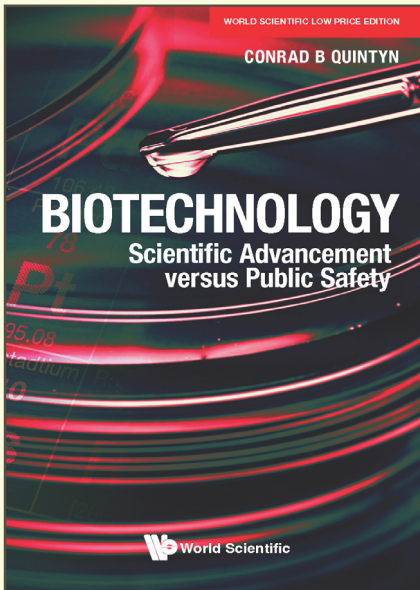


Biotechnology

Scientific Advancement versus Public Safety



By **Conrad B. Quintyn**
(*Bloomsburg University of Pennsylvania, USA*)

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ABOUT THE BOOK

In this book, Dr Quintyn considers whether genetic engineering will exacerbate social injustices and/or lead to public safety issues. As designer babies mature, will they feel a sense of superiority or pass on mutations that negatively affect future generations? Should we ignore the risk of zoonotic (animal) diseases because they offer potential benefits for reducing organ shortages? Scientific advancement, if not guided responsibly and with public input, can be detrimental to public safety.

This book is unique as it encompasses many biotechnologies within the definition of biotechnology. It gives a balanced view of biotechnology: its promise as evidenced in repairing mutations (i.e., genetic editing) and its dangers evidenced in creating (unintentionally) dangerous microbes or unregulated germline editing and cloning. Additionally, this book includes animals in biotechnological research because the success, advances, techniques, and science of genetic engineering could not have occurred without using animals (and microorganisms, insects, plants) as model organisms. A comprehensive description of the CRISPR system in bacteria and the exploitation of this knowledge in creating the CRISPR/Cas9 technology is also incorporated in this read.

The author's overall goal is to discuss other biotechnology that is being used to improve and put at risk the health, environment, and safety of humans, giving the book a competitive edge. Furthermore, the book provides a provocative side in challenging scientists to consider the current belief governing research and development, which is that scientific advancement and public safety create a false dichotomy.

READERSHIP

Students, professionals: biomedical scientists, social scientists, ethicists, health care providers, policymakers, regulators, research funders, faith healers, industry representatives, patients and their families, people with disabilities, and members of the general public.

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