

THE BED OF LIFE:* A DISCUSSION OF ORGAN DONATION, ITS LEGAL AND SCIENTIFIC HISTORY, AND A RECOMMENDED “OPT-OUT” SOLUTION TO ORGAN SCARCITY

Kelly Ann Keller**

Never forget this, in the midst of your diagrams and equations: concern for man himself and his fate must always form the chief interest of all technical endeavors.

— Albert Einstein¹

I. INTRODUCTION

The field of organ donation and transplantation has evolved since Albert Einstein’s initial proclamation.² The first successful, solid-organ transplant took place in 1954, only months before Einstein’s death.³ Organ donation and transplantation, as a technical endeavor, can improve drastically the fate of mankind by preventing the needless suffering and death that result from or-

* Our World, *To Remember Me* <<http://ourworld.compuserve.com/homepages/robtest1documents/obituaries/RobNoelTest/R>> (updated Nov. 11, 1998) (quoting Robert Noel Test, *To Remember Me*); *infra* n. 291 (providing the text of Test’s poem).

** © 2003, Kelly Ann Keller. All rights reserved. Senior Associate, *Stetson Law Review*. B.A., Florida Southern College, 2000, *magna cum laude*; J.D. candidate, 2003, Stetson University College of Law.

This Comment is dedicated to my mother, Virginia Keller; my father, Gerald Keller; my brothers, Scott, Chris, and Grant Keller; my sisters, Jennifer and Kristina; and my cousin, Jessica Kolod. I would also like to thank Notes & Comments Editors Lisa Rhein and Rebecca Sinclair for their help in editing this Comment.

1. Fritz H. Bach, Adrian J. Ivinson & Christopher Weeramantry, *Ethical and Legal Issues in Technology: Xenotransplantation*, 27 Am. J.L. & Med. 283, 283 (2001).

2. *Id.*

3. Dorothy Nelkin & Lori Andrews, *Do the Dead Have Interests? Policy Issues for Research After Life*, 24 Am. J.L. & Med. 261, 266 (1998) (explaining that Einstein “died of a ruptured abdominal aortic aneurysm,” in April 1955). Contrary to the world-famous scientist’s known intent to be cremated, Dr. Thomas Stoltz Harvey of Princeton Hospital secretly removed Einstein’s brain for scientific experimentation. *Id.* at 266–267 (explaining that the doctor clandestinely hoarded Einstein’s brain in a glass jar for “over forty years”). For a discussion of the first successful organ transplant, consult *infra* note 66 and accompanying text.

gan failure.⁴ However, the rapidly evolving field of organ donation and transplantation is capable of effecting pain and injustice as well.⁵ The current organ-donation system fails in its inability to procure enough organs because it operates under the assumption that individuals are not organ donors.⁶ This is best illustrated by the following hypothetical.

Joe Carson is a twenty-five-year-old Florida auto mechanic. On a hot July day, he collapses in his shop. Mary, a fellow worker, discovers Joe's body on the floor and promptly calls 911. Within minutes, Joe, now unconscious and not breathing on his own, is wheeled into the emergency room of a large Florida hospital. Joe's heart completely stops beating. After doctors administer cardiopulmonary resuscitation and use a defibrillator, Joe dies.

The surgeons hypothesize that Joe likely suffered from a brain aneurysm. They are unsure, so an autopsy is ordered. Looking over Joe's corpse, the doctors agree that Joe seems a perfect candidate for organ donation. He died a quick death but, from the appearance of his body, seems to have lived a healthy life. The doctors agree that all possible efforts should be made to obtain consent for organ harvesting.

Knowing only Joe's name and place of employment (from his uniform), the hospital's staff members attempt to locate Joe's family by making a few calls to Joe's workplace and home, but there is no success. The doctors' hopes of determining whether Joe planned to donate his organs fade as the hospital continues its search for a license or other document that may contain information about Joe's wishes concerning organ donation. The doctors know that Joe's organs, for purposes of transplantation, will not remain alive for very long. Within minutes of Joe's death, the emergency room is flooded with the clamor of newly arriving patients, and Joe's corpse, initially full of promise for those who wait for organ transplants, is transferred to the morgue.

4. Bach, Ivinson & Weeramantry, *supra* n. 1, at 283.

5. *Id.*

6. Gloria J. Banks, *Legal and Ethical Safeguards: Protection of Society's Most Vulnerable Participants in a Commercialized Organ Transplantation System*, 21 Am. J.L. & Med. 45, 64-65 (1995). Normally, the law does not assume that an individual is an organ donor. *Id.* To become an organ donor, one must demonstrate his or her intent. *E.g.* Fla. Stat. § 765.514 (2002) (explaining that one's intent to become an organ donor can be memorialized in donor card, will, or other written document).

When Joe arrives at the morgue, a representative from the eye bank is waiting with the necessary tools for cornea removal. Because the hospital does not know whether Joe would have wanted his organs to be donated, his other organs, including his liver, kidneys, pancreas, and heart, are not harvested. In spite of this lack of knowledge, his corneas are removed.

