

Preface II

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for the Editors of
Discovery in Cell Biology

1980 marked the twenty-fifth year of *The Journal of Cell Biology*. During this quarter-century, cell biology came of age. It is a recognized discipline: academic departments bear its name, students obtain degrees in it, more and more journals recognize its existence as a separate field of biological study. It was not always so, for the Journal was actually founded in 1955 as *The Journal of Biophysical and Biochemical Cytology*. Only later, in 1962, was its name changed to the one it bears today. In reality, this change made little difference, for the objectives of the original journal were to publish those papers in which the newer disciplines of biochemistry and biophysics would bear upon the much older discipline of cytology. The scope of the Journal, the merging of the new with the old, was exemplified by the first Editorial Board: Richard Bear, Stanley Bennett, Albert Lehninger, George Palade, Keith Porter, Francis O. Schmitt, Franz Schrader, Arnold Seligman. During the next 10 years such cytologists, biochemists, and biophysicists as Paul Doty, Daniel Mazia, Bernard Davis, Don Fawcett, Hugh Huxley, Hans Ris, Stanley Holt, Sanford Palay, Humberto Fernández-Morán, Erik Zeuthen, Rollin Hotchkiss, and Philip Siekevitz became editors.

During the past quarter-century, a veritable revolution took place in the biology of the cell. Twenty-five years ago, the cell as a structure was just being defined; the coincidence of structure with function was just being thought about; the isolation of subcellular structures was being elevated to a reproducible technique; the subcellular localization of proteins was first being performed; mitochondria were being fully recognized, intracellular membranes less so; and ribosomes were as yet virtually unknown. When one compares the knowledge then with knowledge now, it hardly seems possible that in so short a time we have come to view the cellular world as familiar terrain. We now know its geography and inhabitants relatively well; we know how it evolved, and even know something about its governance. Here we relate some history of the acquisition of our knowledge, for we are currently on a stepping-stone or plateau from which to view the past and survey the future. The future promises a challenge of even more difficult tasks: determining how all that we see and observe in the cell is organized and how the function-structure relationships are regulated. At the moment, however, the editors feel that a history is important, for besides showing the continuity of the endeavor, it also shows the pitfalls and the accomplishments, the mistakes and the correct guesses, all the bases upon which to build the experiments of the future. Above all, we think that the histories contained in these chapters indicate how truly communal is the endeavor we call science; how so many cooperated to produce what we today call cell biology.

It is fitting that at this point we honor *The Journal of Cell Biology*, for, from the very first issue, it has been in the forefront of delivering the fruits of this new discipline to the other biological sciences. We expect that it will go on for additional units of 25 years and that at each anniversary another milestone will have been reached in our knowledge of the cell.