The research work embodied in this dissertation has been carried out in the School of Life Sciences, Jawaharlal Nehru University, New Delhi. This work is original and has not been submitted in part or full for any other degree or diploma of any university.

VENUGOPAL G.

SIVATOSH MOOKERJEE
Supervisor

SIVATOSH MOOKERJEE
Dean

SCHOOL OF LIFE SCIENCES
JAWAHARLAL NEHRU UNIVERSITY
NEW DELHI
With immense pleasure I adjure and acknowledge my sincere gratitude towards Professor Sivatosh Mookerjee, F.N.A. for not only initiating me to the system of 'Dynamic Instability', but also for the admonishing discussions and encouragement he offered me throughout the present work. The inspiration rendered by him and his scientific hospitality, perhaps would best suit an indigent scholar. Further, I am deeply indebted to Professor P.N. Srivastava, F.N.A., the then Dean, for his generous help and facilities as well, in successfully completing my autoradiographic work.

For their invaluable helps during various formative phases of this work, I am thankful to Dr. A.S. Mukherjee and colleagues, Calcutta University; Dr. Sudhir Sopory and Dr. Samar Chatterjee, School of Life Sciences; Dr. P.F.L. Selvanayagam, now at NEHU; Mr. S. Ramakrishnan and Mr. N. Shastri, AIIMS, New Delhi and to colleagues too numerous to mention.

Without the help of Council of Scientific & Industrial Research in providing me with a Senior Research Fellowship, this work would not have attenuated to a full-fledged state. Also, I would greatfully thank Mr. Kailash Chand Lohat for laboratory assistance and Mr. R.P. Choudhary and Mr. C.V.U. Warrier for typing the manuscript. My sincere thanks are also due to Mr. Rajinder Nath Saini and to Mr. Kripal Singh, who helped me in a needy hour.