Making PCR: A Story of Biotechnology

Paul Rabinow
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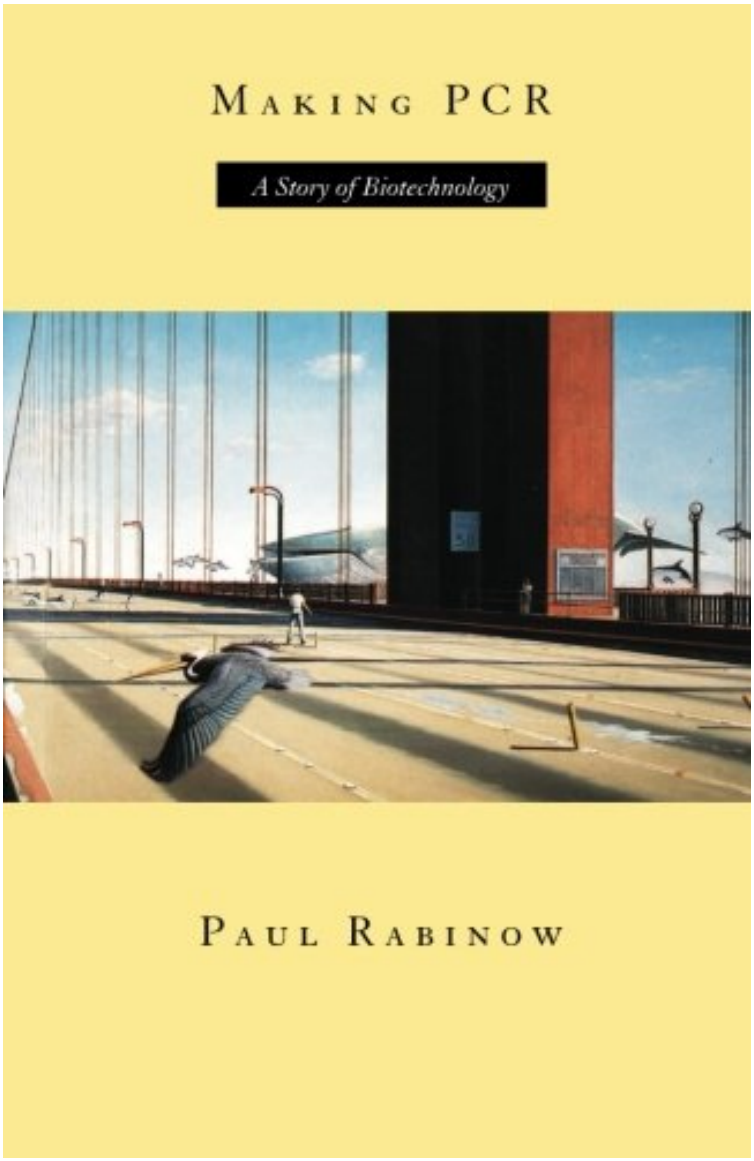

#1108045 in Books Paul Rabinow 1997-11-10 1997-11-10Original language:EnglishPDF # 1 8.50 x .80 x 5.50l, .59 #File Name: 0226701476198 pagesMaking PCR A Story of Biotechnology | File size: 44.Mb

Paul Rabinow : Making PCR: A Story of Biotechnology before purchasing it in order to gage whether or not it would be worth my time, and all praised Making PCR: A Story of Biotechnology:

0 of 0 people found the following review helpful. Wonderful narrative to begin to grasp historicity along with innovationBy Bernardo AndrewsVery compelling! Wonderful narrative to begin to grasp historicity along with innovation.4 of 6 people found the following review helpful. If he mentions the word "milieu" one more time, I'll hurl!By John SadlerAn interesting read, occasionally weakened by obtuse style. Interviews with those involved were

enlightening, as were author's observations on industry / academic collaboration in biotech.If you're in the mileu (Aaaaah!!!), read the book.5 of 5 people found the following review helpful. Basic science, biotech and life choices...By Scott C. MohrPaul Rabinow, professor of anthropology at UC Berkeley, has scrutinized the invention and development of a major biotechnological tool that underlies most present-day gene detection and manipulation. This book tells the story of the polymerase chain reaction (PCR) on the basis of personal interviews with most of the major players as well as extensive reading of the scientific and autobiographical literature. It is really several books in one: a somewhat cerebral analysis of the ultimate meaning of science in human affairs, a historical account of the emergence of PCR, a description of the issues surrounding the rise of the biotechnology industry, and a trenchant account of the roles individual psychology and personal character play in research, especially in the industrial context. Different readers may wish to concentrate on some of these elements and gloss over the others. It's a rich tapestry of a book and I plan to return to it from time to time as one or another of its themes addresses my current interests. This book belongs on the required reading list of anyone either in or contemplating a career in biotechnology. Ditto for historians of post-WWII science.

