Science and Social Context
The Regulation of Recombinant Bovine Growth Hormone in North America
Lisa Nicole Mills, McGill-Queen’s University Press, 2002; 207 pages.

This book is concerned with the history of recombinant bovine growth hormone (rbGH) – a biotech drug for cow’s milk increase – from discovery to US and Canada health agencies approval. Emphasis is on the history of the approval process and its embedding economic and political contexts. This is not a book about the paradigms of science or the complexity of the public-health decision taking process in the general case. To the extent that the book deals with the economic, political, and scientific underpinnings of the public-policy decision taking, principles of complex scientific assessment can be abstracted from the history of the approval process. One may nevertheless deplore that the book content is not in line with its main title.

The economic context chapter relates the Monsanto’s project of getting approval of the biotech drug to issues of intellectual property, technology transfer, commercialisation of knowledge, academic freedom, trials efficacy, etc. The author clearly spells out the forces at play in this context and the interactions among the main actors (the consumer, university scientists, corporate scientists, farmers, rural advocacy groups) while the safety issue is clearly the primary concern of the regulatory scientists of the health agencies. Two additional chapters review the Canadian and American political basis of the decision.

The scientific debate chapter is the most interesting as far as public-policy decision taking is concerned. The chapter aptly shows how the two countries actually differ as to the conclusion each reaches from the same scientific evidence on rbGH human and animal health effects. The main scientific issues discussed are: scientists sometimes take practical decision from moot information data; complex health issues are settled on ‘informed’ opinion or paradigm; how scientists deal with contradictory experimental results; how linear logic is more at the forefront of regulatory than academic or corporate scientists viewpoint; how data interpretation is conditioned by conventional scientific framework of reference when anomalous research results are encountered; the confusing issues of multiple statistical testing; the problem of biological versus clinical significance; how science discard results that cannot be explained; how absolute safety of new biotech drugs can never be demonstrated; how regulatory scientists are prone to pressure from firms submitting products for approval, etc.

To sum up, the book may be of interest to those concerned with the precaution principle, i.e., the foundations of complex decisions involving risks of unknown magnitude in issues of concern to a whole society. The book is of public health interest because risks covered by the precaution principle usually end up as health issues.

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