Acknowledgement

i

I came to Department of Zoology to pursue my bachelors in Science back in 2010 and it was only in my third year when I started connecting to one subject with my whole heart and it was Developmental Biology. After finishing my masters, I didn't know I would end up doing a Ph.D. in Developmental Biology. I owe this to my then teacher and now Ph.D. guide Prof. B. Suresh. I am grateful to him for not only being a supporting mentor during my tenure of Ph.D. but also for guiding me since so many years. He has always supported all the ideas that I had related to my work. Sir has taught all of us in lab to always maintain a happy and healthy environment which made my 4 years journey very memorable. I cannot thank him ever enough and I am always going to be indebted to him for making me a better person.

I would like to thank Prof. P. C. Mankodi who is the former head of Zoology for always solving the little agendas that I raised. I am also grateful to Prof. Dolly Kumar, our current head who is bringing a lot of changes to get the department back to its former glory, ma'am I would love to contribute towards the department in any possible way regardless of where I go. I will take this opportunity to thank all the teachers of Zoology department Prof. Pragna Parikh, Prof. Kauresh Vachharajani, Prof. Geeta Padate, Prof. Sunita Salunke, Dr. Devkar, Prof. Vihas Vasu, Dr. Prakash Pillai, Dr. Hetal Roy and Dr. Gowri Uggini.

In this journey of Ph.D. my lab members have been a constant support and source of entertainment as well. I had a great time with everyone starting from Pranav, Shashikant, Sonam, Urja, Kashmira, Vishakha to the most loved dissertation students, Priya and Venus. I was introduced to this lab by Pranav and I am so happy that he did. Pranav, Shashi, Urja, Kashmira, Venus, Pratyush sir and Gosai sir are the reason why lizards were always there for my study and I can't thank them enough. Shashi has been my partner in buying all the stationery available and I wish him all the success in life. Urja has been with me for past

Acknowledgement

many years and one thing I have seen in her is the dedication towards work, I wish her all the happiness. Kashmira has helped me a lot in my lizard experiments and I have never seen anyone so selfless, I wish her success and do not ever stop your art because it is really great. Vishakha is the most fun-loving person of our lab and I enjoyed spending time with her discussing science and even gossiping. I am sure you are going to be an awesome entrepreneur.

Sonam from being a stranger to being my lab mate and now one of the few close friends I have. I am so glad that I met you. My Ph.D., in reality has been so smooth only because of you. I am going to miss planning all the experiments and working with you. I have enjoyed all our late-night stays working and watching movies in lab. I never had to say much since you understood me way too well. I wish you and Gosai sir a lot of prosper and success in life and I am going to bother you for the rest of my life.

I am also very thankful to Gowri ma'am and Mital ma'am for always helping us whenever we required. I cannot forget to mention the kids of our lab, Dhruthi with whom I have spent most of my afternoons painting and drawing apart from watching Doremon. Malav who is such an inquisitive boy, I enjoyed answering your questions. I wish all my lab members, Hiral, Shweta, Neha to do well in life. Bhaval who is our new lab member there is just one thing I would want tell you is that this is going to be one of the best periods in your life, enjoy the stay in Prof. B. Suresh's lab.

Special thanks for Isha ma'am and Vedaang. Ma'am has been so good to all of us and has always treated us as her own children. Vedaang and me share a lot of common interest including food, movies, memes and making fun of random people. I know you are going to do so well in your life and I will always help you in every way possible.

Jahanvi has been the best person in my life. I have survived my bachelors only because of her. She is my constant and has supported me a lot during my Ph.D. as well. Bhavna, Ashtaad, Alaumy and Abhik sir are my daily dose of refreshment.

Acknowledgement ii

I wish all of them good luck for all the future endeavours. I am happy I met Priya in this department and she is again one of the few close friends I have. I am always going to be there for all of you like you have been there for me. I cannot forget to mention my M.Sc. dissertation lab members Sneha ma'am, Gosai Sir, Shweta ma'am, Siddhi Ma'am, you guys helped me develop a sense of how to approach any given problem. I think the training in RL1 made my life much easier in this lab. I am thankful to Microbiology department and all the teachers for the wonderful experience I had.

The person who is the reason I took up Ph.D. is Anindya. He always knew I would succeed even when I didn't. He had to convince me everyday to consider Ph.D. till I finally gave in. After 4 years I am glad I listened to you because this was the best decision I took. I don't think I have ever thanked you and hence, I am taking this opportunity to thank you for always believing in me and for always helping me and for putting up with me. You are going to achieve everything you wished for because of your sincerity and dedication towards work.

I guess no one has suffered as much as my parents, Anand Ranadive and Kripali Ranadive have. I haven't given them much of my time since my masters but they made everything so easy at home that I never had to worry. My sister Ruhi has always been the entertainer of our house and even in my absence she made sure my family was laughing and was happy. My grandmother Asha Ranadive (aaji), is a rockstar since she has been my backbone since childhood. My grandfather (baba) would have been so proud of me if he was here. He always wanted us children to study as much as possible and encouraged us to pick up any field we wanted. I am dedicating my thesis to my grandfather Kishore Ranadive and I am sure he would have been thrilled to read this thesis.

Isha Ranadive

Acknowledgement iii