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Fetal Tissue Transplantation: Regulating the Medical Hope for the Future

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FETAL TISSUE TRANSPLANTATION: REGULATING THE MEDICAL HOPE FOR THE FUTURE

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I. Introduction

For many, the diagnosis of conditions such as Parkinson's disease, diabetes, or Alzheimer's disease left them with a feeling of hopelessness and despair. Recently, experiments have revealed that fetal tissue may prove to be an invaluable resource in the treatment of these and many other ailments. The use of fetal tissue, however, presents a number of ethical and legal questions. Consider the following hypothetical situations:

A twenty-six year old woman and her family were devastated when her father was diagnosed with Alzheimer's disease. The man whom they loved was gradually being reduced to a man who at fifty-two years of age could barely care for himself. Desperate to stop the heartrending deterioration of the father, the family repeatedly suggested that the woman, the only female of childbearing age, become pregnant for the sole purpose of aborting the fetus. The family hoped that the doctors could then transplant the brain tissue of the aborted fetus into the father's brain, thereby alleviating many of the destructive symptoms of Alzeheimer's disease.

Meanwhile, an entrepreneur saw fetal tissue harvesting as the place to make his fortune. He sought to establish a company to broker fetal tissue. The entrepreneur would solicit healthy women of childbearing age

¹ See Budiansky, McAuliffe & Goode, The New Rules of Reproduction, U.S. News & World Rep., Apr. 18, 1988, at 66. A similar request was made by a California woman who appeared on Ted Koppel's Nightline when she asked a medical ethics expert whether she could be artificially inseminated with sperm from her father, who had been diagnosed as having Alzheimer's disease, and then abort the fetus so that the brain tissue could be transplanted into her father's brain. Id.

to become pregnant and then abort the resulting fetuses at a medically determined time. The company would pay the women for the fetuses and would in turn sell the fetuses to persons in need of a transplant at a price which included a five thousand dollar fee for the company's services. To meet the evergrowing demand for fetal tissue, the entrepreneur planned to recruit women from third world countries to supply the aborted fetuses.²

While fetal tissue implants have the potential to offer relief to several million Americans,3 these two scenarios are examples of the many legal and ethical issues surrounding the technology. Currently, the use of fetal tissue is loosely regulated by an assortment of laws, many of which were enacted before the therapeutic use of fetal tissue was even conceived as a possibility. At the time many of the regulations governing fetal tissue use were developed, the primary goal of the regulations was to prevent the exploitation and sale of aborted fetuses following the Supreme Court's decision in Roe v. Wade. 4 Had current technology been foreseen, different regulations certainly would have been proposed.5

The purpose of this note is to examine the various legal and ethical issues raised by fetal tissue transplantation and to suggest regulations resolving these issues. Included in this discussion will be an analysis of possible constitutional challenges to these regulations.

II. CURRENT DEVELOPMENTS IN FETAL TISSUE TRANSPLANTATION

In November 1987, Sweden became the world's first nation to announce that its medical researchers were performing fetal tissue transplants into humans to treat Parkinson's disease. Two months later, a group of Mexican doctors reported on the progress of two patients suffering from Parkinson's disease who had received transplants of spontaneously aborted fetal tissue in September 1987.7 Both patients had shown "no adverse

² See Engel, Virginia Doctor Plans Company to Arrange Sale of Human Kidneys, Washington Post, Sept. 19, 1983, at A9, col. 1 [hereinafter Virginia Doctor]. The growing demand for human body parts did in fact prompt a Virginia doctor, H. Barry Jacobs, to establish a company to broker human kidneys by arranging for donors throughout the world to sell one of their kidneys. Id.

³ See Thorne, Regulating Commerce in Fetal Tissue, Society, Nov.-Dec. 1988, at 61. Scientists estimate that a vast number of American citizens could be helped by fetal tissue transplants. Among these include: (1) one million Parkinson's patients; (2) 2.5 - 3 million persons affected with Alzheimer's disease; (3) 25,000 persons suffering from Huntington's disease; (4) 600,000 Type I diabetics; (5) 400,000 stroke victims; and (6) several hundred thousand person who have suffered a spinal cord injury. Id.

⁴¹⁰ U.S. 113 (1973). The right of privacy, which the Court tound to be part of the "liberty" guaranteed by the Fourteenth Amendment, encompassed a woman's decision whether or not to terminate her pregnancy. Id.; see Mahowald, Silver & Ratcheson, The Ethical Options in Transplanting Fetal Tissue, HASTINGS CENT. REP., Feb. 1987, at 11 [hereinafter Ethical Options].

⁵ Ethical Options, supra note 4.

Weiss, Cell Grafts Proceed, Value Uncertain, Sci. News, Nov. 28, 1987, at 341.
 In Mexico, Fetal Cells for Parkinson's, Sci. News, Jan. 16, 1988, at 40.

complications from the procedure and had shown an evident objective improvement in their symptoms."8

Doctors also have reported that experiments have shown many more uses for fetal tissue. Dr. Barth Green of the University of Miami reported that in the field of nerve regeneration, the use of fetal tissue implants can aid in the treatment of the several million Americans suffering from brain disease, head injury, stroke and paralysis.9 At the University of Pittsburgh, Raymond Lund has shown that the use of fetal brain cells may renew connections in the eye thereby expanding the treatment possibilities for the blind.10 Diabetics are currently being treated with implanted preinsulin producing cells from fetal pancreases by Dr. Kevin Lafferty from the University of Colorado. 11 Dr. Robert Gale of the University of California has reported that fetal liver cells may prove to be more effective than adult bone marrow transplants, improving the prognosis for patients suffering from radiation sickness or leukemia.12 Dr. Gale also stated that fetal tissue could be used to implant a normal set of genes into fetuses suffering from hemophilia, sickle cell anemia and Tay-Sachs disease. 13 Early findings also indicate that fetal tissue implants may be helpful in treating the nearly three million Americans affected by Alzheimer's disease.14

Although alternatives to fetal tissue implants are presently available, these alternatives have proven to be less successful than fetal tissue implants. For transplantation purposes, fetal tissue is preferable to adult tissue for many reasons. Fetal cells are immunologically naive during the early stages of pregnancy, they have not yet developed all of the antigens, or surface proteins, that allow the recipient's immune system to identify [the transplanted cells] and reject them. In addition, the use of fetal tissue eliminates the need for the close genetic match between donor and recipient which is required with adult tissue.

⁸ Id.

⁹ McAuliffe, Cures from Aborted Fetal Tissue: A Startling Count of Healing, U.S. News & World Report, Nov. 3, 1986, at 68.

¹⁰ Clark, Gosnell & Hager, Should Medicine Use the Unborn?, NEWSWEEK, Sept. 14, 1987, at 62 [hereinafter Should Medicine].

¹¹ Id. at 63; see also Research Promising; Use of Fetal Tissue Stirs Hot Debate, L.A. Times, Apr. 16, 1988, at 28, col. 1 [hereinafter Use of Fetal Tissue].

¹² Should Medicine, supra note 10, at 62. Dr. Gale used fetal liver cells with three of the victims he treated after the Chernobyl nuclear plant disaster in the Soviet Union. Gale had hoped that the cells would generate new bone marrow. Unfortunately, the patients died from radiation burns before the results could be determined. Id.

¹³ *Id*. at 63.

¹⁴ Thorne, supra note 3, at 61.

¹⁵ See Ethical Options, supra note 4, at 10. In the treatment of Parkinson's disease, adrenal gland tissue taken from the patient and transplanted into the diseased portion of the brain has proven successful in some cases. However, the patients soon displayed many of their previous symptoms. Due to the "greater developmental capacity of fetal tissue," it is unlikely that the use of adrenal tissue will be as successful. Id.

¹⁶ Levine, *Help From the Unborn*, Time, Jan. 12, 1987, at 62. In this article, Dr. Gale explained why doctors prefer to use fetal cells as opposed to adult cells for transplantation purposes. *Id*.

