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THE PROSPECT OF CLONING HUMAN BEINGS: HAS KNOWLEDGE LEAPT AHEAD OF WISDOM?¹

*Peggy Scheckel**

INTRODUCTION

We live at the threshold of a new genetic age² in which science and technology are rapidly changing the way we live, work, and raise our families.³ In recent years, real progress has been made in scientific and biological development. Science has not only lengthened the lives of people with human immunodeficiency virus (HIV) and located the genes that predispose individuals to cancer and diabetes, but has also now verged on discovering new treatments for spinal cord and brain injuries.⁴ Today, scientific progress has reached beyond even these modern medical marvels. The theoretical notion that human beings can be cloned is presently entering the realm of scientific and technological progress.

For years, the American public has been fascinated with the possibility of creating life by other than natural means.⁵ Stories such as

¹Nicholas Wade, *Senate Plans to Weigh Ban on Cloning*, N.Y. TIMES, Feb. 10, 1998, at A16 (discussing concern over the ethics of human cloning research).

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²*Should Congress Prohibit All Human Cloning Experimentation?*, 77 CONG. DIG., Feb. 1998, at 50 [hereinafter *Congressional Digest 1*] This work is a compilation of comments by academic and political figures dealing with the pros and cons of human cloning.

³The White House Office of the Press Secretary, Radio address by the President to the Nation (Jan. 10, 1998) (discussion of the extraordinary promise of science and technology, and the extraordinary responsibilities that promise places on us).

⁴*Id.*

⁵Congressional Digest 1, *supra* note 2, at 46.

Mary Shelly's *Frankenstein*⁶ and Aldous Huxley's *Brave New World*⁷ have entertained the fantasy of artificially creating human life.⁸ Through the years, society has sought to turn fantasy into reality by tampering with the normal reproductive process, thereby incorporating into everyday life such practices as artificial insemination, surrogate parenting, and in vitro fertilization.⁹ In the present, mankind once again faces a new reality as the prospect of human cloning, once a fanciful idea, must now be treated seriously as a future scientific possibility.¹⁰

As society races forward into this new genetic era, it seems imperative that "cloning" be defined. What exactly is cloning?¹¹ Cloning simply means the production of identical copies from a single entity, such as a gene or cell.¹² In other words, cloning entails manipulating a cell from an organism so that it will grow into an exact genetic copy of that organism, with all the physical characteristics of the original.¹³ Cloning of cells and genes has proven to be the cornerstone of biotechnology's ability to develop new drugs and diagnostic tools for treating intractable and infectious diseases.¹⁴ However, as this steady advance of biological research proposes to utilize strange innovative powers to clone human beings, many wonder if knowledge has perhaps leapt ahead of wisdom.¹⁵ Undoubtedly, the issue of human cloning raises many disturbing moral and ethical questions. Cloning has proven to be a highly sensitive issue that will receive increased attention in the future. Consequently, careful research and investigation are necessary to fully understand the repercussions cloning may have nationwide.

⁶MARY SHELLEY, *FRANKENSTEIN* (1818).

⁷ALDOUS HUXLEY, *BRAVE NEW WORLD* (1946) (discussing a futuristic society that has an alarming effect of dehumanization when a society full of human clones, devoid of personality, is created).

⁸See, e.g., Robert S. McElvaine, *Cloning How Do We Morally Navigate the Uncharted Future?*, L.A. TIMES, Mar. 5, 1997, at B9 (discussing historical works envisioning the prospect of propagating the human species outside the biological laws of sexual reproduction).

⁹Congressional Digest 1, *supra* note 2, at 46.

¹⁰Stephen A. Newman, *Human Cloning and the Family: Reflections on Cloning Existing Children*, 13 N.Y.L. SCH. J. HUM. RTS. 523 (1977).

¹¹*Human Cloning: Scientific, Legal, and Ethical Considerations*, 77 CONG. DIG., Feb. 1998, at 34. [hereinafter *Congressional Digest 2*].

¹²Congressional Digest 1, *supra* note 2, at 47.

¹³Congressional Digest 2, *supra* note 11, at 34.

¹⁴Congressional Digest 1, *supra* note 2, at 47.

¹⁵Wade, *supra* note 1, at A16.

This article will discuss and analyze the theoretical prospect of cloning human beings. In addition to raising ethical and medical concerns, the possibility of human cloning also raises questions of a legislative and legal nature. In the following section the events preceding and facilitating the possibility of cloning human beings will be examined.¹⁶ In the two subsequent sections, ethical concerns as well as medical considerations and benefits will be discussed.¹⁷ National and state legislative responses to human cloning will then be analyzed.¹⁸ Finally, the article will conclude with a brief discussion of how the courts might view the human cloning issue in the future.¹⁹

HISTORIC BIRTH OF HUMAN CLONING POSSIBILITIES

Perhaps the reason why human cloning has touched a nerve in the nation's cultural consciousness is that it was never imagined that it would become a possibility so soon. Society did not realize that technology would push forward with such force and speed.²⁰ However, that is precisely what has happened.

The idea that humans might someday be cloned moved away from science fiction and closer to genuine scientific possibility on February 23, 1997.²¹ On that date, Ian Wilmut, a Scottish scientist, and his colleagues at the Roslin Institute in Edinburgh, Scotland, announced they had successfully cloned a sheep. The sheep, named "Dolly," was created using somatic cell nuclear transfer, a new technique which had never before been fully successful in mammals.²²

However, cloning also has a history prior to Dolly. Scientists first began attempts at cloning animals with adult cells in 1938 when German embryologist Hans Spemann proposed making a clone by removing an

¹⁶See *infra* notes 20-72.

¹⁷See *infra* notes 73-154.

¹⁸See *infra* notes 155-224.

¹⁹See *infra* notes 225-272.

²⁰Congressional Digest 1, *supra* note 2, at 50 (noting the realization that technology is pushing us forward with force and speed).

²¹*Cloning Human Beings: Reports and Recommendations of the National Bioethics Advisory Commission*, 38 JURIMETRICS J. 3 (1997) (discussing the conclusions and recommendations of the NBAC on the issue of cloning).

²²*Id.*

egg's nucleus and replacing it with the nucleus of another cell.²³ Those efforts failed.²⁴ Later, researchers seeking to unlock the secrets of embryonic development worked to perfect the nuclear transfer technique for forty years, starting with experiments on frogs in 1952.²⁵ The transfer of the nuclei of embryonic tadpole cells into frog eggs succeeded in producing cloned tadpoles and adult frogs.²⁶ These successes, however, were not without setbacks. The older the frog cell donating the DNA, the less likely it was for the resulting clone to develop normally.²⁷

In addition to frogs, scientists had also succeeded in cloning other species, including mice.²⁸ In mice, which are the typical mammalian model organism, the results were even more discouraging than those stemming from research with frogs.²⁹ Generally, when embryo research is discussed, scientists talk about embryonic development as stages after the initial fertilization of the egg. In such stages, the egg divides into two cells, then four cells, then eight, etc. With mice, researchers were unable to produce viable species from anything except nuclei taken from very early embryos in the two-to four-cell stage³⁰ Therefore, most biologists came to accept the proposition that mature cells could not give rise to entire organisms.³¹

This discouragement with progress in cloning research gave way to renewed enthusiasm in 1993, when scientists at George Washington University split off individual cells from early human embryos.^{31, 32} Although the scientists used a different method than the one previously utilized with frogs and mice, they had managed to split two-to eight-celled embryos into "twins," and had successfully grown them for a short time

²³Virginia Morell, *A Clone of One's Own*, DISCOVER, May 1998, at 88 (discussing historic attempts at cloning animals using adult cells).

²⁴*Id.*

²⁵Elizabeth Pennisi, *Cloning: The Lamb that Roared*, 278 SCI. 2038, 2039 (1997). Surprising both researchers and the public, a lamb cloned from a single cell of an adult sheep ignited a fierce debate about ethics.

²⁶*Id.* (noting cloning experiments in frogs).

²⁷*Id.*

²⁸Joan Stephenson, *Threatened Bans on Human Cloning Research Could Hamper Advances*, 277 JAMA 1023 (1997).

²⁹Pennisi, *supra* note 25.

³⁰*Id.* (noting cloning experiments in mice).

³¹*Id.*

³²Newman, *supra* note 10, at 524 (discussing cloning experiments at George Washington University in 1993); Davis, *infra* note 33, at 1.

in a culture.³³ To avert controversy over ethical issues that traditionally had arisen with research on embryos, the researchers at George Washington University used abnormal embryos in their experimentation and did not plan to implant any of the embryos to create human clones.³⁴ Regardless, a mild stir did ensue, but was quickly abated when it became apparent that embryo-splitting had a long way to go before becoming a viable technique.³⁵ Such posture is where the idea of cloning stayed until Dolly arrived on the scene.³⁶ Until then, somatic cell nuclear transfer, the technique that produced Dolly, still seemed to be substantively science fiction.

Science fiction became reality, however, as Dolly's introduction set off a stream of reaction and speculation around the world.³⁷ To create Dolly, Dr. Wilmut and his colleagues at the Roslin Institute used a technique known as somatic cell nuclear transfer, which involved transferring the nucleus of an adult body cell into an egg from which the nucleus has been removed.³⁸ In creating Dolly, Dr. Wilmut and his team took cells from an adult ewe's mammary glands and starved them of nutrients to arrest further cellular development and to restore them to a totipotent state at which their capability of differentiating into a variety of cells was reinstated.³⁹ When electrical shock was applied to the nuclei of the mammary cell, which had been transplanted into an enucleated sheep oocyte, the two cells fused.⁴⁰ The egg reactivated dormant genetic material that had come from the mammary cell, and developed into a sheep fetus.⁴¹ A statistical analysis of the procedure revealed that twenty-nine of 227 enucleated eggs developed to the blastocyst stage (eleven

³³Dena S. Davis, *Cloning Symposium: Introduction*, 38 JURIMETRICS J. 1 (1997).

