

Preface

Among the sciences, biology holds a unique place in the thinking of many people. It is the study of living organisms and we are all included in its realm. This field is intriguing not only because living things are fascinating to study, but also because it encompasses the amazing structures and processes of our own bodies and brains. In addition, it may possibly provide clues as to the meaning of our existence. All this may serve to enrich one's present life and give some indication concerning how it ties in with the rest of the universe.

This short volume presents certain of the most interesting discoveries from the recent rapid advances in molecular biology which have excited scientist and layman alike. Such information is available of course in many books and journals. These facts, however, will herein be examined in the context of that philosophy of science which has been predominant throughout the recent past, namely the philosophy of evolution. Certain key facts of current biological knowledge are studied in the light of that overview by applying the rules of probability reasoning, to find if such an overview can logically be sustained.

This book may serve as a vehicle by which alert adults and older young people may obtain a quick grasp of the central facts of current molecular biology and of their significance. No prior background in the field is required, since the book is written in nontechnical language, yet information concerning our present understanding of life on the molecular level is presented in some detail. The student of biology may find it a source for such facts and for ideas on how those facts may reasonably be interpreted.

Perhaps all who write in this fast-developing field suffer the

concern expressed by one author in his book when he wrote, "It will surely be out-of-date before there is time to get it printed." Since this particular volume does not deal with data alone, there is hope of escaping that early obsolescence, because timeless principles are involved when it comes to examining and evaluating the facts in the light of probability rules. Once a person has an understanding of these principles, he can apply them to new research discoveries as they appear on the horizon. In the process of doing so, it will be found that it is possible to interpret the significance of the discoveries more accurately, and that life is more interesting and rewarding as a result of a clearer comprehension of the overall picture.

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