¹⁷ Waste Not, THE ECONOMIST, Nov. 5, 1988, at 100.

sequently, recipients of fetal tissue no longer require the expensive and dangerous anti-rejection drugs normally required after a tissue transplant. Unlike adult cells, the fetal cells also have the capacity to regenerate and adapt to a new environment, thereby stimulating the growth of new blood vessels and producing the new nerve connections necessary to repair a damaged brain or spinal cord. 19

There are numerous factors which are important to the effective transplantation of fetal tissue. The type of abortion procedure employed²⁰ and the maturity of the fetus both affect the quality of the tissue.²¹ Moreover, the timing of the transplantation is crucial as fetal tissue ceases to function and develop within several hours after death.²²

It is understandable that there is excitement in the medical field regarding the potential of fetal tissue implants in the treatment of various medical conditions. In fact, it has been stated by one researcher that fetal tissue implants have "proven to this point to reverse every kind of neurological disorder that has been placed before it." With 1.5 million elective abortions performed each year in the United States, there would appear to be an abundant source of fetal transplant tissue available to the medical community. 25

¹⁸ Id.

¹⁹ Weiss, Forbidding Fruits of Fetal-Cell Research, Sci. News, Nov. 5, 1988, at

²⁰ See Ethical Options, supra note 4, at 13. Hysterotomy is defined as an incision of the uterus, usually for the delivery of a fetus. This procedure, which is the riskiest for the pregnant woman, is the least damaging to the fetus and therefore provides superior tissue. Conversely, dilation and evaluation, which is the most damaging to the fetus, is the safest method of abortion for the pregnant woman. Id.

²¹ See Fine, The Ethics of Fetal Tissue Transplants, HASTINGS CENT. REP., June-July 1988, at 5. "The ability of neurons to survive transplantation appears to be greatest if they are taken from the [fetal] brain while still immature, after they have ceased to divide but before they have begun to grow their long, fibrous axons. If they are taken at later stages, the inevitable cutting of these axons may be fatal to the cells. . . . [If they are taken earlier, while the cells are still dividing,] the effect of subsequent transplant growth may resemble that of a brain tumor." Id

²² Ethical Options, supra note 4, at 10.

Note, Fetal Tissue Implants: An Explosive Technology Needs National Action,
 DICK. L. REV. 895, 898 (1988) [hereinafter, Note, An Explosive Technology].
 Culliton, Panel Backs Fetal Tissue Research, Sci., Dec. 23, 1988, at 1625.

²⁶ See Fine, supra note 21, at 6. "In 1981, 78 percent of induced abortions were performed between the sixth and eleventh weeks of gestation — that is, at stages appropriate for neural transplantation. Of these, 94 percent were performed . . . by suction curettage Cells within these tissue fragments may remain alive and can be collected aseptically. In approximately one case in ten, the fragment containing the fetal midbrain can be identified." Id. In light of these facts, approximately 110,000 appropriately aged fetuses could be used for transplantation. Id. See also Use of Fetal Tissue, supra note 11, at 28. In addition, the use of aborted fetuses is being supplemented by tissue grown from the cells of previously aborted fetuses. Through the use of nutrients and growth enhancers, Hana Biologics, Inc. has developed a procedure to produce sufficient cells from one fetal pancreas to treat twenty adult diabetics. Id.

Although fetal tissue implants present a number of promising possibilities to the medical research community, such technology also raises a number of legal and ethical questions. Should a woman be prohibited from becoming pregnant for the sole purpose of aborting the fetus? If not, should she be able to sell the fetus she has electively aborted or be able to designate the recipient of her aborted fetus? Can the medical community ignore a technology that could dramatically improve so many lives? Does this technology actually sacrifice one life for the benefit of another? Who, if anyone, has the right to make these determinations?

III. ABORTION AND THE SUPREME COURT

Since the majority of fetal tissue is obtained from elective abortions,²⁶ the use of fetal tissue is affected by the right of a woman to obtain an abortion. In the 1973 landmark decision, *Roe v. Wade*,²⁷ the Supreme Court held that the constitutional right of privacy gives women the right to choose an abortion. Although the Court has steadfastly upheld this basic right since 1973, the seven to two pro-abortion majority in *Roe* was narrowed to a five to four majority in the 1986 case, *Thornburgh v. American College of Obstetricians & Gynecologists*,²⁸ which reaffirmed *Roe*.²⁹

In January, 1989, the Supreme Court reopened the abortion issue when it agreed to consider Webster v. Reproductive Health Services.³⁰ Webster involved a Missouri statute which stated that life began at conception and that public funds could not be used to perform abortions or counsel women about this procedure.³¹ A sharply divided Court held, in Webster, that states could impose restrictions on a woman's right to an abortion.³² While the Court refrained from overruling the Roe decision, it did uphold provisions of the Missouri law which allowed states to require doctors to test the ability of a twenty week or older fetus to survive outside the womb.³³ Many states, including Missouri, criminalized the aborting of a viable fetus.³⁴ The Court also ruled that states may ban the use of public facilities and public employees in the abortion procedure.³⁵ The impact

²⁶ Medical Use of Fetal Tissue Spurs New Abortion Debate, N.Y. Times, Aug. 16, 1987, at A30, col. 5 [hereinafter Medical Use]; see also Jaroff, Steps Toward a Brave New World, Time, July 13, 1987, at 57. Doctors worry about the use of tissue from spontaneously aborted fetuses which often have serious genetic defects. Id.

²⁷ 410 U.S. 113 (1973).

^{28 476} U.S. 747 (1986).

²⁹ Reappraising Topic A, U.S. NEWS & WORLD REP., Jan. 23, 1989, at 10.

^{30 109} S.Ct. 3040 (1989).

³¹ Sachs, Abortion on the Ropes, TIME, Dec. 15, 1988, at 58.

³² Court Rules for Limits on Abortion, The Plain Dealer, July 4, 1989, at 1-A, col. 4 [hereinafter Court Rules].

³³ Id.

 $^{^{34}}$ Id.

³⁵ Id.

of Webster could lead to a reduced number of aborted fetuses available for fetal tissue implant procedures.³⁶

Shortly after rendering its decision in Webster, the Court agreed to hear three more abortion cases during its 1989-90 term.³⁷ Two of these cases have been decided, one is still pending before the Court. The undecided case from Illinois, Ragsdale v. Turnock, is the most threatening to the Roe decision as it involves state laws which enforce stringent regulations on abortion clinics.³⁸ To uphold the Illinois laws, the Supreme Court would most likely be forced to "dismantle its 1973 decision."³⁹ The other two cases involve the companion issue of whether the parents of a young, unmarried girl must be notified before she may obtain an abortion.⁴⁰

The Court's decision in *Webster* increased the authority of the state to regulate abortion within its borders. If the Court should overturn *Roe v. Wade* and the constitutionally protected right to an abortion, states would be free "to impose stringent regulations on — or even outlaw — abortion." Such a decision would result in abortion laws which would vary widely from state to state. 42

Approximately one dozen liberal states, such as New York, Oregon, and Hawaii, would probably preserve abortion rights.⁴³ Conversely, approximately two dozen state legislatures would probably vote to restrict or end abortion rights.⁴⁴ As a result, the use of fetal tissue from elective abortions would be limited to those states retaining abortion rights. It would still be necessary to enact uniform regulations for the use of fetal tissue in states where abortion rights were retained.

39 Id.

³⁶ Webster v. Reproductive Health Services, 109 S.Ct. 3040, 3079 (1989) (Blackmun, J., concurring in part & dissenting in part); see also, Blackmun Feels a 'Chill Wind', The Plain Dealer, July 4, 1989, at 3-A, col. 1. Although women currently retain the right to an abortion, many believe the Court is simply paving the way to an outright ban on abortion. Justice Harry Blackmun wrote in his dissent: "For today, the women of this nation still retain the liberty to control their destinies. But the signs are evident and very ominous, and a chill wind blows." Id.

⁸⁷ Supreme Court Shifts Battleground to States, The Plain Dealer, July 4, 1989, at 4-A, col. 1. Ragsdale v. Turnock, 841 F.2d 1358 (1988) is still pending before the U.S. Supreme Court; Ohio v. Akron Center For Reproductive Health, 110 S.Ct. 2972 (1990) and Hodgson v. Minnesota, 110 S.Ct. 2926 (1990) were decided in the last 1990 session of the Court.

³⁸ Court to Ponder Three More Abortion Cases Next Year, The Plain Dealer, July 4, 1989, at 5-A, col. 5 [hereinafter, Court to Ponder].

^{**}Akron Center For Reproductive Health, 110 S.Ct. at 2972 (where the Court held the state statute's bypass provision requiring a physician to effectuate notice violated due process); Hodgson, 110 S.Ct. at 2926 (where the Court held that the parental provision, absent a bypass provision, was unconstitutional and the forty-eight hour notice requirement which forced the minor to notify both parents in the absence of a judicial waiver was unconstitutional.).