What legal and scientific authority has shaped this Florida hospital's decision to harvest for transplantation some of Joe's organs (his corneas) and leave other vital and nonvital organs to decay in the corpse? This Comment answers the question by discussing the legal and scientific authority that has forged Florida's current "opt-in" organ-procurement system.⁷ Additionally, it analyzes why this system is ineffective in solving the organ scarcity problem⁸ and proposes that Florida adopt an "opt-out" presumed-consent system of organ procurement.⁹ An "opt-out" system would provide an adequate supply of organs for transplants while honoring an individual's known intent concerning the destination of his or her organs.¹⁰

The organ-procurement issue is only one of many issues in this ever-evolving field.¹¹ The mere possibility of organ donation

7. Fla. Stat. § 765.512 (providing that an anatomical gift can be made by will or other written instrument); *Infra* nn. 30–31 and accompanying text (discussing Florida's current "opt-in" system).

8. *Infra* nn. 84–91 and accompanying text (discussing the organ-scarcity problem).

9. *Infra* nn. 32–46, 252–260, and accompanying text (discussing the recommended "opt-out" organ-procurement system).

10. Kenneth V. Iserson, *Death to Dust: What Happens to Dead Bodies?* 61–132 (2d ed., Galen Press, Ltd. 2001).

11. Tom Koch, *Scarce Goods: Justice, Fairness, and Organ Transplantation* 50 (Praeger Publ. 2002). Another prominent issue in the field of organ donation and transplantation concerns the equitable distribution or allocation of organs to recipients. *Id.* Some commentators argue that rich and famous individuals receive more favorable treatment in the organ-distribution process than average members of society. *Id.* at 45. Koch describes the public's perception of unfairness surrounding baseball legend Mickey Mantle and actor Larry Hagman's receiving organ transplants without having to wait a long time. *Id.* In 1995, the Gallup Organization recorded the public's response to the following question: "When celebrities need an organ donation, do you think they get special treatment, or do they get the same treatment as anyone else, or are you unsure about that?" Gallup Org., U.S. News & World Rpt. & CNN Poll, *Pub. Op. Online*, Feb. 11, 1998 (available at LEXIS, Pub. Op. Location Lib. or Pub. Op. Online, Accession No. 0291625) (searching for the terms "organ w/3 donat! or transplant!"). Sixty percent of the 817 individuals who responded to the question reported that they believed celebrities got "special treatment" in the organ-distribution process. *Id.* Another distribution issue concerns certain classes of individuals who are excluded from the organ-donation waiting list, such as alcoholics, drug addicts, criminals, and people who have received and rejected donated organs in the past. *The Ethics of Organ Transplants: The Current Debate* 247–294 (Arthur L. Caplan & Daniel H.

and transplantation has forced our society to reconsider the boundaries between life and death, science and religion, and right and wrong.¹² Furthermore, as technology continues to advance, the distinctions between the above dichotomies become increasingly difficult to ascertain.¹³ When the practice of organ donation and transplantation was in its nascent stage, the question was, “Can we do it?”¹⁴ The progression of modern science has replaced our initial doubts with confidence;¹⁵ however, a new question has emerged: “When should we do it?” To forge appropriate ethical boundaries in the organ donation and transplantation field, we must draw from both the darkest recesses of our primal humanity and the highest pinnacles of our rational being.¹⁶

Organ scarcity is the greatest challenge that the medical community faces in the organ donation and transplantation field.¹⁷ Due to the extreme paucity of transplantable organs, some doctors and scientists argue that the medical community should look to other species — such as other primates, the cow, and the pig — to find sources for organs.¹⁸ The use of animal organs, however, poses many dangers to society, such as the possibility of animal diseases mutating and infecting human recipients of animal organs.¹⁹ Additionally, some in the medical community argue that anencephalic babies²⁰ should be considered dead at birth so

Coelho eds., Prometheus Books 1998).

12. Bach, Ivinson & Weeramantry, *supra* n. 1, at 283–284.

13. *Id.* at 284. Before the advent of mass organ donation and transplantation, issues related to compulsory-medical treatment fell under the ambit of informed-consent law. *Union P. Ry. Co. v. Botsford*, 141 U.S. 250, 251 (1891) (Determining that no person is required to undergo medical treatment, the Supreme Court proclaimed, “No right is held more sacred, or is more carefully guarded, by the common law, than the right of every individual to the possession and control of his own person, free from all restraint or interference of others, unless by clear and unquestionable authority of law.”).

14. Koch, *supra* n. 11, at 50–51.

15. *Id.* at 52–53.

16. Bach, Ivinson & Weeramantry, *supra* n. 1, at 283–284.

17. Banks, *supra* n. 6, at 82–89. For a detailed description of the current organ-scarcity crisis in America, consult *infra* notes 84–91 and accompanying text.

18. Bach, Ivinson & Weeramantry, *supra* n. 1, at 284 (proposing that organs from genetically altered animals can be transplanted into humans); *infra* nn. 121–131 and accompanying text (discussing animal donors).

19. Bach, Ivinson & Weeramantry, *supra* n. 1, at 285 (stating that “[o]ne [of the] potential risks of xenotransplantation is that a pig virus might infect the human recipient, mutate and spread first to the close contacts of the patient and then to the general population”).

20. Anencephaly is a fatal birth defect. *The Merck Manual of Diagnosis and Therapy* 2222 (Mark H. Beers & Robert Berkow eds., 17th ed., Merck Research Labs 1999). Anen-

that these infants' organs may be harvested legally immediately.²¹ This theory may seem unethical because these babies, though seriously infirm, appear outwardly normal and possess the ability to cry, suckle, and respond to stimuli.²² Some commentators have proposed that organ donors be compensated financially for their "donations."²³ This is problematic because such an organ market would exploit the poor and remove the notions of altruism that have encouraged individuals to become organ donors in the past.²⁴

cephalic babies essentially are born without a functioning brain. *Id.* Anencephaly is defined as follows:

[The] absence of the cerebral hemispheres. . . . The absent brain is sometimes replaced by malformed cystic neural tissue, which may be exposed or covered with skin. Varying portions of the brain stem and spinal cord may be missing or malformed. No diagnostic or therapeutic efforts are helpful, and these newborns either are stillborn or die within days or weeks.

