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NOTE

THE STEM CELL COMPROMISE:
A WOLF IN SHEEP’S CLOTHING,
CONSTITUTIONAL IMPLICATIONS OF
THE BUSH PLAN

Atossa M. Alavi

“I have made this decision with great care, and I pray it is the right one.” These were President Bush’s final thoughts after he announced his plan for federal “funding” of human stem cell research, issued from his ranch on August 9, 2001. In those remarks, the President concluded that federal funds can be used to support research using human embryonic stem cell lines that were derived before that date, because for these cells, “the life and death decision has been already made.”

On August 27, the National Institutes of Health (NIH) reported that the President’s decision permits federal funding for research on 64 stem cell lines. On September 5, NIH announced that it had concluded a Memorandum of Understanding with WiCell to allow the National Institutes of Health intramural researchers access to the lines owned by WiCell. On October 9, the House Appropriations Commit-

† J.D. Candidate, Case Western Reserve University School of Law. I would like to thank Professor Jonathan L. Entin for all his suggestions and guidance.
2 Id.
3 See Statement by Tommy G. Thompson, Secretary of Health and Human Services, Regarding Stem Cell Lines (Aug. 27, 2001), available at http://www.hhs.gov/news/press/2001pres/20010827a.html (explaining that the National Institute of Health has named 10 laboratories in the world which meet President Bush’s criteria for receiving federal funding to conduct research on 64 embryonic stem cell lines).
4 See NIH News Release, National Institutes of Health and WiCell Research Institute, Inc., Sign Stem Cell Research Agreement, at http://www.nih.gov/news/pr/sen001/od-05.htm (Sept. 5, 2001) (noting, however, that “WiCell . . . will receive a fee to cover its handling and distribution expenses in supplying these cell lines”).
The national debate preceding Bush’s announcement blurred the conventional lines between conservatives and liberals. Polls showed that many Americans who consider themselves conservatives are “split right down the middle” on whether they support stem cell research. Some pro-choice Americans actually oppose embryonic cell research, and several anti-abortionists, such as Senator Orrin Hatch, favor stem cell research.\(^5\)

The WiCell Research Institute, Inc is a nonprofit institution, and an off-shoot of University of Wisconsin, which was established in October 1999 to advance research in the area of stem cells. It owns the patent on the first successfully established human embryonic stem cell lines, dubbed Wisconsin Stem Cells\(^TM\) (patent number: US 5843780, “Primate Embryonic Stem Cells,” issued December 1, 1998; other U.S. and foreign patent applications pending). These cells were isolated by a team of scientists from the University of Wisconsin-Madison headed by Dr. Thomson. Dr. Thomson is the Scientific Director of the WiCell Institute. See WiCell Website, at http://www.wicell.org/news_features.htm (last visited Sept. 29, 2002).

On September 4, the Public Health Service (PHS) signed a Memorandum of Understanding (MOU) with WiCell for use by PHS researchers of WiCell’s five existing human embryonic stem cell lines. The agreement permits PHS scientists, such as those working in the NIH intramural program, to freely publish the results of their research and permits PHS to retain ownership to any new intellectual property that might arise from the conduct of such research. In addition, the MOU provides a “Simple Letter of Agreement” to govern the transfer of cell lines to individual laboratories with minimal administrative burden. Furthermore, WiCell has agreed to make stem cells available to PHS grantees under the same terms and conditions as those provided to PHS scientists. Wendy Baldwin, Statement of Wendy Baldwin, Ph.D. Deputy Director for Extramural Research National Institutes of Before the Senate Appropriations Subcomm. on Labor, Health and Human Services, Educ., and Related Agencies (Oct. 31, 2001), at http://www.nih.gov/news/stemcell/10310extramural.htm (last visited Sept. 29, 2002). The fee to academic researchers for obtaining Wisconsin Stem Cells\(^TM\) of a single origin is $5,000. WiCell website, at http://www.wicell.org/faqs_researcher.htm (last visited Sept. 29, 2002).


\(^7\) See also Aaron Zitner & Marlene Cimons, Nominee Crosses Stem Cell Divide: Tommy G. Thompson, set to join Bush’s Cabinet, has reconciled his anti-abortion views with controversial research on embryos, L.A. TIMES, Jan. 18, 2001, at A13. (noting other pro-life supporters of human embryonic stem cell research such as Sen. Strom Thurmond (R-S.C.), former Sen. Connie Mack (R-Fla.), and Wisconsin Gov. Tommy G. Thompson); Robin Toner, The Abortion Debate, Stuck in Time, N.Y.
Critics of federal funding of stem cell research maintain that tax dollars should not be used for anything that results in deliberate destruction of an embryo. On the other hand, people with diseases that might be treated using stem cells argue that research is a more noble use for unwanted embryos than the alternatives these embryos face. After Bush’s announcement, the debate shifted to the 64 existing cell lines. What was the evidence that these cells meet the criteria required for utility? So far, we have only the assurances of Health and Human Services Secretary, Tommy Thompson, and his colleagues at the NIH.8

The focus of this Note is to challenge the constitutionality of the line drawn by the President’s Statement, which conditions receipt of federal funds for stem cell research on researchers agreeing to work on the already available 64 cell lines approved by the government. After a brief scientific background on the nature of stem cells, Part II explores the status of science under the Constitution and concludes that strong arguments support the recognition of special first amendment protection for scientific inquiry, at least to the extent that any restriction on its exercise must be subject to close examination. Part III examines the claimed government interests in regulating stem cell research. It concludes that the purported government interest in saving the lives of embryos fails both the stringent test applied to content-based regulations, and the less demanding balancing test applied to non-content based regulation. Therefore, given these interests, the government would not be able to either affect a total ban on stem cell research, or impose a limitation on researchers requiring them to work exclusively on the currently available 64 stem cell lines. Finally, Part IV examines government funding decisions and asks whether the same government, who could not directly limit stem cell research, can nevertheless impose certain restrictions on stem cell researchers through its funding decisions. First it establishes that there is no obligation on government to fund a particular area of research, whatever its merits. But once the government decides to fund a certain activity, its decision is subject to scrutiny under the doctrine of unconstitutional conditions. Applying this doctrine to the restriction imposed by the Bush plan, it becomes apparent that because of the way federally funded research is managed, particularly the way the WiCell agree-

mendment is drafted, the federal restriction will not only affect those scientists who apply for NIH funding, but also scientists working in the same institution who do not. Moreover, since the federal government enjoys a near monopoly power in the field of funding for basic biomedical research, it's funding of “some” stem cell research will effectively discourage any future private funding in the area. This will result not only in an increase in the government’s monopoly in this field but more importantly, halt the progress of stem cell research, thus achieving the very same goal which the government could not accomplish directly.

In conclusion, the Note argues that while stem cell research remains legal, scientists working on this research should be able to make scientific decisions free of governmental interference. To remove the coercive effect of the interference, government should decide either to fund, or not to fund, all stem cell research. At a time when, from a scientist or a patient’s point of view, a “good” result will be a congressional resolution to fund all stem cell research, and a “bad” decision one that would cut federal funding to all stem cell research, the current Bush plan presents an “ugly” dilemma; on the face of it, it encourages research on stem cells by providing funding for a limited number of currently available cells. But the overall effect of the plan is to freeze a fast growing area of great potential by influencing the private/public funding balance, and by restricting stem cell researchers’ freedom to conduct their research.

I. BACKGROUND

A. What Are Stem Cells?

“A stem cell is a special type of cell that has the unique capacity to renew itself” indefinitely, and to give rise to daughter cells that can form specialized cells. “Although most cells of the body” (like heart or skin cells) are specialized, or committed, “to conduct a specific function, a stem cell is uncommitted until it receives a signal to develop into a specialized cell.” Given the appropriate signal, these cells can be directed to specialize and become the cells of the many organs of the body. Therefore, the potential of stem cells is in “regenerative medicine” or “tissue-replacement therapy” that seeks to restore

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lost function in damaged organs by replacing the lost or damaged cells.

The list of diseases and injuries cited as targets of stem cell therapy include: Parkinson’s disease, diabetes, heart disease, Alzheimer’s disease, osteoporosis, and spinal cord injury, or indeed any disorder that results from death or dysfunction of one or a few cell types. There are currently few or no treatment options for most of these diseases. Other potential benefits from stem cell research include the study of human development, which may have important consequences in understanding birth defects, infertility, pregnancy loss, and developing gene targets for new drugs.

Embryonic stem cells (ES cells) are found in the inner cell mass of the human blastocyte, an early stage of a developing four- to seven-day-old embryo. For the first time in 1998, Dr. James Thomson and colleagues successfully isolated human embryonic stem cells and developed a procedure to induce the cells to proliferate or “self-renew” indefinitely. The trick is to get these cells to grow in an undifferentiated state while maintaining their “pluripotency,” i.e., their potential to specialize or differentiate into specialized adult cells. These undifferentiated self-renewing cells are known as cell lines or “immortal” cells.

Many adult organs contain a few “adult” stem cells, which are again undifferentiated and capable of differentiating into, and produc-

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10 The potential US patient populations who may benefit from stem-cell research has been estimated as follows:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular disease</td>
<td>58 million</td>
</tr>
<tr>
<td>Autoimmune disease</td>
<td>30 million</td>
</tr>
<tr>
<td>Diabetes</td>
<td>16 million</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>10 million</td>
</tr>
<tr>
<td>Alzheimer’s disease</td>
<td>5.5 million</td>
</tr>
<tr>
<td>Parkinson’s disease</td>
<td>5.5 million</td>
</tr>
<tr>
<td>Spinal Cord injuries</td>
<td>0.25 million</td>
</tr>
<tr>
<td>Birth defects</td>
<td>0.15 million/year</td>
</tr>
</tbody>
</table>


12 NAT’L RESEARCH COUNCIL, STEM CELLS AND THE FUTURE OF REGENERATIVE MEDICINE 31 (2001) [hereinafter NRC REPORT] (this study was prepared by the Committee on the Biological and Biomedical Applications of Stem Cell Research, formed by the National Research Council’s Board on Life Sciences and Institute of Medicine’s Board on Neuroscience and Behavioral Health).

13 Thomson, *supra* note 11, at 1145. In Thomson’s study, five stem cell lines were developed from 14 pre-implantation IVF embryos donated after informed consent and institutional review board approval. *Id.*
ing the normal cells of the organ in which they are found.\(^\text{14}\) In the past two years, studies have suggested that some adult stem cells are able not only to replenish damaged cells of the tissue they are found in, but also to differentiate into cells of other tissues.\(^\text{15}\) Although ethically more acceptable, there are major disadvantages to the use of adult stem cells, e.g., they are few, difficult to isolate, and difficult to grow in the laboratory, they cause immune rejection when transplanted from one person to another, and there can be unacceptable delays in finding a match in spinal trauma cases or potential problems if cells of one organ are made to specialize into the cells of another organ. These restrictions limit the use of these cells in all situations.\(^\text{16}\) Moreover, most reports of adult cells are from animal studies. Very few, usually unconfirmed reports of multipotent human adult stem cells exist.\(^\text{17}\)

Much research remains to be done before the potential of human embryonic or adult stem cells can be realized. First, much of our pre-

\(^{14}\) The premiere adult stem cell is the one responsible for the success of bone marrow transplants. The hematopoietic (or "blood producing") stem cells are capable of differentiating into all the eight different types of cell found in the blood. Bone marrow transplants have been successful in treating cancers of the blood (leukemia and other cancers), inherited blood disorders, and diseases of the immune system. However, the success of bone marrow transplants is limited by the low availability of these stem cells in the transplanted tissue. Most transplanted tissues are "contaminated" with other cells, which, ironically, can attack the "host" or transplant recipient, because they are cells of the immune system that recognize the "host" as "foreign." Such an attack is potentially lethal and is the reason why bone marrow transplant recipients are required to take high doses of immune-suppressant drugs for the rest of their lives, even though the transplants are usually from a sibling with a close genetic match. Since there is evidence that transplants of purified and concentrated populations of blood-forming adult stem cells greatly reduce such unwanted side effects, research in this area is highly important. However, obtaining purified stem cells is a major challenge because these cells are difficult to isolate, purify, and culture outside the body. See NRC REPORT, supra note 12, at 19-29 (discussing human adult stem cells).

\(^{15}\) See NRC REPORT, supra note 12, at 16 (summarizing two studies demonstrating the multipotency of adult stem cells).

\(^{16}\) See id. at 16-17 (noting the difficulties of using adult stem cells in research). For successful use of adult stem cells in future regenerative therapies, much work needs to be done to make isolation and culture of these cells easier. There may also be promise in "deprogramming" an intermediate cell (intermediate or progenitor cells are intermediate between a blank stem cell and differentiated adult cell) and "reprogramming" them to produce the cell type of interest.

\(^{17}\) Id. at 28. More studies on adult stem cells are becoming available, for example see e.g., Sylvia P. Westphal, Is This the One, NEW SCIENTIST, 26 Jan. 2002, at 4, available at http://www.newscientist.com/news/news.jsp?id=ns99991826 (reporting on the discovery of an adult stem cell which can "turn into every single tissue in the body").
sent knowledge about stem cells comes from animal studies, whose cell behavior may differ substantially from human cell behavior. Furthermore, major questions remain unanswered about the genetic or environmental factors in the body that control the fate of stem cells.

B. History of Stem Cell Research Regulation and Funding

Generally, the regulations governing research on human beings are codified in the Federal Policy for the Protection of Human Subjects. Subpart A requires establishment of Institutional Review Boards (IRBs) to approve all federally funded human subjects research, and subpart B contains specific provisions applicable to federal grants and research involving the fetus, pregnant women, and human in vitro fertilization (IVF). These regulations primarily address research that may adversely affect living fetuses and provide for additional IRB duties beyond those in subpart A. They also restrict the use of pregnant women as research subjects, and demand minimal risk standards for therapeutic activities directed towards fetuses in utero.