⁴¹ Court to Ponder, supra note 38.

⁴² Court Rules, supra note 32.

⁴³ Reappraising Topic A, supra note 29, at 10.

⁴ Id.

IV. CURRENT FEDERAL AND STATE REGULATION OF FETAL TISSUE

A. Federal Regulations

Currently, fetal tissue use is regulated at both the federal and state level by an assortment of laws. Many of these laws, which regulate organ and tissue donations, as well as fetal research, were enacted before fetal tissue implants had become medically feasible. Federal regulations pertaining to the fetus apply only to research, development and related activities funded by the Department of Health and Human Services (HHS).⁴⁵ These regulations specifically state that they will not "in any way render inapplicable pertinent state or local law."⁴⁶

The federal regulations make a number of distinctions in restricting the use of fetuses in research. The current legal restrictions on the use of fetal tissue are dependant on the manner in which the tissue is categorized. The first distinction applies to dead fetuses ex utero and live fetuses ex utero. Federal laws relinquish all regulation of activities involving dead fetuses ex utero⁴⁷ to state and local governments.⁴⁸ The federal regulations which control activities involving live fetuses ex utero distinguish between viable and non-viable fetuses. A viable fetus is defined as a fetus which is "able, after either spontaneous or induced delivery, to survive (given the benefit of available medical therapy) to the point of independently maintaining heartbeat and respiration."⁴⁹ A non-viable fetus is defined as "a fetus ex utero which, although living, is not viable."⁵⁰ If a fetus is found to be even questionably viable, federal regulations prohibit the use of this fetus for any research which would place the fetus at risk.⁵¹

Research involving a nonviable fetus is permissible when the experimental activity does not prematurely terminate the life of the fetus and the vital functions of the fetus are not artificially maintained.⁵² This federal regulation most directly relates to fetal tissue transplantation. Although tissue from a nonviable fetus has been compared to tissue obtained from a cadaver, there is one important difference — fetal brain tissue may not be dead.⁵³

^{45 45} C.F.R. §46.201(a) (1988).

^{46 45} C.F.R. §46.201(b) (1988).

⁴⁷ 45 C.F.R. §46.201(f) (1988). "'Dead Fetus' means a fetus *ex utero* which exhibits neither heartbeat, spontaneous respiratory activity, spontaneous movement of voluntary muscles, nor pulsation of the umbilical cord (if still attached)." *Id.*

^{48 45} C.F.R. §46.201 (1988).

^{49 45} C.F.R. §46.203(d) (1988).

^{50 45} C.F.R. §46.203(e) (1988).

⁵¹ 45 C.F.R. §46.209(a), (c) (1988).

^{52 45} C.F.R. §46.209(b) (1988).

⁵³ Ethical Options, supra note 4, at 10.

If a similar federal regulation were imposed upon fetal tissue transplantation, it could prohibit the use of fetal brain tissue from live non-viable fetuses *ex utero*. The procedure required for a successful fetal brain transplantation could prematurely terminate the nonviable fetus's life.⁵⁴ In addition, a successful fetal tissue implant could require that the vital functions of the fetus be artificially maintained until the time of the implant.⁵⁵

Federal requirements which impact upon fetal tissue use are found not only in statutes regulating the disposal of fetuses but also in statutes treating the use of human organs. In October 1984, Congress signed into law the National Organ Transplant Act (NOTA). One of NOTA's purposes was the prohibition of organ purchases. Although the term "organ", as defined in the NOTA does not include tissue, See Jeremy Rifkin, President of the Foundation for Economic Trends, has filed a petition with the HHS asking that all fetal tissue and organs be regulated under NOTA.

In March 1988, Assistant Secretary of Health, Robert Windom, temporarily banned all HHS funded research using intentionally aborted fetal tissue.⁶⁰ The ban was precipitated by researchers' request to the National Institute of Health (NIH) to fund the first United States implant of fetal brain cells into a person afflicted with Parkinson's disease.⁶¹ Windom instructed the NIH to assemble an advisory panel of experts including scientists, religious leaders, lawyers and bioethicists, to examine the medical, legal and ethical issues associated with fetal tissue use.⁶²

In December 1988, after five highly emotional meetings,⁶³ the NIH panel decided in a seventeen to four vote to ignore the ethical issues attendant to the abortion issue in order to allow fetal tissue research to

⁵⁴ Id. at 11.

⁵⁵ *Id*.

^{56 42} U.S.C. §274 (Supp. IV 1986).

⁵⁷ 42 U.S.C. §274e(a) (Supp. IV 1986). "It shall be unlawful for any person to knowingly acquire, receive, or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce." *Id.*

⁵⁸ 42 U.S.C. §274e(c) (Supp. IV 1986). "The term 'human organ' means the human kidney, liver, heart, lung, pancreas, bone marrow, cornea, eye bone, and skin, and any other human organ specified by the Secretary of Health and Human Services by regulation." *Id.*

⁵⁹ Use of Fetal Tissue, supra note 11, at 29, col. 1.

⁶⁰ Roberts, Fetal Panel to Meet, Sci., Sept. 2, 1988 at 1164.

⁶¹ Weiss, supra note 19, at 296.

⁶² Id. In a memo to NIH Director James B. Wyngaarden, Windom wrote: This proposal raises a number of questions — primarily ethical and legal — that have not been satisfactorily addressed, either within the Public Health Service or within Society at large I am withholding my approval of the proposed experiment, and future experiments, in which there is performed transplantation of human tissue from induced abortion. Id.
⁶³ Id.

proceed in the United States.⁶⁴ The panel recommended an end to the HHS ban on studies using intentionally aborted fetuses, subject to stringent regulations.⁶⁵ Before President Reagan left office, however, an executive order was prepared which banned fetal tissue studies.⁶⁶ While the order has remained unsigned, it would seem inconsistent with President Bush's present stand on abortion to lift the ban.⁶⁷

The HHS ban is similar to the federal regulations as it applies only to federally funded fetal tissue research. However, the NIH regulation's are used by the many private institutions conducting fetal tissue research as a model for their own research guidelines. ⁶⁸ Furthermore, the NIH, which is viewed as the nation's research leader, ⁶⁹ funded a significant portion of fetal tissue research in the private sector. ⁷⁰

B. State Regulations

At the state level, the Uniform Anatomical Gift Act (UAGA)⁷¹ is the most widely accepted policy regulating human tissue and organ donation.⁷² Approved by the National Conference of Commissioners on Uniform State Laws in 1968, the UAGA had been adopted in some form by all fifty states and the District of Columbia by 1973.⁷³ Although the UAGA does not address the issue of fetal tissue implants directly, it does address the use of organs and tissue from the dead.⁷⁴

Under the UAGA, a stillborn infant or fetus is included in the definition of "decedent." Since the UAGA does not differentiate between a stillborn fetus resulting from a spontaneous abortion and one resulting from an elective abortion, it appears to relate to tissue donations in either situ-

⁶⁴ Culliton, Fetal Research Morally Acceptable, Sci., Sept. 23, 1988 at 1594. One concern of the panel was that others would do this research if NIH did not, and they could possibly perform their research without safeguards and federal supervision.

⁶⁵ Abortion-Related Battles Ahead on Many Fronts, The Plain Dealer, Feb. 26, 1989, at 9-A, col. 1 [hereinafter Abortion-Related Battles].

⁶⁶ *Id*

 $^{^{67}}$ Id. "James Bopp, Jr., general counsel to the National Right to Life Committee and a dissenting member of the NIH advisory panel stated, I frankly think lifting the moratorium would be inconsistent with Bush's views on abortion." Id.

^{**} Note, Fetal Tissue Transplants: Restricting Recipient Designation, 39 HASTINGS L. J. 1079, 1087 (1988) [hereinafter Note, Restricting Recipient Designation].

⁶⁹ Id. at 1086.

⁷⁰ Use of Fetal Tissue, supra note 11, at 28, col. 1. In 1981, fetal cell research groups received about \$11.8 million dollars from the NIH. Id.

⁷¹UAGA (1987), 8A U.L.A. (Supp. 1990). "An Act authorizing the gift of all or part of a human body after death for specified purposes." *Id*.

⁷² Note, Restricting Recipient Designation, supra note 68, at 1088.