Id.

21. *In re T.A.C.P.*, 609 So. 2d 588, 589 (Fla. 1992). The parents of an anencephalic infant sought an order declaring their infant dead upon birth to legally harvest the infant's organs, but the Court denied the order. *Id.* at 595.

22. D. Alan Shewmon et al., *The Use of Anencephalic Infants as Organ Sources: A Critique*, in *The Ethics of Organ Transplants: The Current Debate*, *supra* n. 11, at 92–115 (detailing the ethical issues surrounding anencephalic organ donors).

23. Banks, *supra* n. 6, at 76–80 (describing several methods for initiating an organ market, including the "spot market," which would permit "the relatives of a decedent . . . to sell the organs of the decedent," and a "living provider organ market," which would allow living persons to sell their own nonvital organs for monetary compensation).

24. *Id.* at 80 (explaining that "[a] living provider organ market system may result in a disproportionate number of poor people selling their nonviable organs, such as kidneys, to benefit a disproportionate number of rich organ purchasers"). Others propose that organs be harvested from death-row inmates so that these condemned individuals may give back to society the lives that they have taken. *Id.* at 60 n. 122. Dr. Jack Kevorkian argues that death-row inmates should be executed by general anesthesia so that their organs may be harvested.

[A] single healthy condemned inmate could be the salvation of at least six doomed adults by offering two biologically robust kidneys, two "clean" lungs, a heart, and a liver; and in addition, save two more by donating a fresh pancreas and small intestines. That adds up to a total of eight lives, but the precious transfer of life and death need not end there. If the condemned's liver were surgically divided, then two dying infants could also be saved, raising to nine the number of lives salvaged by one inmate. And a bone marrow transplant could save a tenth patient.

Id. (quoting Jack Kevorkian, *Prescription: Medicide, the Goodness of Planned Death* 43 (Prometheus Books 1991)). China has implemented an infamous regime for procuring organs from executed prisoners. Iserson, *supra* n. 10, at 74.

In a "sting" operation, the FBI found two Chinese government officials who offered to sell organs from executed criminals . . . with prices ranging from \$17,200 for a kidney or a non-smoker's lungs to \$21,500 for a liver. . . . The FBI claimed that some criminals were executed by having their vital organs removed and some were being maintained on life support to preserve the organs.

Id. Sean R. Fitzgibbons describes China's current method of "killing for organs" as the "most inhumane method of organ procurement in the world." Sean R. Fitzgibbons, *Ca-*

These proposals for dealing with organ scarcity present hazards, both physical and ethical.²⁵ Taking organs from animals and ill-fated babies, or creating a financial market for organs, certainly would abate the problem of organ scarcity by increasing the number of transplantable organs; however, these solutions would only create more problems.²⁶ Therefore, the better solution to the issue of organ scarcity is implementing a donor presumed-consent system.²⁷ The technology necessary to apply this new system, which would presume, absent contrary indications, that every individual is an organ donor, is currently available.²⁸ The law, on the other hand, lags behind.²⁹

Currently, in Florida, if an individual wants to become an organ donor, he or she must affirmatively “opt-in” by demonstrating his or her intent (i.e. by stating so in a will or by signing a donor card).³⁰ Prospective organ donors also may elect to become organ donors upon becoming licensed drivers by filling out organ-donor registration forms at the Department of Motor Vehicles.³¹ These methods of procuring organ donors are based on the presumption that Americans are unwilling to become organ donors. Because Americans generally support organ donation,³² a more reasonable

daveric Organ Donation and Consent: A Comparative Analysis of the United States, Japan, Singapore, and China, 6 ILSA J. Intl. & Comp. L. 73, 100 (1999) (analyzing, in-depth, China’s villainous organ-procurement practices).

25. Banks, *supra* n. 6, at 45.

26. *Id.* at 80.

27. Robert P. Baker & Victoria Hargreaves, *Organ Donation and Transplantation: A Brief History of Technological and Ethical Developments*, in *The Ethics of Organ Transplantation* 1, 24 (Wayne Shelton & John Balint eds., Advances in Bioethics Ser. No. 7, Elsevier Sci. Ltd. 2001); Banks, *supra* n. 6, at 46.

28. *Infra* nn. 198–207 and accompanying text (discussing America’s United Network for Organ Sharing).

29. Baker & Hargreaves, *supra* n. 27, at 24 (discussing how, in 1981, “[r]eligious objections quashed” presumed-consent legislation in Virginia). Arthur Caplan, a Fellow at the Hastings Center in 1981, was a leading proponent of this legislation. *Id.* He is currently the Director of the Center for Bioethics at the University of Pennsylvania. *Id.*

30. Fla. Stat. § 765.514 (providing that an anatomical gift can be made by will or other written instrument).

31. Fla. Stat. § 765.521 (2002); *see generally* Fla. Admin. Code Ann. r. 15A-1.0291 (1996).

32. Marla K. Clark, Student Author, *Solving the Kidney Shortage Crisis through the Use of Non-Heart-Beating Cadaveric Donors: Legal Endorsement of Perfusion as a Standard Procedure*, 70 Ind. L.J. 929, 930 (1995) (emphasizing that the public “overwhelmingly” supports organ donation). A 1999 public-opinion poll conducted by the Gallup Organization shows that eighty-one percent of Americans generally support organ donation for the purpose of transplantation. Gallup Org., U.S. News & World Rpt. & CNN Poll, *Pub. Op. Online*, May 28, 1999 (available at LEXIS, Pub. Op. Location Lib. or Pub. Op.

manner of procuring organs is the “opt-out” presumed-consent system proposed by this Comment.