Making PCR is the fascinating, behind-the-scenes account of the invention of one of the most significant biotech discoveries in our timethe polymerase chain reaction. Transforming the practice and potential of molecular biology, PCR extends scientists' ability to identify and manipulate genetic materials and accurately reproduces millions of copies of a given segment in a short period of time. It makes abundant what was once scarcethe genetic material required for experimentation.Making PCR explores the culture of biotechnology as it emerged at Certus Corporation during the 1980s and focuses on its distinctive configuration of scientific, technical, social, economic, political, and legal elements, each of which had its own separate trajectory over the preceding decade. The book contains interviews with the remarkable cast of characters who made PCR, including Kary Mullin, the maverick who received the Nobel prize for "discovering" it, as well as the team of young scientists and the company's business leaders.This book shows how a contingently assembled practice emerged, composed of distinctive subjects, the site where they worked, and the object they invented."Paul Rabinow paints a . . . picture of the process of discovery in Making PCR: A Story of Biotechnology [and] teases out every possible detail. . . . Makes for an intriguing read that raises many questions about our understanding of the twisting process of discovery itself."David Bradley, New Scientist"Rabinow's book belongs to a burgeoning genre: ethnographic studies of what scientists actually do in the lab. . . . A bold move."Daniel Zalewski, Lingua Franca"[Making PCR is] exotic territory, biomedical research, explored. . . . Rabinow describes a dance: the immigration and repatriation of scientists to and from the academic and business worlds."Nancy Maull, New York Times Book Review

.com When the U.S. Supreme Court ruled in 1980 that new life forms could be patented, biology escaped the confines of academia; biotechnology companies have been multiplying like hothouse organisms ever since. The conjunction of scientific research and corporate profits has created much angst, not least among working scientists. Paul Rabinow, an anthropologist, decided to research not some Pacific island tribe but this new breed of scientists in their natural habitat--a hot new biotechnology company. He chose Cetus, a company that developed a procedure called the polymerase chain reaction, or PCR, a method for replicating large amounts of DNA from tiny samples. His account of the benefits of the commercial approach to research, and of the conflicts over prestige and money, is well-balanced and original.From Publishers WeeklyRabinow, a writer and anthropologist at UC-Berkeley, has written an "ethnographic account" of the Cetus Corporation during the invention of PCR, the polymerase chain reaction, a method for increasing the DNA in samples to usable levels and one of the most important techniques in biotechnology. This "ethnography," however, is both opinionated and, at times, obtuse. After his descriptive and analytical introduction, Rabinow collects a series of interviews with staff (current and former) of Cetus and intersperses them with further exposition, observations and analysis. The book's best feature is the interviews, which allow the principals to tell their story-an intriguing story of how, at first fortuitously, then seemingly through sheer perseverance, an extremely powerful tool was invented. And this despite aggression, egotism, eccentricity, a lack of competent leadership and some bizarrely flawed personalities, such as Kary Mullis, who received a Nobel prize in 1993 for inventing PCR and who, in this account, outdoes Donald Trump in arrogance and immaturity. Rabinow's prose ranges from clear, fairly technical descriptions to self-conscious pedantry. His disclaimer that his account and his "diagnosis" are dependent on a particular perspective appears to be his justification for specious reasoning (he links Ronald Reagan's presidency with the penetration of "capital into nature," even though the landmark Supreme Court decision allowing patent protections for genetic engineering was decided five months before Reagan's election). Unfortunately, Rabinow's long-winded introduction and conclusion detract from the story rather than further our understanding of it. Copyright 1996 Reed Business Information, Inc. (Rabinow) conveys the subject's weight and fascination. He cares about the beauty and complexity of science. -- The NewYork Times Book , Nancy Maull