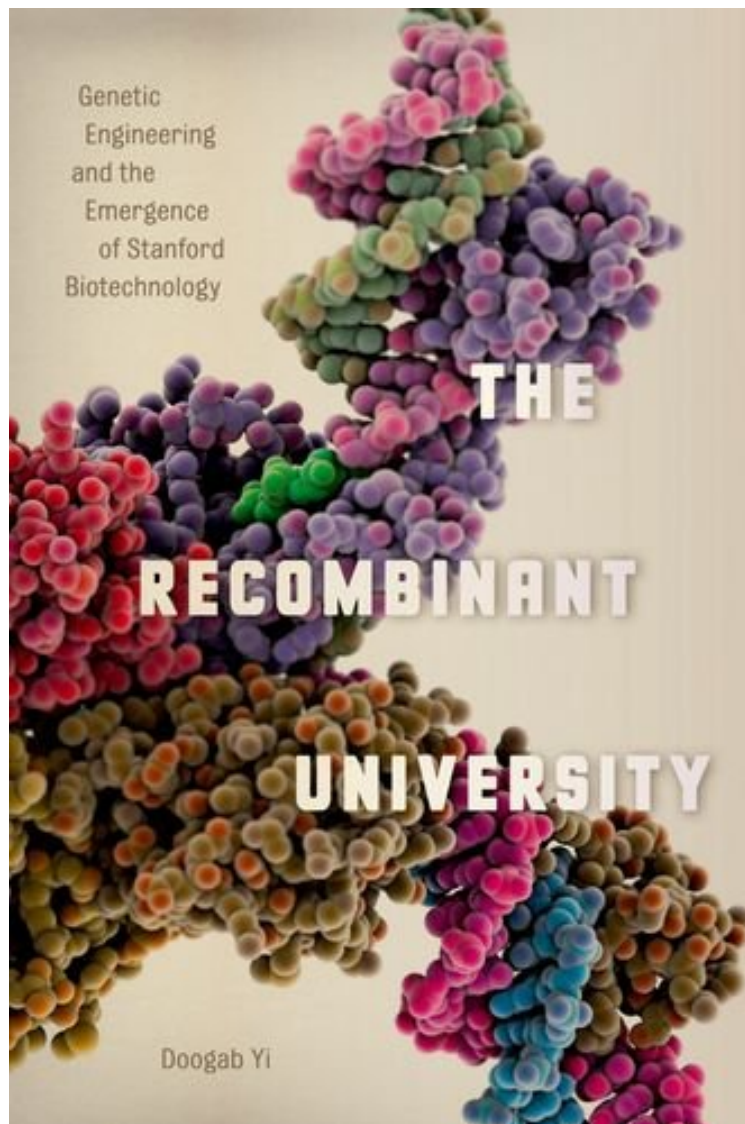


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The Recombinant University: Genetic Engineering and the Emergence of Stanford Biotechnology (Synthesis)

Doogab Yi

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Doogab Yi : The Recombinant University: Genetic Engineering and the Emergence of Stanford Biotechnology (Synthesis) before purchasing it in order to gage whether or not it would be worth my time, and all praised The Recombinant University: Genetic Engineering and the Emergence of Stanford Biotechnology (Synthesis):

2 of 2 people found the following review helpful. How Gene Editing got Started: Bioscience at StanfordBy Ronald J.

Smith This book tells the story of how Stanford University became "The Recombinant University" in the sense of transforming itself into one of the leading universities in biomedical research in Recombinant DNA and subsequently into a center for spinning off biotechnology companies. The first transformation came in the 1950's when Stanford made the decision to move its teaching hospital from San Francisco on to the main campus of Stanford in Palo Alto, CA. This was done with the express purpose of co-locating the hospital with the biological science research of the university. Another major effort was the establishment of the Biochemistry Department largely through recruiting key staff from Washington University of St. Louis and elsewhere. The "open economy" of cooperation in this department led to the first recombinant DNA breakthroughs. However, as Stanford hired an Intellectual Property attorney and moved forward to duplicate the success of the electrical engineering department in generating licensing royalties from spinning off companies that formed the foundation of Silicon Valley, the open economy of sharing resources was impacted when a professor from another bioscience department was encouraged to file for a patent (along with a professor from UCSF). At the same time, Nixon's War on Cancer was driving research into the eukaryote domain well before a complete understanding of the molecular biology of gene expression was well understood at the prokaryote domain. Also, in 1980, the Bayh-Dole Act opened the door for researchers to gain the benefit from patenting technologies while under a government research contract. The book weaves these events together into an intriguing story of how basic research and invention gets influenced by government policy, university policy, commercialization of technology, and academic politics. There are several stories within this story. There is the story of the conscious transformation of the focus of Stanford Bioscience. There is the story of the science of how Recombinant DNA (gene editing) got started at Stanford. There is the battling among faculty for recognition and patent rights. There is the legal wrangling between spun off companies and the university. And there is the influence of shifting sands of government research funding priorities and policy. Anyone who is interested in the history of Genetic Engineering or science and technology in general will find this book interesting. Even though it is written by a native Korean while in South Korea, the English is impeccable. The work is well documented. The author's aim appears to be to show how changes in university policy and government policy can have a profound effect on how well researchers cooperate and compete to move science and technology forward. The author achieves this aim.

The advent of recombinant DNA technology in the 1970s was a key moment in the history of both biotechnology and the commercialization of academic research. Doogab Yi's *The Recombinant University* draws us deeply into the academic community in the San Francisco Bay Area, where the technology was developed and adopted as the first major commercial technology for genetic engineering. In doing so, it reveals how research patronage, market forces, and legal developments from the late 1960s through the early 1980s influenced the evolution of the technology and reshaped the moral and scientific life of biomedical researchers. Bay Area scientists, university administrators, and government officials were fascinated by and increasingly engaged in the economic and political opportunities associated with the privatization of academic research. Yi uncovers how the attempts made by Stanford scientists and administrators to demonstrate the relevance of academic research were increasingly mediated by capitalistic conceptions of knowledge, medical innovation, and the public interest. Their interventions resulted in legal shifts and moral realignments that encouraged the privatization of academic research for public benefit. *The Recombinant University* brings to life the hybrid origin story of biotechnology and the ways the academic culture of science has changed in tandem with the early commercialization of recombinant DNA technology.

"...One can perceive a fine silver thread Yi weaves from the working practices of Stanford biochemists in the lab and the choices they made about how to structure their work, to the wider changes happening in North American research. For those interested in the history of the university, Yi's accounts of the changes around research organization provide fascinating insights. *Recombinant University* makes important contributions to the history of science at large, and molecular biology in particular but also to the intertwined histories of research organization and funding, commercialization, and intellectual property legislation."