Under this proposed system, the choice *not* to donate one’s organs, as opposed to the choice to be an organ donor, would need to be affirmatively demonstrated by a will, a nondonor card, or a designation on one’s driver’s license of “non-organ donor.” This system would promote organ donation by reinforcing the existing desire of most people to share their organs after death.³³ Additionally, it would allow individuals unwilling to become organ donors to “opt-out” of the organ-sharing system. Indeed, if America were to replace the current “opt-in” regime with a reasonable “opt-out” presumed-consent system of organ donation, then doctors and scientists would not need to look to anencephalic babies or other defenseless members of society for transplantable organs, nor would doctors and scientists need to pursue dangerous animal-to-human transplants.

Recent developments in both state and uniform laws have shown a modest approval of presumed consent to organ donation. For instance, Florida’s Anatomical Gift Statute allows medical examiners to remove a decedent’s corneas absent a contrary indication on the part of the donor or the donor’s family.³⁴ On a larger scale, the 1987 version of the Uniform Anatomical Gift Act (UAGA) includes a presumed-consent-based provision applicable to the donation of all organs for transplantation or scientific pur-

Online, Accession No. 0328110) (searching for the terms “organ w/3 donat! or transplant!”) (surveying 1,013 people). Eight percent of the individuals polled opposed organ donation, and eleven percent were undecided. *Id.* Further, a 1995 opinion poll conducted by the Gallup Organization asked the 817 participants the following:

As you may know, hearts and other organs from people who have recently died can be transplanted into other people who need those organs in order to live. Would you be willing or unwilling to donate any of your organs to someone who needs it once you have died?

Gallup Org., U.S. News & World Rpt. & CNN Poll, *Pub. Op. Online*, Feb. 11, 1998 (available at LEXIS, Pub. Op. Location Lib. or Pub. Op. Online, Accession No. 0291635). Seventy-nine percent of the individuals polled responded that they would be willing to donate their organs, fourteen percent were unwilling, and seven percent were undecided. *Id.*

33. *Supra* n. 32 and accompanying text (discussing public support of organ donation).

34. Fla. Stat. § 765.5185 (2002). Florida’s Corneal Removal by Medical Examiners Statute provides that the medical examiner may remove a decedent’s corneas without consent under certain conditions. *Id.* Many other states have similar statutes allowing for the removal of a decedent’s corneas or pituitary gland for transplantation and research without the consent of the donor or the donor’s family. Nelkin & Andrews, *supra* n. 3, at 288 n. 282 (finding that more than seventeen state statutes currently permit some form of presumed consent to donate either pituitary glands or corneas or both).

poses.³⁵ Twenty-two states and the Virgin Islands have adopted, in some version, the 1987 UAGA.³⁶ Florida has not adopted this version of the UAGA, but it is regarded as one of the most “organ-rich” states in the nation.³⁷

This Comment proposes that Florida adopt the 1987 UAGA. Part II of this Comment briefly describes the history of organ donation and transplantation.³⁸ Part III addresses the current organ-scarcity crisis in America that has resulted because the demand for organs drastically outweighs the available supply of transplantable organs.³⁹ Part IV describes the three types of organ donors available — living donors, animal donors, and cadaver donors.⁴⁰ Additionally, it examines the point in time at which the organ donor’s life is extinguished.⁴¹ Then Part IV describes the two types of cadaver organ donors, non-heart-beating cadaver donors, and brain-dead organ donors.⁴² Part V discusses how organs and tissue are harvested from an organ donor.⁴³ Part VI addresses the current legal boundaries of organ donation.⁴⁴ Part VII proposes that Florida expand its current presumed-consent doctrine, which allows a decedent’s corneas to be removed without consent, to allow for the removal of any or all of a decedent’s organs absent a known intent to the contrary.⁴⁵

In conclusion, this Comment urges the Florida Legislature to enact a law allowing surgeons to harvest organs freely from the

35. Unif. Anatomical Gift Act of 1987 § 4, 8A U.L.A. 43–44 (West 1993) (providing for presumed consent to donate all organs absent contrary indication from decedent or decedent’s family). The National Conference of Commissioners on Uniform State Laws drafted and approved the UAGA. *Id.* hist. nn., 8A U.L.A. 19.

36. *Id.* Tbl. of Jxns. Wherein Act Has Been Adopted, 8A U.L.A. 3 (West Supp. 2002) (indicating that the following states and territories have adopted the 1987 version of the Act: Arizona, Arkansas, California, Connecticut, Hawaii, Idaho, Indiana, Iowa, Minnesota, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Oregon, Rhode Island, Utah, Vermont, Virginia, the Virgin Islands, Washington, West Virginia, and Wisconsin).

