

ACKNOWLEDGEMENTS

In my long journey of scientific answers I was supported immensely by many people in their unique ways for which this became a lifetime experience. At this juncture, I would like to express my sincere gratitude to all of them whose association and contribution have been a driving force for me in completing the study.

I cannot express thanks in just few words to my research guide **Prof. C. Ratna Prabha**. I am fortunate to carry out my doctoral work under her guidance. She bestowed immense faith in me which strengthened my confidence and boosted up my morale. I am very grateful for her patience, motivation, enthusiasm and forgiveness. I am thankful to madam for the freedom she gave me for working in the laboratory as I wanted. Her immense knowledge in the field, scientific counselling and urge to seek performance in science has inspired me to strive for excellence. Her corrections and critical remarks for presenting matter in scientific way have encouraged me to improve my abilities. Thank you very much madam for everything.

I extend my sincere gratitude to **Prof. Sarita Gupta**, Head, Dept. of Biochemistry for supporting and providing infrastructure which were needed to accomplish the work and also being kind, supportive and motivating.

I acknowledge members of my Doctoral Committee **Prof. Anuradha Nerurkar**, Dept. of Microbiology and **Prof. Sarita Gupta**, Head, Dept. of Biochemistry for generously offering timely guidance and excellent suggestions at annual seminars which helped me a lot in improving my experiments.

I would like to thank **Prof. G. Naresh Kumar, Prof. Rasheedunnisa Begum, Dr. Jayashree Pohnerkar, Prof. Pushpa Robin, Dr. Shashikant Acharya, Dr. Rajesh Singh, Dr. LaxmiPriya, Dr. Devesh Suthar and Dr. Ravi Vijayvargia** for their encouraging words, criticism, scientific discussions and valuable suggestions throughout the research tenure.

I am grateful to **Prof. Finley** for providing SUB62, SUB60 *S. cerevisiae* strain, vectors and antibody for uracil permease, **Prof. Brown AJP** for CAI4 *C. albicans* strain, **Prof. Jeffrey Gerst and Rachel Kama**, The Weizmann Institute of Science, Israel for providing pUG46 plasmid, **Greg Odorizzi**, MCD Biology, University of Colorado, Boulder for providing carboxypeptidase S gene, **Han-Woong Lee**, Yonsei University, Seoul, Korea and **Dr. Manoj Kumar Bhat**, NCCS, Pune for providing tetracycline inducible system.

I sincerely acknowledge **Prof. Y.U. Shashidhar** (Protein Dynamics Lab), Department of chemistry, Indian Institute of Technology (IIT, Bombay) and **Prof. Nandkishore** (Head) Department of chemistry (IIT, Bombay) for allowing me to carry out my CD spectroscopy

over there. My special thanks to **Sandeep, Nitin and Yesha** who had helped me throughout my stay.

I am extremely grateful **Prof. A. V. Ramachandran, Dr. Dharshee Baxi, Dr. Prem Kumar Singh, Dr. Prakash Pillai**, Dept. of Zoology, The M. S. University of Baroda, for inspiring me to do research and expand my territories in scientific fields.

I am highly grateful to all the office staff of Department of Biochemistry including **Pethe Sir, Akshitaben, Vyasbhai, Manishbhai, Shaileshbhai, Rameshbhai** and all non-teaching staff members for their help and guidance in all the official matters whenever I needed. I thank **Milind Bhai (DADA), Chiragbhai, Kaushik Bhai** (provider of our cheques), **Mayur Bhai, Neeta Madam** and **Kenneth Sir** for their conducive and friendly support at university protocols.

I would like to extend my gratitude to The M. S. University of Baroda for providing me JRF and CSIR-HRDG for SRF.

I would like to thank DBT-MSUB-ILSPARE for providing the instrumentation facilities, without which my experiments would not have been completed. Thanks to **Mrs. Pooja, Komal, Mrs Sindura, Hina** and **Dr. Akhilesh Prajapati** for their precious time and availability.

I acknowledge my current and past lab members, without whom the task was impossible. I thank my lab seniors **Dr. Pradeep Mishra, Dr. Hemendra Vekaria, Dr. Swapnali Kulkarni, Dr. Mrinal Sharma** and **Dr. Rushikesh G. Joshi** who have taught me the good laboratory practices and made me understand the scientific problems as and when I required. Their punctuality, hard work and dedication towards work have always motivated me. I would specially like to thank **Dr. Rushikesh G. Joshi** for sharing his experiences, valuable suggestions, guiding throughout, endless chats, joyful tea times, motivations and endless help. His down to earth and friendly nature has inspired me a lot. I would like to thank **Varsha, Brinda, Prranshu, Hemang, Jinal** and **Dr. Shweta Gupta** for their constant help in the research work and to make the lab atmosphere light and enjoyable.

I would like to thank all the dissertation students for being supportive, enthusiastic, party makers and outing sources.

No journey is accomplished in isolation. It's the friends who make any journey lively, happy and meaningful. I would like to extend my heartiest thanks to my friends **Rushikesh sir, Divya, Mala Singh, Abhay and Lakshmi** for their unconditional support during scientific sessions as well as for other stuffs.

I would like to thank all my seniors and good friends **Nidheesh sir, Prashant sir, Hemanta sir, Tushar sir, Akhilesh sir, Krishma didi and Radha didi** for their constant support during my work. Special thanks to **Hemanta sir** for his constant help and support all the time. I would like to thank all present research scholars of Department of Biochemistry **Regitha, Mitul, Gaurav, Komal, Mala, Shoieb, Tina, Ashlesha, Shahnava, Nirja, Arpi, Shubham, Archana, Ruma, Parini, Ridhhi, Maharshi, Suresh, Sejal, Tabassum ma'am, Paresh, Khyati, Dhruv, Kritarth** and **Milton** for their constant support till the end.

I am thankful from my heart to **Divya** (Motivator and Go ahead booster), **Mala** (my ever ready left hand, motivation, driving, tea, movie, "tafri" partner, who keeps available herself for any discussion) **Anil, Vivek** (being available all the time for all kind of discussions), **Seema, Neeraj, Lynet, Yashwant** for their unconditional support, refreshing discussions at tea sessions, tom and jerry fights, critics and sweet scoldings. I thank all for being anger soaking agents and bearing my unexpected behaviour during my bad moods. I especially thank **Arpit** for showing me artistic view of science and discussing so many mythological and other interesting artistic stuffs which helped me to heal my stress.

I would like to express my heartiest gratitude and thanks to my loving family for their enormous support during the journey. They have constantly been a source of inspirations no matter whatever situation befall me they stood behind me to support and encourage me. The word "Thank You" would be too small to define their hard work and sacrifices to see me in this state as of today. Seeing their zeal I could keep on going in my Research life and complete the journey successfully. Parents, the enlightening torch and dear brother for his tireless hopes, suggestions and enormous support. I thank my mother and Bhabhi for their patience, support and for excluding me from all house hold and social duties. I thank all for excusing my absence during the tenure. I also thank my little prince charm, **Himaksh** for keeping home environment joyful and lively. His smiles and cute discussions made my harder time easy. Thanks baby.

Finally, I thank one and all in case I forgot to mention who have helped me complete my Ph.D work. I feel happy and lucky to have enormous support from all dimensions at the end of the journey.

Last but not the least I would like to thank Almighty God for giving me the strength to complete my doctoral study and stand up to all the expectations of my parents and teachers.

Doshi Ankita Arvindkumar