Before the presidential statement, no federal funds had been used to support stem cell research from either human embryos or human fetal tissue. This is because of a ban on federal funding of research involving embryos, expressed statutorily through a Rider attached to the Omnibus Consolidated and Emergency Supplemental Appropriations Act for the Department of Health and Human Services (HHS), Education and Related Agencies. The Rider prohibits HHS from using appropriated funds for the creation of human embryos for research purposes or for research in which human embryos are destroyed.

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18 See NRC REPORT, supra note 12, at 29 (noting for example the differences between mouse and human stem cells). For example a comparison of mouse and human blood-producing stem cells showed only about half of the genes expressed in mouse cells correspond to genes expressed in the human cells.
19 See 45 C.F.R. §§ 46.102, 103, 107, 108, 109, 111 (1999) (outlining the process by which an institutional review board is created and the necessity of approval for federally funded research).
20 45 C.F.R. § 46.201(a) (1999).
21 45 C.F.R. § 46.207.
22 For example, Dr Thomson’s research at the University of Wisconsin was funded privately by Geron Corporation.
24 The current rider, section 510 of the FY2000 Labor, HHS and Education Appropriation in Pub. L. 106-13, prohibits HHS from using federal funds for “(1) the creation of a human embryo or embryos for research purposes; or (2) research in
The Rider, however contained a "loophole." It did not ban the funding of embryo-related research that poses no risk to embryos. Since stem cells have already been isolated from embryos, further "stem cell" research poses no such risk. Following the 1998 announcement on the derivation of human embryonic stem cells, NIH director Dr. Harold Varmus requested a legal opinion from HHS on whether federal funds could be used to support research on human embryonic stem cells. In response, in January 1999, Harriet Rabb, the General Counsel of HHS, issued a memorandum expressing her legal opinion that the statutory prohibition (the Rider) did not extend to research using human pluripotent stem cells because such cells are not "embryos" within the statutory definition. This opinion was repeated in a Fact Sheet issued by HHS, also in January 1999. As a result, HHS maintained that NIH could support research that uses stem cells but could not support research which derives stem cells from embryos.

In June 2000, the National Bioethics Advisory Committee (NBAC), after months of scientific, religious, and philosophical research and debate, issued its report. The report stated that "[r]esearch involving the derivation and use of human [embryonic stem] cells from embryos remaining after infertility treatments should be eligible for federal funding" and recommended that the federal

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25 Memorandum from Harriet S. Rabb, General Counsel, DHHS, to Harold Varmus, M.D., Director, NIH, at 1 (Jan. 15, 1999) [hereinafter Rabb Memorandum]. The finding was based, in part, on HHS determination that the Rider defines an embryo as an organism. Human embryonic stem cells are not and cannot develop into an organism; they lack the capacity to become organisms even if they are transferred to a uterus.


27 See HHS Fact Sheet, supra note 26.


government fund research on stem cells derived from "leftover" IVF embryos, as well as research in deriving the cells from embryos, by way of exception to the present ban.\textsuperscript{30}

After receipt of the Rabb memorandum, NIH announced that it planned to prepare new guidelines for embryonic stem cell research in accordance with the HHS interpretation of the law.

After notice and comment,\textsuperscript{31} it issued a revised and final version of the Guidelines on Stem Cell Research permitting federally financed researchers to work on human embryonic stem cells.\textsuperscript{32} The Guidelines proposed specific criteria for informed consent for using stem cells, proposed the establishment of a "Human Pluripotent Stem Cell Review Group," and enumerated areas of research involving stem cells that would be ineligible for NIH funding.\textsuperscript{33}

Before the Presidential announcement of August 2001, the NIH Guidelines were the "definitive authority on the funding of [stem] cell research."\textsuperscript{34} However, in April 2001, the Bush Administration ordered the NIH to postpone a meeting of the Human Pluripotent Stem Cell Review Group, who were scheduled to consider the first application for research grants.\textsuperscript{35} In addition, in response to a lawsuit filed in the U.S. District Court for the District of Columbia seeking injunctive

\textsuperscript{30} Id.
\textsuperscript{33} Id. at 51,980 (Part II.A.2.e, "Informed Consent"); id. at 51,981 (Part IV.A, "The NIH Human Pluripotent Stem Cell Review Group"); id at 51,981 (Part III, "Areas of Research Involving Human Pluripotent Stem Cells That Are Ineligible for Funding").
\textsuperscript{34} See Gabriele S. Gross, Federally Funding Human Embryonic Stem Cell Research: An Administrative Analysis, 2000 Wis. L. REV. 855, 869 (2000) (arguing that a hypothetical challenge to the NIH Guidelines or the 1999 HHS interpretation of federal law should fail under the Chevron two-step analysis).
\textsuperscript{35} Rick Weiss, Bush Administration Order Halts Stem Cell Meeting, WASH. POST, Apr. 21, 2001, at A2.
relief to halt the federal funding of stem cell research, a judge ordered a temporary halt on federal funding until completion of the Bush Administration’s review. As a result, the NIH did not fund any research on human embryonic stem cells before the Presidential Statement.

C. Objections to Bush’s Plan

1. Scientists and Patient Advocate Groups

The concern of scientists over the limitations of the Bush plan is summarized in a report released by the National Research Council (NRC) on September 11, 2001. After organizing a workshop at which the NRC committee heard from many leading scientists, philosophers, ethicists, and legal scholars, it concluded that (i) studies with human stem cells are essential and should continue; (ii) because of important biological differences between adult and embryonic stem cells research on both adult and embryonic human stem cells should be pursued; and (iii) because of the deterioration of stem cells over time, and because “existing stem cell lines have been cultured in the presence of non-human cells or serum that could lead to potential human health risks,” it is necessary to develop new stem cell lines in the future. It added:

36 See Joseph Curl, Judge Halts Stem-Cell Research Pending HHS Review, WASH. TIMES, May 11, 2001, at A3. The lawsuit was filed by a public interest firm, Human Life Advocates, and the named plaintiffs included an adoption agency and the Christian Medical Association; Stem Cell Research Opponents to Sue Thompson, NIH, AM. HEALTH LINE, Mar. 8, 2001, LEXIS, News Library, HLTLINE File (summarizing recent newspaper articles regarding suit brought against HHS Secretary and NIH and the opposition to stem cell research).

37 Nightlight Christian Adoptions v. Thompson, No. 1.01 CV 00502 (D.D.C. May 4, 2001) (order staying the case pending the outcome of the Bush Administration's review of the NIH funding guidelines).

38 See NRC REPORT, supra note 12 (explaining limitations in research funding and support facing stem cell research organizations).

39 Audio files of the speaker’s presentations are available at http://www.nationalacademies.org/stemcells.

40 “Over time, all cell lines in tissue culture change, typically accumulating harmful genetic mutations. There is no reason to expect stem cell lines to behave differently. In addition, most existing stem cell lines have been cultured in the presence of non-human cells or serum that could lead to potential human health risks. Consequently, while there is much that can be learned using existing cell lines if they are made widely available for research, such concerns necessitate continued monitoring of these cells as well as the development of new stem cell lines in the future.” NRC REPORT, supra note 12, at 3 (emphasis added).

41 Id.
High quality publicly funded research is the wellspring of medical breakthroughs. Although private, for-profit research plays a critical role of translating the fruits of basic research into medical advances that are broadly available to the public, stem cell research is far from the point of providing therapeutic products. *Without public funding of basic research on stem cells, progress toward medical therapies [as well as opportunities for regulatory oversight and public scrutiny] is likely to be hindered.*  

It recommended the establishment of a national advisory group composed of researchers, ethicists, and other stakeholders at NIH to oversee human stem cell research.43 Lastly, it recommended that research on approaches that “prevent immune rejection of stem cells and stem-cell-derived tissues [including the use of somatic cell nuclear transfer] should be actively pursued.”44 These concerns have been echoed by other scientists45 and patient advocate groups.46

2. Ethicists and Religious Groups

Many in the pro-life movement viewed Bush’s decision as a clear step back, since it marked the first time that the federal government would fund research involving the destruction of human embryos. Reaction from the leaders of the movement, however, was mixed.

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42 Id. (emphasis added).
43 See id. at 4 (“[s]uch a group should ensure that [research] proposals . . . are scientifically justified and should scrutinize such proposals for compliance with federally mandated ethical guidelines”).
44 Id.
45 Advocates of federal funding of stem cell research include a group of 80 Nobel laureates. See Rick Weiss, *Nobel Laureates Back Stem Cell Research; Group of 80 Recipients Sends Letter Asking Bush Not to Block Funding for Studies*, WASH POST, Feb. 22, 2001, at A02 (urging to President Bush by esteemed scientist to allow stem cell research to continue). Others include the American Society for Reproductive Medicine, Federation of American Societies for Experimental Biology (FASEB), American Society for Cell Biology, and the Society for Developmental Biology; Shirley J. Wright, *Human Embryonic Stem-Cell Research: Science and Ethics*, 87 AM. SCIENTIST 352, 356-57 (1999) (noting the number of important scientists and scientific societies in favor of federal funding for continued stem cell research).
46 Perry, *supra* note 10, at 1423. In 1999, three dozen national nonprofit patient organizations formed a coalition, the Patient’s Coalition for Urgent Research (CURe) to argue for public funding of human embryonic stem cell research under NIH guidelines. The goals adopted by CURe were to achieve: (i) participation by the broadest number of scientists under established peer-review mechanisms, thus rewarding the most promising research and speeding progress, and (ii) public accountability and guidelines developed through processes that allow for public comment on an area of science that has raised ethical concerns.” Id.
Some were pleased with the outcome. But many others were disappointed.

Objections to stem cell research have generally centered on assertions that the research will indirectly result in the destruction of embryos, (which opponents of stem cell research consider as human beings), and that it will influence a woman’s decision to undergo an abortion. The arguments in favor of imposing restrictions on stem cell research are frequently supported by the assertion that research on stem cells from adult tissues alone will lead to the development of sought-after medical therapies. Research on adult stem cells has all the necessary scientific potential and represents a morally less problematic alternative that obviates the need for research on

47 See, e.g., Teresa R Wagner, The Stem Cell Storm, 17 WORLD & L 6267 (Feb. 1, 2002), available at 2002 WL 9015495. Wagner reported the National Right to Life Committee saying: “We are delighted that President Bush’s decision prevents the federal government from becoming a party to any further killing of human embryos for medical experimentation,” and James Dobson of Focus on the Family saying: “President Bush . . . has courageously upheld his promise to protect unborn children.” Other groups, such as the Christian Coalition and Paul Weyrich’s Free Congress Foundation, seemed equally pleased.

48 See, e.g., id. Quoted opponents included Bishop Joseph Fiorenza, president of the U.S. Conference of Catholic Bishops stating that: “The trade-off [the president] has announced . . . is morally unacceptable. The federal government, for the first time in history, will support research that relies on the destruction of some defenseless human beings for possible benefit to others,” and Phyllis Schlafly’s Eagle Forum stating “President Bush made the wrong decision morally, scientifically, legally, and politically.” Similar statements of disapproval came from the Traditional Values Coalition, Concerned Women for America, and Family Research Council.


50 For example, the organization DO NO HARM: The coalition of Americans for Research Ethics, which is a “national coalition of researchers, health care professionals, bioethicists, legal professionals, and others dedicated to the promotion of scientific research and health care which does not harm human life” reacted to the Bush announcement with a statement, released on July 1, 1999, which asserted the human embryonic stem cell research is unethical and scientifically unnecessary, since “other research methods which use stem cells from adults to develop treatments for many diseases have recently been successful.” Statement Summary, available at http://www.stemcellresearch.org/statement/summary.htm (last visited February 11, 2003).
lematic alternative that obviates the need for research on embryonic stem cells.

But as mentioned above, there are several factors which these arguments do not take into consideration. First, apart from the successes of bone marrow and skin transplants, much of the remainder of the evidence for the use of adult stem cells for regenerative therapies is speculative, despite years of research. In this respect, research on the use of adult stem cells is as primitive as that on embryonic stem cells and there is simply no concrete information on their potential. Second, their use has inherent difficulties which scientists have not been able to overcome yet, such as the difficulty of isolating them among the many other mature cells in each organ, keeping them in culture for long periods of time, and their minute numbers which frequently are inadequate to achieve transplantation. Third, much of the work on these cells was done on animal models and the results are not generalizable to humans. It must be noted that the study of embryonic stem cells is likely to help advance our knowledge of the possible applications of adult stem cells in the future.\(^5\) The differences between adult and embryonic stem cells preclude adult cells from being an alternative to research on embryonic cells.\(^5\)

II. STATUS OF SCIENCE UNDER THE CONSTITUTION

To determine the extent to which government can restrict the freedom of scientific inquiry, we must first examine the status of science under the Constitution. There have been very few reported judicial decisions that have addressed this issue directly. Supreme Court and lower court decisions have referred to science in protective terms, but the involvement of science in these cases has usually been collateral to some other issue. Many commentators, however, have argued that scientific research enjoys First Amendment protection.\(^5\) This

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51 See NRC REPORT, supra note 12, at 2-3 ("[a]lthough stem cell research is on the cutting edge of biological science today, it is still in its infancy").
52 See id. at 2 (noting that only "[a]dult stem cells from bone marrow "have shown promise as a therapeutic tool.
HEALTH MATRIX

section will outline the various arguments which form the bases for extending first amendment protection to scientific inquiry.54

A. Scientific “Speech” and “Full” First Amendment Protection

The process of scientific research and publication can be divided into two distinct phases: a “research” phase, which can be defined as conduct or activities carried out by a scientist which lead to the production of data; and the “publication” or “communication” of the results of such research. There is no doubt that the communication of scientific ideas, much like the communication of religious, artistic and political ideas enjoys full first amendment protection.55 This section presents the various arguments that have been put forward in this area.