37. P. Douglas Filaroski, *Wait for Transplants Shorter in Florida, Nation’s Neediest Patients Must Compete with People in States Where High Donor Rates Mean Faster Transplants*, Fla. Times-Union (Jacksonville, Fla.) A1 (July 21, 2002) (explaining that “Florida ranks second behind Pennsylvania in donors per capita”). This is due to many factors, such as aggressive hospitals and extensive programs. *Id.*

38. *Infra* nn. 47–83 and accompanying text.

39. *Infra* nn. 84–91 and accompanying text.

40. *Infra* nn. 92–136 and accompanying text.

41. *Infra* nn. 137–146 and accompanying text.

42. *Infra* nn. 147–156 and accompanying text.

43. *Infra* nn. 157–182 and accompanying text.

44. *Infra* nn. 183–251 and accompanying text.

45. *Infra* nn. 252–288 and accompanying text.

deceased based on presumed consent. This will remedy the situation portrayed in the hypothetical, in which Joe's corneas were harvested based on presumed consent, but his other life-giving organs were left to decay in the corpse. With the adoption of a law allowing presumed consent to donate all organs, absent a known objection to the procedure by the donor or donor's family, Florida could become a leader in the race to procure healthy organs for individuals suffering from organ failure.⁴⁶

II. THE HISTORY OF ORGAN DONATION AND TRANSPLANTATION

To determine the ethical and legal boundaries of organ and tissue donation and transplantation, one should consider the history of this once crude, but now intricate, science.⁴⁷

A. Scientific Knowledge about Human Anatomy

The accessible history of organ donation begins with the educational dissection of corpses to advance the skill of surgeons and the knowledge of anatomists.⁴⁸ Renaissance Period laws, termed "gallows corpse dissection laws," offered up the bodies of criminals

46. The Florida Coalition on Donation encourages Floridians to become organ donors. Fla. Coalition on Organ & Tissue Donation <<http://www.castlegate.net/mebfl/share.htm>> (accessed Dec. 28, 2002). Its Web site contains valuable information concerning Florida organ-donor statistics and examples of Florida organ-donation forms. *Id.*

47. As explained by Dr. Kenneth V. Iserson, "The distinction between *tissue* and *organs* is somewhat arbitrary: the blood supply for tissues comes from millions of capillaries and tiny arterioles, whereas that for organs comes from arteries large enough to have names." Iserson, *supra* n. 10, at 65 (emphasis in original). Skin, bones, cartilage, corneas, heart valves, and veins are some examples of tissue that may be transplanted from donor to recipient. *Id.* Donor skin often is used to help burn victims heal wounds and prevent fluid loss. *Id.* Donor bones, such as the temporal structures of the inner ear, may restore a deaf recipient's ability to hear. *Id.* Donor cartilage is used to reconstruct facial features, such as the nose, and joints, such as the knee. *Id.* Donor corneas are used to restore sight to the blind. *Id.* Donor heart valves enable the recipients' hearts to function correctly, and donor veins and arteries are used to restore defects caused by injury or illness. *Id.* Hearts, lungs, livers, kidneys, and pancreases are examples of organs that can be transplanted from donor to recipient. *Id.* These organs are used to perform the function of organs that have failed in the body of a designated organ recipient. *Id.* Federal laws prohibiting the sale of organs make little distinction between organs and tissue. 42 U.S.C. § 274(e)(c)(1) (2000). "The term 'human organ' means the human (including fetal) kidney, liver, heart, lung, pancreas, bone marrow, cornea, eye, bone, skin, or any subpart thereof and any other human organ. . . ." *Id.* Discussion of "organ" donation and transplantation in this Comment includes that of both organs and tissue.

48. Baker & Hargreaves, *supra* n. 27, at 3.

for scientific study and, sometimes, for public dissection.⁴⁹ These laws served the dual purpose of punishing the prisoners for their crimes as well as educating surgeons and scientists about the human body.⁵⁰

The British Parliament renewed the gallows corpse law in 1752 as the “British Murder Act,” which described dissection of the corpse as a “further terror and peculiar mark of infamy.”⁵¹ However, the bodies of these criminals provided an inadequate supply for the voracious scientists, and, despite laws to the contrary, some individuals exhumed the bodies of the recent dead for purposes of dissection.⁵² This practice initiated a black market for cadavers, and grave robbers, also known at the time as “resurrectionists,” began to supply the market with dead bodies for a negotiable price.⁵³ The increasing greed for money on the part of grave robbers and the concomitant desire for knowledge on the part of scientists created the scene for the unthinkable in 1829, when two individuals named William Burke and William Hare were convicted of murdering innocent victims and selling their cadavers for scientific study.⁵⁴ There is also evidence that Jack the Ripper was an anatomist.⁵⁵

The murderous and insidious incidents surrounding the black market for corpses, coupled with the sound arguments of Utilitarians, such as Jeremy Bentham, supporting more access to cadavers for science, inspired the British Parliament to enact the “Anatomy Act” of 1832.⁵⁶ This Act reduced the stigma attached to

49. *Id.*

50. *Id.*

51. *Id.* at 3–4.

52. *Id.* at 5.

53. *Id.*

54. *Id.* at 5–6.

55. Larry S. Barbee, *Casebook: Jack the Ripper, Introduction to the Case, Method of Operation* <<http://www.casebook.org/intro.html?show=1>> (accessed Dec. 28, 2002). Barbee explains that

most believed that the killer [Jack the Ripper] had to have some degree of anatomical knowledge to do what he did. In one case[,] he removed a kidney from the front rather than from the side, and did not damage any of the surrounding organs while doing so. In another case[,] he removed the sexual organs with one clean stroke of the knife. Given the time circumstances of the crimes (outside, often in near total darkness, keeping one eye out for the approach of others, and under extremely tight time constraints), the Ripper almost certainly would have had some experience in using his knife.