³⁴Newman, *supra* note 10, at 524.

³⁵Davis, *supra* note 33, at 1.

³⁶Morell, *supra* note 23, at 88.

³⁷Emily Marden, *The Revolution Ignored*, 6 N.Y.U. ENVTL. L.J. 674 (1998) (critiquing *Cloning Human Beings; Report and Recommendations of the National Bioethics Advisory Commission*, 38 JURIMETRICS J. 1 (1997)).

³⁸Wade, *supra* note 1, at A16 (discussing somatic cell nuclear transfer method).

³⁹John A. Robertson, *Liberty, Identity, and Human Cloning*, 76 TEX. L. REV. 1371, 1374 (1998) (discussing how a cell is capable of differentiating into a large variety of cells).

⁴⁰Vincent Kiernan, *Debate Over Cloning Touches One of Society's Most Sensitive Nerves*, CHRON. HIGHER EDUC., Feb. 27, 1998, at A17 (discussing somatic cell nuclear transfer process used to create "Dolly", the cloned sheep) (an oocyte is a female gamete); *see also*, Robertson, *supra* note 39, at 1374.

⁴¹*Id.* at A17.

percent).⁴² Of the twenty-nine blastocysts then placed in the female sheep's uterus, one was born on July 5, 1996.⁴³

The birth of Dolly is the first report of a live birth containing genetic material from an adult mammalian somatic cell that was manipulated in what is now a fairly standard embryological technique.⁴⁴ The Roslin group had done what was previously thought to be impossible.⁴⁵ Their experiment revealed that the DNA of an adult cell can no longer be viewed as having traveled an irreversible path of gene suppression during differentiation into a mature somatic cell.⁴⁶ In addition, the technique used to create Dolly offered scientists a new way to explore the molecular mechanisms that turn genes on and off, as well as control the most fundamental processes of life.⁴⁷ Not only does Dolly's birth mark a milestone in the ability to engineer animals for food and medicine, but it also signals that, in principle, humans too can be cloned.⁴⁸

In spite of its initial appeal, uncertainties about the viability of cloning exist.⁴⁹ One uncertainty is that the phenomenon of genetic imprinting might affect the ability of nuclei from later stages to reprogram cellular development.⁵⁰ The nuclei might be so firmly set in a normal course of action that reprogramming efforts might prove futile. Also, the extent to which cellular aging will affect the ability of somatic cell nuclei to program normal development after it has been reprogrammed to act as a young cell is unknown.⁵¹

A third uncertainty of human cloning viability is that nuclear transfer efficiency could possibly be affected by mutations that have, over time, accumulated in somatic cells.⁵² Because somatic cells, in the course of their development, have had time to acquire mutations, the possibility

⁴²Robertson, *supra* note 39, at 1374 (noting the statistical analysis of the process used to produce "Dolly").

⁴³*Id.* (A blastocyst is the stage in development of a mammalian embryo that follows the morula. It consists of an outer layer of trophoblast to which is attached an inner cell mass. The enclosed cavity is the blasto cele. The whole is called a blastocyst).

⁴⁴*One Lamb, Much Fuss*, 349 LANCET 661 (1997).

⁴⁵*Id.*

⁴⁶*Id.*

⁴⁷Rick Weiss, *Lost in the Search for a Welfare Benefits in Sheep's Cloning*, WASH. POST, Mar. 3, 1997, at A3.

⁴⁸Daniel Kevles, *Study Cloning, Don't Ban It*, N.Y. TIMES, Feb. 26, 1997, at A23.

⁴⁹Robertson, *supra* note 39, at 1375.

⁵⁰*Id.*

⁵¹*Id.*

⁵²*Id.*

lingers that some of these mutations might inhibit or interfere with the nuclear transfer process.

Finally, there could be possible birth defects.⁵³ According to Dr. Wilmut, the procedure that produced Dolly appears to have resulted in increased birth weight and prolonged gestation in the clone.⁵⁴ Citing the "low efficiency" of animal cloning in general, and the severe deformities that resulted in many of his cloned lambs, Dr. Wilmut stated "it would be quite inhuman to contemplate" human cloning at this stage.⁵⁵ The cloning frenzy, however, continues to move down a slippery slope toward the prospect of cloning human beings.

Fueled by the birth of Dolly, cloning research and experimentation have seemingly gained renewed energy. Evidently prompted by the notoriety accompanying Wilmut's announcement, Don Wolf and his associates at the Oregon Regional Primate Research Center disclosed they had several months earlier succeeded in cloning rhesus monkeys from immature cells in a process known as embryonic cell nuclear transfer.⁵⁶ This procedure differs from somatic cell nuclear transfer in that immature cells, rather than adult cells, are used. As a result of the Oregon experiments, two monkeys were born: Neti and Ditto.⁵⁷ Cloning sheep and cattle in this fashion had been no novelty, but cloning primates using embryonic cell nuclear transfer apparently brought scientists much closer to the reality of "cloning human beings" than anything Wilmut had done.⁵⁸ This appears to be a reasonable assertion given the fact that, in homo sapiens, DNA "reprogramming" is more likely to commence at the four-cell stage rather than at the eight-cell stage, as it had with sheep.⁵⁹

Furthermore, using a variation of the Wilmut method, a Wisconsin company has reported pregnancies in cows.⁶⁰ In addition, another group from Wisconsin reported that it has been able to clone DNA material from adult cells in five species: sheep, goat, pig, rodent, and monkey to the

⁵³Andrew Kimbrell, *Animal Cloning Horrors*, WASH. POST, Mar. 4, 1998, at A20.

⁵⁴Charles Marwick, *Scientists Flock to Hear Cloner Wilmut at the NIH*, 277 JAMA 1102 (1997).

⁵⁵Andrew Kimbrell, *supra* note 53, at A20.

⁵⁶Ira H. Carmen, *Should Human Cloning be Criminalized?*, 13 J.L. & POL., 745, 747 (1997) (discussing the disclosure of two cloned rhesus monkeys at the Oregon Regional Primate Research Ctr.); Robertson, *supra* note 39, at 1375.

⁵⁷Morell, *supra* note 23, at 85.

⁵⁸Carmen, *supra* note 56, at 748.

⁵⁹Carmen, *supra* note 56, at 748.

⁶⁰Robertson, *supra* note 39, at 1375.

embryo level by placing the deprogrammed nuclei in cow oocytes.⁶¹ Likewise, in January, 1998, scientists from a Massachusetts firm, Advanced Cell Technology, revealed the existence of three cloned calves: Charlie, George, and Albert.⁶² The calves were apparently produced via a more sophisticated technique than the one used to produce Dolly.⁶³

The most recent cloning accomplishment was announced July 22, 1998, as scientists in Hawaii reported that they had created dozens of cloned mice.⁶⁴ Teruhiko Wakayama of the University of Hawaii and his supervisor, Ryuzo Yanagimachi, said they had produced fifty cloned mice from several different adults.⁶⁵ The Hawaiian technique differed in a few key ways from the method used by Wilmut to create Dolly.⁶⁶ Most notably, the Hawaiian technique used cumulus cells, which nourish eggs in the ovaries of both female mice and humans, whereas Wilmut had used a cell from a ewe's udder.⁶⁷ Also, Yanagimachi and Wakayama used mechanical injection and chemical activation, rather than electric current as Wilmut had done.⁶⁸ The first cloned mouse to survive to adulthood was named Cumulina.⁶⁹

In the year since Dolly's birth, cloning technology has developed rapidly.⁷⁰ Since experiments on cattle have refined cloning techniques and chimpanzee embryos have been successfully cloned, the possibility of human cloning now looms imminently unseen but real.⁷¹ With the cloning of the Hawaii mice, several experts now say that they believe the birth of a cloned person is inevitable.⁷²

⁶¹Robertson, *supra* note 39, at 1375.

⁶²Morell, *supra* note 23, at 85; Robertson, *supra* note 39, at 1375.

⁶³Morell, *supra* note 23, at 85; Robertson, *supra* note 39, at 1375.

⁶⁴WASHINGTON POST, *Successful Cloning of Mouse Hints at Human Possibilities*, J. GAZETTE, July 23, 1998, at 9C.

⁶⁵Maggie Fox, *Mob of Cloned Mice Show Dolly was no Fluke*, (visited July 22, 1998) <http://dailynews.yahoo.com/headlines/top_stor/clones_2.htm>.

⁶⁶WASHINGTON POST, *supra* note 64, at 9C.

⁶⁷*Id.*

⁶⁸Fox, *supra* note 65.

⁶⁹WASHINGTON POST, *supra* note 64, at 9C.

⁷⁰E.V. Kontorovich, *Asexual Revolution*, 50 NAT'L REV., Mar. 9, 1998, at 30.

⁷¹*Id.*

⁷²WASHINGTON POST, *supra* note 64, at 9C.

ETHICAL CONCERNS OF "HUMAN CLONING"

As with other new technologies, such as in vitro fertilization and embryo cloning, human cloning suggests a need to address several ethical implications due to the procedure's innovative nature. Until recently, there were few ethical discussions about human cloning via nuclear transplantation because the scientific consensus was that such a procedure was not biologically possible.⁷³ Now that such a procedure appears biologically credible, the question becomes whether or not human cloning should be explored or avoided. People may be so consumed by the notion that they have achieved something notable, that they do not take the time to think of whether it should have been done in the first place.

