

Genetic Engineering
Tue Apr 11

Reading: Michael Rogers, "The Pandora's Box Congress," Rolling Stone 189 (19 June 1975): 37-40, 42, 74, 77-78, 82.

Everett Mendelsohn, "Frankenstein at Harvard: The Public Policies of Recombinant DNA Research," in Everett Mendelsohn, ed., *Transformation and Tradition in the Sciences* (Cambridge: Cambridge University Press, 1984), pp. 317-335.

Genetic engineering is a vast and important topic, probably getting more important every day. Instead of looking at the vast range of activity at present, it is simpler (and just as informative) to look at the debates that took place at the birth of the field in the 1970s. The readings describe two episodes: the efforts by scientists to regulate themselves (the Asilomar Conference in March 1975), and the efforts by the Cambridge City Council to regulate recombinant DNA research at Harvard (and MIT) in 1977. For a look at modern and future issues, go back to Rifkin, "Ultimate Therapy," which explores the promise of human genetic engineering.

Rogers, "The Pandora's Box Congress": Rogers, a successful journalist (Newsweek, Rolling Stone, MSNMC, etc.), attended a now famous conference in California in 1975, at which leading molecular biologists attempted to self-impose guidelines for the safe and appropriate development of recombinant DNA technology. His descriptions give a fascinating glimpse into the early days of genetic engineering, and the personalities of leading biologists (James Watson, David Baltimore, Paul Berg especially) -- the pictures themselves are worth the price of admission. What were the ethical concerns of the scientists (and journalists)? How did they balance realistic and exaggerated rhetoric (e.g. science fiction scenarios). In the end, what motivated scientists to adopt self-imposed restrictions on their work? Is Rogers's own writing realistic, or does he go over the top with the religious discussions, God-scientist, Garden of Eden metaphors? What are his obligations as a reporter?

Mendelsohn, "Frankenstein at Harvard": Mendelsohn trained as a biochemist in the 1960s, then switched careers to history of science (professor at Harvard from 1960s until last year), science policy, and international diplomacy (he was a negotiator at the Oslo Peace Accords). In this chapter he describes a remarkable episode in the history of recombinant DNA: the imposition of strict safety guidelines by the Cambridge City Council in 1977, the first time a local government regulated scientific research. Why did the CCC not trust scientists to regulate themselves? Why did recombinant DNA get debated on the streets of Kendall Square? Who has the right to determine what kind of research is ethical (i.e. what was the composition of the committee)? Don't get bogged down in the blow-by-blow details of the narrative, or the detail of the epilogue.