1. History of the First Amendment and the Framers’ Intent

An obvious starting point for the analysis of this issue is to consider the framers’ intent. Goldberg, a prominent proponent of the protected status of science under the first amendment, examines the text of the Constitution in light of the framers’ obvious interest in science and the view that science was a central consideration in drafting the document, and concludes that “scientific speech” enjoys full first amendment protection.56

Goldberg argues that “the framers designed the Constitution in part to protect freedom of science both through the establishment of


54 Other constitutional doctrines under which scientific research may enjoy special protection include the Fourteenth Amendment right to personal liberty and privacy, or the right to freedom of association. See, e.g., Robertson, supra note 53, at 1212-15 (explaining constitutional provisions that could provide protection for scientific research). However, application of theses rights to scientific inquiry has generally not produced very strong arguments.

55 Id. at 1216 n.53, criticizing Bork’s view that “[c]onstitutional protection should be accorded only to speech that is . . . [political]” (quoting Bork, Neutral Principles and Some First Amendment Problems, 47 IND. L.J. 1, 20 (1971)).

56 See Goldberg, supra note 53, at 2-7.
religion clause, which prohibits government support for a traditional adversary of science, and through the speech and press clauses, which were understood from the outset to include scientific expression.\(^{57}\) Goldberg first argues that Jefferson, Madison, Hamilton, and Franklin, who were men of the Enlightenment and who regarded liberty as being intimately related to science, were quite conscious of the suppression of Galileo's science by the Roman Catholic Church, and wanted to make such action impermissible under the Constitution.\(^{58}\) Therefore, one purpose behind the establishment clause was "to prevent the suppression of enlightened science by the Church."\(^{59}\) He then argues that since communication and publication of scientific information are the very essence of scientific enterprise, the First Amendment's speech and press clauses were partly designed to protect science against government restrictions and "to further progress in science."\(^{60}\) Therefore, there is a strong argument that scientific speech, which at a minimum means the publication of scientific findings, enjoys full first amendment protection.

\(^{57}\) Id. at 1.

\(^{58}\) Id. at 5–7. One indicator of the framers' view on the relationship between science and civil liberty, also relied upon by Goldberg, is a letter dated October 26, 1774, from the Continental Congress to the inhabitants of the Province of Quebec, indicates that the Framers may well have assumed that the First Amendment protected scientific inquiry:

The last right we shall mention, regards the freedom of the press. The importance of this consists, besides the advancement of truth, science, morality, and arts in general, in its diffusion of liberal sentiments on the administration of Government, its ready communication of thoughts between subjects, and its consequential promotion of union among them, whereby oppressive officers are shamed or intimidated, into more honourable and just modes of conducting affairs.

Near v. Minnesota ex rel. Olson, 283 U.S. 697, 717 (1931). Although the quoted passage refers to the freedom of the "press," it seems logical that the Framers were referring to the First Amendment generally, including freedom of speech. It would make little sense to allow the press to publish matters relating to the advancement of science if scientists were prohibited from engaging in activities that advanced science.\(^{59}\) See Goldberg, supra note 53, at 5 (supporting the concept that the establishment clause had several purposes).

\(^{60}\) Id. at 6. Goldberg goes on to analyze "the extensive entanglement of government with the scientific endeavor" through federal support which, unlike religion, politics or the arts, science enjoys to a considerable extent. Id. at 1–2. He concludes that there is an "implied science clause" in the First Amendment, to the effect that "Congress may legislate the establishment of science, but shall not prohibit the free exercise of scientific speech." See also id. at 33 (concluding that there is an "implied science clause" in the First Amendment, to the effect that "Congress may legislate the establishment of science, but shall not prohibit the free exercise of scientific speech").
2. Science Defined in Obscenity Cases

Another basis for arguments in support of First Amendment protection for scientific speech is the Supreme Court's suggestions to this effect in cases involving obscenity.61 In Roth v. United States,62 while holding that obscenity was not protected by the First Amendment, the Court stated that portrayal of sex in "scientific works, is not itself sufficient reason to deny material the constitutional protection of freedom of speech and press."63 Later in Miller v. California,64 when the Court formulated a test for obscenity, the status of science was retained. The Court held that the First Amendment "protects works which, taken as a whole . . . have serious literary, artistic, political or scientific value."65 In Paris Adult Theatre v. Slaton,66 the Court "[p]revent[ed] unlimited display or distribution of obscene material, which by definition lack any serious literary, artistic, political, or scientific value as communication, [and so is] distinct from a control of reason and the intellect."67

Since the Court has stated: "[T]he First Amendment ordinarily prohibits courts from inquiring into the content of expression, except in cases of obscenity or libel, and protects speech . . . regardless of [its] motivation, orthodoxy, truthfulness, timeliness, or taste,"68 the implication is that expressive activity that does have serious "scientific value," regardless of its orthodoxy or taste, should be protected.69 More specifically, in Henley v. Wise,70 while invalidating an obscenity law that penalized maintenance and use of obscene materials by academic researchers at Indiana University, a District Court stated that "the state has unconstitutionally intruded itself into [an area of] . . . protected activity . . . the right of scholars to do research and advance the state of man's knowledge."71 These cases clearly demonstrate that scientific speech lies within the full protection of the first amendment.

61 Id. at 13.
63 Id. at 487.
65 Id. at 24.
67 Id. at 67 (citations omitted).
69 See Foley, supra note 53, at 680-81 (stating that "[i]f the paradigmatic example of what is protected against governmental encroachment by the First Amendment is 'ideas' with serious literary, artistic, or scientific value, then the penultimate scientific idea, the hypothesis, should likewise fall within the ambit of protected expression") (citations omitted).
71 Id. at 66.
3. Establishment Clause Cases

Another series of cases with indirect implications for the status of science are three establishment clause decisions that struck down challenges to the teaching of evolutionary theory. In Epperson v. Arkansas, the Court invalidated an Arkansas statute barring the teaching of evolution in public schools. The Court decided the case on the ground that the statute was an unconstitutional establishment of religion, and after recognizing the State’s “undoubted right to prescribe the curriculum for its public schools,” it asserted that this “does not carry with it the right to prohibit... the teaching of a scientific theory or doctrine where that prohibition is based upon reasons that violate the First Amendment [Establishment Clause].”

In Daniel v. Waters, the Sixth Circuit Court invalidated a Tennessee statute requiring the teaching of evolution in public school to be accompanied by various disclaimers. Finally, in Moore v. Gaston County Board of Education, a North Carolina District Court held in favor of a teacher who was fired because he told a student he believed that man descended from monkeys.

Goldberg argues that “[t]o analyze these decisions... without reference to the role of science is misleading” because the content of the Establishment Clause “depends upon the context in which religion is operating.” By observing that the Court’s constitutional scrutiny seems to be more lax when “religion shapes our moral standards” than “when religion shapes our scientific standards,” Goldberg concludes that the statutes at issue were struck down not only because they aided religion, but because they aided religion “at the expense of science.”

B. Scientific “Research” vs. “Speech”

Although scientific speech, i.e., the publication of scientific findings, may enjoy full first amendment protection, the level of protection afforded to scientific “research,” which involves the practical steps a scientist must take to come to unravel such findings, can be

72 393 U.S. 97 (1968).
71 Id. at 107.
74 515 F.2d 485 (6th Cir. 1975).
75 Id. at 489.
77 Id. at 1043.
78 Goldberg, supra note 53, at 9-10.
79 See id. at 8, 10 (while Goldberg’s makes this conclusion based on the Arkansas statute, the rationale can be extended to the statutes at issue in the other cases).
different. So what is the status of “research” under the First Amendment?

1. Research as a Form of Information Gathering

One logical observation is that scientific research is an indispensable first step towards developing scientific speech. In this respect, it is analogous to information gathering by journalists, an area which has received attention by the Supreme Court in cases dealing with the right to receive information, and the right to gather news as part of the freedom of press clause of the First Amendment. Robertson argues that to serve “the first amendment’s purpose of assuring a free flow of information . . . all aspects of creating, gathering, disseminating, and receiving information must be protected.”80 Since conducting research is a necessary prerequisite to the production and gathering of scientific knowledge, it should have the same constitutional status as the dissemination itself.81 Robertson backs his argument with the Supreme Court’s expansion of first amendment protection to the doctrines of “receipt of information” and “right to gather news” stages essential to publication.82

(a) The Right to Receive Information: The Court has relied on the right of a willing recipient to receive information from a willing speaker in cases where it invalidated state restrictions on commercial speech. For example, in Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council, Inc.,83 the Court struck down a statute that banned pharmacists from advertising prescription prices because it prevented consumers from obtaining that information. The Court stated: “Freedom of speech presupposes a willing speaker. But where a speaker exists . . . the protection afforded is to the communication, to its source and to its recipients both.”84 Since the right to receive information is exercised “only when a decision or desire to acquire information has occurred,”85 it must rest on “a right to acquire

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80 Robertson, supra note 53, at 1216.
81 Id. at 1216-18.
82 Id. at 1278.
84 Id. at 756. See also Linmark Assoc’s, Inc. v. Township of Willingboro, 431 U.S. 85, 96 (1977) (striking down an ordinance banning the display of “for sale” signs on home lawns because it infringed the consumer’s right to acquire information essential for economic decision making); Procunier v. Martinez, 416 U.S. 396, 409 (1974) (invalidating a prison censorship regulations because of the non-inmates constitutional right to send messages to willing recipients and to receive information from willing communicants).
85 Robertson, supra note 53, at 1223.
information from a source willing to provide it.\textsuperscript{86} Since scientists’ acquisition of knowledge and information during the research process is a type of acquiring and seeking information from willing collaborators or materials, it too should be protected under the same first amendment right to receive information.\textsuperscript{87} Therefore, “a right to receive information necessarily includes a right to research.”\textsuperscript{88} Hence, “[i]f individuals, journalists, and the public have a right to obtain information from willing sources, then scientists must also have the right to conduct research with willing sources or materials under their lawful control.”\textsuperscript{89}

(b) The Right to Gather News: In a different line of cases, the Court has interpreted the “freedom of press” specified in the first amendment to include journalists right to gather news or information from willing sources. In \textit{Branzburg v. Hayes},\textsuperscript{90} the Court recognized that newsgathering itself, because of its essential role in developing published information, has constitutional status.\textsuperscript{91} Moreover, the Court has emphasized that “liberty of the press is not confined to newspapers and periodicals . . . [but] in its historic connotation comprehends every sort of publication which affords a vehicle of information and opinion,”\textsuperscript{92} and that the informative function asserted by the press in \textit{Branzburg} “is also performed by lecturers, political pollsters, novelists, academic researchers, and dramatists.”\textsuperscript{93} Using these cases, Robertson argues that “the scope of freedom of the press depends on the function that an individual performs and not on the description of his profession.”\textsuperscript{94} Therefore, any person who performs an informative function qualifies for the protection of freedom of the press.\textsuperscript{95} Especially since researchers publish information and ideas “essential for individual, social, and political decision making.”\textsuperscript{96}

\textsuperscript{86} \textit{Id.}
\textsuperscript{87} \textit{Id.}
\textsuperscript{88} \textit{Id.} at 1226.
\textsuperscript{89} \textit{Id.} at 1278.
\textsuperscript{90} \textit{Id.} at 1226.
\textsuperscript{91} \textit{Id.} at 681 (stating that the Court is not suggesting that seeking out the news is not protected by the First Amendment). \textit{See also} Burnham v. Oswald, 342 F. Supp. 880, 885 (W.D.N.Y 1972) (stating that the right of the public to be informed depends upon the right of the press to gather information and to have access to news sources); Kovach v. Maddux, 238 F. Supp. 835, 839 (M.D. Tenn. 1965) (stating that without the opportunity to gather and obtain the news, the right to publish would be of little value).
\textsuperscript{92} Lovell v. City of Griffin, 303 U.S. 444, 452 (1938).
\textsuperscript{93} \textit{Branzburg}, 408 U.S. at 705.
\textsuperscript{94} Robertson, \textit{supra} note 53, at 1238.
\textsuperscript{95} \textit{Id.}
\textsuperscript{96} \textit{Id.} at 1239.
2. Using the Model of Commercial Speech

Until 1976, it was the Court’s position that purely commercial speech was wholly unprotected by the first amendment. It was deemed to be a kind of commercial transaction which government could regulate for any rational reason. Then in Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council, the Court repudiated this position and acknowledged that commercial speech does enjoy first amendment protection, albeit a lesser protection subject to intermediate scrutiny.

The Court’s landmark holding in Virginia Board of Pharmacy rested on three notions: (a) that “the state’s rationale was itself forbidden by the first and fourteenth amendments which preclude regulating an activity on the premise that ignorance is preferable to knowledge”; (b) that the values of free speech are not limited to political dialogue but extend to any exchange of ideas of information that might make individual choices better informed; and (c) because just as commercial information “is indispensable to the proper allocation of resources in a free enterprise system, it is also indispensable to the formation of intelligent opinions as to how that system ought to be regulated or altered” so that “even if the First Amendment were thought to be primarily an instrument to enlighten public decision making in a democracy, we could not say that the free flow of information does not serve that goal.” So it seems possible that an area traditionally thought to lie outside first amendment protection can be characterized as protected speech because it contributes to the free flow of ideas.