Those calling human cloning immoral, repugnant, and abhorrent have argued strenuously that it should be banned permanently.⁷⁴ In a poll released by ABC's *Nightline* program the day after the announcement of Dolly's birth, eighty-seven percent of those polled said human cloning should be banned.⁷⁵ Eighty-two percent said cloning human beings would be morally wrong and ninety-three percent said they personally would not choose to be cloned.⁷⁶ A discussion concerning some of the more pertinent ethical issues regarding the cloning of human beings follows.

Human Cloning as a Threat to Individuality

Would a clone make every decision the same way as its "parent" organism, or would free will overrule this predisposition? If a "clone" killed someone, could it be said that this was really the wish of the parent organism or is the clone responsible for his own actions? These are troubling questions raised by the prospect of cloning human beings.

The initial image of cloning in the popular media was that one could make a copy of oneself or another and then exert exclusive control over that clone.⁷⁷ This conception of cloning denies the uniqueness and

⁷³Robert Wachbroit, *Genetic Encores: The Ethics of Human Cloning*, REP. INSTITUTE FOR PHILOSOPHY AND PUB. POL'Y., (Microsoft Internet Explorer, visited 6/11/98), <<http://www.puaf.umd.edu/ippp/Fall97report/cloning/htm>>.

⁷⁴Jerome P. Kassirer & Nadia A. Rosenthal, *Should Human Cloning Research be Off Limits?*, NEW ENG. J. MED., Mar. 26, 1998, at 906.

⁷⁵Congressional Digest 1, *supra* note 2, at 52 (noting percentage of population that feels human cloning should be banned).

⁷⁶*Id.*

⁷⁷Robertson, *supra* note 39, at 1384.

individuality of a person created with the DNA of another.⁷⁸ Leon Kass, M.D., professor of social thought at the University of Chicago, has expressed the belief that a cloned individual would go through life living with unspoken comparisons to his original, and pressures to measure up to his predecessor's achievements.⁷⁹

For example, a young clone growing up with a physically identical sibling might feel that she is not a truly separate individual, but rather one whose path has been pre-destined by the "original" version of herself.⁸⁰ Footsteps have already been laid down for her, and not following them might result in the disapproval of parents, siblings, teachers, relatives or others aware of her status as a clone.⁸¹ Such experiences might thereby compel the clone to question her distinctive identity.⁸² "Cloning would have very negative consequences in terms of the child feeling that he or she could develop a uniqueness or specialness."⁸³ Unable to escape the mirror images of themselves, clones might feel that they are trapped in lives that are not their own.

Ironically, many proponents of the idea that sees human cloning as a threat to individualism fail to view identical twins as lacking individuality even though their genomes are the same.⁸⁴ Therefore, why then do they feel that clones would lack individuality? While sharing many features, identical twins born at the same time are clearly separate persons, and identical twins born at different times are likely to be even more different.⁸⁵ Clones will have grown up in completely different eras, with different political structures, different friends and acquaintances, and different social opportunities. Producing clones of human beings would not amount to creating "carbon copies."⁸⁶ Rather, it would be more like producing a "delayed" genetic twin.⁸⁷ Just as identical twins are two

⁷⁸Robertson, *supra* note 39, at 1384.

⁷⁹Mark Harris, *To Be or Not To Be?*, VEGETARIAN TIMES, June 1, 1998, at 66.

⁸⁰Newman, *supra* note 10, at 527, *see also* Steinbock, *infra* note 87, at 43.

⁸¹Newman, *supra* note 10, at 527.

⁸²Harris, *supra* note 79, at 66.

⁸³*Id.* (stated by Michael Kahn, Ph.D., professor of clinical psychology at the University of Hartford in Connecticut).

⁸⁴Robertson, *supra* note 39, at 1412.

⁸⁵*Id.*

⁸⁶Robert Wachbroit, *Should We Cut this Out? Human Cloning Isn't as Scary as it Sounds*, WASH. POST, Mar. 2, 1997, at C1.

⁸⁷Bonnie Steinbock, *The NBAC Report on Cloning Human Beings: What it did—and did not—do*, 38 JURIMETRICS J. 43 (1997).

separate people biologically, psychologically, morally, and legally, though not genetically, so would a clone be a separate person from his or her non-contemporaneous twin.⁸⁸ To think otherwise is to embrace a false belief in "genetic determinism."⁸⁹

There are many scientists and behaviorists who stand in opposition to the deterministic viewpoint. They seek to expose the fallacy of "genetic determinism." Although genes play an essential role in the formation of physical and behavioral characteristics, individuals are in fact the result of a complex interaction between genetic inheritance and the environment within which they develop.⁹⁰ People are the result of nature (genes) and nurture (environment), not merely the sum of the two, but rather the product of constant interplay between them.⁹¹ As human beings, individuals are creatures of their biological, physical, social, political, historical, religious, and psychological environments.⁹² In light of this information, the claim that human cloning violates individuality is not convincing. In genotype does not mean that there will be similarity in phenotype, especially when rearing occurs in different environments at different times,⁹³ as it would with cloning.

Human Cloning and Objectification

A second ethical concern is the possibility that human cloning could reduce persons to objects for manipulative use or disposal.⁹⁴ George J. Annas, professor of health law at Boston University, argues that human cloning should be illegal lest it lead to a world in which people are commodities.⁹⁵ Sharing this belief is Italian academic and politician Rocco Buttiglione, who feels that if society tries to produce a child as if it were a machine or a commodity on an assembly line, it would not

⁸⁸Wachbroit, *supra* note 86, at C1.

⁸⁹*Id.*

⁹⁰Steinbock, *supra* note 87, at 42.

⁹¹Jessica Mathews, *Post-Clone Consciousness: Dolly is one Drop in a Wave About to Crash Over Us*, WASH. POST, Mar. 3, 1997, at A19.

⁹²Steinbock, *supra* note 87, at 43.

⁹³Robertson, *supra* note 39, at 1414 (A genotype is the genetic constitution of an organism, whereas a phenotype is the environmentally and genetically determined observable appearance of an organism).

⁹⁴Helga Kuhse et al., *Abstracts*, 13 ISSUES L. & MED. 474 (1998).

⁹⁵George J. Annas, *Human Cloning: Should the US Legislate Against it?*, A.B.A. J., May 1997, at 80.

respect the child's dignity.⁹⁶ Would clones be people or would the manufacture of human beings on demand, without conception, turn people into made-to-order goods?⁹⁷ Think of the moral impact of such a question. Next, the question will become: Do clones have souls? Do they share a soul?

According to the Ethics and Religious Liberty Commission of the Southern Baptist Convention, seeking to clone human beings demonstrates man's spiritual and technological arrogance which aims at usurping God's prerogatives as creator.⁹⁸ In their statement on human cloning, the Commission said that at the heart of the Judeo Christian religious and moral traditions is an absolute belief and conviction that human beings are made uniquely in the image and likeness of God (Genesis 1:27, 5:1, 9:6).⁹⁹ This belief in mankind's divine spark is what separates him from the beasts.¹⁰⁰ While animal life deserves respect, human life demands reverence.¹⁰¹ If souls are in fact granted only by God, what will happen when a world of soulless people has been created? What will guide them? To whom will they answer?

Since many concerns about cloning touch on theological issues, some of the most ardent voices denouncing objectification through the practice of cloning human beings will no doubt come from the Christian Church.¹⁰² If ever there were a Tower of Babel, which originally was an attempt to elevate humans to the level of God through human accomplishment, surely human cloning is it.¹⁰³ In biblical scripture, though mankind was given the ability to create the magnificent tower, it was ultimately struck down by the hand of God.¹⁰⁴ Could the same result befall human cloning? Although God has given man the ability to clone human beings, who is to say that this ability will not strike down the human race through pervasive

⁹⁶Rocco Buttiglione, *Cloning: How do we Morally Navigate the Uncharted Future?*, L.A. TIMES, Mar. 5, 1997, at B9.

⁹⁷Kontorovich, *supra* note 70, at 30.

⁹⁸Richard D. Land, *Statement on Human Cloning*, LIGHT, July-Aug., 1997, (visited July 27, 1998) <<http://www.erlc.com/President/1997/LJ-Aclone.htm>> (Microsoft Internet Explorer The Ethics and Religious Liberty Commission of the Southern Baptist Convention).

⁹⁹*Id.*

¹⁰⁰*Id.*

¹⁰¹*Id.*

¹⁰²Nancy J. Duff, *Clone With Caution: Don't Take Playing God Lightly*, WASH. POST, Mar. 2, 1997, at C1.

¹⁰³*Id.*

¹⁰⁴*Id.*

disease or worse. Arguably, attempts to create nearly perfect human beings give scientists a power over human beings that the church ascribes only to God.¹⁰⁵

Those standing in opposition to the objectification of human beings also stress that human clones would not be suitable "organ farms" for those needing transplantable organs.¹⁰⁶ This so-called process of "organ farming" consists of growing human life as material.¹⁰⁷ In doing so, humans become the object of research manipulation.¹⁰⁸ The simple fact that people are already inventing and endorsing such scenarios demonstrates the corrosive magic cloning technology might work on the ethical notions of human dignity.¹⁰⁹ Since society already refuses to recognize a fetus's legal standing as a person with rights when aborted fetuses are used for research, is it such a far stretch to imagine that society might declare human clones to be just body parts for harvesting?

Effect of Human Cloning on Family Relations

A third ethical area to consider is the effect of human cloning upon family relations. Some have expressed concern about the degradation in the quality of family life that human cloning would produce.¹¹⁰ According to Leon Kass, M.D., cloning would disrupt the traditional family unit and the various relationships within it.¹¹¹ For Kass, "cloning is not business as usual, to be fretted about for a while but finally to be given our seal of approval. We must rise to the occasion and make our judgments as if the future of our humanity hangs in the balance. For so it does."¹¹² If humanity, in the present, fails to contemplate the effects of human cloning on the traditional family structure, it might be too late in the future.