⁷³ Spencer, Maximizing Use of a Scarce National Resource: An Analysis of Alternatives for Establishing Uniform Standards of Conduct for Organ Procurement Agencies, 42 FOOD DRUG COSM. L. J. 430, 440-41 (1987).

⁷⁴ UAGA §1(1), 8A U.L.A. 7 (Supp. 1990).

⁷⁶ UAGA §1(2), 8A U.L.A. 7 (Supp. 1990). "'Decedent' means a deceased individual and includes a stillborn infant or fetus." *Id*.

ation.76 The UAGA allows either parent of the decedent to "make an anatomical gift of all or part of the decedent's body for an authorized purpose," as long as the other parent does not object.⁷⁷ Under the UAGA. the anatomical gift may be made for the purpose of research, transplantation by a hospital, physician or procurement agency, or transplantation into a designated individual.78

Twenty-five states have no restrictions on fetal research beyond the UAGA. These states appear to authorize the use of fetal tissue for research and transplantation. The remaining states, however, have supplemented and sometimes preempted the UAGA's broad authority with specific regulation of fetal research.79 The majority of these states either have adopted the provisions of the UAGA and allow nontherapeutic research on dead fetuses.80 or have modified these provisions only slightly.81 Six states have absolutely prohibited the use of dead fetuses, and therefore, appear to prohibit fetal research.82

The UAGA also contains a provision prohibiting the purchase or sale of a body part for transplantation or therapy.83 Since the UAGA does not specifically address the use of fetal tissue, the question arises as to whether fetuses should be treated as renewable body tissue that can be sold or as body organs that cannot be sold.84 Examples of the sale of renewable body tissue are cash payments to donors for such things as blood, bone marrow and semen.85 Allowing women to receive payments for their aborted fetuses, however, provides a possible incentive to intentionally conceive for the sole purpose of selling the aborted fetus. This conduct would violate the UAGA.

At the time the UAGA and many of the statutes were enacted, fetal remains were of limited value and use. The use of fetal tissue for brain or other transplants was not contemplated. With the monumental advances in fetal tissue technology, the majority of organ and tissue regulations inadequately address many of the ethical and legal issues associated with fetal tissue implants. For example, under current UAGA provisions a woman can designate the recipient of her aborted fetus.86

⁷⁶ Restricting Recipient Designation, supra note 68, at 1089.

⁷⁷ UAGA §3(a)(3), (b)(3), 8A U.L.A. 13 (Supp. 1990).

⁷⁸ UAGA §6(a), 8A U.L.A. 21 (Supp. 1990).

⁷⁹ UAGA, 8A U.L.A. 4 (Supp. 1990) (general statutory notes).
⁸⁰ See, e.g., Ky. Rev. Stat. § 436.026 (Baldwin 1989).
⁸¹ See, e.g., ARK. Stat. Ann. § 82-436 to -441 (Supp. 1989).

⁸² See, e.g., Ohio Rev. Code Ann. § 2919.14(a) (Anderson 1989).

⁸³ UAGA § 10(a), 8A U.L.A. 25 (Supp. 1990).

⁸⁴ Medical Use, supra note 26, at 30. Professor Taub of Rutgers University stated, "It's a hard one, whether fetuses should be treated as renewable body tissue that can be sold or as organs that can't be. I don't think fetal tissue should

⁸⁵ Best, Transfers of Bodies and Body Parts Under the UAGA. 15 REAL PROP. Prob. & Tr. J. 806, 821 (1980); see also Murray, On the Human Body as Property: The Meaning of Embodiment, Markets and the Meaning of Strangers, 20 J. L. REFORM 1055, 1074 (1987). "We do not view all trade in body parts with the same seriousness, e.g., hair nailclippings, plasma and semen It is clear some markets in body products are to be tolerated." Id.

⁸⁶ UAGA § 6(a)(3), 8A U.L.A. 21 (Supp. 1990).

While not violative of the UAGA's prohibition against a sale of body parts, this right provides an additional incentive to conceive for the sole purpose of aborting the fetus to help a loved one, a friend, or even herself. As Arthur Caplan, the Director of the Center for Biomedical Ethics at the University of Minnesota, stated, "[t]he worst possible ethical evil of all this would be to create lives simply to end them and take the parts." 87

As the possibilities for fetal tissue implants continue to grow, so too do the ethical and legal issues related to their use. Often the laws of society lag behind scientific breakthroughs and the burgeoning or unresolved ethical and legal issues that directly result from technological advances. Currently, the states are attempting to regulate fetal tissue use by adapting organ and tissue statutes enacted prior to the therapeutic use of fetal tissue. Since fetal tissue research has the possibility of affecting millions of Americans, its import and force within the medical community has prompted a need for legislation that directly regulates fetal tissue use. One way of accomplishing uniform state regulation of fetal tissue use is to amend the UAGA. Since the UAGA has already been enacted in some form by all fifty states, it would be an appropriate forum for setting forth the uniform regulation of fetal tissue use.

V. THE CONSTITUTIONAL RIGHT OF PRIVACY

Since any regulation of the disposition of fetal remains impacts a woman's reproductive decisions, one must be mindful of the constitutional right of privacy when attempting to regulate any aspect of fetal tissue use. The "freedom to care for one's health and person [free] from bodily restraint or compulsion" is one of the most basic elements of the right of privacy. The Supreme Court has long held that the "right to be let alone . . . [is] the most comprehensive of rights and the right most valued by civilized man". Court has found this right to be of particular importance when the contemplated state intervention involves a physical intrusion on a person's body. No right is held more sacred, or is more carefully guarded . . . than the right of every individual to the possession and control of his own person."

⁸⁷ Should Medicine, supra note 10, at 63.

⁸⁸ The Flesh Peddlers, THE PROGRESSIVE, Oct. 1987, at 9.

⁸⁹ Although the effectiveness of such an amendment rests upon all of the states enacting similar legislation, a uniform regulation which directly controls the use of fetal tissue is an appropriate starting point.

⁹⁰ Doe v. Bolton, 410 U.S. 179, 213 (1973) (Douglas, J., concurring).

⁹¹ Such, Lifesaving Medical Treatment for the Nonviable Fetus: Limitations of State Authority Under Roe v. Wade, 54 FORDHAM L. REV. 961, 970 (1986).

⁹² Olmstead v. U.S., 277 U.S. 438, 478 (1928) (Brandeis, J., dissenting).

⁹³ Note, The Creation of Fetal Rights: Conflicts with Women's Constitutional Rights to Liberty, Privacy, and Equal Protection, 95 YALE L. J. 577, 617 (1986) [hereinafter Note, Creation of Fetal Rights].

⁹⁴ Union Pac. Ry. v. Botsford, 141 U.S. 250, 251 (1891).

The constitutional "Right of Privacy" was first articulated by the Court in the 1965 case of *Griswold v. Connecticut*. ⁹⁵ In *Griswold*, ⁹⁶ the Supreme Court struck down a Connecticut statute which had forbidden the use of contraceptives by married couples as violative of the plaintiff's constitutional right of privacy. Although the right of privacy is not expressly enumerated in the Constitution, Justice Douglas stated in the majority opinion of the Court that the right existed in "the penumbra" of various amendments of the Bill of Rights when taken together. ⁹⁷ The Court held that the specific guarantees in the Bill of Rights have penumbras which establish a general zone in which "privacy is protected from governmental intrusion." ⁹⁸ Since this general right of privacy evolves from specific fundamental rights, it becomes fundamental and, therefore, any infringement of this right requires strict scrutiny. ⁹⁹

Relying on *Griswold*, the Court in *Eisenstadt v. Baird*, ¹⁰⁰ struck down a Massachusetts statute which permitted contraceptives to be distributed only by registered pharmacists and only to married couples. The Court held that "if 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." ¹⁰¹

In 1973 the right of privacy, which the Court had found to exist in Griswold, was extended to the abortion context in Roe v. Wade. 102 In Roe, Justice Blackmun discussed the zone of privacy and stated: "[T]he Constitution does not explicitly mention any right of privacy. In a line of decisions, however... the Court has recognized that a right of personal privacy, or a guarantee of certain areas or zones of privacy does exist under the Constitution." The Court held that the right of privacy recognized in prior cases was "broad enough to encompass a woman's decision whether or not to terminate her pregnancy." In fact, the Court held that a woman's decision as to whether or not to terminate a pregnancy was a fundamental one which could only be outweighed by a compelling state interest warranting the restriction of abortions. The Court, in a long line of decisions, has continued to affirm as constitutional the "right of personal privacy... [at] the very heart [of which lies] the decision whether or not to beget or bear a child." 106

The Supreme Court's most comprehensive attempt at a generalized discussion of the right of privacy came in Whalen v. Roe. 107 Justice Ste-

⁹⁵ Henkin, *Privacy and Autonomy*, 74 Colum. L. Rev. 1410, 1421 (1974).