The argument for the inclusion of scientific inquiry within the umbrella of first amendment protection is more compelling than that made for commercial speech. It cannot be disputed that scientific research is an important component of the public pool of information. For example, Robertson asserts that

[Science provides information relevant to a wide variety of individual and societal decisions ranging from one’s views about the nature of man and the universe and the wisdom of governmental policies, to individual choices regarding the

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97 Valentine v. Chrestensen, 316 U.S. 52, 55 (1942)
100 Virginia Bd. Pharmacy, 425 U.S. at 763.
101 Id. at 765.
purchase of certain products. Indeed, one cannot cope with
the exigencies of the modern world without access to a wide
range of scientific information.\(^{102}\)

Moreover, much of commercial speech regulation is premised on
regulating false advertising, a concern that is not so apparent in sci-
entific inquiry because of the rigorous review processes that scientific
publications are subjected to, and the intent of the publication. In
sum, if the Court considers commercial speech as being worthy of
first amendment protection, it should surely extend this protection to
scientific inquiry.

3. Scientific Inquiry as “Symbolic Speech”

Commentators have also argued that scientific research should be
protected under the First Amendment as a form of expressive con-
duct.\(^{103}\) The Supreme Court has long protected conduct that com-
municates a message under the First Amendment. Examples of “expres-
sive conduct” include the wearing of black armbands in protest of the
Vietnam War,\(^{104}\) the display of an American flag with a superimposed
peace symbol,\(^{105}\) or the refusal of school children to salute the
flag.\(^{106}\) While almost all speech arguably contains an element of conduct, the
Court, in \textit{Spence v. Washington}, articulated a two-part test for
determining whether conduct is sufficiently expressive as to warrant
First Amendment protection: (1) the conduct must be intended to
“convey a particularized message”; and (2) there must be a substantial
likelihood that “the message would be understood by those who view
it.”\(^{107}\) Scientific research satisfies the two-pronged test of \textit{Spence}. Scien-
tific experimentation is intended to “convey a particularized message”
about the value and utility of underlying intellectual ideas. One com-
mentator makes a strong argument that because “the expression of

\(^{102}\) Robertson, \textit{supra} note 53, at 1216.

\(^{103}\) See \textit{id.} at 1216-18, 1239-40 (stating that research should receive constitu-
tional protection); Delgado & Millen, \textit{supra} note 53, at 372-88; Hsu, \textit{supra} note 53, at
2410-16.

\(^{104}\) Tinker v. Des Moines Indep. Cmty. Sch. Dist., 393 U.S. 503, 505-506
(1969) (wearing of black armband in protest of Vietnam War constitutes expressive
conduct protected by the First Amendment).

an American flag was protected by the First Amendment because it was essentially a
form of expression).

\(^{106}\) West Virginia State Bd. of Educ. v. Barnette, 319 U.S. 624, 634 (1943)
(holding that saluting a flag is a form of speech and compulsory flag salutation
impermissibly compels expression and is against the First Amendment).

\(^{107}\) \textit{Spence}, 418 U.S. at 410-11.
scientific ideas depends on giving scientists the freedom to test [those] ideas . . . [and] because science depends on testing theories, the experimentation itself is the expression of scientific ideas and thus speech protected by the First Amendment.\textsuperscript{108} A scientist conducts experiments to either prove or disprove a hypothesis through the scientific method.\textsuperscript{109} Through experimentation, scientists express their creativity and intellectuality in much the same way that musicians express themselves through music or artists express themselves through a painting or a sculpture.

A scientist who believes that science should be unrestrained and scientists free to experiment could express such an idea either through pure speech, or by actually engaging in experimentation which conveys the same message. Moreover, the extensive debate that such activities have received in the public and political arena show that the audience to whom the “speech” is directed understands the message. In the context of research on human embryonic stem cells, research expresses additional ideas about the nature of humanity, especially human conception and individuality, the value of human embryos in the search for cures for intractable diseases, and the acceptable scope of scientific inquiry. Thus experimentation itself is a vivid embodiment of symbolic speech.

Overall, the arguments for first amendment protection for scientific endeavor as a part of scientific speech suggest that whatever level of protection one accepts, regulations which result in restriction of scientific activity must be carefully scrutinized. It is especially important to analyze the reasons behind such regulations. The next section will examine governmental interests in regulating stem cell research, and whether they outweigh scientists' interests in continuing the research.

\textbf{III. GOVERNMENT INTERESTS IN REGULATING SCIENTIFIC INQUIRY}

In exploring the legitimacy of government control of scientific research, concluding that scientific inquiry should, and would, be afforded some level of First Amendment protection does not end the inquiry. Obviously, the right to engage in scientific research is not absolute and is subject to the same limitations that apply to other forms of protected “speech” (such as ordinary political, literary, and

\textsuperscript{108} Hsu, \textit{supra} note 53, at 2412.
THE STEM CELL COMPROMISE

artistic communication) or "conduct" (or symbolic speech) under the first amendment.\footnote{See Goldberg, supra note 53, at 14 (discussing First Amendment limitations relating to science). See also, Delgado and Millen, supra note 53, at 403 (stating that scientific research, even basic research, maybe subject to restrictions based on content but adding that a "stringent model of judicial review" is appropriate in such cases); Robertson, supra note 53, at 1278 (stating that research may be restricted on the basis of non-content related interests).} The question is whether the regulation in question is necessary to further a compelling enough governmental interest.\footnote{See Buckley v. Valeo, 424 U.S. 1, 26-27 (1976) (upholding federal law limiting contribution limits to federal political candidates).} Therefore, it is necessary to consider the other side of the equation and the enumerated government interests in regulating particular areas of research. For this analysis, it is important to determine whether government regulation of stem cell research is aimed at the communicative impact of the research, or whether the regulation is content-neutral and aimed at the non-communicative impact of the research activity.

A. Content Based Regulations

Any adverse government action aimed at communicative impact is presumptively at odds with the First Amendment. The primary concern of the First Amendment is "that there be full opportunity for expression in all its varied forms to convey a desired message,"\footnote{Young v. American Mini Theaters, Inc., 427 U.S. 50, 76 (1976) (Powell, J., concurring).} and in order to serve these goals, the state should not make distinctions based on the worth of ideas. In other words, the constitutional guarantee means that "government has no power to restrict expression because of its message, its ideals, its subject matter, or its content."\footnote{Police Dept. of Chicago v. Mosley, 408 U.S. 92, 95 (1972) (invalidating a ordinance prohibiting picketing in the vicinity of schools because by allowing exceptions for labor union picketing, the ordinance became content based). See also R.A.V. v. City of St. Paul, 505 U.S. 377, 382 (1992) (stating that the essence of the First Amendment is that government cannot regulate speech based on its content and that content-based regulations are presumptively invalid").}

A necessary corollary of accepting the notion that scientific knowledge and information, like political speech, is within the protection of the First Amendment,\footnote{Robertson, supra note 53, at 1215-16.} is that if the government enacts a regulation aimed at the communicative impact of a particular scientific activity, it must prove that either the speech is not protected by the first amendment because it falls within one of the narrow excep-
or that the regulation is necessary to further a "compelling state interest." The burden is a particularly heavy one, and the government may not justify its content-based regulation by a claim that the content of the expression has been voiced by other speakers, or that the expression may be voiced in another place, at another time, or in another manner. Thus "the autonomy of the individual and of the press from government's content-based restrictions is . . . nearly absolute."

Since embryonic stem cell research does not fall within any of the enumerated exceptions, its regulation would have to be justified as necessary to a compelling state interest. Both sides of the debate agree that the central issue in stem cell research is the harm done to embryos, but they differ as to the level of protection abandoned IVF embryos should be entitled to. It is the "moral status" of embryos as "potential human beings" which lies at the heart of the debate. Therefore the regulation of this research is related to the content of the activity sought to be banned. In other words, it is the very essence of the research that is distasteful to its opponents. This is apparent from the moral objections to carrying out this research, and from the fact that there are no such objections to research carried out on all other human cells, an activity routinely performed for the benefit of basic or

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115 For example, in Chaplinsky v. New Hampshire, 315 U.S. 568, 571-72 (1942), the Court singled out certain categories of speech as not representing "speech" within the meaning of the first amendment because they are not an "essential part of any exposition of ideas," and because their "very utterance inflicts injury" or "tends to incite immediate breach of the peace."

116 TRIBE, supra note 99, at § 12-8, at 833.

117 See Consolidated Edison Co. v. Pub. Service Comm'n, 447 U.S. 530, 540 n.10 (1980) (stating that "we have consistently rejected the suggestion that a government may justify a content-based prohibition by showing that speakers have an alternate means of expression"); Spence v. Washington, 418 U.S. 405 (holding that the availability of other means are irrelevant when government prosecutes "for the expression of an idea through activity"); Virginia State Bd. of Pharmacy, 425 U.S. at 757-58 n.15 (holding as irrelevant the fact that other consumers might be able to obtain the same information in some other ways).

118 TRIBE, supra note 99, at § 12-8, at 836.

119 These include: clear and present danger; fighting words, offensive speech or hate speech; obscenity; defamation, and some types of commercial speech. In general, unprotected speech is "utterances [that] are no essential part of any exposition of ideas [and] of slight value as a step to [the] truth." Chaplinsky, 315 U.S. at 572. Clearly, stem cell research does not fall within any of these exceptions.

120 See, e.g., Kevin P. Quinn, Embryonic Stem Cell Research as an Ethical Issue: On The Emptiness of Symbolic Value, 13 ST. THOMAS L. REV. 851, 854 (2001) (reiterating the importance of the "symbolic" status of an embryo, stating that "[c]lear starting point in the debate about the ethics and policy of stem cell research is the moral status of the early human embryo").
applied medical science. Therefore, any restriction on stem cell research would “undoubtedly emanate from fears concerning the expressive content of [this] activity.” A scientist who engages in stem cell research expresses the idea that such research is “desirable, a type of expressive conduct that upsets its opponents.”

If this content-based view of the regulation is accepted, a government ban on stem cell research, or a direct limitation of such research to the 64 available cells, will be struck down as unconstitutional if the government interest in the limitation is not compelling enough to pass strict scrutiny. Whether government interests pass this test will be examined in the following sections.

B. Content-Neutral Regulations

Where government regulation is aimed at the non-communicative impact of an act, its validity depends on balancing the competing interests and ensuring that any regulation does not “unduly constrict the flow of information and ideas.” If the courts deem the activities in question not particularly significant to the system of free expression, government regulation will be upheld if it meets the four part O'Brien test, which requires that (a) the regulation be “within the constitutional power of the government”; (b) the regulation “further an important or substantial governmental interest”; (c) the governmental interest be “unrelated to the suppression of free expression”; and (d) the incidental restriction on First Amendment freedoms be “no greater than is essential to the furtherance of that interest.” In other words, government may regulate expressive conduct provided such regulation serves an important, non-content-based interest, and the regulation is narrowly tailored so the impact on communication is no more than necessary to achieve the government’s purpose.

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121 Foley, supra note 53, at 685 (using the quoted fragment to argue that a ban on human cloning would be content-based).
122 Id.
123 TRIBE, supra note 99, at § 12-2, at 791. In Turner Broadcasting System v. FCC, 512 U.S. 622, 641-42 (1994), the Court formulated the general rule that content-based restrictions on speech must meet strict scrutiny, while content-neutral regulation need only meet intermediate scrutiny.
125 Id. at 377.
126 See id. at 382 (finding the four part test was met in the government’s prohibition of draft card burning).
C. Government Interests in the Context of Stem Cell Research

1. Roe v. Wade and the State Interest in Nonviable Embryos

One reason for the confusion surrounding the degree of interference a state may exert over IVF embryos is the lack of Supreme Court cases in this area. The closest decisions are abortion cases involving in utero fetuses, and the decisions rely on balancing the government’s interests in preserving the lives of the fetus against the mother’s constitutional rights.

In *Roe v. Wade*, the Court held unconstitutional a Texas statute making it a crime to procure or attempt to procure an abortion except when necessary to save the mother’s life. It concluded that the “liberty” protected by the Due Process Clause of the Fifth Amendment implicitly protected a woman’s freedom to decide whether to terminate a pregnancy. But *Roe* also recognized that a state has two legitimate interests during pregnancy, to preserve and protect the health of the pregnant mother and to protect the potentiality of human life. Both interests were found to “grow in substantiality as the woman approaches term.” The Court held that “with respect to the State’s important and legitimate interest in potential life, the ‘compelling’ point is at viability. This is so because the fetus then presumably has the capability of meaningful life outside the mother’s womb.” Therefore, before the end of the first trimester of pregnancy, neither state interest is sufficiently substantial to justify any intrusion on the woman’s freedom of choice. The Court did not resolve the difficult question of when life begins, but after examining constitutional definitions of “person” and other legal doctrines, concluded that “the unborn have never been recognized in the law as persons in the whole sense.”

The strongest opponents of stem cell research would equate the legal status of an um-implanted embryo with that of a fetus. But the interests of preserving the “life” of such an embryo cannot be analyzed in isolation. The state has other interests, such as preserving the lives of its citizens. This includes citizens who are sick, disabled or

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128 *Id.* at 118.
129 *Id.* at 153.
130 *Id.* at 162-63.
131 *Id.* at 163.
132 *Id.*
133 *Id.* at 162.
134 *Id.* at 159.
dying, and the necessary medical costs they will incur. In this case, where stem cell research has the potential of curing and saving the lives of millions, preserving the life of an embryo that is destined for inevitable destruction seems minuscule.

2. Preserving the Lives of Embryos and the Argument for "Potential"

Opponents of any research involving human embryos counter the above argument with the notion that embryos should be protected because they have the "potential" to develop into human life. But upon closer scrutiny, and putting aside all emotions and applying straight logic to the problem, it will become apparent that unwanted IVF embryos have much less potential for life than their "fetus" counterparts.