Id.

56. Baker & Hargreaves, *supra* n. 27, at 6–7.

cadaver donation because it banned dissection as a punishment for criminals.⁵⁷ The Act also created two legal methods for scientists to obtain cadavers: it declared that all unclaimed corpses would be donated to science, and it also allowed individual citizens to voluntarily donate their cadavers for scientific research.⁵⁸

A steady supply of human cadavers for dissection and experimentation aided the developing sciences of medicine and anatomy.⁵⁹ Advances such as the discovery of anesthesia, the development of sanitation procedures to reduce infection, and the invention of the surgical incision, helped render organ transplantation, a procedure once considered both horrific and impossible, a ready probability.⁶⁰ Another important development in this field occurred just before 1905, when Dr. Alexis Carrel developed the technique of suturing blood vessels.⁶¹ With these developments, other doctors began to realize that donated organs could transcend their role as mere tools for dissection and experimentation and become life-saving resources.⁶²

B. Beginnings of Transplantation

The first organ to be routinely transplanted was skin.⁶³ After this achievement, organ transplantation progressed at a steady pace, and doctors perfected the cornea transplant by 1940, and in 1944 the Manhattan Eye, Ear, and Throat Hospital became the world's first eye bank.⁶⁴ After conquering the less difficult operations involving self-renewing organs such as blood and skin, and nonessential organs such as the cornea, doctors gained the confidence necessary to try more invasive procedures involving essential, solid, non-self-renewing organs.⁶⁵

The first successful solid, nonrenewing-organ transplant occurred in 1954 when Dr. Joseph E. Murray successfully trans-

57. *Id.* at 7.

58. *Id.*

59. *Id.*

60. *Id.* at 10–11.

61. *Id.* at 11 (explaining that Carrel solved the “problem of leaking sutures” after watching a lace maker at work and then applying a similar technique to suturing blood vessels).

62. *Id.* at 11; David Lamb, *Organ Transplants and Ethics* 7–13 (Routledge 1996).

63. Lamb, *supra* n. 62, at 8 (explaining that by the 1920s, doctors began performing successful skin grafts).

64. *Id.*

65. *Id.*

planted a healthy kidney from Ronald Herrick to Mr. Herrick's identical twin Richard, who had been diagnosed with end-stage kidney failure.⁶⁶ Without the use of immunosuppressive drugs, Richard survived with his transplanted kidney for more than eight years until he died of a heart attack.⁶⁷

This operation opened many doors in the scientific community; however, because it involved a transplant between identical twins — individuals with exactly the same genetic composition — it did not provide any clues about how transplanted organs from related, unrelated, and cadaver donors could survive in the body of a recipient.⁶⁸ Despite many valiant attempts to transplant kidneys and other organs following Dr. Murray's successful operation, most transplants failed, resulting from the rejection of the donated organ by the recipient's body.⁶⁹ Doctors did not understand the phenomenon of the recipient's continued rejection of healthy donor organs until Dr. Peter Medawar explained that the body's immune system recognizes a foreign body, such as a new kidney or a skin graft, as an antigen, and that the body creates antibodies that reject these antigens.⁷⁰ With this new discovery came "tissue typing" and "immunologic identities."⁷¹ These discoveries helped doctors to predict the likelihood of organ rejection.⁷² At last, doctors could pair donated organs with their recipients to create a match.⁷³

Empowered by the success of the scientific community and equipped with the tools of many years of concentrated experimentation, doctors began to develop more advanced transplantation procedures.⁷⁴ Transplantation of a heart, lung, pancreas, and then of multiple organs, such as a heart-and-lung transplantation, followed.⁷⁵ By 1970, surgeons began transplanting donated ovaries

66. Koch, *supra* n. 11, at 49–50; Lamb, *supra* n. 62, at 10.

67. Koch, *supra* n. 11, at 49–50; Lamb, *supra* n. 62, at 10.

68. Koch, *supra* n. 11, at 50; Lamb, *supra* n. 62, at 10–11.

69. Koch, *supra* n. 11, at 54.

70. Lamb, *supra* n. 62, at 9.

71. Alan Reed et al., *Solid Organ Transplantation*, in *Biopsychosocial Perspectives on Transplantation* 1, 2 (James R. Rodrigue ed., Kluwer Academic/Plenum Publishers 2001).

72. *Id.*

73. *Id.*

74. *Id.*

75. Iserson, *supra* n. 10, at 64.

The first successful human kidney-pancreas transplant occurred in 1966, the first successful liver transplant in 1967, the first successful heart and the first isolated

and testicles into individuals suffering from infertility and other disorders of the reproductive system.⁷⁶ However, increased instances of organ rejection marred the aforementioned successes.⁷⁷ Indeed, rejection remained the most common fate of organ-transplant recipients until the 1983 discovery of the drug Cyclosporin.⁷⁸ This new drug proved to be a major breakthrough for doctors and patients; its introduction helped to replace the notions of fear and hopelessness with confident promises of survival for organ-transplant recipients.⁷⁹