^{∞ 381} U.S. 479 (1965).

⁹⁷ Id.

⁹⁸ Id.

⁹⁹ Henkin, supra note 95, at 1421.

^{100 405} U.S. 438 (1972).

 $^{^{101}}$ Id. at 453 (Emphasis in the original).

¹⁰² 410 U.S. 113 (1973).

¹⁰³ Id. at 152.

¹⁰⁴ Id. at 153.

¹⁰⁵ Id. at 155.

 $^{^{108}}$ Carey v. Population Services Int'l, 431 U.S. 678, 685 (1977) (right to use contraceptives).

¹⁰⁷ 429 U.S. 589 (1977).

vens, writing for a unanimous Court, suggested that the right of privacy embraced a general interest beyond the least common denominator of marital choice, procreation or contraception found in the Court's prior decisions. The Court observed that privacy cases involve at least two different types of interests: (1) a general "individual interest in avoiding disclosure of personal matters" (as in *Griswold*) and (2) a general "interest in independence in making certain kinds of important decisions" (as in *Roe v. Wade*). 109

"Because the Court has emphasized that the right of privacy is the right to make decisions free from state intrusion, not only is the state prohibited from infringing directly on the protected right, but it also may not act in any way to interfere with the individual's decisionmaking autonomy."¹¹⁰ Any state statute which infringes upon the right of privacy will be subjected to strict scrutiny. The statute must not only promote a compelling state interest but must also be narrowly drawn so that it fulfills only the legitimate state interest.¹¹¹

VI. Proposed Legislation for Fetal Tissue Use

Because the source of the majority of fetal tissue is intentionally aborted fetuses, 112 the ethical implications of fetal tissue use remain controversial. Right-to-life groups fear that finding a positive use for fetal tissue may help legitimize abortion. 113 These groups argue that "a woman's decision to abort creates an adversarial relationship between a mother and her fetus and calls into question her moral right to donate the aborted tissues to science." 114

Medical researchers and others, however, argue that while fetal tissue use should be regulated, there is no reason to waste such an invaluable resource which is procured from a constitutionally protected procedure. Many of the proponents for fetal tissue research agree with New York University biology professor, Efrain Azmitia, who stated: "[I]f society condones abortion and if tissue from the destroyed fetus could help someone dying from Parkinson's or some other terrible disease, then I think

¹⁰⁸ Id. at 591.

¹⁰⁹ Id. at 592.

¹¹⁰ See Creation of Fetal Rights, supra note 91, at 618.

¹¹¹ Roe v. Wade, 410 U.S. 113, 155 (1973). A regulation limiting a fundamental right may be justified only by a compelling state interest. *Id*.

¹¹² See Waste Not, supra note 17, at 100.

¹¹³ See Medical Use, supra note 26.

¹¹⁴ Weiss, Panel Recommends Resuming Fetal Studies, Sci. News, Sept. 24, 1988, at 197.

¹¹⁵ See Weiss, supra note 19. Robin Duke, Co-Chairman of the Population Crisis Committee in New York City stated: "To hold hostage a nation and medical research for a minority group who are anti-abortion is to my mind a very grave mistake." *Id.*

it is immoral to throw that tissue down the drain."116

As a result of the wide disparity of beliefs on the use of fetal tissue, there have been cries for regulation which range from a total ban on fetal tissue use to a lax system of regulation. It is argued that a lax system would allow for the freedom of intellectual thought necessary for scientific advancement. In the following sections, this note will analyze alternatives for amending the UAGA which in turn will influence the state regulation of fetal tissue use.

A. Total Ban on Use of Intentionally Aborted Fetuses

When the HHS temporarily banned experiments using intentionally aborted fetal tissue in March, 1988, it allowed experiments using fetal tissue from spontaneous abortions and stillbirths to continue.¹¹⁷ The HHS halted research on fetal tissue transplantation pending the recommendations of the NIH panel which was created to examine the legal and ethical issues associated with fetal tissue use.¹¹⁸ Prior to the release of the panel's report, however, the Reagan administration drafted an executive order stating that it should be government policy that "an unborn or newborn child who has died as a result of an induced abortion shall not be used for purposes of research or transplantation."¹¹⁹ As stated earlier, President Reagan did not sign the order prior to leaving office, but it is still possible that President Bush may sign the order into effect.

Following the lead of the executive order, many states also may decide to address the issue of fetal tissue use by banning all use of fetal tissue obtained from elective abortions. Such a ban would eliminate many of the ethical issues associated with the use of fetal tissue obtained from elective abortions. This ban would alleviate the fears of many anti-abortion and pro-choice activists alike. ¹²⁰ Such a ban, however, would create two distinct groups of women with fetal remains: (1) those women who had spontaneous abortions or stillborn fetuses and who are permitted to donate their fetuses to science; and (2) those women who had elective abortions and who are prohibited from donating their fetuses to science.

The Fourteenth Amendment provides that "[n]o State shall make or enforce any law which shall . . . deny to any person within its jurisdiction

¹¹⁶ See McAuliffe, supra note 9, at 69, see also Culliton, supra note 24, at 1626. John Robertson, Professor of Law at the University of Texas stated: "One could reasonably argue that it would be unethical to discard this tissue rather than use it in research that could save many lives:" Id.; see also Culliton, Fetal Research Morally Acceptable, Sci., Sept. 23, 1988, at 1593. Some members of the NIH advisory panel stated that researchers have an ethical duty to conduct studies with fetal tissue for the benefit of mankind. Id.

¹¹⁷ See Roberts, supra note 59.

¹¹⁸ Embryonic Questions, Sci. Am., Dec. 1988, at 27.

¹¹⁹ Id.

¹²⁰ See Thorne, supra note 3. Some pro-choice believers oppose fetal tissue use because they fear the exploitation of those women who will easily be coerced or willing to lease their wombs solely for the purpose of producing fetal tissue; see also supra notes 113 and 114 and accompanying text.

the equal protection of the laws."121 In applying this clause:

[The Supreme] Court has consistently recognized that the Fourteenth Amendment does not deny to States the power to treat different classes of persons in different ways. The Equal Protection Clause of that Amendment does, however, deny the States the power to legislate that different treatment be accorded to persons placed by statute into classes on the basis of criteria wholly unrelated to the objective of that statute. A classification 'must be reasonable, not arbitrary, and must rest upon some ground of difference having a fair and substantial relation to the object of the legislation, so that all persons similarly circumstanced shall be treated alike.'122

In Eisenstadt v. Baird, the Supreme Court invalidated a Massachusetts statute which permitted contraceptives distribution only by registered physicians and pharmacists and only to married persons. The Court found that the statute thereby discriminated against the unmarried and violated the rights of single persons under the Equal Protection Clause of the Fourteenth Amendment. The Court noted that "[w]hatever the rights of the individual to access to contraceptives may be, the rights must be the same for the unmarried and married alike." 125

A state's enactment of a ban similar to the one proposed by the Reagan administration might violate the rights of women who engaged in elective abortions under the Equal Protection Clause of the Fourteenth Amendment. In Roe v. Wade, the Supreme Court held that a woman's interest in deciding whether or not to terminate a pregnancy was a fundamental one. ¹²⁶ A statute which would allow women who had spontaneous abortions or stillborn fetuses to donate the fetal remains to science, but which would prohibit women who had elective abortions from doing so, could punish a woman for engaging in her fundamental right to decide whether or not to terminate her pregnancy. Such a prohibition could place an impermissible burden upon a woman's decision.

For example, an impermissible burden was found by the district court in a Louisiana statute which required a physician to tell a woman who had an abortion that she must choose between burial or other means of disposal.¹²⁷ The Court held:

¹²¹ U.S. Const. amend. XIV, §1.

¹²² Reed v. Reed, 404 U.S. 71, 75-76 (1971) (Citations omitted).

¹²³ 405 U.S. 438 (1972). ¹²⁴ *Id*.

¹²⁵ Id. at 453.

^{126 410} U.S. 113 (1973).