Singer and Dawson have examined whether the familiar claims about the potential of the embryo in utero can be applied to the IVF embryo in culture in the laboratory. They argue that from a potential point of view, the step that separates an in vitro embryo from an embryo implanted in the uterus, i.e., implantation, is much more significant than the fertilization of an egg by a sperm, and that ultimately, "the IVF embryo in the laboratory is like the egg and sperm, and not like the embryo in the human body." They argue that while the notion of potential may be relatively clear in the context of a naturally occurring embryo inside a female body, which will go on to develop into a full human being unless it is stopped, this notion becomes problematic when it is extended to a laboratory situation, because everything that happens to the in vitro embryo depends on what we decide to do with it, and because the embryo will not develop into a full person unless it is implanted into a uterus. Using this analysis, "the development of the embryo inside the female body can . . . be seen as a mere unfolding of a potential that is inherent in it," whereas the in vitro embryo has as much a chance of further development as a sperm or an egg, which require additional actions for any further progress to occur. Since embryos donated for research are unwanted

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136 Id. at 98.
137 Id. at 103.
138 Id. at 89.
139 Id. Singer and Dawson also negate the argument that an embryo is different from an egg or a sperm because it is a genetically unique entity that can only develop into one person. Id. at 95. They separate "potential" from "uniqueness" and state that the egg "had the potential to become this person all along" and so it cannot be treated differently from an embryo just because it also has the potential to become...
by their parents, these embryos have a non-existent chance of further development, and therefore no “potential,” unless we decide that every IVF embryo must be implanted, an unlikely decision.\textsuperscript{140}

Quite apart from arguments about the “potential” of an embryo, it is clear that blastocysts, which yield stem cells, cannot develop into human beings even if implanted in the uterus, and so have a “zero probability of becoming a person.”\textsuperscript{141} The HHS Fact Sheet, Rabb Memorandum and NIH guidelines argue that stem cells themselves are not embryos and so do not fall within any legal and statutory bans.\textsuperscript{142} The logical conclusion of this analysis is that government has a much diminished interest in preserving the life of an IVF embryo than it would have in saving the life of a fetus. Since under \textit{Roe}, the interest in saving the life of an embryo is almost nonexistent before viability, again logic dictates that the government interest be declared minimal when it comes to saving the life of an unimplanted embryo.

A more troubling aspect of this argument is whether in fact a ban on stem cell research will save the lives of embryos. Large numbers of unwanted IVF embryos are destroyed every day.\textsuperscript{143} Embryos donated to research are unwanted IVF embryos, i.e. the donors of the

\textsuperscript{140} It is well established that the state may not interfere with individual’s procreative decisions. \textit{See} Skinner v. Oklahoma, 316 U.S. 535, 541 (1942) (rejecting, on equal protection grounds, an Oklahoma statute that required sterilization of certain repeat criminal offenders, stating that “[m]arriage and procreation are fundamental to the very existence and survival of the race”); Griswold v. Connecticut, 381 U.S. 479, 485-86 (1965) (invalidating a statute restricting use of contraceptives by married couples, stating that prohibitions on the use of contraceptives unconstitutionally infringe on the sanctity and privacy of the marital relationship); Eisenstadt v. Baird, 405 U.S. 438, 453 (1972) (invalidating a statute prohibiting single individuals access to contraceptives, stating that “[i]f the right of privacy means anything, it is the right of the individual, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child”). Also, lower courts have repeatedly stated that embryo donors have a right not to become biological parents of children against their will, and so have struck down contractual obligations forcing them to donate their embryos for implantation. \textit{See} notes 147-56 and accompanying text.

\textsuperscript{141} \textit{Singer, supra} note135, at 90.

\textsuperscript{142} \textit{See} note 25, and accompanying text.

\textsuperscript{143} According to the American Society for Reproductive Medicine, a non-profit professional organization for in vitro fertilization (IVF) clinics, approximately 28,000 IVF babies were born in 1998. Since more embryos are created than are needed to achieve pregnancy, estimates of frozen embryos which might have been destroyed by IVF clinics ever since the first IVF baby in 1978 is likely to be in the hundreds of thousands, compared to perhaps a few dozen that have perished in the purpose of creating lines of stem cells. \textit{See} Carl T. Hall, \textit{The Forgotten Embryo: Fertility Clinics Must Store or Destroy the Surplus That Is Part of the Process}, SAN FRANCISCO CHRON., Aug. 20, 2001, at A1 (discussing surplus in embryos).
embryos do not wish to have the embryos implanted, donated for reproductive purposes, or frozen indefinitely. Prohibiting the donation of these embryos to research will not save their “lives,” nor will it increase the risk of destruction. To ensure that there is no unnecessary loss of embryos and that embryos are not created for the purpose of research, the research activity could be regulated by allowing only the informed consent donation of excess embryos created for IVF purposes. Such a regulation will be closely tailored to state interests and not unduly intrusive on the research activity. Of course, this regulation already exists. Broadening government interference by means of an all-out prohibition on either stem cell or embryonic research would hardly be upheld as a narrowly tailored regulation intended to preserve the lives of embryos, nor could it be considered “no greater than is essential” to the furtherance of the state interest. Thus it will fail under both strict scrutiny and the O'Brien test. Such a ban will be hopelessly underinclusive, missing the thousands of embryos destroyed by IVF clinics. It will also be overinclusive, in that it will stop research that could help the very IVF embryos and fetuses it is intended to save.

Even more problematic in this context would be prohibition of federal funding of stem cell research, because such a decision would push the entire process of isolating and cultivating stem cells from embryos into the “private” sector, which unlike its public counterpart, enjoys little ethical or moral oversight.

For all the forgoing reasons, it is clear that the Bush decision fails to achieve the very government interests that are purported to be the reason for the decision. The asserted governmental interest in regulating scientific inquiry in this field is neither “compelling” nor “substantial” enough to outweigh the benefits that could result from continued research in this filed, and so fails both the strict scrutiny and the O'Brien tests.

3. Parent’s Right to Destroy or Donate Their Embryos

The legal status of IVF embryos is uncertain. Current state statutes, court cases and literature concerning the legal status of embryos have found frozen IVF embryos to have a status somewhere between

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144 See note 33 and accompanying text.
145 See Executive Summary of NBAC Report, supra note 29, at viii (recommending that research on stem cells be subject to national regulatory oversight); NRC REPORT, supra note 12, at 53 (stating that “the public funding mechanism is the major means by which NIH influences the type of research performed and the way it is conducted”).
person and property. They are given more protection than individual gametes, but do not enjoy the full protection given human beings. More importantly, the donors of the embryos are given decisional authority over the fate of their IVF embryos.

Courts in five states have attempted to address the issue of disposition of IVF embryos. In *Davis v. Davis*, the divorced mother of IVF embryos wanted to donate her embryos to an infertile couple, while her ex-husband wanted them destroyed. The Tennessee Supreme Court held that the party seeking to avoid procreation should prevail, but also stated that had the couple signed an agreement at the time the embryos were created, that agreement would have been controlling.

In *Kass v. Kass*, a couple underwent ten attempts at IVF. When the couple divorced, the wife requested sole custody of the frozen embryos so that she could attempt to become pregnant with them. The New York Court of Appeals upheld the informed consent agreement which they had both signed, stating that if they were unable to make a decision about their embryos, the embryos could be used for research investigations.

Three subsequent cases have used a seemingly different approach. Faced with what they considered as legally inadequate agreements between separated donors of embryos, the Massachusetts Supreme Court in *A.Z. v. B.Z.*, and the New Jersey Supreme Court in *J.B. v. M.B.*, refused to enforce these agreements if enforcement would have compelled one donor to become a parent against his or her will. Both opinions emphasized that clearly drawn up legal con-

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146 842 S.W.2d 588 (Tenn. 1992).
147 *Id.* at 604.
148 *Id.* at 597.
150 *Id.* at 182.
151 725 N.E.2d 1051 (Mass. 2000) (holding that a consent form giving a couple’s frozen pre-embryos to the wife upon the couple’s separation was unenforceable).
153 In *J.B.*, although the agreement indicated that the embryos “will be relinquished” to the clinic if the parties divorce, it “carved out an exception” that permitted the parties to obtain a court order directing disposition of the embryos. 783 A.2d at 713. Therefore, the court reasoned that the “conditional language” employed in the agreement stood in “sharp contrast . . . to the language in the informed consents provided by the hospital in *Kass.*” *Id.* In the absence of “a formal, unambiguous memorialization of the parties’ intentions” the court held that the donors had “never entered into a separate binding contract providing for the disposition of the [frozen embryos].” *Id.* at 714.
In *A.Z.*, the Massachusetts Supreme Court refused to enforce a pre-implantation
tracts between donors of IVF embryos would be enforceable if both agree to the terms, but that in case of disputes, it is against public policy to "enforce an agreement that would compel one donor to become a parent against his or her will."  

Finally, in Litowitz v. Litowitz, the Washington Court of Appeals held that because a husband and wife’s agreement did not say what should be done with the embryos if the parties disagreed or if they dissolve their marriage, but instead provided that in such an event the couple would petition a court for instructions concerning the appropriate disposition of their embryos, there was no express agreement to enforce. This case, however, is distinguishable because the wife was not the donor of the eggs (a surrogate egg donor had provided the eggs for the IVF embryos). Nevertheless, the court again emphasized the position that the husband, as the sperm donor, “has the constitutional right to dispose of the preembryos as he chooses” and that he is “not obligated to formulate a feasible plan or even a plan that would potentially bring the preembryos to life.”

These cases demonstrate that legally, embryos do not enjoy the full protection of the state. It is now a legally accepted practice for parents of IVF embryos to sign directives regarding the fate of their embryos, choosing whether they wish to destroy their embryos, donate them for research, store them, or donate them to another couple for implantation. Once again, the state should not be able to ban the donation of unwanted embryos for research, any more than it should require that all embryos be implanted. This argument becomes even more compelling when it is seen in the context of organ transplantation. Parents are allowed to donate their own organs to save a child or a close family member. A government ban on stem cell research is similar to a ban on such organ donation, because it means

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agreement signed by the husband and wife which stated that in the event of “separation”, the frozen pre-embryos would be given to the wife for implantation. 725 N.E.2d at 1056-59. Although the case departed from the previous decisions to enforce prior agreements, the court’s reasoning was premised on the fact that (1) it was “dubious at best that [the agreement] represent[ed] the intent of the husband and the wife regarding disposition of the preembryos in the case of a dispute between them,” and (2) it was against public policy to “enforce an agreement that would compel one donor to become a parent against his or her will.” Id. at 1056-57. So these opinions did not so much consider prior agreements per se unenforceable as they refused to compel the donor of an embryo to parent a child against his or her wish.

154 See 783 A.2d at 717; A.Z., 725 N.E.2d at 1057.
156 Id. at 1091.
157 Id. at 1093.
158 See note 140 and accompanying text.
that parents would not be able to donate an unwanted embryo towards research that could potentially benefit the same child or close family member. If the embryo’s fate belongs to the parents, the state should not stand in the way of their decision, particularly if the health of another person hangs in the balance.

Whatever level of protection scientific inquiry should enjoy, it is undisputed that any direct government interference with such inquiry should not be taken lightly. Freedom of inquiry, at the very least, means “freedom from government interference in the scientist’s choice of ends or means in research, so that a scientist is permitted to do what he is otherwise capable of doing.”

IV. GOVERNMENT’S FUNDING DECISIONS

A. The Problem of Positive Rights and Requiring State Funding

The government’s responsibility for the welfare of its citizens has never been construed as imposing a positive duty on government to subsidize welfare activities. Nor does the right to freedom of speech impose a duty to fund all speech or speech related activities. Constitutional liberties are concerned with negative rather than positive freedoms, mandating only that the government not act to interfere with the exercise of such rights. The Court has repeatedly held that “the Due Process Clauses generally confer no affirmative right to governmental aid, even where such aid may be necessary to secure life, liberty, or property interests of which the government itself may not deprive the individual.” In other words, “[t]he government has no constitutional duty to subsidize an activity merely because the activity is constitutionally protected.”

In the context of stem cell research, there are many valid policy reasons why scientists want to urge the government to support their research. At this moment, enormous amounts of basic research are needed to answer scientists’ many questions about stem cells. Since World War II, basic research has been the traditional domain of public funding, and many academic and other non-profit institutions

159 Robertson, supra note 53, at 1206.
162 “Basic research is defined as the a systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications, processes, or products in mind.” NRC REPORT, supra note 12, at 48.
have become dependent upon a continuation of this support. Public funding optimizes opportunities for scientific advances in several ways. First, private for-profit companies focus their research investments on products-related applications, such as new drugs, diagnostic tools, and medical devices that cure, detect, or prevent disease. According to experts in the field, "[a]bsent public funding...even fiscally conservative economists tend to agree that socially optimal levels of basic research will not be pursued."  

Second, prohibition on federal funding of stem cell research would limit progress by limiting the number of scientists who participate in the research. "NIH can revoke a scientist’s funding for violating federally imposed restrictions," such as mixing private and public funding in research areas subject to federal restrictions. Because research on human stem cells is in its infancy, many private companies may not be willing to fund such research. It is easy, therefore, to conclude that certain research will not be performed at all unless it is supported by the government, and to move from this conclusion to the proposition that government’s refusal to provide support is tantamount to suppression of the research. If the government has a constitutional obligation to protect the health and welfare of its people, such suppression will breach that obligation.

Although scientists can formulate policy arguments against this type of government action, they will not be successful in mounting a legal challenge to government’s decision not to fund a certain area of research. As a general proposition, there are few constitutional constraints upon the power of the government to spend money as it sees fit, and even fewer on the government’s power not to spend money. The government has full discretion to base its funding decisions on broad public policy considerations, and such decisions will be upheld unless its spending or not spending runs afoul of some specific constitutional protection. For example, the Constitution would not be

163 *Id.* at 50.

164 *Id.*

165 See Katherine Bouton, *Academic Research and Big Business: A Delicate Balance*, N.Y. TIMES, September 11, 1983, § 6 (magazine), at 62 (discussing the view that failure to fund research amounts to government restrictions on that research). For a similar argument see *Rust*, 500 U.S. at 192, 201 where opponents of a government regulation that prohibited counselors in Title X-funded family planning clinics from engaging in abortion-encouraging speech argued that these restrictions amounted to suppression of the clinic staff’s and the patient’s first amendment right to free speech, and a woman’s constitutional right to obtain an abortion.