The list of organs that can be donated and harvested successfully includes not only hearts, but also glands located in the center of the brain, such as the pituitary gland.⁸⁰ Many parts of the body are successfully transplantable, and the list is growing:

parts of the inner ear, a variety of glands (pancreas, pituitary, thyroid, parathyroid, and adrenal), blood vessels, tendons, cartilage, muscles (including the heart), testicles, ovaries, fallopian tubes, nerves, skin, fat, bone marrow, blood, livers, kidneys, and corneas.⁸¹

In addition, while organ donation and transplantation were once rare procedures, these operations occur now with some regularity.⁸² In 2000, doctors performed 13,372 kidney transplants; 4,954 liver transplants; 435 pancreas transplants; 2,198 heart transplants; 956 lung transplants; 48 combined heart-lung transplants; and 911 combined kidney-pancreas transplants.⁸³

pancreas transplants in 1968, the first successful heart-lung transplant in 1981, the first successful single-lung transplant in 1983, and the first successful double lung transplant in 1986.

Id.

76. Lamb, *supra* n. 62, at 19.

77. *Id.*

78. Theodore Cooper, *Survey of Development, Current Status, and Future Prospects for Organ Transplantation*, in *Human Organ Transplantation: Societal, Medical-Legal, Regulatory, and Reimbursement Issues* 18, 19 (Dale H. Cowan et al. eds., Health Admin. Press 1987); Koch, *supra* n. 11, at 52–53; Lamb, *supra* n. 62, at 9 (explaining that Cyclosporin is a drug that “selectively inhibits the rejection of foreign tissues without damaging their ability” to fight foreign substances like viruses and bacteria).

79. Cooper, *supra* n. 78, at 18–20; Koch, *supra* n. 11, at 52–53; Lamb, *supra* n. 62, at 9–10.

80. Lloyd R. Cohen, *Increasing the Supply of Transplant Organs: The Virtues of a Futures Market*, 58 *Geo. Wash. L. Rev.* 1, 3 (1989).

81. *Id.*

82. *Id.*

83. Lifelink, *About Organ and Tissue Donation, Number of Transplants Performed*

III. THE PROBLEM OF SCARCITY

The demand for organs drastically exceeds the available supply of transplantable organs.⁸⁴ To gauge the critical organ shortage in America, one need only look at the “waiting list” for organ transplantation.⁸⁵ As of February 16, 2003, there were 53,667 Americans waiting for a kidney transplant.⁸⁶ Additionally, 16,992 individuals waited for a liver transplant; 1,386 waited for a pancreas transplant; 3,849 waited for a heart transplant; 3,837 waited for a lung transplant; 198 waited for a combined heart-lung transplant; and 2,432 waited for a combination kidney-pancreas transplant.⁸⁷

Overall, 80,612 individuals in America could be saved by an operation that may never come.⁸⁸ These 80,612 individuals are anonymous, but they are also friends, neighbors, sons, daughters, mothers, and fathers: individuals who face leaving everything behind, forever. Approximately every thirteen minutes, a new name is added to the waiting list.⁸⁹ An average of seventeen people die each day while waiting for a life-saving organ that is never procured.⁹⁰ In 2001, there were 6,251 people who died while waiting for an organ donation.⁹¹ Presumed consent to be an organ donor, implemented in an “opt-out” system of organ procurement, instead of the current “opt-in” system, could prevent many of these deaths by providing a ready supply of organs for transplantation.

January-December in 2000 <<http://www.lifelinkfound.org/wait.asp>> (accessed Dec. 26, 2002).

84. United Network for Organ Sharing (UNOS), *Resources, Publications, Fact Sheets*, <<http://www.unos.org/Resources/FactSheets.asp>> (accessed Dec. 26, 2002).

85. *Id.*

86. UNOS, *Data, U.S. Transplantation Data* <<http://www.unos.org/data/default.asp?displayType=usData>> (accessed Feb. 16, 2003).

87. *Id.*

88. *Id.*

89. UNOS, *supra* n. 84. An average of 115 individuals are added to the waiting list each day. *Id.*

90. *Id.*

91. *Id.* The number of individuals who die while waiting for an organ transplant is increasing by twenty percent each year. Iserson, *supra* n. 10, at 67. The number of individuals on the waiting list “quadrupled in size” between 1988 and 1998. *Id.*

III. TYPES OF ORGAN DONORS

Life-saving organs can be procured from living donors, such as family members of the organ recipient.⁹² Due to the scarcity of human organs, however, some members of the scientific community are experimenting with animal donors (xenotransplantation).⁹³ Human organs also can be procured from cadaver organ donors so long as the organs are removed before they die within the donor's body.⁹⁴

A. Living Donors

Living donors are usually relatives or close friends of individuals with organ failure who require a transplant to survive.⁹⁵ An example of this is a sister who needs a kidney transplant; her brother may donate one of his kidneys to save her life.⁹⁶ In some family scenarios, extreme pressure may be placed on a prospective living donor to provide the necessary organ.⁹⁷ This pressure may interfere with the donor's autonomy in arriving at his or her decision.⁹⁸

Sometimes a relative will require the transplant of a vital organ that the prospective donor could not live without.⁹⁹ In these instances, it may be possible for the relative to donate a section of such an organ to the sick relative.¹⁰⁰ Today, doctors are able to transplant a lobe from a donor's liver into the recipient to restore the recipient's liver functions.¹⁰¹ Likewise, a section of a donor's lung, intestine, pancreas, or bone may restore the health of the recipient without depriving the donor of an essential organ.¹⁰²

92. Banks, *supra* n. 6, at 56.

93. Bach, Ivinson & Weeramantry, *supra* n. 1, at 284.

94. UNOS, *supra* n. 84.

95. James R. Rodrigue, Valerie Bonk & Shannon Jackson, *Psychological Considerations of Living Organ Donation*, in *Biopsychosocial Perspectives*, *supra* n. 71, at 60; Banks, *supra* n. 6, at 56.

