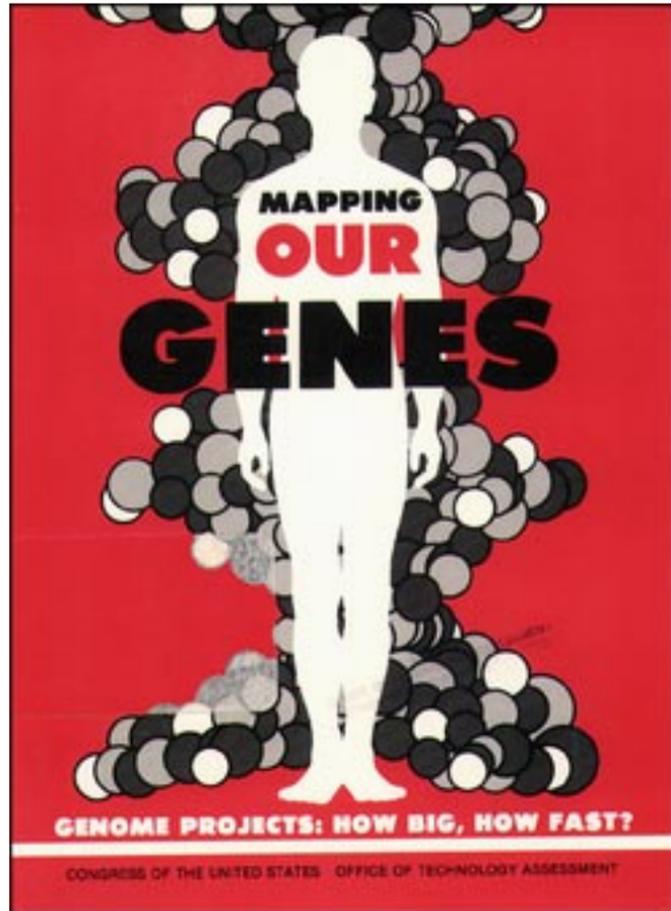


*Mapping Our Genes—Genome Projects:  
How Big? How Fast?*

April 1988

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# Foreword

For the past 2 years, scientific and technical journals in biology and medicine have extensively covered a debate about whether and how to determine the function and order of human genes on human chromosomes and when to determine the sequence of molecular building blocks that comprise DNA in those chromosomes. In 1987, these issues rose to become part of the public agenda. The debate involves science, technology, and politics. Congress is responsible for "(writing the rules" of what various Federal agencies do and for funding their work. This report surveys the points made so far in the debate, focusing on those that most directly influence the policy options facing the U.S. Congress,

The House Committee on Energy and Commerce requested that OTA undertake the project. The House Committee on Science, Space, and Technology, the Senate Committee on Labor and Human Resources, and the Senate Committee on Energy and Natural Resources also asked OTA to address specific points of concern to them. Congressional interest focused on several issues:

- how to assess the rationales for conducting human genome projects,
- how to fund human genome projects (at what level and through which mechanisms),
- how to coordinate the scientific and technical programs of the several Federal agencies and private interests already supporting various genome projects, and
- how to strike a balance regarding the impact of genome projects on international scientific cooperation and international economic competition in biotechnology.

OTA prepared this report with the assistance of several hundred experts throughout the world. Their help included interviews with OTA staff, comments on drafts of the report, and sending information to OTA. We want to thank those reviewers and many others who have contributed to making the report more accurate, balanced, and useful.

This report is one of many OTA reports related to biotechnology and genetics. Recent reports on related topics are *Technologies for Detecting Heritable Mutations in Human Beings*, *New Developments in Biotechnology: 1) Ownership of Human Tissues and Cells*, *2) Public Perceptions of Biotechnology*, *4) U.S. Investment in Biotechnology*, and *Human Gene Therapy*.

  
**U** JOHN H. GIBBONS  
Director

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NOTE: OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by the advisory panel members. The panel does not, however, necessarily approve, disapprove, or endorse this report. OTA assumes full responsibility for the report and the accuracy of its contents.

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