166 The Supreme Court has repeatedly held that the government is free to provide resources for some speech while denying support for other speech. See, e.g., *Rust*, 500 U.S. at 194 (holding that the government may selectively fund public pro-
violated if the government refused to fund a research project because it thought that the resultant knowledge would be harmful.\textsuperscript{167} Especially since not every area of research that every scientist wishes to conduct can be supported, government must and should select those projects that it believes have the most merit.\textsuperscript{168}

The problem with this type of "negative rights" argument in the area of basic science research is that it presupposes that "a scientist whose heart is set on doing a piece of science remains free, subject to possible national security exceptions . . . to do it without government funding."\textsuperscript{169} As the analysis in the next section will reveal, this presumption is false because by selecting the areas of research it wants to fund and making only private funds available, the government severely restricts scientists' freedom to conduct their research. Moreover, despite the almost free hand that the government enjoys in mak-


\textit{[T]he state has a legitimate interest in protecting the environment, public health, and safety. This state interest should be "sufficiently important" to justify regulating the nonspeech element of experimentation. If regulations were narrowly drafted to address only safety measures, a rational basis for the regulations would probably be sufficient. If regulations were suppressing knowledge, however, the state would probably be required to show a compelling interest for the regulation.}

While a problem is raised by content-based regulations aimed specifically at biotechnology research, regulations directed solely at potential dangers of noncommunicative aspects of experimentation – the release of novel organisms into the environment – should rest on solid constitutional ground. Such regulations would merely limit the time, manner, and place of experiments.

As long as regulations on biotechnology experiments do not seek to prohibit experiments in the guise of regulating them, the regulations should withstand constitutional scrutiny.

\textsuperscript{168} See Robertson, \textit{supra} note 53, at 1279 (stating that government has "the power to condition research expenditures on the pursuit of certain ends by methods that will maximize interests other than pure science and interests other than those the scientist himself might choose").

ing its funding decisions, such decisions may be challenged on other grounds if they infringe on constitutional rights.

B. Can Government Condition Its Funding?

Even if the Constitution imposes no obligation on the states to provide benefits, or to fund particular biomedical research, when government does decide to fund such research, the manner in which it dispenses the benefits is subject to scrutiny.

First, government may not distribute benefits completely arbitrarily or at its discretion, but has to satisfy at least a test of minimal rationality.\(^{170}\) Minimal rationality is applied only when the recipient’s constitutional rights are not implicated.\(^{171}\) This means that government’s classifications of recipients of benefits should implicate neither suspect classes of persons nor fundamental constitutional liberties, and will be valid only upon a showing that the government’s distributional criteria are rationally related to a legitimate governmental objective.\(^{172}\)

At the other end of the spectrum, if government classifies recipients of benefits according to their immutable characteristics, the Supreme Court will analyze the decision on equal protection grounds.\(^{173}\)


\(^{171}\) See San Antonio Indep. Sch. Dist. v. Rodriguez, 411 U.S. 1, 17 (1973) (stating that if no fundamental right or discrimination on the basis of suspect classifications is implicated, a legislative scheme “must still be examined to determine whether it rationally further some legitimate, articulated state purpose”).

\(^{172}\) Recent examples of government actions, where the Court has only required a “rational basis” for its review of government’s classifications include: Lyng v. Castillo, 477 U.S. 635, 638-39 (1986) (discussing distinction in food stamp program between households of one family and households with separate economic units); New York City Transit Auth. v. Beazer, 440 U.S. 568 (1979) (concerning regulation of public employment based on history of narcotics use, including methadone); Califano v. Jobst, 434 U.S. 47, 53-57 (1977) (basing social security disability payments on the eligibility of the recipient’s spouse); Dandridge v. Williams, 397 U.S. 471, 485 (1970) (involving a state regulation setting ceiling on grants that treat families of different sizes unequally).

\(^{173}\) See Winters, supra note 166, at 137. See also Lynn Baker, The Prices of Rights: Toward a Positive Theory of Unconstitutional Conditions, 75 CORNELL L. REV. 1185, 1189-90 (1990) (classifying conditions into two groups: those that present a choice of actions and those that automatically disqualify people who possess some immutable characteristic). The Bush plan may be challenged on equal protection grounds because it effectively deprives some populations, e.g. African-Americans, from being represented in the pool of stem cells available for research. Because genetically diverse cells react differently to experimental procedures, it may be necessary to conduct research on stem cells derived from donors of diverse ethnicity. Unless the 64 stem cell lines in the NIH registry includes these ethnic groups, the plan...
The Court will employ "strict scrutiny" when the classification involves "suspect" groups, such as those based on race, 174 "rational basis" review when the classification does not involve a "suspect" group, such as the mentally retarded 175 or the elderly, 176 and "intermediate" scrutiny when the classification involves an in-between distinction, such as sex. 177

A third category of scrutiny is used when a benefit is offered on condition that the recipients forgo a constitutional right or perform an activity that a constitutional right normally protects. 178 In other words, "[i]f the classification denies or provides a lesser benefit to some on the basis of [how they exercise their] choice within their respective zones of autonomy (that is, within areas of protected rights), the focus of traditional analysis shifts to the impact of the classification on the right involved." 179 Such decisions are subject to stricter scrutiny and give rise to the doctrine of "unconstitutional conditions."

This section will examine the Bush plan in the context of this doctrine. It will argue that because the plan conditions federal funding on scientists' acceptance to work on a handful of cells, it restricts their freedom to carry out scientific inquiry within prescribed legal bounds. Furthermore, the Bush plan eliminates most private interest in development of new stem cells, in effect strangulating the research in its infancy and foreclosing the possibility of future development in this area. Lastly, it argues that the doctrine of unconstitutional conditions is particularly applicable in this case, because the government is trying to achieve an end through the back door that it could not achieve directly, and because the danger of government overreaching is strongest when through its monopoly power it controls the playing field.

is discriminatory against those who are not represented in the pool of cells available. However, full discussion of this issue is beyond the scope of this note.


178 Sullivan, supra note 170, at 1421-22.

179 Winters, supra note 166, at 138 (emphasis added).
C. The Unconstitutional Conditions Doctrine Meets the Bush Plan

The doctrine of unconstitutional conditions seeks to distinguish between government’s undoubtedly broad power to decide which activities to subsidize, or otherwise encourage, and the government’s considerably narrower power to decide which activities to penalize or otherwise discourage, whether directly or by attaching conditions to its benefits.\(^{180}\) Even though the court has recognized in numerous cases that certain conditions placed on benefits amount to an unconstitutional restriction on the exercise of a fundamental right,\(^ {181}\) the history of the doctrine’s development has been an uneasy one, and the issues it sets out to resolve “implicate a troubled area of our jurisprudence.”\(^ {182}\)

The question the doctrine strives to resolve is to what extent can government attach an otherwise unconstitutional condition to the receipt of public funds.\(^ {183}\) Put another way, when is burdening the exercise of a fundamental right to be considered an infringement of that right, requiring the application of strict scrutiny? To qualify for strict scrutiny, the government benefit must be one that is permitted but not compelled.\(^ {184}\) Also, not all constitutional rights are implicated in the unconstitutional conditions cases. The doctrine only protects “rights that depend on some sort of exercise of autonomous choice by the rightholder.”\(^ {185}\) Moreover, the decision that the beneficiary has to make must involve “future action.”\(^ {186}\) Once all these requirements are

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\(^{180}\) See Tribe, supra note 99, at § 11-15, at 781.


\(^{182}\) Rust, 500 U.S. at 205 (Blackmun, J., dissenting). J. Blackmun quotes Epstein, supra note 181, at 6 (describing this problem as “the basic structural issue that for over a hundred years has bedeviled courts and commentators alike”), and Sullivan, supra note 170, at 1415-16 (observing that this Court’s unconstitutional conditions cases “seem a minefield to be traversed gingerly”).

\(^{183}\) Rust, 500 U.S. at 205.

\(^{184}\) Sullivan, supra note 170, at 1422.

\(^{185}\) Id. at 1426. Sullivan explains that the “The doctrine is not triggered, for example, by classification on the basis of unalterable characteristics such as race or sex or the marital status of one’s parents at the time of birth. Such classifications are often unconstitutional, but not on the ground that they impose unconstitutional conditions. Persons on the wrong side of an unalterable-characteristic line are not hurt by any pressure to opt into the benefited class.” Id.

\(^{186}\) Id. at 1427.
met, such conditioned benefits should be "subject to the same demand for especially strong justification as direct burdens on the right."\textsuperscript{187}

In the context of stem cell research, the government condition at issue is that researchers who want federal funding must limit their research to the 64 or so cells available on the NIH registry. This condition qualifies for strict scrutiny by the courts because it meets the above criteria. The government's funding of stem cell research was not compelled but discretionary, and the condition attached to the benefit impinges on scientists' autonomous right to choose how to conduct their research within legal boundaries. Stem cell research has not been banned, and as mentioned earlier, a direct restriction of this research could meet with a serious constitutional challenge. Moreover, a restriction could only be implemented by Congress, not the president. Therefore, if a condition placed on recipients of government funding amounts to an impermissible restriction on researchers' ability to perform stem cell research, government would have achieved indirectly what it could not do directly. Under the unconstitutional conditions doctrine, the government decision would be subject to strict scrutiny and would only be upheld in the face of a substantial governmental interest.

1. The Coercion/Non-Subsidy Debate

The Court has often cited coercion as the reason for striking down conditions that affect individual rights such as freedom of speech, religion and association. In this context, a coercive condition is one that "deters" the exercise of a constitutional right or "penalizes" a person for exercising their right. Most notable are the three seminal cases that extended the unconstitutional conditions doctrine to cover speech and religion. In \textit{Speiser v. Randall},\textsuperscript{188} the Court invalidated a state requirement that World War II veterans take a loyalty oath as a condition of receiving veteran's property-tax exemption, because "[t]o deny an exemption to claimants who engage in certain forms of speech is in effect to penalize them for such speech."\textsuperscript{189} In \textit{Sherbert v. Verner},\textsuperscript{190} the Court invalidated a denial of state unemployment benefits to a woman who would not work on Saturdays because it was her Sabbath. The Court characterized the condition on the benefit as coercive and an impermissible government imposition on Sherbert's free

\textsuperscript{187} \textit{Id.} at 1428.
\textsuperscript{188} 357 U.S. 513 (1958).
\textsuperscript{189} \textit{Id.} at 518.
\textsuperscript{190} 374 U.S. 398 (1963).
exercise of religion. Finally in *Shapiro v. Thompson*, the Court, citing *Sherbert*, ruled that denying welfare benefits to those residents who had lived in-state for less than one year penalized the fundamental right to interstate travel. In other words, government cannot use its power to dispense benefits to "produce a result which [it] could not command directly." This traditional approach relies on the idea that the offer of a benefit in return for relinquishment of a constitutional right "coerces" the recipient or "penalizes" the exercise of his rights, a result which cannot be justified by simply appealing to the discretionary nature of the benefit.

It is undeniable that the condition attached to the federal funding of stem cell research pressures researchers to agree not to work on any novel stem cells however desirable or better these cells may be. Given the choice, researchers would not choose to limit themselves to whatever technology was available up until August 2001. However, we must determine whether this type of pressure exerted by the government amounts to "coercion" of researchers. Unfortunately, the Supreme Court cases do not provide a clear test. The seminal case of *Perry v. Sindermann* took an expansive approach to the doctrine:

> For at least a quarter-century, this Court has made clear that even though a person has no "right" to a valuable governmental benefit and even though the government may deny him the benefit for any number of reasons, there are some reasons upon which the government may not rely. It may not deny a benefit to a person on a basis that infringes his constitutionally protected interests...

More recently, however, the Court has changed its characterization of conditions that pressure the recipients into a choice that government approves of as mere "non-subsidies" rather than "coercion."

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191 See *id.* at 404.
193 *Id.*
194 Speiser v. Randall, 357 U.S. 513, 526 (1958) (instructing that indirect violations of constitutional guarantees are as violative as direct infringements). See also Sullivan, *supra* note 170, at 1415 (stating that the doctrine of unconstitutional conditions "reflects . . . the view that government may not do indirectly what it may not do directly").
195 408 U.S. 593 (1972) (holding that a non-renewal of an employment contract may violate the employee's Constitutional free speech rights, even if he lacked "a contractual or tenure right to re-employment").
196 *Id.* at 597.
The most troubling cases where the court used the "non-subsidy" argument are three abortion-funding decisions. The first two cases involve Fifth Amendment due process rights. In *Maher v. Roe*, the Court upheld a Connecticut welfare regulation that excluded nontherapeutic abortions from a Medicaid program that subsidized medical expenses incidental to pregnancy and childbirth. The Court held that the regulation "places no obstacles – absolute or otherwise – in the pregnant woman's path to an abortion." Then in analyzing the state interest, it concluded that a state could make a value judgment favoring childbirth over abortion, and to implement that judgment by the allocation of public funds. Three justices dissented, criticizing the Court for not recognizing the effect of the regulation and the fact that "[t]his disparity in funding by the State clearly operates to coerce indigent pregnant women." They held that such undue burdening of "the fundamental right of a pregnant woman to be free to choose to have an abortion" was not constitutional because the state had advanced no compelling interest.

