Acknowledgement

The author conveys his respectful gratitude to Dr. Ajay Kumar Chatterjee, Professor, Department of Physiology, University of Calcutta, for his kind supervision during the tenure of the present investigation.

The author also wishes to express his respectful thanks to former Heads of the Department of Physiology, Prof. (Mrs.) P. Chatterjee, Prof. (Mrs.) M. Bal, Dr. (Mrs.) J. Koley and Prof. A.M. Chandra for giving encouragement and showing keen interest in the work. The co-operation received from other faculty members of the Department is gratefully acknowledged.

He is grateful to the University Grants Commission, Govt. of India for providing him with research fellowship.

He acknowledges the great help and supporting assistance, received from the laboratory and library staff of the Department of Physiology, University of Calcutta.

He expresses his thanks to the library staff of the School of Tropical Medicine, Calcutta, All India Institute of Hygiene and Public Health, Calcutta, Bose Institute, Calcutta and Indian Institute of Chemical Biology, Jadavpur, Calcutta.

Co-operation from Dr. Prasunpriya Nayak, NRI, Academy of Sciences, Bijoywarah, India, Dr. Smarajit Maity, Department of Physiological Sciences, College of Veterinary Medicine, Oklahoma USA, other friends and colleagues are heartily acknowledged.

The author is also thankful to Dr. P.K. Chakraborty, Principal of Midnapore College for extending co-operation and showing interest in my work.

The author acknowledges Miss Kaberi Khan for her skilful help during computerised typing of this thesis with full responsibility.

The author always recalls and acknowledges the continuous encouragement and moral support he received from his parents, brother and wife throughout the present investigation.

Sudhamay Ghosh.