

## Acknowledgement

To all those who were interested in the science and taught me how to deal with everything else that came with it. Behind every doctoral candidate is a fantastic team of mentors and friends. I am deeply grateful to each one on my team who made this possible.

Thank you for this enriching experience.

Dr. Johannes Manjrekar, my PhD guide, was always open to discussion and treated me as an equal. He gave me the freedom to pursue my interests and nudged me along when I was stuck. He encouraged me to read and read more and keep trying and working till I was satisfied with what I was doing. He showed me the importance of a work-life balance and understood that our health is more important than meeting deadlines. A tough, nurturing and genuine mentor, who didn't impose, only inspired.

My co-guide late Prof. Bharat B. Chattoo encouraged me to take up this project and make it my own. He was instrumental in me joining the lab and what a great place to work it has been. None of this work would have been possible without the amazing setup at the Genome Research Centre.

Dr. Rajesh Patkar shared his experience - Fungal pathogens, manuscripts and the challenges and enthusiasm of a scientific career.

Dissertation students Harsh Ashar, Kanika Rawat and summer trainee Sandeep Venkat brought a new life to the project and many more hands as well.

Prof. Naweed Naqvi (Temasek Lifesciences Laboratory, Singapore) shared backbone vectors used in the study.

Prof. Michael Freitag (Ohio State University, USA) shared the pMF309 plasmid and listened eagerly at conference poster sessions.

Prof. Kaustuv Sanyal (Jawaharlal Nehru Centre for Advanced Scientific Research, India) shared his kinetochore expertise and thought it was worth studying in a filamentous fungal pathogen.

Council of Scientific and Industrial Research (CSIR), Govt granted me the Shyama Prasad Mukherjee Fellowship, (SPM-09/114(0129)/2012-EMR-1).

Dr. M. Nair, Dr. A. Nerurkar and Dr. G. Archana, my thesis committee members and faculty members of the Dept. of Microbiology helped with their insightful comments and suggestions.

Colleagues at GRC have been my family over these long PhD years. Through laughs, tears and discussions over endless cups of tea, they inspired me in many ways.

Hashim with his sheer love for science, hardwork and kindness,  
Divya with his persistence, punctuality and politeness,  
Akhil with his clarity, focus and silence,  
Khyati with her enthusiasm, ambition and friendship,  
And Anand Parnandi, with his trivia, cooperation and eagerness to work.

All past and present members of GRC, Varsha, Sushma, Priya Jishnu, Suhail and Chandra Prakash who shared their journey, and helped to make mine better.

Abhik and Anuja, friends in the department, for showing me that it could be done, with their constant support and encouragement.

Department and university administrative staff Mr. Jayakumar Nair, Mr. Nitish Bhatt, Mr. Armswillsu Varghese, Mr. Shirish Nagarkar and Mr. Chirag Bhatt ensured the smooth running of my degree and fellowship.

Lab helpers Girish bhai and Mukesh bhai made work easier.

My first and most important teachers, my parents Anju and Bharat have been unconditional with their time, resources and motivation.

'Tvameva vidya dravinam tvameva, tvameva sarvam mama deva deva'

My dearest kid sister, Kushal, who believes I can do almost anything and can make me smile in any situation and brother Manan who understood when I was not around for important occasions.

Thank You