

Preface

BOOK OBJECTIVES

After studying this book you should be able to:

- * perform simple techniques for the study of cells;
- * make accurate observations of cell structure;
- * discuss and show an elementary knowledge of the functions of cell components;
- * understand the cellular basis of growth, replication and heredity.

This text on cell biology gives an up-to-date, but not over-technical, introduction to the subject at a level of presentation suitable for students following courses at the intermediate level, as required for Level II Cell Biology Units in Technician Education Council Programmes, or for many aspects of the modern G.C.E. syllabuses in Biology.

It was written particularly with TEC Programmes in mind, but should suit the needs of any reader requiring a basic and up-to-date knowledge of cell biology. Whatever may be the reader's special interest in biology or related disciplines, a thorough understanding of cell biology gives a good grounding, since knowledge of cellular structure and function is fundamental to a proper understanding of the principles of all biological disciplines.

In addition to a thorough and up-to-date presentation, at the appropriate level, of our present knowledge and understanding of cell ultra-structure and function, the book includes chapters (1, 2 and 8), which are concerned wholly with the principles and practice of the techniques of the subject, whereby such knowledge is gained. The book will therefore assist the student in acquiring the necessary practical skills, in addition to providing him or her with a theoretical grounding.

The reader should refer to the book objectives as stated above, which apply particularly to the TEC Level II student specialising in

cell biology. Each chapter begins with a clear statement of the specific chapter objectives. At the end of each chapter, self-assessment questions are provided to enable the student to check his or her progress in relation to the chapter objectives. Following Chapter 5, and again at the end of the book, there are sets of cumulative questions which enable the student to check his or her progress in relation to the book objectives.

At all times the author has been careful to make statements about cell structure and function which are compatible with the results of the latest research findings. Since cell biology is very much a developing subject, the book ends with a brief survey of present research trends, so that the reader may appreciate how our knowledge is likely to develop and improve in the next few years.

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B.H.B.