Later, in a 5 to 4 decision in *Harris v. McRae*, the Court held that the Hyde Amendment, which denies federal funding for medically necessary abortions, does not impinge on a woman's Fifth Amendment due process right to decide whether to terminate a pregnancy. The Court found no government attempt to penalize or coerce a Medicaid-eligible woman's decision whether to terminate her pregnancy. Instead, it characterized the government decision as merely an "unequal subsidization . . . [that] encourages alternative activity." Again the Court emphasized that "[t]he Hyde Amendment, like the Connecticut welfare regulation at issue in *Maher*, places no governmental obstacle in the path of a woman who chooses to terminate her pregnancy." Four justices wrote strong dissenting opinions chiding the Court for not recognizing that the Hyde Amendment is a transparent attempt by the legislators to deny indigent women the exercise of their constitutionally protected right recognized in *Roe v. Wade*, even if such a denial results in serious and permanent injury to the health of the mother. The dissenting Justices all argued that: (a) the denial

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198 *Id. at* 474.
199 *Id.*
200 *Id.* at 483 (Brennan, J., Marshall, J., Blackmun, J., dissenting).
201 *Id.* at 489 (Brennan, J., Marshall, J., Blackmun, J., dissenting).
203 *Id.* at 315.
204 *Id.*
205 *Id.* at 332 (Brennan, J., dissenting). *See also id.* at 346-47 (Marshall, J.,
of funding by the federal government and the state is tantamount to coercing poor women not to exercise their constitutionally protected right to decide to have an abortion, that denying a state benefit in this instance was the same as imposing a penalty or ban; and (b) that *Roe v. Wade* made clear that the state interest in protecting fetal life cannot justify jeopardizing the life or health of the mother.

The last abortion funding case implicated First Amendment rights of health care workers. In *Rust v. Sullivan*, another 5 to 4 decision, the Court held that a Department of Health and Human Services regulation that prohibited Title X family planning projects from engaging in counseling, referral for, or advocating abortion was constitutional. Refusing to apply the unconstitutional conditions doctrine, the Court again resorted to the now familiar argument that a “legislature’s decision not to subsidize the exercise of a fundamental right does not infringe the right.”

The problem with the Court’s reasoning in these cases is that it assumes that there is still a private market to which those who were denied a benefit could turn. Both majority opinions in *Maher* and *Harris* stressed two factors in their analysis of the effect of the abortion funding regulations. First, they insisted that the women who

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206 Id. at 348 (Blackmun, J., dissenting) (faulting the majority for punishing a small group of women by imposing their own concepts of morality); id at 354 (Stevens, J., dissenting) (noting the serious harm that could befall a woman requiring a medically necessary abortion). In Justice Brennan’s dissenting opinion, in which Justices Marshall and Blackmun joined, he writes:

The fundamental flaw in the Court’s due process analysis . . . is its failure to acknowledge that the discriminatory distribution of the benefits of governmental largesse can discourage the exercise of fundamental liberties just as effectively as can an outright denial of those rights through criminal and regulatory sanctions. Implicit in the Court’s reasoning is the notion that as long as the Government is not obligated to provide its citizens with certain benefits or privileges, it may condition the grant of such benefits on the recipient’s relinquishment of his constitutional rights.

448 U.S. at 334.

207 Id. at 351 (Stevens, J., dissenting) (quoting *Roe*, 410 U.S. at 165). In addition, two justices also argued that the Amendment constituted an equal protection violation because it “[excluded a woman] from a benefit that is available to all others similarly situated” based on the woman’s decision to exercise her fundamental right. *Id.* at 345 (Marshall, J., dissenting). *See also id.* at 350-53 (Stevens, J., dissenting) (pointing to exclusion of some women who are forced to decide between their health and abortion).


209 Id. at 193 (quoting *Regan v. Taxation with Representation of Wash.*, 461 U.S. at 549)
were denied benefits did not suffer a "disadvantage" as a consequence of the state regulation because the state had imposed "no governmental restriction on access" to privately funded abortions. Second, the reason for the women's dependency on the government funding, i.e., their indigency, was not created by the state. As a result, they reasoned, government's denial of funding "leaves an indigent woman with at least the same range of choice[s] in deciding whether to obtain a medically necessary abortion as she would have had if Congress had chosen to subsidize no health care costs at all." The Court would have applied strict scrutiny had the state "denied general welfare benefits to all women who had obtained abortions and who were otherwise entitled to the benefits." Similarly, in Rust, the Court repeated the argument that "[t]he difficulty that a woman encounters when a Title X project does not provide abortion counseling or referral leaves her in no different position than she would have been if the Government had not enacted Title X.

The next section will illustrate that unlike the aforementioned cases, the Court's presumption does not apply to the Bush plan, because the condition that the Bush plan imposes does restrict scientists' access to alternative funds, and so leaves scientists in a worse position that if the condition had not been imposed. Additionally, it affects scientists who do not choose to apply for federal funding but who work in institutions who do. This combination of effects is more profound that the effect of previously upheld conditions and calls for stricter scrutiny.

2. The effect of the Bush Plan

The NIH "is the largest federal sponsor of health research, with a budget of more than $20 billion in FY2001." Although pharmaceutical and biotechnology firms match those levels of funding, NIH remains the primary sponsor of basic biomedical research. NIH spent an estimated 62% of its 1996 budget on basic research, as compared to the mere 14% of all the private sector pharmaceutical R&D spent on basic research.

Private sector efforts are dominated by for-profit companies that focus their research investments on product-related

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211 Maher, 432 U.S. at 474; Harris, 448 U.S. at 316.
212 Harris, 448 U.S. at 317.
213 Maher, 432 U.S. at 474 n.8. Accord Harris, 448 U.S. at 317 n.19.
214 Rust, 500 U.S. at 202.
215 NRC REPORT, supra note 12, at 49.
applications, such as new drugs or diagnostic tools. Even so, in
the field of embryonic research, private companies have come to the fore
because of the ban on federal funding of basic science research on
embryos.

Before August 9, the government’s near monopoly of basic re-
search funding did not extend to stem cell research. Because isolation
of stem cells involved embryos, the initial steps of the research had to
be funded by private companies. One company, Geron, pioneered the
way in providing private funds for stem cell research, funding the
work of James Thomson at University of Wisconsin, Roger Pederson
at the University of California, San Francisco, and John Gearhart at
the Johns Hopkins University School of Medicine.217 The stem cell
lines developed by James Thomson are the most famous cells avail-
able on the NIH registry, not only because Thomson was the first to
pioneer successful “immortalization” of human embryonic stem cells
in the United States, but because his institute, WiCell, owns the patent
on these cells.218

After the Presidential Statement of August 9, 2001, NIH negoti-
atated a Memorandum of Understanding between WiCell and Public
Health Services (“WiCell Agreement”), which applies to all research
institutes who opt to receive WiCell stem cells.219 The main aim of
the agreement was to facilitate the transfer of stem cells from WiCell
to researchers.

The WiCell Agreement makes it clear that once a researcher re-
ceives stem cells from WiCell, it will not be able to conduct research
on other cells which do not meet the criteria set out in the Presidential
Statement of August 9, 2001.220 Additionally, the agreement requires
that researchers not receive stem cells from other sources under terms
more “onerous” to the researchers (i.e., more advantageous to the
source) than those provided in the WiCell Agreement.221 Accordingly,
under the terms of the WiCell Agreement, any researcher who
receives federal funding to conduct research on WiCell stem cell lines

217 See Nelle S. Paegel, Note, Use of Stem Cells in Biotechnological Re-
search, 22 Whitier L. Rev. 1183, 1189 (2001) (noting, however, that “private re-
search is [often] hindered by economic constraints”).
218 See NIH New Release, supra note 4 and accompanying text (explaining
the origin of WiCell).
219 U.S. Department of Health and Human Services, Memorandum of Under-
standing Between WiCell Research Institute, Inc. and Public Health Service, [hereinafter
220 Id. at § (1)(b).
221 Id. at § (1)(c).
will not be able to use stem cells derived from other private sources. It seems most likely that the other sources of NIH approved stem cells would sign similar MOU’s.

Another obstacle to researcher’s use of private funds for stem cell research is the arrangements under which federal funds are made available. NIH agrees to provide “direct” and “indirect” funds to NIH approved research activities. Direct funds cover such costs as specific equipment, laboratory and personnel salaries that are incurred as a direct result of the research. Indirect costs, also called facilities and administration costs, partially cover shared laboratory and personnel facilities and general running costs of the funded institute. Therefore, although indirect funds must be accounted for, they go to a shared pool of funds that may be used for non-federally funded activities. However, if there is a specified ban on the use of federal funds for certain activities, e.g., embryonic research or stem cell research involving non-federally approved stem cell lines, the indirect funds may not be used in a common pool and much stricter accounting is required to ensure total separation of all federal funds from private monies. Many institutions may not be able to meet these stricter standards.

So, given the fact that federal government is by far the greatest player in the field of funding for basic biomedical research, its entry into the area of stem cell research has dramatically altered the previous balance. Because of the way NIH funds are managed, and because of the agreement between WiCell and stem cell recipients, the moment a researcher decides to use federal funds for stem cell research, she, and her entire institution, are foreclosed from using any private funds to conduct research on newly developed stem cells.

3. Why the Non-Subsidy Argument Fails

The Court’s non-subsidy argument will not save the unconstitutionality of a condition in a situation where an “alternative” private source of funding may become significantly diminished in the face of government monopoly. By shutting down private capital’s enthusiasm for innovative work on new stem cells, there will be little alternative to the government plan and almost all researchers will be forced to accept the federal funding condition. Moreover, any further development in derivation of better stem cells from embryos will be halted.

222 For other restrictive clauses in the contract, such as patent and licensing rights see id. at §§ (1)(a), (2)(d).
As mentioned earlier, even though the available stem cells are theoretically “immortal,” every division of the cells carries a risk of accumulating genetic mutations, turning the cells into dangerous “junk” cells with no therapeutic merit. Researchers who would normally watch out for new discoveries would only be able to watch from the side lines, because they would not be able to use the fruits of any new research. This situation, arguably, is worse than the status quo before the Bush Plan, because before August 2001, there was no restriction on how private funds were used. The government here has cleverly maneuvered itself into the field of stem cell research and although on its face has not banned or restricted the activity, in essence has stopped its growth.

So, unlike the regulations in *Maher, Harris*, or *Rust*, the Bush plan *does* restrict a researcher’s access to private funds if she chooses to work on the federally approved stem cells, and therefore puts her at more of a “disadvantage” than if government had decided either to fund, or not to fund, all stem cell research. Furthermore, this disadvantage is the direct result of state action.

4. The Concept of Free Choice in an Area of Government Monopoly

Another often cited criticism of equating government’s rights-pressuring conditions with coercion is that the beneficiary has the apparent free will to accept or reject the benefit, thus exercising her free choice. This criticism of the doctrine takes a broad view of free choice, arguing that the beneficiary of the benefit exercised his free will and bargained for the burden on his constitutional rights. For example, it is clear that the *Maher-Harris* analysis only applies to those who *choose* to accept the government’s offer of benefits, even if it means forgoing their right. Similarly, in *Rust*, the Court stated that the staff of Title X clinics were individuals who were “voluntarily employed for a Title X project,” who must therefore “perform their duties in accordance with the regulation’s restrictions.” This argument is premised on the fact that there is nothing unconstitutional about individuals voluntarily forgoing their rights to receive funds.

But the Bush plan affects those who neither consent to the condition, nor seek federal funding. These individuals will nevertheless be affected because they either work in the same institution as those who have federal funding, or because they are faced with a market depleted of private capital. If government had merely decided not to fund any

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224 See *supra* note 40 and accompanying text.
225 See *Sullivan, supra* note 170, at 1417.
226 *Rust*, 500 U.S. at 198.
stem cell research, indirect money from federal grants could be used as a general indirect support for researchers wanting to conduct stem cell research. To illustrate, assume researcher $P$ wants to use private funds to work on stem cells and researcher $F$ has a federal grant. Before the Bush plan, they could work in the same laboratory, using the same "general consumables," without researcher $F$ losing her grant, or exposing the institute to liability for breaking a federal law, as long as federal funds were not used to directly support researcher $P$'s activities. After the implementation of the Bush plan, however, if researcher $F$ decides to apply for an NIH grant to work on the approved 64 stem cell-lines, he cannot share his equipment with researcher $P$. Researcher $P$, therefore, will have to either stop her work, or come up with enough funding to set up a physically separate laboratory facility, complete with equipment, support staff, etc. Researcher $P$ will be drastically affected by the new plan, despite not being a party to researcher $F$'s decision to apply for federal funding. In fact, the plan will affect the entire institution in which researcher $F$ works.

Moreover, this view of "free choice" does not take into account the realities of the current marketplace. Free choice is only meaningful when there are alternatives one can choose from. Since the Bush plan serves to aggrandize an already existing government monopoly in the area of funding for stem cell research, "freedom" to exercise one's "choice" becomes meaningless.

To explain the unconstitutional conditions doctrine, one must recognize that coercion is possible even in the absence of force, fraud, or criminal sanctions, and even in an apparently consensual bargain. The most obvious paradigm case is when the government, as the negotiating party, holds a monopoly in a certain area of funding. The doctrine has been applied to cases where the state demanded release of constitutional rights as the price of access to monopolized bene-

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227 Sullivan, supra note 170, at 1420. See also Epstein, supra note 181, at 16-21 (discussing perfect competition, monopoly, collective action problems, and the possibilities for coercion); Winters, supra note 166, at 142.

228 See Winters, supra note 166. Winters argues that we should change our conception of government because the traditional public-private distinction has collapsed. Id. at 156-57. This is because when government funding dominates an area (e.g. family planning or providing for indigent women's medical expenses), it substantially alters the availability of private alternatives in that area. So the government, by choosing to fund only one particular viewpoint, effectively creates a "monopoly" in that area. Id. at 159-60. Therefore, he argues that at least in the area of First Amendment rights, when "government subsidies have the effect of monopolizing an entire subject area of speech . . . the Court should demand a higher justification when the government attempts to withdraw its subsidization of one of those viewpoints." Id. at 160.
Prominent commentators in this field warn that it is precisely when government power reaches monopoly levels that the doctrine becomes most important in keeping a check on how government uses its power.

