

Contents

<i>List of Contributors</i>	<i>xi</i>
<i>Preface</i>	<i>xiii</i>
Introduction John Richards	1
The Galilean Imperative <i>Robert L. Sinsheimer</i>	17
SCIENCE	
The Development and Utilization of Recombinant DNA Technology <i>Sidney R. Kushner</i>	35
Genetic Engineering in Agriculture: Biological Nitrogen Fixation as a Case History <i>Raymond C. Valentine</i>	59
The Dangers of Unrestricted Research: The Case of Recombinant DNA <i>Richard Novick</i>	71
The Dangers of Unrestricted Research: A Response to Novick <i>Michael Ruse</i>	103
The Pathogenicity of <i>Escherichia coli</i> <i>Samuel B. Formal</i>	127

ETHICS

- Ethical Prerequisites for Examining Biological Research:
The Case of Recombinant DNA 135
Daniel Callahan
- Comments on Callahan 149
Roy Curtiss III
- The Limitations of Broad Moral Policies 157
John Richards
- Ethical Theories Underlying the Recombinant DNA
Controversy 177
Mary B. Williams

POLITICS

- A Legal Perspective on Recombinant DNA Research 193
Harold Green
- Regulation of Recombinant DNA Research 207
Susan G. Hadden
- Should Recombinant DNA Research Be Regulated? 225
Tom L. Beauchamp
- Regulation at Cambridge 241
David Clem

BEYOND RECOMBINANT DNA

- Straddling the Boundaries of Theory and Practice:
Recombinant DNA Research as a Case of Action in the
Process of Inquiry 253
Hans Jonas
- Beyond Recombinant DNA—Two Views of the Future 273
Burke K. Zimmerman

APPENDIX

- The Gordon Conference 303
The Berg Committee 305

Contents	ix
The Asilomar Conference	309
Chargaff and Simring	322
Singer and Berg	330
ANNOTATED BIBLIOGRAPHY	337
<i>Index</i>	365