A major source of ethical concern is the confusion human cloning could create in family lineage and kinship.¹¹³ For example, if a parent contributes his or her own genetic material to create a cloned child, in terms of DNA, the donor is the clone's sibling, his twin. However, the

¹⁰⁵*Id.*

¹⁰⁶Congressional Digest 1, *supra* note 2, at 54.

¹⁰⁷Kontorovich, *supra* note 70, at 30.

¹⁰⁸Kuhse et al., *supra* note 94, at 474.

¹⁰⁹*Id.*

¹¹⁰Executive Summary, *supra* note 21, at 5.

¹¹¹Harris, *supra* note 79, at 66.

¹¹²*Id.* at 70.

¹¹³Robertson, *supra* note 39, at 1422.

donor would be regarded socially as the clone's parent.¹¹⁴ Subsequently, the traditional generational relation between parent and child would be changed.¹¹⁵ Perhaps the rearing parent would forget that the cloned child is a person in his own right and would view him as merely an earlier version of himself.¹¹⁶ Thus, in so doing, the parent potentially would be projecting fantasies on the child of what the parent wished he had been able to do when he was younger.¹¹⁷ Other concerns raised include the possibility that a single parent or homosexual household would utilize human cloning technology to create a child when they conventionally could not.¹¹⁸ Regardless, whether cloning an existing child, a parent, or even an unrelated third party, the danger is that the traditional lines between social and genetic parent and child might be blurred or confused.¹¹⁹

Fear that Human Cloning will Give Rise to Eugenics

Another prevalent ethical concern is the fear that human cloning might lead to wide-scale eugenics.¹²⁰ Eugenics is a "strategy of trying to orchestrate human evolution through programs aimed at encouraging the transmission of desirable traits and discouraging the transmission of undesirable ones."¹²¹ Scientists have long speculated about manipulating genes to produce new Einsteins and Hemingways; and now, impresarios can dream of cloning Michael Jordan and raising their own Dream Team.¹²² What happens, though, when the quota of super-athletes that can play in the NBA is reached? One fear that is especially notable here is that, the ability to choose the genome of children through embryonic or somatic cell nuclear transfer may legitimize and, therefore, encourage increased use of all forms of genetic selection.¹²³

The use of eugenics in human cloning generates another fear that such procedures will lead to government-imposed or conducted

¹¹⁴Harris, *supra* note 79, at 66.

¹¹⁵Robertson, *supra* note 39, at 1426.

¹¹⁶*Id.*

¹¹⁷*Id.*

¹¹⁸Brian A. Brown, *Cloning: Where's the Outrage?*, WALL ST. J., Feb. 19, 1998, at A22.

¹¹⁹Robertson, *supra* note 39, at 1428.

¹²⁰*Id.* at 1429.

¹²¹SUZKI, DAVID, & PETER KNUDTSON, *GENETICS: THE CLASH BETWEEN THE NEW GENETICS & HUMAN* (Massachusetts: Harvard University Press, 1990).

¹²²Kevles, *supra* note 48, at A23.

¹²³Robertson, *supra* note 39, at 1432.

reproduction involving genetic selection and engineering.¹²⁴ Government-imposed eugenics programs in which people with particular characteristic traits would be prohibited from reproducing seem unlikely,¹²⁵ but so did human cloning only a short time ago. People from all walks of life are seized by terrifying premonitions that a supernatural force of evil is about to be unleashed upon an unsuspecting world.¹²⁶ Brought to mind are thoughts of *Dr. Moreau*¹²⁷ and his island of half-man, half-beast creatures. It is a chilling thought to imagine the loss of freedom and autonomy that would occur if the resulting clone were the property or product of its initiator.¹²⁸

POTENTIAL BENEFITS OF HUMAN CLONING

Although ethical concerns exist now that scientists have successfully cloned an adult mammal, one cannot help but speculate about the potential benefits that might be derived from human cloning. For some, the discovery that higher mammals can be cloned is more a cause for hope than dismay.¹²⁹ According to John A. Robertson, professor of law at the University of Texas, society must not let fear of science fiction scenarios cloud its vision.¹³⁰ To do so would be unwise, possibly blocking potentially valid uses of cloning simply due to the shock induced by Wilmut's unprecedented creation.¹³¹

One potential benefit of human cloning is that it offers some people a chance to have what they thought they could never have through natural means: a child of their own.¹³² Dr. Mark Sauer, an infertility expert at Columbia Presbyterian Medical Center in New York, dreams of offering his patients a treatment that utilizes cloning.¹³³ Sauer proposes taking a

¹²⁴*Id.* at 1430.

¹²⁵*Id.* at 1431.

¹²⁶Abigail Trafford, *Fear of Cloning & the Ewe To-Do*, WASH. POST, Mar. 11, 1997, at 26.

¹²⁷H.G. WELLS, *THE ISLAND OF DR. MOREAU* (1973) (discussing how the balance of nature is put to the ultimate test when a marooned stranger stumbles across an out-of-control experiment that fuses man with animal).

¹²⁸Robertson, *supra* note 39, at 1415.

¹²⁹*Confronting Cloning*, L.A. TIMES, Jan. 31, 1998, at 137.

¹³⁰Annas, *supra* note 95, at 87.

¹³¹*Id.* at 87.

¹³²Morell, *supra* note 23, at 89.

¹³³Gina Kolata, *For Some Infertility Experts, Human Cloning is a Dream*, N.Y. TIMES, June 7, 1997, at 8.

human embryo at the stage when it is only two or three days old and consists of approximately eight cells and then using these cells to grow identical embryos where once there was only one.¹³⁴ Some of these embryos could be placed in the woman's uterus immediately, while others could be frozen for future attempts at pregnancy.¹³⁵

Nevertheless, not everyone holds Sauer's view. Some opponents of human cloning feel that these same benefits could be achieved through existing means that do not come with cloning's potentially negative repercussions.¹³⁶ David Magnus, Ph.D., Graduate Director of the Bioethics program at the University of Pennsylvania, reiterates that "in cases of infertility there are plenty of options."¹³⁷ Thus, though human cloning might prove beneficial in the area of infertility, it is not an exclusive solution. It is only one of many techniques that could be utilized to rectify the infertile couple's situation.

In addition to the potential benefits that cloning may lend to infertility treatment, many also feel that it could possibly yield tremendous advances in other areas of medicine as well. The ability to reprogram mature cells and start them up again has tantalizing implications for a host of medical problems, especially those involving muscles and nerves.¹³⁸ For instance, mature nerve cells, which typically do not regenerate when injured, might be convinced to regrow.¹³⁹ This could be a great breakthrough for individuals with spinal cord injuries.¹⁴⁰ Likewise, by studying the way cells revert and divide, we may be able to find cures for Alzheimer's and Parkinson's diseases.¹⁴¹ Studies of cell differentiation could also provide valuable information about the mechanism of aging or possibly even the causes of cancer.¹⁴²

Human cloning techniques might also, at some future date, be used to assist people who are severely burned, or to generate new cells to treat liver damage, leukemia, sickle-cell anemia, and heart disease.¹⁴³ In a

¹³⁴*Id.*

¹³⁵*Id.*

¹³⁶Harris, *supra* note 79, at 68.

¹³⁷*Id.*

¹³⁸Trafford, *supra* note 126, at Z06.

¹³⁹Weiss, *supra* note 47, at A3.

¹⁴⁰*Id.*

¹⁴¹James K. Glassman, *Who's Afraid of Human Cloning?*, WASH. POST, Feb. 10, 1998, at A03.

¹⁴²Kassirer & Rosenthal, *supra* note 74, at 905.

¹⁴³Glassman, *supra* note 141, at A03.

leukemia patient, for example, cloned cells could provide an infusion of fresh bone marrow, and for a burn victim, grafts of brand new skin.¹⁴⁴ Such uses are significant in that these materials would be produced by cloning cells from the patient's own body.¹⁴⁵ The patient would not reject the transplanted tissues, as they would be genetically identical to his or her own.¹⁴⁶ Along similar lines, human cloning might also enable scientists to create animals or human clones with human-compatible organs for transplantation.¹⁴⁷ With such a creation, there would hypothetically no longer be a shortage of donor organ supplies, as nuclear transfer cloning in humans would prove successful in producing organs that the patient, potentially, would not reject.¹⁴⁸

Finally, human cloning would enable a couple to select or replicate the genome of another living individual for reasons other than infertility, genetic disease, or tissue and organ production for transplantation.¹⁴⁹ Parents, for example, could attempt to replace or, in part, replicate a dead or dying child.¹⁵⁰ However, when parents want a new child to replace a dearly beloved child who has died young, the psychological pitfalls are clear.¹⁵¹ It would be impossible for the cloned child to live up to such glorified expectations and the parents are likely to be frustrated and disappointed that the "new" child is so different from the original.¹⁵²

Aside from replicating a deceased or dying child, some people might be motivated by other idealistic intentions. For example, one might be the last member of a family that perished in the Holocaust and would want to ensure that the family lineage remains in the world.¹⁵³ Human cloning techniques would facilitate keeping the bloodline alive. Regardless of their potential benefits, however, motivations such as these tend to be even more controversial than those benefits previously discussed, as they tend to be eugenic and do not relate to infertility or medical advancements.¹⁵⁴ In the end, one question ultimately remains: will the

¹⁴⁴J. Madeleine Nash, *The Case for Cloning*, SCI., Feb. 9, 1998, vol. 151 No. 5.

¹⁴⁵Kiernan, *supra* note 40, at A16.

