THE PRINCIPLES OF Humane Experimental Technique

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CHITTARANJAN CANCED "CSPITAL BY, SYAMAF, JEE ROAD. CALCUTTA-26, INDIA, the pioneer in this field,

MAJOR C. W. HUME, M.C., B.SC.

we dedicate this survey

te sequor, . . . inque tuis nunc ficta pedum pono pressis vestigia signis

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Preface

In 1954, the Universities Federation for Animal Welfare decided to sponsor a systematic research on the progress of humane technique in the laboratory, and in October of that year we began work on the project. (R. L. B. ceased to be employed by the Federation at the end of 1956, on taking up other work, and thereafter served in an honorary capacity). In 1956, we prepared a general report to the Federation's Committees, and this report formed the nucleus of the present book, which was completed at the beginning of 1958. (A few more recent developments are briefly reviewed in the Addendum.) Throughout our work, we have received constant help of many kinds from the staff and Committees of the Federation, and over much of the period we worked with a special Consultative Committee, with Professor P. B. Medawar, C.B.E., F.R.S., in the Chair. We have also received valuable assistance from the Animal Welfare Institute of the U.S.A., which also contributed financially to the UFAW research.

A large number of individuals, inside and outside UFAW, have contributed helpful information. Without attempting an exhaustive list, we may mention Dr M. R. A. Chance, Dr Phyllis G. Croft, Dr. D. G. Davey, Dr P. S. B. Digby, Mr T. G. Field-Fisher, Professor H. Heller, Major C. W. Hume, M.C., Dr W. Lane-Petter, Dr F. K. Sanders, Mrs Christine Stevens, Dr F. Jean Vinter and Professor A. N. Worden. Dr Chance, Dr Croft, Major Hume and Dr Lane-Petter read drafts of the whole text and provided further helpful comments. To all these people and the many others with whom we have had helpful contact and discussion we are cordially grateful. The usual formula applies: none of them are responsible for any errors of commission or omission in the finished book.

Most of the figures and several of the tables are from published sources, each of which is specified in the appropriate place by a reference to the source index. We are most grateful to the authors and publishers concerned for permission to reproduce this material.

The pattern of random numbers on the jacket of the book can

obviously not be used for practical purposes, since it is only part of the full table. It is there only as a symbolic background for the mouse. We are indebted to Professor Ronald A. Fisher, Cambridge, Dr Frank Yates, Rothamsted, and to Messrs Oliver & Boyd Ltd, Edinburgh, for permission to reproduce a table from their book Statistical Tables for Biological, Agricultural and Medical Research. We are most grateful to the members of the Ethology Laboratory (Uffculme Clinic, Birmingham) for their help over the design and to Mrs D. C. Clarke (Department of Pharmacology in the University of Birmingham) for the photography.

As a modest contribution to the Centenary of *The Origin of Species*, the quotations at the head of each chapter are all from the works of Charles Darwin. Few people have been more concerned than he was with the welfare of experimental animals, or more active in furthering

the progress of humane experimental technique.

W. M. S. R. R. L. B.

November, 1958