

ACKNOWLEDGEMENT

The author wish to thank his supervisor Dr. A.R. Chakravarty most sincerely, for bearing with him through the tedious parts of this work, in making several useful suggestions during critical stages and in the elucidation of ideas arising during the experiment as well as in the interpretation of the results.

The author indebted to Prof. D.K. Bhattacharya, Ex-Vice-Principal, North Bengal Medical College and Prof. K.B. Dutta, Director, Centre for Life Sciences, for providing different facilities during the course of the work.

The author owes special thanks to Sri Uday Moitra, and Sri Tapas Chaudhuri for their excellent help during experimental part and he is very much thankful to Sri Bhola-nath Paul and Sri Sourav Sarkar for their help in preparing the dissertation.

Special thanks are due to Sri Bikram Thapa for his diligence, in the maintenance of bats in the Centre and for technical assistance.

The neat and excellent job done by Sri Asim Bose in typing this thesis and contribution of Sri Monoj Kar and Sri Robi Das are thankfully acknowledged.

Sri N. Ghosh assisted in the drawing of the graphs with India ink and Sri C.R. Nayak of the Computer Centre of the University of North Bengal helped in the statistical analysis of the data. Thanks are due to both of them.

The author also expressing his gratitude to co-workers and staff of the Centre for Life Sciences, North Bengal University and he sincerely wish to thank Sri D. Basak and Sri P. Roy for their encouragement during the early part of research work. The author is grateful to the authorities of North Bengal University for giving the laboratory facilities. He is indebted to University Grants Commission, New Delhi for awarding a fellowship.

Lastly, the author feels like to mention his gratitude and indebtness to his parents whose hope and inspiration have served as a motivating force during the course of this work.