

Preface

MY INTEREST IN FOUNDATIONS and patronage dates from about 1974, when I wandered into the newly opened archives of the Rockefeller Foundation, which at the time was shoehorned into temporary quarters in a second-story warehouse on Manhattan's West Side. A recent convert to history from chemistry and biochemistry, I came looking for material on the history of heavy isotope research in biochemistry, which I knew the foundation had sponsored. I was not disappointed: half-a-dozen files of correspondence detailed a behind-the-scenes story that, for an ex-scientist used to working only with published sources, was a revelation of what doing history could be. Even more eye-opening were the vast files in the foundation's "program and policy" series, to which I was pointed by the foundation's archivist, Dr. William Hess—the first of many times he was to point me in a fruitful direction. Here was revealed an almost daily record of the activities of a small group of people who, together with groups of academic scientists, were creating new relationships between science and society: reshaping their institutions to accommodate extramurally sponsored research. And, astonishingly, these records had been seen by almost no one since they had been written. That day I was hooked on excavating archives and was committed, willy-nilly, to an institutional approach to the history of science.

Gradually, through working with the records of foundation managers, I became aware (as many others were at the time in other ways) that science was a complex social system with many actors, in which securing resources, negotiating with patrons, creating departments and disciplines, competing for talents, designing products and services, and projecting public images were no less essential than bench research. More precisely, I became aware that these aspects of science were proper subjects for history. As an apprentice chemist I had seen that this was how science really worked, but that did not seem to be what the most respected historians of science wrote about. Rummaging through the

letters, diaries, and reports of foundation officers and their academic allies, I was drawn from a history of science, that is, of finished intellectual products, to a history of scientists, that is, of science as social process.

The history of *scientists*: the idea was at the time a reproach and rebuff to those who wanted to enlarge the horizons of their discipline.¹ But it became for me the emblem of an actor-centered, pluralistic history, which dealt evenhandedly with everything that scientists did; that valued equally the social and intellectual products of science; that gave equal weight to the aims and perceptions of all the diverse social actors, who gave their own meanings to science and in doing so made the system work. Science and scientists mean something quite different to university presidents, congressmen, businessmen, and foundation officers, and their views are no less valid and worthy of study than the view from the laboratory bench. All are essential actors. None has a privileged historical value. Science is the sum of their views and activities.

When my first articles on the history of foundations were published in the mid-1970s, only a handful of historians were working on the subject, most notably Stanley Coben, Donald Fisher, Nathan Reingold, and (in partnership) Barry Karl and Stanley Katz. Since I sat down to write this book about five years ago, there has been a veritable flood of work on foundation activities (thanks in part to the Rockefeller Archive Center's generous program of research grants-in-aid). And the flood continues. As I revised, I learned of John Heilbron's work on the diffusion of cyclotron technology, Finn Aaserud's on the role of foundations in Niels Bohr's embracing of nuclear physics, Pnina Abir-Am's on the Cambridge theoretical biologists, Larry Owens's on Warren Weaver's activities in World War II, and Thomas Glick's on Rockefeller funding of physics in Spain—topics central to the story I hoped to tell. Studies appear almost monthly that throw new light on some aspect of foundation patronage that I missed or set aside. My aim in writing this book was to give a comprehensive view of foundation patronage of natural scientists: how the partnership was constructed, and how it worked and evolved in different regions of the scientific world. It will not be long, I think, before the interpretations I offer will face informed scrutiny from many directions.

Anyone who has tried to write history that deals with many scientific disciplines and national institutions knows how easy it is to make mistakes. I am grateful to colleagues who read chapters and set me right on

¹See, e.g., Leonard Wilson's review of my *From Medical Chemistry to Biochemistry*, *J. Hist. Sci.* 38 (1983): 462–464.

matters both technical and contextual, especially John Heilbron, Tom Glick, Finn Aaserud, Nathan Reingold, Pnina Abir-Am, and Robert Olby. I am grateful, too, to sponsors who supported the researching and writing of this book: the Commonwealth Fund, the Rockefeller Foundation, the Rockefeller Archive Center, and the National Science Foundation (SE81-19490). Helen Weaver and Martha Thorkelson Riddell Kohler kindly provided family recollections and photographs. Last but not least, I would like to acknowledge the many archivists and records officers on whose knowledge I and all historians depend. I want especially to thank the remarkable staff of the Rockefeller Archive Center, above all Dr. J. William Hess, Dr. Joseph W. Ernst, Thomas Rosenbaum, Emily Oakhill, Harold Oakhill, Melissa Smith, and Dr. Darwin Stapleton. Without their expert and enthusiastic participation, doing history would be a lot less fun.