¹²⁷ Id. at 670; Margaret S. v. Treen, 597 F. Supp. 636 (E.D. La. 1984), aff'd on other grounds sub nom.

The woman's right to privacy encompasses the entire process surrounding the abortion ... By requiring the physician to confront the woman with a choice on the method of disposal, the state suggests to the woman that it equates abortion with the taking of a human life. Such a suggestion can only serve to increase the woman's feelings of guilt and impose a psychological burden on her. This requirement thus penalizes those women who exercise their constitutional right in choosing abortion." ¹²⁸

As in *Eisenstadt*,¹²⁹ it would appear that the rights of women who had spontaneous abortions should be the same as the rights of women who had elective abortions. The Equal Protection Clause prohibits states from legislating in such a way that "different treatment be accorded to persons placed by statute into different classes on the basis of criteria wholly unrelated to the objective of that statute."¹³⁰

A regulation which accords different treatment to women who had spontaneous abortions and women who had elective abortions is not rationally related to a legislative purpose unless it advances a substantial state goal. Any such regulation must be narrowly tailored to serve the purposes for which it was enacted. Arguably a state can advance several substantial interests in prohibiting the use of electively aborted fetuses. A state may have an interest in preventing the exploitation of women who may be coerced into "leasing" their uteruses for the production of fetal tissue. Furthermore, the state may have an interest in protecting women from the dangerous physical and psychological effects of needless abortions. A state may also have an interest in ensuring an ethical practice regarding elective abortions by discouraging the practice of women who intentionally become pregnant for the sole purpose of aborting the fetus. In addition, the state may have an interest in protecting the quality of fetal tissue available to donees. 131 The state may also have an interest in protecting against the exploitation of the fetus and the reproductive process as a whole.

When taken individually and as a whole, each of these state interests is substantial. However, it is important that any regulation be narrowly tailored to serve the purposes for which it was enacted. A flat ban on the use of electively aborted fetuses sweeps too broadly. Such a ban would also prohibit women who have abortions after an unplanned pregnancy from donating the aborted fetuses to science. This flat ban would not

¹²⁸ Id. at 670.

¹²⁹ Eisenstadt v. Baird, 405 U.S 438, 453 (1972). The Court held that "the rights must be the same for the unmarried and the married alike."

¹³⁰ Reed v. Reed, 404 U.S. at 71, 75 (1971).

¹³¹ See infra note 146 and accompanying text.

¹³² See Lawton, Fetal Tissue Transplants Stir Controversy, Christianity Today, Mar. 18, 1988, at 52. When researchers instructed floor nurses to ask women scheduled for abortions whether they would allow researchers to use the fetal tissue to help others, 92 percent of the women asked agreed, saying it would enable some good to come out of their abortion decision. Id.

be narrowly drawn to express the state's interest. In contrast, a narrowly drawn regulation that prohibits the sale of fetal tissue or recipient designation would better serve the state's interest without treading upon important personal rights.

B. Prohibiting the Sale of Fetal Tissue

Much of the uneasiness associated with fetal tissue use is caused by the thought that women might intentionally become pregnant for the sole purpose of aborting the fetus.¹³³ It would be difficult, if not impossible, to legislate against such a practice.¹³⁴ It is possible, however, to enact legislation which would eliminate the incentive for women to engage in such a practice.

One of the incentives to abort comes from monetary inducement. Antiabortion activists argue that if the sale of fetal tissue is permitted, the result will be an "increased number of abortions, changes in abortion procedures, and delayed abortions to facilitate acquisition of more useful fetal tissue." Pro-choice activists fear that the sale of fetal tissue will result in the exploitation of women because they will be pressured "by economic need to become fetal factories." Civil rights activists worry that the sale of fetal tissue will exploit the poor for the benefit of the rich. 137 Ethicists state that if the sale of fetal tissue is permitted "our society will have taken one more plunge into the moral gutter." 138

Any incentive to abort for monetary gain could be eliminated by an amendment to the UAGA that would specifically prohibit the sale or purchase of any fetal remains. Such a ban should provide in pertinent part:

It shall be unlawful for any person to sell, to offer to sell, to buy, to offer to buy, or to procure through purchase any fetal remains, whether as the result of elective abortions, spontaneous abortions, or stillbirths, for any reason, including, but not limited to, medical and scientific uses such as transplantation, implantation, infusion or injection.¹³⁹

¹³³ See Medical Use, supra note 26. One neurosurgeon stated: "There is a big difference between taking advantage of a death to harvest tissue and creating a life just to abort it." Id.

¹³⁴ See Fine, supra note 21, at 7. While successful therapeutic use of fetal tissue might influence a woman's decision to abort "it is impractical to ascertain motives, and it would be improvident to legislate against them." Id.

¹³⁵ See Weiss, supra note 19, at 297. This statement was made by James Bopp, an Indiana attorney and anti-abortion activist who served on the NIH advisory panel. *Id*.

¹³⁶ Gorman, A Balancing Act of Life and Death, TIME, Feb. 1, 1988, at 49. This statement was made by feminist author Genea Conear; see also supra note 120 and accompanying text.

¹³⁷ See Virginia Doctor, supra note 2. The selling of body parts raises a number of ethical questions which include making transplant operations accessible only to the wealthy and relying on poor donors for organs. *Id*.

¹³⁸ The Flesh Peddlers, supra note 88, at 10.

¹³⁹ Part of this text was taken from VA. CODE ANN. § 32.1-289 (1985) which banned the sale of human organs and adopted a specific ban on the sale of fetal tissue.

Such a ban, however, has constitutional implications. As discussed earlier, the constitutional right of privacy protects a person's right to make certain decisions free from state intrusion, particularly where the decision involves the integrity of one's own body. However, unlike the right of privacy situations discussed earlier, a ban on the sale of fetal tissue involves not only a fundamental privacy right but also an economic right. Because the decision to sell fetal tissue involves a hybrid of economic and fundamental rights, any legislation which affects this decision is subject to an intermediate standard of review. Therefore, any legislation enacted by the state must be substantially related to achieving an "important" state objective (as opposed to the "compelling" state interest required in strict scrutiny situations). 141

With respect to the proposed ban, a state has a substantial interest in prohibiting the sale of fetal tissue.¹⁴² First, the state has an interest in protecting both the physical and emotional well-being of women who may be pressured into having abortions for monetary gain. Although the ten minute procedure is carried out more than four thousand times each day, abortions cannot be described as routine.¹⁴³ The procedure itself is painful as it is usually performed on a patient who has received only a mild sedative.¹⁴⁴ While the procedure is fairly safe, it can result in everything from a mild infection, to sterility, or even death. In addition, studies have shown that some women suffer a type of post-abortive mental breakdown as a result of induced abortions.¹⁴⁵

Second, the state has an interest in protecting women, especially the poor, from being exploited by material incentives to abort. Poor or desperate women might be pressured into conceiving and aborting to pay bills, support drug habits, or simply for greed. In the past, the government has intervened to prevent the exploitation of individuals by material incentives in other areas involving the sale of humans or human tissue. For example, the Court has held that an individual may not sell himself into slavery. For much of the same moral revulsion as is associated with the latter, legislation prohibits the sale of babies for profit. In addition, Congress, through the NOTA, has prohibited the buying and selling of human organs.

¹⁴⁰ See Pyler v. Doe, 457 U.S. 202 (1982). When economic legislation treads upon a personal right, the state must show that the statute furthers a substantial state interest and does not unnecessarily interfere with personal rights. *Id.*

¹⁴¹ Id.

¹⁴² Many of the state objectives are similar to those discussed during the hearings before the House Subcommittee on Health and the Environment. *National Organ Transplant Act: Hearings on H.R. 4080 Before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce*, 98th Cong., 1st Sess. 90 (1983).

¹⁴³ Weiss, supra note 19.

¹⁴⁴ Telephone interview with an anonymous abortion clinic counselor. (Feb. 15, 1989).

¹⁴⁵ D. Mall & W. Watts, The Psychological Aspects of Abortion (1979). As these studies looked at women who had undergone abortions as the result of unplanned pregnancies, it could reasonably be hypothesized that intentional pregnancies for the purpose of abortion could result in a higher tendency of postabortive breakdowns. *Id.*

Third, the state has an interest in protecting the well-being of potential fetal tissue recipients. There is a legitimate fear that purchased fetal tissue may be of a lower quality than donated fetal tissue. 146 Often the poorest or most desperate members of society are more likely to conceive and abort for profit. 147 Since these women are often unable to afford sufficient health care and nutrition, purchased fetal tissue could be of a lesser quality than tissue donated by the general public. 148

Fourth, the state has an interest in discouraging the distribution of fetal tissue which turns upon a recipient's ability to pay. Purchased fetal tissue would go to the highest bidder instead of to the individual who most needs the transplant to survive. The sale of fetal tissue would result in transplant operations being available only to the rich who in turn would rely on fetal tissue from the poor. A society where the poor are the suppliers of fetal tissue and the rich are the beneficiaries "challenge[s] a very important concept of equality in the United States."

