

*New Developments in Biotechnology:
Ownership of Human Tissues and Cells*

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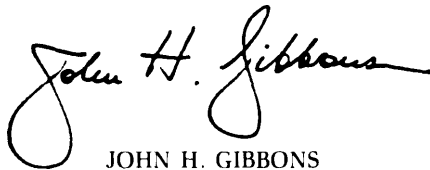
Foreword

In the 1960s, the term “biotechnology” did not exist. In the 1970s, development of techniques for: 1) splicing genetic information of one organism into that of another, and 2) fusing cells to produce large quantities of valuable proteins led to recognition that a revolution in biological technology—that is, biotechnology—was at hand. In the 1980s, biotechnology is best viewed as a growing cohort of technologies, each with its own scientific benefits and risks, and allied social, economic, legal, and ethical issues.

In this special report, OTA analyzes the economic, legal, and ethical rights of the human sources of tissues and cells and also those of the physicians or researchers who obtain and develop these biological materials. The study describes the potential of three rapidly moving technologies (tissue and cell culture, cell fusion to produce monoclonal antibodies, and recombinant DNA) for manipulating human tissues and cells to yield commercially valuable products. The report includes a range of options for congressional action related to commercialization of human biological materials, regulation of research with human subjects, and disclosure of physicians’ commercial interest in patient treatment.

This special report is the first in a series of OTA studies being carried out under an assessment of “New Developments in Biotechnology.” Forthcoming reports will include evaluations of: U.S. investment in biotechnology; public attitudes toward biotechnology; genetic and ecological issues in the environmental release of genetically engineered organisms; and the impact of intellectual property law on biotechnology. The assessment was requested by the House Committee on Science and Technology and the House Committee on Energy and Commerce.

OTA was assisted in preparing this study by an advisory panel, a workshop group, and reviewers selected for their expertise and diverse points of view on the issues covered in the report. OTA gratefully acknowledges the contribution of each of these individuals. As with all OTA reports, responsibility for the content of the special report is OTA alone. The special report does not necessarily constitute the consensus or endorsement of the advisory panel, the workshop group, or the Technology Assessment Board.



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NOTE: OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by the panel members. The panel members do 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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