a true Guide to me both academically and personally. Madam I whole heartedly thank you for all that you have done for me.

I offer my humble thanks to Prof.B.B.Chattoo and Prof.H.S.Chhatpar former Heads, Microbiology Department, M. S. University of Baroda, for providing research facilities.

My sincere thanks to Dr.Jayalakshmy Iyyer, Chief Manager, R & D, Gujarat Narmada Valley Fertilizer Company (GNFC), Bharuch, for providing an opportunity to work in R & D lab. The work of fabrication and setting up of pilot scale reactor would not have been possible without her help and valuable efforts.

My heartfelt thanks to Dr.J.D.Desai for encouraging me in my research and also ready to help whenever required.

I express my indebtedness to Dr.Anuradha Nerurkar for her guidance and cooperation during my research tenure. Her kind words and advice has always been a source of encouragement and inspirations.

I am also thankful to Dr. Archana Gayatri, Dr.Pranav Vyas and Dr.Sanjay Ingle to help me at various phases in my research tenure.

I would like to thank Dr.Vivek Akolkar and Dr. Sujal, of GNFC to discuss and receive useful comments on a few crucial aspects of pilot scale bioreactor studies.

I am extremely thankful to the staff of R & D and Methanol Plant – II, GNFC for their kind support and cooperation in many ways during bioreactor studies.

I take an opportunity to thank Prof. P. M. Mehta, Director, Ashok and Rita Patel Institute of Integrated Biotechnology, New Vallbh Vidyanagar, for providing me sufficient time and encouragement during thesis writing.

Life would have been monotonous without my colleagues at Department, first of all I would like to thank Vivek Yellore, Arpana Acharya, Srividya Iyyer, Rajiv Vaidya, Nandita Baxi and Bragdish Iyyer for scientific as well as non scientific discussion, encouragement and guidance.
My sincere thanks to Aparna Madam, for giving me enough confidence and all the support I needed from the beginning.

I am grateful to my present colleagues at Ashok and Rita Patel Institute of Integrated Biotechnology for their cooperation during crucial period of writing and thesis submission.

I extend my thanks to non teaching staff, Mandwekarbhai, Praveenbhai, Talati bhai, Khatri bhai, Martinbhai and Thomas Madam for their kind support and cooperation during the course of the study. The credit of formatting and printing of the entire thesis goes to Shirishbhai.

Council of Scientific and Industrial Research, Government of India is acknowledged for the fellowship provided.

I would also like to thank GNFC for providing initial financial assistance.

I am very thankful to all the M. Sc. students, Sonia, Preeti, Sheetal, Neha and Traffina who had worked with me on this topic, for their dedication and hard work.

I whole heartily thank to Sanju, Sachin, Kundamasi and other family members for sharing my good as well as bed times and helping me in all possible ways they could and for always advising me to have patience throughout the tenure of my work.

I would like to expend my gratitude to my parents for being so patient and supportive through out my research. I could not have come so far without their love and support. Special mention of my younger cousin Pinal, who helped me a lot in every possible way during thesis writing.

There might be many more persons with whom I must have come across each day during my course of study that had an influence on my work. I express my gratitude for and all of them for just being there.

Finally, I owe my success to my loving husband, Nimesh, who has been a constant source of inspiration, encouragement and strength for me. His full faith in me, his enduring love and patience is highly acknowledged. I would not have been able to finish my work without his support. I am also touched with the patience and love shown by my little son, Samarth and this is dedicated to my son.

- Swati Narolkar nee Zala