

A C K N O W L E D G E M E N T

The present work was carried out in the Department of Physiology, University College of Medicine, Calcutta University.

I express my sincere regards and deep sense of gratitude to my teacher Dr. Basudeb Dattachaudhuri, M.B.B.S., D.C.P., M.D., Ph.D., Reader and Ex-Head of the Department of Physiology, University College of Medicine, Calcutta University, under whose able guidance this thesis work has been done. It was a great privilege on my part to have the opportunity of working under him. The thesis could never have been completed without his ceaseless encouragement, scholarly interest and timely assistance.

I owe debts of gratitude to Prof. A.K.Ganguly, B.Sc. (Hons.), M.B.B.S., M.D., Sir N. R. Sircar Professor of Physiology and Head of the Department of Physiology and Prof. M. Goswami, M.Sc., M.B.B.S., M.D., Ph.D., Ex-Head of the Department of Physiology, University College of Medicine for their valuable advice, help and co-operation.

My thanks are also due to my Post-graduate Teachers, Dr. C.Roychaudhury, M.B.B.S., D.G.O., Ph.D., Reader, and Dr. M. K. Das, M.B.B.S., D.C.H., Ph.D., Lecturer, Dept. of Physiology, U.C.M. whose co-operation was essential for the fulfillment of my work.

(ii)

I am also indebted to Late Dr. A. Ghoshdastidar, M.B.B.S., M.D., Ph.D., Ex-Reader and Head of this Department, whose encouragement and help were beneficial to frame up this project.

It is also an opportunity of mine to express my sincere gratitude to Dr. Ratna Chanda, M.Sc., Ph.D., U.G.C. Research Associate in the Dept. of Physiology, U.C.M. and Dr. Sandip Bandopadhyay, M.Sc., Ph.D., Lecturer, Dept of Biochemistry, U.C.M. for the active and sincere co-operation offered by them.

I am also thankful to Dr. Swapan Das, M.Sc., Ph.D. for his kind assistance in solving the statistical problems in this work.

I shall fail in my duty if I forget the diligent and devoted service of Mr. Nemaï Bera in typing the thesis.

Salil Kumar Mandal.