Finally, the state has an interest in the impact of fetal tissue sales on society in general. As Nancy Neveloff Dubler, Director of the Division of Legal and Ethical Issues in Health Care at Montefiore Medical Center, stated: "We would not want to live in a society where women become pregnant for the purpose of making money." The buying and selling of human flesh and the dehumanized uses of the human body ought not to be encouraged." Society's aversion to the buying and selling of human flesh is evidenced by its reaction to surrogate mother contracts. Subsequent to the Baby M case and its bitter battle between an infertile couple and the surrogate mother with whom they contracted to bear the husband's child, dozen of States have been wrestling with the surrogacy issue. The Michigan legislature went so far as to make it a crime to arrange a contract with a surrogate mother.

Dr. Arthur Caplan¹⁵⁶ spoke of the "Orwellian possibilities" associated with fetal tissue sales when he stated:

¹⁴⁶ See Note, The Sale of Human Organs: Implicating a Privacy Right, 21 Val. U. L. Rev. 741, 748, n.54 (1987) [hereinafter The Sale of Human Organs]. Congressman Albert Gore noted that blood received by the Red Cross from commercial sales was of a poorer quality than donated blood." Id.; see also Ethics in Embryo, Harper's Mag., Sept. 1987, at 39. "[T]o maintain the highest quality blood supply it [is] unwise to have people sell their blood. The profit motive encourages blood donations from hepatitis carriers." Id.

¹⁴⁷ The Sale of Human Organs, supra note 146.

¹⁴⁸ Id. at 748-49.

¹⁴⁹ Id. at 748.

¹⁵⁰ See Virginia Doctor, supra note 2 and text accompanying note 135.

¹⁵¹ Murray, supra note 85, at 1079-80.

¹⁵² Ethics in Embryo, supra note 146, at 38.

¹⁶³ Murray, supra note 85, at 1073. This statement was made by physician and philosopher Leon Kass. *Id.*

¹⁵⁴ Surrogate Mother Contracts: Consensus May Be Emerging on Their Legality, N.Y. Times, Sept. 22, 1988, at 12, col. 1.

¹⁵⁵ *Id*.

 $^{^{\}mbox{\tiny 156}}$ Arthur Caplan is the Director of the Center for Biomedical Ethics at the University of Minnesota.

It doesn't take a whole lot of imagination to put yourself in the situation of the third world where people could go around offering ten cents, five cents, to women to serve as fetal farms for tissue donation. I don't think that's a practice that we want to be encouraging. I think part of the objection here, the ethics concern, is that whatever we're doing between mothers and fetuses, we don't want them thinking of fetuses as a thing, an entity, a piece of property simply to chop up and parse out to whoever happens to have a need or to whoever happens to want to pay for it. 167

These statements express some of the negative impact that the sale of fetal tissues would have upon society and the interest the state may have in their ban.

Although the proposed ban on the sale of fetal tissue will also include women who have not intentionally become pregnant, the state has a legitimate interest in removing monetary incentives to have an abortion. Such incentives may occur where a woman has an unplanned pregnancy and is unsure about having an abortion but is swayed by the fact that she can sell the aborted fetus. 159

Although the proposed ban on the sale of fetal tissue infringes upon a woman's right to decide what will happen to her body, this right is outweighed by the state's interest in removing incentives to abort for monetary gain. Such a ban furthers a substantial state interest and does not necessarily interfere with a woman's personal right. The ban does not interfere with a woman's decision to have an abortion, nor does it interfere with her decision to donate the aborted fetus to science.

C. Prohibiting Recipient Designation of Fetal Tissue

Currently under the UAGA, a woman can designate the recipient of her aborted fetus. 160 However, when drafting these regulations the drafters of the UAGA were addressing the issue of organ donation rather than the specific issues associated with fetal tissue use. The donation of fetal tissue is different from organ donation since conception for the sole purpose of using the aborted fetus is not an act to be supported. 161 Prohibiting the sale of fetal tissue does not remove all of the incentives for a woman to conceive to abort. Another troubling problem exists where a woman aborts for the purpose of donating the fetus to help a relative, friend or even herself.

¹⁵⁷ See An Explosive Technology, supra note 23, at 914-15.

¹⁵⁸ See Restricting Recipient Designation, supra note 67, at 1106.

¹⁵⁹ *Id*.

¹⁶⁰ UAGA §§ 3(a)(3), 8A U.L.A. 13 (Supp. 1990).

¹⁶¹ See An Explosive Technology, supra note 23, at 915.

To eliminate any incentive for a woman to conceive in order to abort, amendments to the UAGA regulating fetal tissue use should include not only a ban on the sale of fetal tissue but also a ban on recipient designation of fetal tissue. Such a ban could be achieved by drafting a provision which specifically regulates the persons who could become donees of fetal tissue. This amendment should provide in pertinent part:

- (a) The following persons may become donees of fetal tissue, whether from elective abortions, spontaneous abortions or stillbirths, for the purposes stated:
 - A hospital, physician, surgeon or procurement organization for transplantation, therapy, medical evaluation, research or advancement of medical science; or
 - (2) An accredited medical school, college or university for education, research, advancement of medical science.
- (b) A donation of fetal tissue may not be made to a designated individual for transplantation or therapy needed by that individual.¹⁶²

Arguably, a ban on recipient designation will interfere with the right of privacy concerning reproductive autonomy. Although the rights of abortion, contraception and fetal research are not themselves fundamental, they are protected when "essential to [the] exercise of the constitutionally protected right of decision in matters of childbearing that is the underlying foundation of the holdings in *Griswold*, *Eisenstadt v. Baird*, and *Roe v. Wade*." Hence, the question arises as to whether the right to designate the recipient of fetal tissue is "essential to [the] exercise of the constitutionally protected right of decision in matters of childbearing." 104

The Supreme Court's decisions addressing reproductive autonomy have focused on a woman's decision of whether or not to have a family.¹⁶⁵ Recipient designation permits a woman to decide for whom the fetal remains will be used to help.¹⁶⁶ The decision of whether to have a family involves a totally different issue because in this case a woman is still able to abort the fetus or carry it to term.¹⁶⁷ However, while a ban on recipient designation does not directly infringe upon the childbearing decision, it does restrict a woman's right to dispose of the fetal remains.¹⁶⁸

The courts have invalidated statutes which limit a woman's access to fetal tissue when such access could inform or benefit a woman in her

¹⁶² Part of this text was taken from UAGA § 6, 8A U.L.A. 21 (Supp. 1990), which lists who may become donees of anatomical gifts and is adapted to include who may become donees of fetal tissue.

¹⁶³ Carey v. Population Services Int'l, 431 U.S. 678, 688-89 (1977).

 $^{^{164}}$ Id.

v. Population Servs. Int'l, 431 U.S. 678 (1977) (birth control); see, e.g., Roe v. Wade, 410 U.S. 113 (1973) (abortion); see, e.g., Eisenstadt v. Baird, 405 U.S. 438 (1972) (birth control); see, e.g., Griswold v. Connecticut, 381 U.S. 479 (1965) (birth control).

¹⁶⁷ Id.

¹⁶⁸ Id.

decision about future pregnancies.¹⁶⁹ Unlike access to some forms of fetal research, however, recipient designation neither informs nor benefits a woman in her decision about future pregnancies.¹⁷⁰

The courts have also struck down as unconstitutional a number of fetal disposal statutes which were deemed enacted to psychologically punish a woman for exercising her legal right to an abortion. ¹⁷¹ A ban on recipient designation, however, does not punish a woman for exercising her right to an abortion. Such a ban only removes an incentive to abort.

