Acknowledgements

It is a privilege to acknowledge my deep indebtedness to my guide, Prof. Bonny Pilo, Head, Department of Zoology, and Vice Dean, Faculty of Science. His ability to generate research intrigue, eye for particulars and faculty to unearth the deeper significance of the facts that emerge from experimentation has incited my interest in research. Apart from being the most analytic critic one could ever wish for, he has always been supportive and encouraging. I value a great deal, the freedom he has granted me to think and execute the work. My thanks go first and foremost to him.

I am grateful to Dr. (Mrs.) Pragna H. Parikh, Senior Lecturer, Department of Zoology, in whose research project, I worked initially. It was she who introduced me to the fascinating world of kidney research. She has always been a constant source of motivation. I deeply value her incisive suggestions and kindness over the years.

I am thankful to all the teaching and non-teaching staff of the Department of Zoology, who helped me at various phases in my research tenure.

I am extremely thankful to Dr. Shailesh Patel and his staff, especially Ms Trupti, at Alakh Laboratory, for helping with some of the hormone assays.

I am particularly grateful to Veena, who has been with me all through the ups and downs of our research work together. Her cheerfulness remained intact even in the most uncomfortable and trying circumstances of our research. Our discussions have always come up with innovative ideas. We have shared, through these years, joys, sorrows and animals.

I am greatly indebted to my senior colleague, Dr. Saji Oommen, who made it easy for me to avail the research facilities. I value his important suggestions. I am also thankful to Dr. Anoopkumar, for his help in the initial stages of my work. I appreciate greatly, the suggestions and help extended by Dr. K.R. Vinod and Mr. P.K. Pradeep. I acknowledge the support Ms. Anjali Joshi has provided.

Words are inadequate to express my gratitude to Dr. B. Suresh for the help he has extended throughout the research tenure, right from introducing me to methodology, to preparing graphs and tables. He has been a very provocative critic, always insisting for perfection and impeccability. Discussions with him have left me wiser. I am also thankful to Dr. Isha Desai for the help she has rendered throughout these years. Her knack for handling details meticulously has deflected me from many errors that I would have otherwise made. These are the people who saw me through to the final stage of preparation of this document.

I am thankful for the financial assistance provided by the M. S. University, UGC-DSA Programme, and also the Council for Scientific and Industrial Research, New Delhi, for Senior Research Fellowship.

It is a great pleasure to thank my friends, Ranjit and Dandekar, who have stayed by me in all the ups and downs of life. I cannot find words to express my gratitude towards...
Shital, who has always been a source of support and encouragement. He has helped me in various phases of my research tenure. I especially thank him for his painstaking efforts in preparing the bibliography. I value greatly the love and support given to me by Kiritkant, Mayank and Anil. I thank Tejal, and Vandana for the encouragement and love they have give to me, despite being far away from me.

Above all the people who feature, are my family, who, during the years of my study furnished constant encouragement. Any attempt to thank them, must inevitably fall short. I owe a great deal to my grand mother, than I can perhaps express. I am grateful to her for the love, affection and patience, which have strengthened me over years. She would have been the happiest person to see me complete this task. I dedicate this thesis with great affection to her loving memory.

Jai Sule