¹⁴⁶*Id.*

¹⁴⁷Congressional Digest 2, *supra* note 11, at 34.

¹⁴⁸Robertson, *supra* note 39, at 1380.

¹⁴⁹*Id.* at 1381.

¹⁵⁰*Id.*

¹⁵¹Dena S. Davis, *What's Wrong With Cloning?*, 38 JURIMETRICS J. 86 (1997).

¹⁵²*Id.*

¹⁵³Robertson, *supra* note 39, at 1382.

¹⁵⁴*Id.*

benefits of human cloning outweigh the risk and cost of meddling with this new genetic phenomenon?

NATIONAL & STATE LEGISLATIVE RESPONSE TO HUMAN CLONING

National Response

For the first time in the era of new reproductive technologies, a research development has directed attention straight to the legislatures.¹⁵⁵ The announcement in February, 1997, that Scottish scientists had successfully cloned an adult sheep prompted immediate calls from the White House and Congress for legislation addressing the possibility of human cloning.¹⁵⁶ Within days of the published report of Dolly's birth, President Clinton instituted a ban on federal funding related to attempts to clone human beings using somatic cell nuclear transfer techniques.¹⁵⁷ In addition, President Clinton asked the National Bioethics Advisory Commission (NBAC) to address the ethical and legal issues surrounding the subject of cloning humans.¹⁵⁸ At the same time, he urged the private sector to adopt a voluntary moratorium on human cloning until the NBAC had completed its evaluation.¹⁵⁹

Far from settling issues of public policy, the NBAC report is best viewed as a first attempt at dealing with the complicated issues raised by human cloning and other genetic selection techniques.¹⁶⁰ Never before in American legal or political history has such an independent blue-ribbon panel, operating under federal government auspices, recommended penal law legislation declaring that the content of biological investigation was so outrageous that it could not be done at any place in this country, by any person, for any reason.¹⁶¹ The Commission concluded that it is morally unacceptable for anyone in the public or private sector, whether in a

¹⁵⁵Andrea L. Bonnicksen, *Creating a Clone in Ninety Days: In Search of a Cloning Policy*, 38 JURIMETRICS J. 23 (1997).

¹⁵⁶*Legislative Background: Recent Action on Human Cloning Legislation*, 77 CONG. DIG., Feb. 1998, at 45 [hereinafter Congressional Digest 3].

¹⁵⁷*Cloning Human Beings*, *supra* note 21, at 3.

¹⁵⁸*Id.*

¹⁵⁹Congressional Digest 3, *supra* note 156, at 45.

¹⁶⁰John A. Robertson, *Wrongful Life, Federalism, and Procreative Liberty: A Critique of the NBAC Cloning Report*, 38 JURIMETRICS J. 69 (1997).

¹⁶¹Carmen, *supra* note 56, at 750.

research or clinical setting, to attempt to create a child using somatic cell nuclear transfer cloning, because the technique is not safe for humans at this time and there are still many ethical concerns to be addressed.¹⁶²

Specifically, the Commission recommended the enactment of federal legislation to prohibit anyone from attempting to create a child through this process.¹⁶³ It noted, however, that such legislation should be temporary and should include a "sunset clause" requiring Congress to review the issue within a three-to-five-year period, at which time the technological situation should be reevaluated and the ethical and social issues involved reviewed.¹⁶⁴ The Commission also recommended that any state legislation should possess a similar clause.¹⁶⁵ The "sunset clause" proposed by the NBAC would ensure continuing and robust discussion on the topic of human cloning.¹⁶⁶ In contrast to the limiting recommendations it made, the Commission did not recommend any halt in cloning research at the cellular level, where scientists are exploring ways to manipulate genes to cure disease, repair damaged tissue, and provide other medical benefits.¹⁶⁷

Based on the NBAC's report, President Clinton sent legislation to Congress that would ban all human cloning for at least five years.¹⁶⁸ The "Cloning Prohibition Act of 1997" was carefully worded so as to not interfere with other kinds of cloning research.¹⁶⁹ This Act would specifically prohibit the creation of human beings using somatic cell nuclear transfer technology.¹⁷⁰ The President's bill was still without sponsors when Congress recessed last November,¹⁷¹ and therefore, was never introduced in the first session of the 105th Congress.¹⁷² However, several bills that would ban human cloning were introduced.

¹⁶²*Bioethics Commission Backs Federal Human Cloning Ban Pending More Study, Debate*, 1 No. 15 MEALEY'S LITIG. REP.: BIOTECHNOLOGY 9, June 13, 1997 [hereinafter *Litigation Reports* 1].

¹⁶³Charles Marwick, *Put Human Cloning on Hold, Say Bioethicists*, 278 JAMA 13 (1997).

¹⁶⁴*Id.*

¹⁶⁵*Litigation Reports* 1, *supra* note 162.

¹⁶⁶Davis, *supra* note 151, at 83.

¹⁶⁷*The Clone Age*, 83 A.B.A. J. 69 (1997).

¹⁶⁸Rick Weiss, *Clinton Presses Ban On Human Cloning*, WASH. POST, Jan. 11, 1998, at A6.

¹⁶⁹*Id.*

¹⁷⁰*Id.*

¹⁷¹*Id.*

¹⁷²Ilene Stith-Coleman (Specialist in Life Sciences, Science Policy research Division), *Cloning: Where Do We Go From Here?*, CRS REP. FOR CONGRESS, received through CRS Web (updated Apr. 23, 1998).

On February 27, 1997 and March 5, 1997, legislation was introduced in the Senate (S. 368), and in the House of Representatives (H.R. 922), respectively, which would prohibit the use of federal funds for human cloning research or human cloning in its entirety (H.R. 923).¹⁷³ Sponsored by Representative Vernon Ehlers (Michigan),¹⁷⁴ H.R. 922, the "Human Cloning Research Prohibition Act," would ban federal funding for human cloning research, including the use of somatic cell nuclear transfer technique to produce an embryo.¹⁷⁵ H.R. 922 was approved in July 1997 by the House Science Committee,¹⁷⁶ and reported to the House on August 1, 1997.¹⁷⁷ H.R. 923 was similarly referred to committee on September 16, 1997.¹⁷⁸ However, the Ehler's bills, H.R. 922 and H.R. 923, have fallen under staunch criticism as being so loosely worded that they inhibit the entire field of cloning research.¹⁷⁹ Similar in status to the Ehler's bills, S. 368, sponsored by Bond, was reported to the Senate Committee on Labor and Human Resources as of February 27, 1997.¹⁸⁰ The first session of Congress then came to a close.

Just as Dolly's birth and the NBAC report had prompted legislative response in 1997, American physicist Richard Seed's announcement that he is ready to start cloning humans has fostered a renewed push for federal legislation in 1998.¹⁸¹ Dr. Seed, a physicist with no expertise in cloning and no institutional affiliation, captured public attention.¹⁸² Fear that human cloning factories might soon appear before society had been given the chance to digest the implications of this new technology sent Congress into action.¹⁸³ Dr. Seed's announcement has rekindled debate not only of the feasibility of human cloning, but also of the ethical, moral, and legal consequences it presents.¹⁸⁴ The announcement was further proof that

¹⁷³*Id.*

¹⁷⁴Weiss, *supra* note 168, at A6.

¹⁷⁵Stith-Coleman, *supra* note 172.

¹⁷⁶Weiss, *supra* note 168, at A6.

¹⁷⁷Stith-Coleman, *supra* note 172.

¹⁷⁸H.R. 923, 105th Cong. (1997).

¹⁷⁹Weiss, *supra* note 168, at A6.

¹⁸⁰S. 368, 105th Cong. (1997).

¹⁸¹Lizette Alvarez, *Senate, 54-42, Rejects Republican Bill to Ban Human Cloning*, N.Y. TIMES, Feb. 12, 1998, at A20.

¹⁸²Kassirer & Rosenthal, *supra* note 74, at 905.

¹⁸³*Id.*

¹⁸⁴Deborah Josefson, *US Scientist Plans Human Cloning Clinic*, BRIT. MED. J. 167 (1998) (discussing Physicist Dr. Seed's proposal to clone human beings).

human nature, with its deeply embedded arrogance and greed, could not be readily entrusted with such an awesome power.¹⁸⁵

In response to Seed's announcement, a number of cloning prohibition bills have been introduced in the second session of Congress.¹⁸⁶ Introduced on January 27, 1998, § 1574 (Campbell), the "Human Cloning Prohibition Act," would prohibit the cloning of a human being or otherwise creating a human embryo.¹⁸⁷ In addition, H.R. 3133 (Stearns), the "Human Cloning Research Prohibition Act," introduced January 28, 1998, would prohibit federally funding somatic cell nuclear transfer research used to produce an oocyte that is undergoing cell division toward fetus development.¹⁸⁸

Furthermore, another piece of legislation introduced on February 3, 1998, § 1599 (Bond) and § 1601 (Lott), the "Human Cloning Prohibition Act of 1998," would prohibit the use and importation of an embryo produced through somatic cell nuclear transfer techniques.¹⁸⁹ Members of medical and scientific industries formed a powerful unified front against this Republican proposal, urging that in its legislation, Congress should avoid "language that impedes critical ongoing and potential new research."¹⁹⁰ Efforts to call up sec. 1601 were blocked on February 11, 1998 when the United States Senate failed to come up with the sixty votes needed to end a filibuster by Senator Edward Kennedy (D. Massachusetts) and Senator Dianne Feinstein (D. California).¹⁹¹ Alternatively, §§ 1602 and 1611 (Feinstein), the "Prohibition on Cloning of Human Beings Act of 1998," introduced on February 3, 1998 and February 4, 1998, respectively, would prohibit actual or attempted implantation of the product of somatic cell nuclear transfer into a woman's uterus.¹⁹² S. 1602 has been referred to the Committee on Labor and Human Resources.¹⁹³

¹⁸⁵Robertson, *supra* note 39, at 1385.

