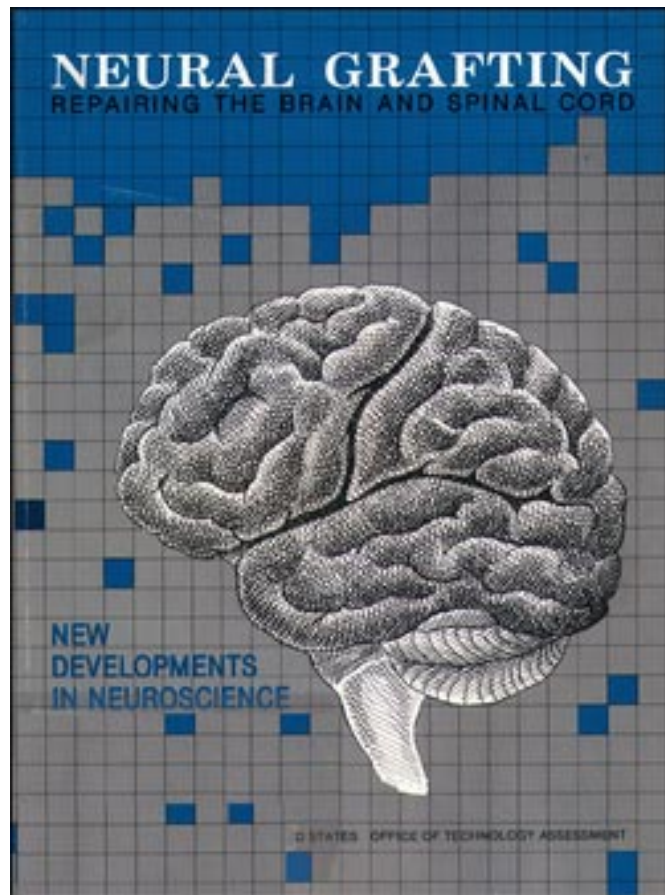


*Neural Grafting: Repairing the Brain and  
Spinal Cord*

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# Foreword

Extraordinary developments in the neuroscience in recent years have shown promise of new advances for treating diseases of the nervous system and for increased general understanding of the human mind. Paralleling these developments has been a growing congressional interest in their policy implications. The designation of the 1990s by the 101st Congress as the “Decade of the Brain” is one indication of this interest, as was the request for OTA to undertake a series of reports under an assessment of “New Developments in Neuroscience.” Requesting committees are the House Committees on Energy and Commerce; Science, Space, and Technology; Appropriations; Veterans Affairs; and the Senate Subcommittee on Science, Technology, and Space of the Committee on Commerce, Science, and Transportation.

This special report, the second of our neuroscience series, discusses the field of neural grafting into the brain and spinal cord to treat neurological disorders. It describes the technology of neural grafting, the neurological conditions that it may be used to treat, and the patient populations that are affected. Also, the legal and ethical issues raised by the development of neural grafting techniques are discussed. The report includes a range of options for congressional action related to the Federal funding of transplantation research using human fetal tissue, the adequacy of existing Federal laws and regulations regarding the use of human fetal tissue, and the role of the Federal Government in guiding the development and promoting the safety and efficacy of neural grafting procedures.

The first publication in OTA’s assessment of “New Developments in Neuroscience” was *Neurotoxicity: Identifying and Controlling Poisons of the Nervous System*, published in April 1990. OTA was assisted in preparing the present study by a panel of advisers, a workshop group, and reviewers selected for their expertise and diverse points of view on the issues covered by the assessment. OTA gratefully acknowledges the contribution of each of these individuals. As with all OTA reports, responsibility for the content of the report is OTA’S alone.

**K A . Y # A .**  
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NOTE: OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by the advisory and study panel members. The panels 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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<sup>2</sup>Through August 1989.

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<sup>5</sup>Through October 1989.

<sup>6</sup>Through February 1989.