Richard Epstein examines the bargaining process between government and beneficiaries in light of the function and the limitations of consent. He argues that "whenever the government enters the market as an ordinary contracting party . . . the traditional norms prohibiting coercion and duress are insufficient to police the legal monopoly that government exercises over certain critical domains." He argues that because the Court has given the state more latitude in recent years, the arguments that the doctrine of unconstitutional conditions should come to the fore are even more compelling. To him, the ideal situation would have been a direct constitutional restriction on government powers that skewed the market; "if the Court had restricted the scope of the government power in the first instance," the doctrine's application would be unnecessary. Absent such substantive limitations, the doctrine is a "second best" effort to reign in the broad powers conferred upon government officials.

Sullivan argues, quoting Charles Reich, that the principal concern with the state's power over beneficiaries of government largesse is the

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229 See for example cases which deal with the state's demand of release of constitutional rights in order to gain access to public highways. See, e.g., Frost & Frost Trucking Co. v. R.R. Comm'n of Cal., 271 U.S. 583 (1926) (holding that California could exclude private carriers from the use of its highways altogether, but it could not condition entry to the highways upon the private carriers' willingness to assume the burdens of a common carrier).

230 Epstein, supra note 181, at 16-21. Epstein analyzes the doctrine of Unconstitutional Conditions in the following way: "When the government uses only its monopoly of force to achieve its ends, classic constitutional questions arise under particular constitutional provisions. But when the government uses its power to contract or grant, then the issue of unconstitutional conditions proper is raised." Id. at 102.

231 Epstein, supra note 181, at 28.

232 Id. Epstein states:

The doctrine of unconstitutional conditions is also beset with the serious problem of being a 'second best' approach to controlling government discretion. In many cases, the Supreme Court has held that Congress or the states have absolute discretion with regard to [many] matters. This discretion increases the risks associated with monopoly, collective action problems, and externalities in a wide variety of bargaining contexts. In some cases, the doctrine of unconstitutional conditions is used to take back some of the power which had been conferred upon government officials in the first instance.

Id.
danger of government overreaching through its ability to create dependency through its wealth:

The danger . . . is that Leviathan, swollen with tax dollars, will buy up people’s liberty. Moved not by redistributive frenzy but by the desire to expand the sphere of state power by exerting moral and social control that it could not constitutionally impose directly, the state will buy people out to control their decision-making.\footnote{Sullivan, supra note 170, at 1494.} Sullivan’s analysis leads her to conclude that “[a]n appropriate test would subject to strict review any government benefit condition whose primary purpose or effect is to pressure recipients to alter a choice about exercise of a preferred constitutional liberty in a direction favored by government.”\footnote{Id. at 1499-1500. Sullivan attempts to reconcile the court’s unconstitutional conditions cases by exploring three approaches: the “coercion” approach, (which “locates the harm of rights-pressuring conditions on government benefits in their coercion of the beneficiary”); the “corruption” theory or “germaneness of the condition to the benefit” approach, (taking the position that the less germane, the more like manipulation or extortion a condition is said to be, and the greater the judicial scrutiny that should attach”); and the “commodification” theory or “inalienability” approach (which although not prominent in the cases deserves consideration because it treats “some constitutional rights . . . [as] inalienable . . . [which] therefore may not be surrendered even through voluntary exchange.” Id. at 1419-21 and 1476-77. She concludes that none of the three theories explain why conditions on benefits that pressure preferred liberties should receive the same strict scrutiny as “direct” constraints. She argues that the court should adopt a “systemic approach” because only then it can protect against three distributive dangers of unconstitutional conditions: (i) the alteration of the balance between government and right-holders, a characteristic form of government overreaching; (ii) redistribution of constitutional rights as to which government has obligations of evenhandedness, and (iii) the creation of an undesirable caste hierarchy among those who do and do not depend on government benefits. Id. at 1490} According to her, focusing on whether conditions coerce government beneficiaries is too narrow. This is because government action “that inhibits freedom but falls short of ‘coercion’ has long been held . . . to infringe constitutional rights.”\footnote{Id. at 1454. See e.g., Thornburgh v. American Coll. of Obst. & Gyn., 476 U.S. 747 (1986) (declaring unconstitutional specified provisions of Pennsylvania’s 1982 Abortion Control Act that infringed upon women’s rights to abort unwanted pregnancies); City of Akron v. Akron Ctr. for Reprod. Health, Inc., 462 U.S. 416, 442-51 (1983) (invalidating a regulation that sought to tip the scales of information about reproductive choice in favor of the government’s preference for childbirth). Also, in Sullivan’s eyes, the coercion analysis fails because (a) “the necessary base-}
5. The Separate Affiliate Doctrine Will Not Save the Plan

One measure of whether a denial of funding is a “penalty” is the degree to which it prevents the recipient from using outside funds to perform the non-funded activity. The “separate affiliate doctrine” provides that when government prohibits a federally funded organization from engaging in certain activities, the prohibition will only be upheld if it allows the subsidized entity to create a “separate affiliate” that uses private funds to support the federally disfavored activity. In other words, “government may not withhold funds from the recipient for engaging in the proscribed activity, provided the recipient does so through its separate affiliate.” 236 In cases involving partial public subsidies to organizations that also use private funds, “courts treat as a mere nonsubsidy conditions on use of the public funds, but treat as a penalty the extension of the same conditions to use of private funds.” 237 The doctrine is developed in Regan v. Taxation with Representation 238 and FCC v. League of Women Voters. 239

In Taxation with Representation (TWR), federal tax laws that conditioned tax-exempt status on the requirement that the organization not participate in lobbying activities were upheld. The Court stressed that the challenged Internal Revenue Code section did not bar organizations from lobbying altogether, it merely prevented them from using tax deductible donations in their lobbying activities, and therefore the Code did not violate the organization’s First Amendment right to lobby. 240 As explained in Justice Blackmun’s concurring opinion, the result under the First Amendment rested entirely upon the Court’s assumption that nonprofit organizations may create an affiliate to pursue their lobbying activities without losing their tax exempt status. 241 Had Congress denied tax benefits for nonlobbying activities on account of an organization’s lobbying, the Court would have invalidated the condition under the holding of Speiser. 242 The court noted that the

lines are elusive, once government benefits in this context are conceded to be gratuitous”; and (b) “government, which differs significantly from any given individual, can burden rights to autonomy through means other than coercion.” Sullivan, supra note 170, at 1456.

237 Id.
240 461 U.S. at 545.
241 Id. at 552 (Blackmun, J., concurring).
242 Id. at 545.
organization had the option of establishing a dual corporate structure by taking the not "unduly burdensome" steps of incorporating separately and maintaining separate financial records. 243 Moreover, the regulation was not content based because the ban applied to all lobbying regardless of their content. 244

On the other hand, in League of Women Voters, the Court invalidated a federal statute denying federal public broadcasting funds to stations that engage in editorializing. 245 There, the federal funds subsidized only a portion of a public broadcasting station's expenses, but the anti-editorializing condition burdened the use of private funds to editorialize because the station was not able to segregate its activities according to the source of its funding. 246 Since government could not condition funds on a requirement that the stations relinquish their right to editorialize altogether, the statute was invalid. However, the Court recognized that were Congress to permit the recipient stations to "establish 'affiliate' organizations which could then use the station's facilities to editorialize with nonfederal funds, such a statutory mechanism would plainly be valid." 247

On its face, the Bush plan would seem to fall within the doctrine. After all, the plan does not "ban" research on non-approved stem cells; it merely requires that the researchers who choose to work on them do so in a separate facility. But closer examination reveals problems with this simplified look at the plan. Stem cell research is carried out in sophisticated facilities, with expensive equipment and trained staff. It is a far more expensive and difficult task to set up a wholly independent research facility than the "unduly burdensome" step of incorporating separately and carrying out "low-tech" lobbying activities, as in TWR. A research facility is more like a "radio station" with its sophisticated equipment. But in League of Women Voters, the Court would have upheld the regulation only if it allowed the use of the same "station facility" for privately funded editorializing.

Under the Bush plan, using the same facility for federally funded research and privately funded research on non-approved cells is a federal offense and would result in revocation of both the scientist and research institution's funding. Drawing a sufficiently clear line between activities and infrastructure supported by the federal government and those supported only by the private sector in a single laboratory or university is difficult. The establishment of separate privately

243 Id. at 544 & n.6.
244 Id. at 548.
245 486 U.S. 364
246 Id.
247 Id. (emphasis added).
supported laboratories that are completely free of federal funds, such as the University of Wisconsin’s WiCell Institute, entails substantial costs to duplicate infrastructure, equipment, personnel and such measures may not be feasible for many academic institutions. Moreover, the WiCell Agreement directly forecloses a researcher’s use of privately derived new stem cells. The restriction on a researcher’s use of private funds are unmistakably grave and sufficiently different to those in previous cases to warrant them impermissible.

6. Rust’s Government Project vs. Academic Research

The court in Rust characterized the promotion or discussion of abortion as outside the scope of a Title X program. Moreover, the Court distinguished past unconstitutional conditions cases by characterizing them as “cases involving situations in which the Government has placed a condition on the recipient of the subsidy rather than on a particular program or service.” But one distinguishing factor between the Rust situation and the Bush plan is that Rust dealt with a “program” or “service” set up by the government. The Court stated that “we have here not the case of a general law singling out a disfavored group on the basis of speech content, but a case of the government refusing to fund activities . . . which are specifically excluded from the scope of the project funded.” The “scope” of the Title X program, the Court said, was not “prenatal care, but to encourage family planning.”

Bush’s plan, on the other hand, does not fund a service or project such as the one in Rust, but applies to individual recipients of federal funds and their plans for future research. Indeed the plan draws a line between individual research scientists not based on which area of research they are engaged in (which might have some rational connection to a legitimate government interest), but on which cells these scientists choose to work on. So it separates scientists based on their

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249 Rust, 500 U.S. at 194 (stating “This is not a case of the government ‘suppressing a dangerous idea,’ but of a prohibition on a project grantee or its employees from engaging in activities outside of the project’s scope”).

250 Id. at 197 (emphasis in the original).

251 Id. at 193.

252 Id. at 194.
choice of technique. Moreover, most of such research is carried out in academic university setting. These scientists are not government employees, and their stem cell research activities does not fall outside the scope of the mission of their research or the university’s goals. Even the majority in Rust recognized that in the context of First Amendment speech rights, “the university is a traditional sphere of free expression so fundamental to the functioning of our society that the Government’s ability to control speech within that sphere by means of conditions attached to the expenditure of Government funds is restricted by the vagueness and breadth doctrines of the First Amendment.”

The implication is that the restriction of researchers’ activities in a university setting is fundamentally different from, and should be subject to stricter scrutiny than, restrictions faced by healthcare employees of a federal program.

Moreover, four Justices of the Court disagreed with the Court’s reasoning in Rust, stating:

Until today, the Court never has upheld viewpoint-based suppression of speech simply because that suppression was a condition upon the acceptance of public funds. Whatever may be the Government’s power to condition the receipt of its largess upon the relinquishment of constitutional rights, it surely does not extend to a condition that suppresses the recipient’s cherished freedom of speech based solely upon the content or viewpoint of that speech.”

The Court’s ruling in Rust flies in the face of years of precedents and their principles as exemplified by the statement in F.C.C. v. League of Women Voters that “regulation of speech that is motivated by nothing more than a desire to curtail expression of a particular point of view on controversial issues of general interest is the purest example of a ‘law . . . abridging the freedom of speech, or of the press.”

In sum, there is a fine line to be drawn between a mere nonsubsidy of an activity, and burdening the use of alternatives to the activity

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253 Id. at 200.
254 Id. at 207 (Blackmun, J., dissenting) (citations omitted). See also Keyshian v. Bd. of Regents of the Univ. of the state of N.Y., 385 U.S. 589, 603 (1967).
256 Id. at 383-84 (quoting Consolidated Edison Co. of N.Y. v. Public Service Comm’n of N.Y., 447 U.S. 530, 546 (1980)). See also Police Dept. of Chicago v. Mosely, 408 U.S. 92, 95 (1972)(“above all else, the First Amendment means that government has no power to restrict expression because of its message, its ideas, its subject matter, or its content”).
to such an extent that practically forecloses the alternative as an option. In the present context, the Bush plan crosses that line. Its effect is not only to encroach on the fundamental right of researchers – to pursue their research without government interference and to contract freely – but to restrict the future development of stem cell research by scientists who do not subscribe to the government’s condition.

V. CONCLUSION

The Bush condition should be subjected to strict scrutiny under the unconstitutional conditions doctrine. Not only does it coerce scientists to give up their rights, but goes further by affecting people who choose not to contract with the government, by expanding its already extensive monopoly in funding of stem cell research in a way which truly restricts a researcher’s alternative choices, and by ultimately controlling an area of scientific inquiry by executive order, without prior democratic debate on the subject.

The stem cell research debate has been characterized as an extension of the abortion debate, focusing on the rights of IVF embryos. There is deep division in the Court over government conditioning of speech or activities that implicate the ever contentious abortion issue. But issues surrounding stem cell research have only a tenuous relationship to the problems surrounding abortion. They do not implicate a fetus in the mother’s womb, the stem cells in themselves have no potential to turn into human beings and the research activity does not put embryos at a greater risk of destruction than they would otherwise face. On the other hand, stem cell research offers enormous potential benefit to thousands of patients with incurable diseases. Adding the First Amendment arguments for the protection of scientific inquiry to the restrictive effect of the Bush plan on researchers’ choice is sufficient to extend the unconstitutional conditions doctrine to this area. The president can choose whether he wishes to fund stem cell research or not, but while researchers remain within their legal boundaries, he may not use the government purse to coerce them into a choice that he approves of.