¹⁸⁶Stith-Coleman, *supra* note 172.

¹⁸⁷Stith-Coleman, *supra* note 172.

¹⁸⁸Stith-Coleman, *supra* note 172.

¹⁸⁹Stith-Coleman, *supra* note 172.

¹⁹⁰Alvarez, *supra* note 181, at A20; *see also*, Helen Dewar and Riek Weiss, *Senate Blocks GOP Drive to Quickly Ban Human Cloning*, WASH. POST, Feb. 12, 1998, at A12.

¹⁹¹*Bill Banning Cloning Dies in Senate, Second Bill Referred to Committee*, 2 NO. 3 MEALEY'S LITIG. REP.: BIOTECHNOLOGY 9, Feb. 1998 [hereinafter *Litigation Reports 2*].

¹⁹²Stith-Coleman, *supra* note 172.

¹⁹³*Litigation Reports 2*, *supra* note 191.

State Response

Along with the overwhelming response at the national level to news of Dolly's birth and Seed's proposal, there has also been tremendous amounts of activity in the state legislatures as well. In 1997 and 1998, senators and representatives from at least twenty-eight states have introduced, into their state legislatures, proposals dealing with human cloning. (See Table 1, attached as Appendix 1). These proposals have encountered varied responses. Since their introduction, many of these bills and resolutions have now "died" either in committee or due to legislative session adjournment. As a result, the now-dead legislation will either have to be rewritten or reintroduced in order to be considered in the future. However, there are a number of states that still have either pending or enacted legislation dealing with the issue of cloning human beings.

As of summer 1998, twelve states had pending legislation: Missouri,¹⁹⁴ Ohio,¹⁹⁵ Pennsylvania,¹⁹⁶ Illinois,¹⁹⁷ New York,¹⁹⁸ California,¹⁹⁹ Virginia,²⁰⁰ New Jersey,²⁰¹ North Carolina,²⁰² Oregon,²⁰³ Massachusetts,²⁰⁴ and Michigan.²⁰⁵ Many of these states have multiple bills and resolutions introduced which might soon address this monumental issue (see Appendix 1). New York, for example, currently has seven bills pending. In many states, however, several of the bills and resolutions have only a short amount of time left before the respective state's legislative session ends. If they have not been enacted by that time, they will die in committee.

Additionally, four states have taken the bold step of actually enacting human cloning legislation. Leading this charge was California. On September 12, 1997, California Senate Concurrent Resolution No. 39 was chaptered,²⁰⁶ and on October 4, 1997, California Senate Bill No. 1344 was

¹⁹⁴S. 722, 89th Gen. Assembly, 2d Sess. (Mo. 1998).

¹⁹⁵S. 218, 122nd Gen. Assembly, Regular Sess. (Ohio 1997).

¹⁹⁶S. 1285, 182nd Gen. Assembly, Regular Sess. (Pa. 1997).

¹⁹⁷H.R. 2235, 90th Gen. Assembly, Regular Sess. (Ill. 1997).

¹⁹⁸S. 6071, 221st Ann. Legis. Sess. (N.Y. 1997).

¹⁹⁹A.B. 1251, Regular Sess. (Cal. 1997).

²⁰⁰H.R. 752, Regular Sess. (Va. 1998).

²⁰¹A.B. 329, 208th Legis. Sess. (N.J. 1998).

²⁰²S. 782, 143rd Sess. (N.C. 1997).

²⁰³S. 1017, 69th Legis. Assembly (Or. 1997).

²⁰⁴S.D. 1768, 180th Gen. Ct. (Mass. 1997).

²⁰⁵H.R. 197, 89th Legis. Regular Sess. (Mich. 1998).

²⁰⁶S.C. Res. 39, Regular Sess. (Cal. 1997).

signed by the governor.²⁰⁷ Following California's example, Utah, Michigan, and Rhode Island passed human cloning laws or resolutions. On March 4, 1998, Utah adopted Senate Joint Resolution 16, which in part examines the prohibition of human cloning.²⁰⁸ Making a resolute statement, Michigan has enacted four bills, since June of 1998, that either prohibit funding for human cloning or attempts at human cloning altogether.²⁰⁹ On June 3, 1998, Michigan enacted H.B. 4962,²¹⁰ H.B. 5475,²¹¹ H.B. 4846,²¹² and S.B. 864.²¹³ Just recently, on July 7, 1998, Rhode Island's H.B. 7123 was chaptered.²¹⁴ Although it is pure speculation, perhaps such staunch backing of human cloning legislation by states such as these will have a profound effect upon other states as they enter their 1999 legislative sessions.

Whether working at the state or national level, it is imperative to remember that science often moves faster than the ability to understand its implications.²¹⁵ As a result, society has a responsibility to move with caution and care to harness the powerful forces of science and technology in order to reap the benefits while subsequently minimizing the potential danger.²¹⁶ Therefore, it is important to be prudent when drafting new legislation in such areas of technological advancement. Hasty legislation could easily be too restrictive.²¹⁷

According to National Institutes of Health director Harold Varmus, M.D., "unless a bill is written in a way that places a very tight fence around that which the public and Congress want to forbid, the possibility of closing off research that is related to or required for the development of an unwanted goal can also cut off research intended to advance towards a wanted goal."²¹⁸ To answer science with a knee-jerk political reaction

²⁰⁷ S. 1344, Regular Sess. (Cal. 1997).

²⁰⁸ S.J.Res. 16, 52nd Legis., Gen. Sess. (Utah 1998).

²⁰⁹ See *infra*, notes 210-213.

²¹⁰ H.R. 4962, 89th Legis., Regular Sess. (Mich. 1998).

²¹¹ H.R. 5475, 89th Legis., Regular Sess. (Mich. 1998).

²¹² H.R. 4846, 89th Legis., Regular Sess. (Mich. 1998).

²¹³ S. 864, 89th Legis., Regular Sess. (Mich. 1998).

²¹⁴ H.R. 7123, Gen. Assembly Jan. Sess. (R.I. 1998).

²¹⁵ *Cloning Technology, Scientific Developments and Current Guidelines*, 77 CONG. DIG., Feb. 1998, at 37 [hereinafter Congressional Digest 4].

²¹⁶ *Id.*

²¹⁷ Nash, *supra* note 144.

²¹⁸ Stephenson, *supra* note 28, at 1023.

shows poor judgment.²¹⁹ Since society as a whole is still scientifically illiterate when it comes to the prospect of cloning human beings, the onus is on researchers to explain the potential good that can be gained in the laboratory.²²⁰

With human cloning, it is important that the scientific and political communities avoid past mistakes like those made with DNA. When DNA gene-splicing was first introduced in the early 1970s, scientists urged the National Institutes of Health to impose guidelines governing DNA experiments.²²¹ Later, scientists realized they had been a little hasty since it was discovered that gene splicing regularly occurs spontaneously in nature.²²² Biophysicist Bill Zimmerman, an early advocate of DNA legislation, concluded "in looking back, it would be hard to insist that a law was necessary, or perhaps, that guidelines were necessary."²²³ Therefore, to avoid past mistakes, it may be better to watch and regulate, rather than to prohibit as technology evolves, so as to invite experimentation in the realm of human cloning.²²⁴

A "SNEAK PREVIEW": THE LEGAL SYSTEM'S POSSIBLE APPROACH TO HUMAN CLONING

From embryo cloning on one end to doctor-assisted suicide on the other, new developments in technology are forcing us to define the meaning and boundaries of human existence as never before.²²⁵ Human cloning promises to push these barriers even further. As technology advances, new issues created by science only remind us of the moral and religious questions already placed before the law by the death penalty, abortion, euthanasia, and numerous other matters that require us to define and place

²¹⁹Robert Winston, *The Promise of Cloning for Human Medicine: Not a Moral Threat But An Exciting Challenge*, BRIT. MED. J. 913 (1997).

²²⁰*Id.*

²²¹Fred. L. Smith., *Prometheus Bound: Cloning Bears Identical Reactions*, (visited November 14, 1998) <<http://www.cato.org/pubs/regulation/reg20n2j.html>>.

²²²*Id.*

²²³*Id.*

²²⁴Kevles, *supra* note 48, at A23.

²²⁵Ronald Dworkin, *Cloning: How do we Morally Navigate the Uncharted Future?*, L.A. TIMES, Mar. 5, 1997, at B9.

a value on life itself.²²⁶ The question is then: will the courts address human cloning in a similar manner to the way it dealt with these issues?

In examining the hypothetical creation of cloned children in the context of reproductive freedom, it might be argued that somatic cell nuclear transfer cloning is a constitutionally protected liberty interest.²²⁷ University of Texas law professor John A. Robertson has commented that, "in almost all instances, an individual or couple's choice to use technology to achieve reproductive goals should be respected as a central aspect of people's freedom to define themselves through reproduction."²²⁸ Essentially, it is a question of whether human cloning falls within the scope of procreative liberty, which is better known as the freedom to decide whether or not to have offspring.²²⁹

Through a long series of landmark cases, the United States Supreme Court has established a fundamental constitutional right to procreative freedom.²³⁰ Beginning with the recognition of a constitutional right to privacy, the Supreme Court subsequently extrapolated a fundamental right to procreate.²³¹ Included in this is not only the right to reproduce, but also the right to avoid reproduction. The desire to reproduce connects people with nature, gives them a sense of immortality, and enables them to rear and parent children.²³² Deprivation of this opportunity to reproduce is a major burden and should not occur without consent.²³³

It could be argued, perhaps, that denial of human cloning techniques might constitute a deprivation of this procreative liberty opportunity to reproduce. Likewise, because reproduction imposes enormous physical, social, psychological, and emotional burdens upon a woman, it is widely thought that a woman should not have to bear those burdens unless she voluntarily chooses to do so.²³⁴ In recent years, advancements in assisted reproduction and contraception have initiated controversies about the

²²⁶N. Lee Cooper, *The Relevance of Religion to a Lawyer's Work: An Interfaith Conference Remark*, 66 *FORDHAM L. REV.* 1083, 1088 (1998).

