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## Ethical Dilemmas and Stem Cell Research

Harold T. Shapiro

Scientific progress is both planned and spontaneous, a science and an art, and is always subject to social, political, and cultural forces. Some of the influences on the scientific agenda originate within science itself; others originate in the preferences, values, and aspirations of those who sponsor or finance scientific research. A principal function of the National Bioethics Advisory Commission (NBAC), which I chair, is to advise and make recommendations on issues that arise when the imperatives of the scientific agenda confront fundamental ethical and often morally contested questions. This has occurred in NBAC's recent study of the ethical issues arising from research involving the derivation or use of human embryonic stem (ES) cells and embryonic germ (EG) cells.

In late 1998, two separate scientific reports brought to the forefront the scientific and clinical prospects of human ES cell research as well as the ethical and legal challenges reflected, in part, by Congress's existing ban on the use of federal funds for embryo research. Although these reports made it increasingly clear that research with ES or EG cell lines could potentially yield enormous clinical benefits and deeper insight into human development, our society is divided over how to demonstrate an appropriate level of respect for the human embryo and for cadaveric fetal tissue, which currently are the sources of these cells. Very few disagree with the view that the human embryo deserves respect as a form of human life, but there is considerable disagreement about the form such respect should take and about what level of protection is owed to human life at its different stages of development.

For those who believe that the embryo has the moral status of a person from the moment of conception, any activity, no matter how well intended, that would destroy an embryo is unthinkable. For NBAC, the problem was much more complex and involved questions of scientific and therapeutic potential; secular and religious ethical concerns about the moral status of the embryo; and, to some extent, questions about the channels through which society distributes the benefits of its investment in science.

In a report delivered to President Clinton on 13 September 1999, NBAC concluded that research in which cadaveric fetal tissue is used and research using or deriving ES cells remaining from in vitro fertilization (IVF) should, under appropriate conditions, be eligible for federal funding. Among the conditions we included explicit requirements for information to be given to individuals who might donate embryo material, so that they can make informed and voluntary choices. NBAC has recommended that Congress rescind, in part, the current ban on the use of federal funds for embryo research. We believe that it is not appropriate at this time to use federal funds for derivation or use of ES cells from embryos made solely for research purposes by IVF or through somatic cell nuclear transfer into oocytes. Nor is it appropriate for embryos or cadaveric tissue to be bought or sold.

There is a crucial need for national and local oversight of human stem cell research in the United States—oversight that does not currently exist. NBAC has recommended that the Department of Health and Human Services establish a National Stem Cell Oversight and Review Panel, with a multidisciplinary membership that would include members of the general public. Among other responsibilities, the panel would have to certify that cells to be used in federally funded research, including those made available by companies, had been derived with approved protocols. The NBAC report contains a strong endorsement of the value of having the private sector voluntarily comply with this system. We also made clear our commitment to the importance of public openness and accountability for this type of research. NBAC's deliberations (and those of professional societies, religious institutions, and town hall meetings) are part of an important and sustained public dialogue regarding the nature of the relationship between the evolving scientific agenda and important ethical considerations.

The author is chairman of NBAC and president of Princeton University.

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