A ban on recipient designation does not directly interfere with child-bearing decisions since a woman is still free to abort the fetus or carry it to term. Such a ban, therefore, does not implicate or unduly burden a constitutional right. To survive a constitutional challenge, any regulation banning recipient designation need only be rationally related to a legit-imate state interest.¹⁷²

A state does have a legitimate interest in banning recipient designation of fetal tissue. First, the state has an interest in protecting a woman from being pressured into having an abortion. A ban on recipient designation removes any family pressure on a woman to conceive and consequently abort in order to donate the fetus to a sick family member. ¹⁷³ In addition, unlike other organ transplants, fetal tissue implants are less likely to be rejected. ¹⁷⁴ This fact expands the number of possible recipients who would pressure a woman to abort to donate the resulting fetal tissue. Since an exact tissue match is not necessary for a successful fetal tissue implant, restricting recipient designation would not greatly reduce the success of a donee's implant. ¹⁷⁵

Second, the state has an interest in preventing the exploitation of the fetus. Although a woman has the right to decide to abort the fetus or carry it to term, she does not have an unbridled right to use her reproductive system to produce a tissue mass to help a specified recipient. The right to conceive solely to abort and donate the fetal tissue to a specified recipient degrades the entire reproductive process and trivializes human life.¹⁷⁶

¹⁶⁹ See Margaret S. v. Treen, 597 F. Supp. 636 (E.D. La. 1984) aff'd on other grounds sub nom. Statute which prohibited nontherapeutic research on any dead or live fetus was found to unduly burden a woman's reproductive rights. By depriving a woman of information concerning fetal deformities in future pregnancies, a woman was denied the opportunity to make informed decisions as to whether to have children at a later date. Id.

¹⁷⁰ See Restricting Recipient Designation, supra note 67, at 1100.

¹⁷¹ See Margaret S. v. Edwards, 488 F. Supp. 181 (1980).

¹⁷² L. TRIBE, AMERICAN CONSTITUTIONAL LAW 994-96 (1978). Rationality is tested by the regulations ability to meet a legitimate public purpose. *Id*.

¹⁷⁸ The possibility of this type of pressure is exemplified in the hypothesis used in the introduction of this note.

¹⁷⁴ See Ethical Options, supra note 4, at 10.

¹⁷⁵ See An Explosive Technology, supra note 23, at 915. Organ transplants, on the other hand, require a very close tissue match to be successful. *Id.*

¹⁷⁶ See Weiss, supra note 19, at 298. The National Right to Life Committee wrote in its comments to the NIH panel: "The unborn will be further dehumanized not only as an expendable inconvenience, but now also as a mere source of benefit to others through the use of his or her parts." Id.

Like the ban on the sale of fetal tissue, a ban on recipient designation will also affect women who have not intentionally become pregnant to abort. As with the ban on the sale of fetal tissue, the state has an interest in removing any incentives to abort. The need for fetal tissue could arise after a woman has become pregnant. Therefore, a sick relative or friend could pressure her to abort. As attorney and right-to-life activist James Bopp argues, "[y]ou could provide a noble reason to have an abortion." 177

Although the proposed ban on recipient designation minimally interferes with a woman's right of reproductive choice, this right is outweighed by the state's legitimate interest in removing any incentives to abort. Such a ban furthers a legitimate state interest and does not unnecessarily interfere with a woman's right of reproductive choice. The right to designate the recipient of fetal tissue is not essential to a woman's right of reproductive autonomy. A ban on recipient designation neither interferes with a woman's decision to have an abortion, nor punishes her for making that decision. In addition, such a ban does not interfere with a woman's decision to donate the aborted fetus to science.

D. Other Regulations of Fetal Tissue Use

While regulations banning the sale of fetal tissue and recipient designation will eliminate the incentive to conceive to abort, additional requirements are needed to address other ethical issues associated with fetal tissue use. One requirement recommended by the NIH advisory panel on fetal tissue use is that a woman must give her fully informed consent to any use of fetal tissue taken from her aborted fetus.¹⁷⁸ That the aborted fetus could be used against the woman's wishes or without her knowledge may result in an impermissible and coercive burden upon her decision to have an abortion.¹⁷⁹ Also, there must be procedures in place which separate a woman's decision to have an abortion from her consent to donate any fetal tissue from her aborted fetus.¹⁸⁰ Securing informed consent for the use of the fetal tissue, in addition to providing information about donating fetal tissue, should be delayed until after a woman has made the decision to abort.¹⁸¹

Just as the decision to abort must be separated from the decision to donate fetal tissue, so too must the doctors who perform the abortion be separated from the doctors who use the fetal tissue. The presence of independent physicians would prevent any manipulation of the method or timing of the abortion.¹⁸² To allow otherwise would result in women prolonging abortions until a fetus has developed to a more suitable age for transplantation¹⁸³ and undertaking alternative, riskier abortion pro-

¹⁷⁷ Embryonic Questions, supra note 118, at 30.

¹⁷⁸ *Id*.

¹⁷⁹ See An Explosive Technology, supra note 23, at 914.

¹⁸⁰ Culliton, supra note 24.

¹⁸¹ Embryonic Questions, supra note 118, at 30.

¹⁸² Fine, supra note 21, at 7.

¹⁸³ Id. "Prolonging pregnancy differs from maintaining the vital functions of a cadaver doner [since] the fetus will . . . continue developing, perhaps to a stage where it may feel pain." Id.

cedures that are less damaging to the fetus. 184

Procedures should also be developed which inform a fetal tissue recipient about the source from which the tissue was obtained. An elective abortion is a controversial and emotionally charged topic with many vehement opponents. Therefore, a recipient should be informed that the fetal cells designated for his use have been procured from an elective abortion. 186

Finally, measures should be taken to prevent the exploitation of the research and procedure of fetal tissue implants itself. Ethicists recommend that the use of fetal tissue should be limited to reputable medical centers known for their fetal tissue research.¹⁸⁷ Such a limitation would help discourage the exploitation of desperately ill patients and their families by unethical doctors promising "miracle" cures from fetal tissue.¹⁸⁸

VII. CONCLUSION

Fetal tissue implants have the potential to help several million people. Scientists believe fetal tissue will be able to offer relief for a variety of afflictions ranging from Parkinson's disease to AIDS, to paralysis and to blindness. A treatment for any one of these afflictions would be of monumental significance.

This scientific breakthrough, however, does not come without ethical and legal dilemmas and repercussions. Presently, fetal tissue use is loosely and inadequately regulated by an array of laws, many of which were enacted before the therapeutic use of fetal tissue even came into existence. As a result, many of the current state and federal laws do not sufficiently address or eliminate the issues associated with fetal tissue use. To allow fetal tissue use to continue to develop without humane guidelines and principles specifically drafted for its use could lead to the exploitation of women, fetuses, and the whole human reproductive process.

This note suggests that the UAGA be amended to specifically address the use of fetal tissue. A complete ban on the use of tissue from electively aborted fetuses, as suggested by the Reagan administration, may violate the rights of women who have engaged in elective abortions under the Equal Protection Clause of the Fourteenth Amendment. Other requirements, however, may be enacted which do not unnecessarily interfere with a woman's reproductive autonomy. To eliminate any incentive for a

 $^{^{184}}$ Id. There is no justification for exposing a pregnant woman to riskier procedures simply to obtain transplantable tissue. Id.

¹⁸⁵ See The Flesh Peddlers, supra note 88, at 9. Cardinal O'Connor, Catholic Archbishop of New York stated: "My father was in bed with a nerve disease for five years. If I had said to him that I would put a baby to death to keep him alive, he would have put me in jail." Id.

¹⁸⁶ Note, An Explosive Technology, supra note 23, at 901.

¹⁸⁷ Should Medicine, supra note 10, at 63.

¹⁸⁸ *Id*.

woman to conceive to abort, amendments to the UAGA regulating fetal tissue use should include both a ban on the sale of fetal tissue and a ban on abandoning recipient designation. Additional requirements, including the informed consent of a woman to donate the fetus and a district separation of doctors who perform the abortions and doctors who use fetal tissue, are needed to meet the other ethical issues associated with fetal tissue use.

"A society that would throw fetal remains into a dumpster or an incinerator without offering them to save other young lives is morally suspect." While elective abortion creates ethical and moral dilemmas, the possibility of relieving suffering and saving lives cannot be ignored. Many of the ethical issues, if properly regulated, can be resolved. The technology generated by the use of fetal tissue can offer hope and relief to several million Americans every year.

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¹⁸⁹ Note, Fetal Tissue Harvesting: Should Courts be the Final Arbiter?, 23 Gonz. L. Rev. 621, 623 (1987-88).