Preface

In 1962, when Kuhn’s *The Structure of Scientific Revolutions* first appeared, I was well into my career as a geneticist. My Ph.D. had been awarded in 1958, and four years later I had an active graduate program at UCLA. At that time, it was rare for geneticists to think about the philosophy of science, but it was not rare for scientists in any field to take an interest in the history of how their fields arose. As a student of H.J. Muller (1890–1967), I had taken his courses, which he approached historically—the formation of classical genetics as a series of battles—and these I recounted in 1966 in my first book on the history of science, *The Gene: A Critical History*. Although I was not persuaded that paradigm shifts as Kuhn portrayed them in 1962 applied to the history of genetics, I did not pursue my doubts as my career shifted to human genetics, teaching nonscience majors, and writing Muller’s biography. It is thus 55 years later that I find myself writing this book. Neither the history of science nor one’s own life is logical or predominantly predictable. I like to think that lives, careers, and the emergence of scientific fields, like evolution itself, owe much to opportunism.

I thank Christina Carlson for preparing the flowcharts. These charts help visualize some of the influences each new theory, experiment, or tool had in the formation of new fields in the life sciences. I benefitted from discussions on paradigm shifts with C.N. Frank Yang when he was at Stony Brook University and with Noretta Koertge at Indiana University. Judy Cuddihy, as usual, has been phenomenal in putting this book together and hunting for illustrations to grace the manuscript. Thanks to the editorial and production staff at Cold Spring Harbor Laboratory Press, Jan Argentine, Inez Sialiano, Carol Brown, Denise Weiss, and Kathleen Bubbeo, for their superb work.

*Elof Axel Carlson*

*Distinguished Teaching Professor Emeritus, Department of Biochemistry and Cell Biology, Stony Brook University, and Visiting Scholar, Institute for Advanced Study, Bloomington, Indiana*

e-mail: ecarlson31@netzero.com