²²⁷Steinbock, *supra* note 87, at 45.

²²⁸Congressional Digest 1, *supra* note 2, at 58.

²²⁹Robertson, *supra* note 39, at 1389.

²³⁰Debra Feuerberg Duffy, *To Be Or Not To Be: the Legal Ramifications of the Cloning of Human Embryos*, 21 *RUTGERS COMPUTER & TECH. L.J.* 189, 194 (1995).

²³¹*Id.* at 195 (discussing the extrapolation of a fundamental right to procreate from the constitutional right to privacy).

²³²Robertson, *supra* note 39, at 1389.

²³³*Id.*

²³⁴*Id.*

scope of procreative freedom, and now, with the issue of human cloning, the scope will once again be tested.

Repeatedly, in the context of compulsory sterilization of convicted felons, contraception, and abortion, the United States Supreme Court has recognized the right to conceive and rear a child as a fundamental constitutional right, and then, through implication, has recognized a right to control one's reproductive choices.²³⁵ Over the years, the Supreme Court has used substantive due process review to protect judicially-defined 'fundamental values' not dependent upon specific constitutional guarantees in the areas of privacy, autonomy, and family relations.²³⁶ Although the scope and source of such rights are unclear, the Court has repeatedly given these interests extraordinary protection through the application of heightened scrutiny to laws interfering with the enjoyment of these rights.²³⁷

The Supreme Court's first decision involving reproduction *per se* came in *Skinner v. Oklahoma*,²³⁸ in which the court sustained an equal protection challenge to a state law requiring compulsory sterilization of certain criminals convicted of crimes of moral turpitude.²³⁹ The court emphasized that its reason for strictly scrutinizing the discrimination was that "marriage and procreation are fundamental to the very existence and survival of the race."²⁴⁰ The substantive due process rights to privacy and reproduction were stretched even further as issues of contraception, euthanasia, and abortion surfaced.

*Griswold v. Connecticut*²⁴¹ was the first modern-era case which used a substantive due process approach to protect a fundamental right. *Griswold* took the right of privacy and held it out as a "fundamental right."²⁴² As a result, the government was forced to show greater justification for its actions. The majority in *Griswold* struck down a

²³⁵Elizabeth Ann Pitrolo, *The Birds, the Bees, and the Deep Freeze: Is there International Consensus in the Debate Over Assisted Reproductive Technologies?*, 19 HOUS. J. INT'L L. 147 (1996).

²³⁶Katheryn D. Katz, *The Clonal Child: Procreative Liberty and Asexual Reproduction*, 8 ALB. L.J. SCI. & TECH. 1, 40 (1997).

²³⁷*Id.*

²³⁸*Skinner v. Oklahoma*, 316 U.S. 535 (1942).

²³⁹Katz, *supra* note 236, at 42; *see also Skinner*, 316 U.S. at 535.

²⁴⁰Katz, *supra* note 236, at 42

²⁴¹*Griswold v. Connecticut*, 381 U.S. 479 (1965) (holding that the right to privacy protects keeps married couple's use of contraception).

²⁴²*Id.*

statute which forbade contraceptive use and concluded that the right of married persons to use contraceptives fell within a "zone" of privacy guaranteed by the Bill of Rights.²⁴³ The majority opinion found that several of the Bill of Rights guarantees offer protection for privacy interests and create a "penumbra" of privacy. Collectively the Third, Fourth, Fifth and Ninth Amendments establish a zone in which privacy is protected from governmental intrusion.²⁴⁴

Following in *Eisenstadt v. Baird*,²⁴⁵ the Court expanded the meaning of *Griswold*. In *Eisenstadt*, the Court invalidated a statute which permitted contraceptives to be distributed only by registered physicians and pharmacists and only to married persons.²⁴⁶ In striking down the statute, the majority invoked the interests of Equal Protection, as well as substantive due process grounds, and held that such a practice discriminated against the unmarried.²⁴⁷ The Court concluded that "if the right of privacy means anything, it is the right of the individual, married or single, to be free from unwarranted government intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child."²⁴⁸

Although *Eisenstadt* broadened at least the contraceptive aspect of privacy to non-married couples, the Supreme Court has not yet recognized a general right of privacy in sexual and procreational matters to protect conduct forbidden by the states.²⁴⁹ This might become increasingly significant as states proceed in passing legislation forbidding human cloning. Ironically, though the Court has not yet recognized a general right of privacy in sexual or procreational matters, it has continued over the years to broaden its protections.

In addition to the privacy rights recognized by the Supreme Court in *Skinner*, *Griswold*, and *Eisenstadt*, the courts have also extended the scope of personal liberty and the right to privacy into the context of euthanasia and abortion. In the first physician-assisted suicide case to reach the

²⁴³WILLIAM B. LOCKHART ET AL., CONSTITUTIONAL LAW: CASES, COMMENTS, AND QUESTIONS 403 (8th ed. 1996).

²⁴⁴*Id.* at 166-67.

²⁴⁵*Eisenstadt v. Baird*, 405 U.S. 438 (1972).

²⁴⁶Lockhart, *supra* note 243, at 404.

²⁴⁷*Id.*

²⁴⁸Lockhart, *supra* note 243, at 404.

²⁴⁹Emanuel, *supra* note 243, at 169.

federal appellate level, *Washington v. Glucksberg*,²⁵⁰ the United States Court of Appeals for the Ninth District ruled that Washington's statutory ban on assisted suicide was unconstitutional as applied to mentally competent, terminally-ill patients who seek their physicians' aid in dying with dignity.²⁵¹

With the issue of euthanasia, some speculate that in certain situations patients have a personal liberty interest in death. Though actually ducking the issue of whether there was a non-fundamental liberty interest in assisted suicide, the *Glucksberg* court rationally feared that legalizing physician-assisted suicide would set it down a slippery slope towards voluntary, and perhaps involuntary, euthanasia.²⁵² As mankind enters into the realm of genetic engineering, a comparable fear might be warranted as society is faced with the voluntary, and perhaps involuntary, cloning of human beings. However, regardless of fear over physician-assisted suicide, the Court's protection of interests has continued to broaden as personal liberty was again visited under the auspices of the abortion decisions.

The privacy right found to exist earlier in *Griswold* was extended to the abortion context. In *Planned Parenthood of Southeastern Pennsylvania v. Casey*,²⁵³ the Court reaffirmed its authority to define unenumerated rights through reasoned judgment in interpreting the word "liberty" in the Due Process Clause of the Fourteenth Amendment.²⁵⁴ Past decisions dealing with bodily integrity and individual decisions about family and parenthood were relied upon as the *Casey* court retained *Roe v. Wade*'s²⁵⁵ essential holding.²⁵⁶ In *Casey*,²⁵⁷ Justice O'Connor made clear that the right to create or terminate a pregnancy is protected only against "undue burdens." The case seems to ensure that the right to decide whether to terminate a pregnancy will be an interest that receives special constitutional protection.²⁵⁸ Theoretically, the right to clone a human

²⁵⁰*Washington v. Glucksberg*, 117 S. Ct. 2258 (1997).

²⁵¹Emanuel, *supra* note 243.

²⁵²*Id.* at 210.

²⁵³*Planned Parenthood v. Casey*, 505 U.S. 833 (1992).

²⁵⁴Katz, *supra* note 236, at 47.

²⁵⁵*Roe v. Wade*, 410 U.S. 113 (1973).

²⁵⁶Katz, *supra* note 236, at 47.

²⁵⁷*Casey*, 505 U.S. 833 (1992).

²⁵⁸Emanuel, *supra* note 243, at 182.

being by any procedure may be substantially within this realm of personal liberty or privacy rights as an extension of *Casey*.²⁵⁹

In the past, society has greeted new attempts to exert human control over the reproductive process with alarm. Artificial insemination by donor, for example, was considered a form of adultery when first introduced in 1940.²⁶⁰ Then in 1978, the birth of Louise Brown, the world's first baby conceived through in vitro fertilization,²⁶¹ spurred further controversy. The Supreme Court has never addressed a question involving reproductive technology or assisted conception, and the few appellate court opinions to address such issues have not supported the notion that the Constitution compels a state to adopt a permissive stance.²⁶²

A recent case dipping into the yet uncharted legal waters of reproductive technologies was *Sheils v. University of Pennsylvania Medical Center*,²⁶³ which was decided in March 1998. In *Sheils*, the plaintiffs sought declaratory and injunctive relief from alleged infringements on their right to reproductive choice, specifically their right to participate in assisted reproductive technologies to help them have a child.²⁶⁴ The court concluded that the plaintiffs alleged harm was too speculative and remote to create subject matter jurisdiction over the claims.²⁶⁵ Therefore, since the plaintiffs failed to present a case sufficient to create jurisdiction, the issue of whether the federal ban on funding for embryo splitting and/or human cloning implicates any constitutionally protected rights never had the opportunity to be heard and discussed.²⁶⁵ Hence, the issue remains undecided by the courts for the time being.

An examination of the legal issues raised and existing court decisions offered by other reproductive technologies gives only partial guidance,²⁶⁷ and suggests that cloning is simply part of a logical progression.²⁶⁸ Given

²⁵⁹Carmen, *supra* note 56, at 752.

