## PREFACE

That is, perhaps, in some respects unfortunate, because the impression which must be produced is unlike that of the facts themselves, and the argument is certainly very different from the mental process through which I have myself passed in reaching the conclusion. But it would be very difficult indeed in any other manner to set forth all the necessary considerations, so that they should be intelligible to any one but the physico-chemical biologist, and on the whole there seems to be no choice but to follow a logical rather than a descriptive method. The reader will find, however, that in the main Chapters III, IV, V, and VI are concerned with evidence alone. This taken together, as a whole, is the only true ground for a conclusion, and it is upon the general character of the evidence rather than upon an argument which only serves as a means to the end that I should wish to rest my case. To many, on the other hand, as to any biologist who may not care to examine the difficult facts of physics and chemistry, Chapters I, II, VII, and VIII will be sufficient to explain both the purpose of the book and the outcome of the investigation.

There has been a constant effort to restrict all discussions to the utmost, because at the present time encyclopædic handbooks covering all