



Online Ethics Center  
FOR ENGINEERING AND SCIENCE

# Biotechnology: Science, Engineering, and Ethical Challenges for the 21st Century

## Author(s)

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## Body

Biotechnology is rapidly advancing in laboratories around the world.

This book offers straightforward explanations of basic science and provides insight into the serious social questions raised by these findings. The discussions explore five key areas:

1. The state of the art in biotechnology-including an overview of the genetic revolution, the development of recombinant DNA technology, and the possibilities for applying the new techniques.
2. Potential benefits to medicine and the environment-including gene therapy, the emerging area of tissue engineering and biomaterials, and the development of therapeutic proteins.
3. Issues in technology transfer-focusing on the sometimes controversial relationship between university research centers and industry .
4. Ethics, behavior, and values-exploring the ethical issues that surround basic research and applications of new technology, with a discussion of scientific misconduct and a penetrating look at the social impact of genetic discoveries.
5. Government's role-including a comparison of U.S., European, and Japanese policies on pharmaceutical and biotechnology development. Biotechnology is

here to stay, and this volume adds immeasurably to understanding its multiple aspects and far-reaching implications.

Read [\*Biotechnology: Science, Engineering, and Ethical Challenges for the 21st Century\*](#)

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## **Topics**

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## **Discipline(s)**

Biomedical Engineering and Bioengineering

Engineering

Life and Environmental Sciences

Research Ethics

## **Publisher**

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