²⁶⁰David G. Savage, 3- to -5-Year Ban on any Human Cloning is Urged, L.A. TIMES, June 8, 1997, at A1.

²⁶¹Annas, *supra* note 95, at 80.

²⁶²Katz, *supra* note 236, at 47.

²⁶³*Sheils v. Univ. of Penn. Med. Ctr.*, No. Civ A. 97-5510, 1998 WL 134220 (E.D. Pa.) (Mar. 24, 1998).

²⁶⁴*Id.*

²⁶⁵*Id.*

²⁶⁵*Id.*

²⁶⁷Steinbock, *supra* note 87, at 45.

²⁶⁸Katz, *supra* note 236, at 51.

the recent proclivity of the Supreme Court to leave such matters to the states, it is foreseeable that future human cloning legislation will be left to the state legislatures, and thus, by default, to the state courts.²⁶⁹ Therefore, it is virtually inconceivable that any court in the near future will deem human cloning to be a fundamental constitutional right.²⁷⁰

Since human cloning is absent from both specific Constitutional reference, as well as the vision of our forebears, it is unlikely that most Americans would support it as a basic right essential to ordered liberty.²⁷¹ The Court is most vulnerable and it comes nearest to illegitimacy when it deals with judge-made constitutional law which has little or no cognizable roots in the language or design of the Constitution.²⁷² Consequently, there will likely be great resistance to efforts expanding the reach of the Due Process Clauses of the Fifth and Fourteenth Amendments to incorporate human cloning, particularly if it requires redefining the category of fundamental rights.²⁷³

Like so many other controversial areas of legal concern, the status of human cloning within the courts has yet to be determined. Until this happens, society must make do with the fragmented and uncertain state of the law.²⁷⁴ In the wake of technological advances, legal controversy and dilemmas will continue to pervade the courts in search of justice.

CONCLUSION

Although a compelling argument can be made that human cloning is unethical in both theory and practice, the speculation of potential medical benefits is too great to be ignored. Though at one extreme, the cloning of human beings conjures up images of organ raped corpses and deformed babies, at the other lies the promise of assisted reproduction and treatment for disease. While cloning may simply look like a particularly impressive piece of laboratory wizardry, it actually redefines the parameters of human life. Such breakthroughs do not happen every day.²⁷⁵

²⁶⁹Ronald Chester, *To Be, Be, Be, Not Just to Be: Legal & Social Implications of Cloning for Human Reproduction*, 49 FLA. L. REV. 324 (1997).

²⁷⁰Steinbock, *supra* note 87, at 46.

²⁷¹*Id.* at 46.

²⁷²Emanuel, *supra* note 243, at 200.

²⁷³Emanuel, *supra* note 243, at 200.

²⁷⁴Katz, *supra* note 236, at 53.

²⁷⁵Kontorovich, *supra* note 70, at 30.

How the issue of human cloning will ultimately be addressed within the legislatures and the courts remains to be seen. The most prudent course of action seems to be to watch and to regulate, rather than to prohibit. Currently, it is impossible to evaluate, or even to imagine, the many scenarios in which human cloning might prove either justifiable or unacceptable.²⁷⁶ Therefore, as we proceed forward toward the prospect of cloning human beings, it is best to move with caution.

In the end, the issue boils down to a choice between pessimism and optimism, a struggle between hope and fear.²⁷⁷ The reality of human cloning is fraught with pessimism. While many would revel in the medical breakthroughs human cloning has the potential to provide, this revelry is overshadowed by a stronger fear. It is a fear that the harms of human cloning can neither be avoided nor controlled. In a world such as ours, where people yearn for power, wealth, and immortality, human cloning is a frightening proposition. In the wrong hands, its manipulation might prove disastrous. Therefore, now is the critical moment, when society as a whole must take a stand. Now is the time to ensure that knowledge does not leap ahead of wisdom.

²⁷⁶Nancy L. Segal, *Behavioral Aspects of Intergenerational Human Cloning: What Twins Tell Us*, 38 JURIMETRICS J. 67 (1997).

²⁷⁷Ben Bova, *Cloning is Playing God? Been There, Done That*, USA TODAY, July 14, 1998, at 13A.

APPENDIX 1

TABLE 1

| <u>State</u> | <u>Bill/ Resolution</u> | <u>Status</u> | <u>Last Known Activity</u> |
|--------------|-----------------------------|---------------|---|
| Alabama | S.J.R. 6 | dead | died in Rules Committee |
| | S.B. 8 | dead | died in Senate Health Committee |
| | S.B. 68 | dead | died in Senate Health Committee |
| | S.J.R. 58 | dead | died in Senate Committee on Health and Human Resources |
| | S.B.511 H.B.1082 | dead dead | died in Senate Committee on Rules died in House Committee on the Judiciary |
| California | S.C.R. 39 | enacted | chaptered - 9/12/97 |
| | S.B. 1344 | enacted | signed by governor- 10/4/97 |
| | S.J.R. 14 | | pending failed passage in Senate Committee on Health & Human Services-reconsideration granted - 4/02/97 |
| | A.B. 1251 | pending | Re-referred to Committee on Appropriations 7/15/97 |
| Connecticut | H.B. 5475 | dead | died in Judiciary Committee - 3/23/98 |
| Delaware | S.B. 241 | dead | died in Senate Committee on Executive - 1/22/98 |
| Georgia | H.B. 1508 | dead | session adjourned-no carryover - 3/19/98 |
| Illinois | H.B. 1829 | pending | re-referred to House Committee on Rules -3/21/97 |
| | H.B. 2235 | pending | re-referred to House Committee on Rules-4/25/97 |
| | S.B. 1243 | pending | re-referred to Senate Committee on Rules3/13/98 |
| | S.B. 1230 | dead | tabled by sponsor 3/25/98 |
| Indiana | S.B. 411 | dead | session adjourned-no carryover - 3/13/98 |
| | H.B. 1408 | dead | Committee on Rules and Legislative Procedure, not given second reading |
| Kansas | H.B. 2846 | dead | died in House Committee on Judiciary-5/26/98 |
| Maryland | H.B. 932 | dead | received unfavorable report by House Committee on Environmental Matters - 3/23/98 |
| | H.J.R. 11 | dead | died in committee 3/23/98 |

TABLE 1 CONTINUED

| <u>State</u> | <u>Bill/ Resolution</u> | <u>Status</u> | <u>Last Known Activity</u> |
|----------------|-----------------------------|---------------|--|
| Massachusetts | S.D. 176 | pending | became a study order #S.1827 in 06/97, in Senate Rules |
| Michigan | H.R.197 | pending | passed the House - 1/28/98 |
| | H.C.R. 80 | pending | to Senate Committee on Health Policy and Senior Citizens - 1/29/98 |
| | S.B. 864 | enacted | signed by governor - 6/03/98 |
| | H.B. 5475 | enacted | 6/03/98 |
| | H.B. 4962 | enacted | signed by governor 6/03/98 |
| Minnesota | H.B. 4846 | enacted | 6/03/98 |
| | S.B. 2423 | dead | session adjourned-no carryover - 4/09/98 |
| | H.B. 2730 | dead | session adjourned-no carryover - 4/09/98 |
| Mississippi | H.B. 996 | dead | died in House Committee |
| Missouri | S.B. 722 | pending | to governor - 5/28/98 |
| | H.B. 824 | dead | died in committee |
| New Hampshire | H.B. 1658 | dead | died in Senate - 5/21/98 |
| New Jersey | A.B. 329 | pending | introduced in Assembly Health Committee 1/13/98 |
| New York | A.B. 5383 | pending | amended 6/23/97 |
| | A.B. 9183 | pending | to Assembly Committee on Health - 2/03/98 |
| | A.B. 9116 | pending | to Assembly Committee on Health - 1/27/98 |
| | S.B. 5993 | pending | from Senate Committee on Health - 1/20/98 |
| | S.B. 5503 | pending | referred to Rules Committee - 6/16/97 |
| | S.B. 6071 | pending | amended - 2/17/98 |
| | S.B. 2877 | pending | referred to Senate Health Committee - 1/20/98 |
| North Carolina | S.B. 782 | pending | in Senate Judiciary Committee - 4/97 |
| Ohio | H.B. 675 p | pending | to House Committee on Health, Retirement, and Aging - 1/21/98 |
| | S.B. 218 | pending | recommitted to Senate Judiciary Committee 3/24/98 |
| Oregon | S.B. 1017 | pending | 7/05/97 in committee |
| Pennsylvania | S.B. 1285 | pending | still in original Committee on Public Health and Welfare - 2/06/98 |
| | H.B. 2128 | pending | referred to Committee on Judiciary - 1/22/98 |

TABLE 1 CONTINUED

| <u>State</u> | <u>Bill/ Resolution</u> | <u>Status</u> | <u>Last Known Activity</u> |
|----------------|-----------------------------|---------------|---|
| Rhode Island | H.B. 7123 | enacted | chaptered - 07/07/98 |
| South Carolina | H.B. 3617 | dead | session adjourned |
| Tennessee | S.B. 2208 | dead | 5/98 |
| | H.B. 2198 | dead | 5/98 |
| | H.B. 2281 | dead | 5/98 |
| | S.B. 2295 | dead | 5/98 |
| Utah | S.J.R. 16 | enacted | adopted 3/04/98 |
| Virginia | H.B. 752 | pending | Continued to 1999 in House Committee on Health, Welfare, and Institutions(20-Y 1-N) |
| West Virginia | S.B. 410 | dead | introduced 3/21/97, referred to Committee on the Judiciary |
| Wisconsin | A.B. 769 | dead | failed to pass pursuant to Senate Joint Resolution 1 4/02/98, died in committee when legislature adjourned in March |