96. UNOS, *supra* n. 84.

97. Rodrigue, Bonk & Jackson, *supra* n. 95, at 61; Banks, *supra* n. 6, at 57.

98. Rodrigue, Bonk & Jackson, *supra* n. 95, at 61; Banks, *supra* n. 6, at 57.

99. Arthur L. Caplan, *Is Xenografting Morally Wrong?* in *The Ethics of Organ Transplants: The Current Debate*, *supra* n. 11, at 124.

100. *Id.* at 123–124.

101. *Id.* at 124.

102. *Id.*

Another category of living organ donor is the organ recipient.¹⁰³ Though it may sound impossible, in some instances the person who is receiving an organ from a donor may donate the organ that is not functioning properly in the recipient's body.¹⁰⁴ This is possible because often a transplant surgeon can transplant an organ group or unit, such as the heart and lung, the kidney and pancreas, or stomach, liver, pancreas, small intestine, and large intestine, with more ease than an individual organ.¹⁰⁵ Organs in an organ group or unit are intricately attached to each other and share an interconnected blood supply; for these reasons, an individual with a healthy heart and a sick lung often will receive both a new heart and a new lung.¹⁰⁶ In these cases, both the old heart and old lung will be removed from the organ recipient.¹⁰⁷ The sick lung will be discarded, but the healthy heart will be donated.¹⁰⁸ This procedure is called the "domino transplant."¹⁰⁹ In essence, living donors, under the special circumstance mentioned above, may donate their hearts and other vital organs for life-saving transplantation and live to tell about it.¹¹⁰

The procedure of harvesting organs or organ segments from generous living donors has saved the lives of many individuals in need.¹¹¹ Commentators characterize living organ donation as "one of the finest gestures of fraternity of which human beings are capable."¹¹² However, the procedure of taking healthy organs from patients for organ donation is fraught with ethical dilemmas.¹¹³

Pursuant to Hippocratic principles, it is the doctor's job to act only in the best interest of the patient.¹¹⁴ "The Hippocratic tradition is relentlessly[,] militantly individualistic. It is as if in all the

103. UNOS, *supra* n. 84.

104. *Id.*

105. Iserson, *supra* n. 10, at 65.

106. UNOS, *supra* n. 84.

107. *Id.*

108. *Id.*

109. *Id.*

110. *Id.*

111. *Id.* In 2001, for the first time in the nation's history, the total number of living organ donors (6,528) exceeded the total number of deceased organ donors (6,081). UNOS, *Who We Are, History, Timeline of Key Events in U.S. Transplantation and UNOS History* <<http://www.unos.org/whoWeAre/history.asp>> (accessed Dec. 26, 2002).

112. Lamb, *supra* n. 62, at 104.

113. *Id.*

114. R.W. Strong & S.V. Lynch, *Ethical Issues in Living Related Donor Liver Transplantation*, in *The Ethics of Organ Transplants: The Current Debate*, *supra* n. 11, at 41.

world there was only one physician and one patient.”¹¹⁵ However, when a doctor removes a healthy organ from a healthy individual to transplant it into a sick recipient, that doctor is in fact putting the healthy individual in harm’s way.¹¹⁶ Because the healthy individual, the doctor’s patient, will experience pain, possible injury, negative psychological consequences, and possibly death,¹¹⁷ the basic “principle of non-maleficence, ‘above all, do no harm,’” is violated.¹¹⁸

Before organ donation, doctors never considered the benefits of removing organs from healthy individuals for the sole benefit of the sick and dying.¹¹⁹ Though proponents of living organ donors argue that the positive aspects of organ donation — the donor’s awareness that his or her organ was able to save the life of the recipient — outweigh the risks and negative aspects of organ donation, all concede that living organ donation will never provide enough organs to save all persons in need due to organ failure.¹²⁰

B. Animal Donors

The process of taking organs from other species and transplanting them into humans is called xenotransplantation or xenografting.¹²¹ Many modern theorists believe that xenotransplantation is the key to solving the problem of organ scarcity.¹²² Those who support xenotransplantation concede that much research will be necessary before an animal organ, such as a kidney or a heart, can be transplanted effectively into a human.¹²³ Still, the proponents of xenotransplantation argue that, with the development of highly effective immunosuppressive drugs and the ability of scientists to genetically engineer animals, xenotransplantation could provide “a near limitless supply of organs for human clinical treatment.”¹²⁴ Further, xenotransplantation advocates defend

115. *Id.* at 42.

116. *Id.*

117. Rodrigue, Bonk & Jackson, *supra* n. 95, at 59.

118. Strong & Lynch, *supra* n. 114, at 42.

119. *Id.*

120. Dorothy E. Vawter, *Ethical Frameworks for Live and Cadaver Organ Donation*, in *Organ and Tissue Donation: Ethical, Legal, and Policy Issues* 53, 66 (Bethany Spielman ed., S. Ill. U. Press 1996).

121. Bach, Iverson & Weeramantry, *supra* n. 1, at 284.

122. *Id.*

123. *Id.*

124. *Id.* at 284–285.

their decision to use animals for experimentation and to sacrifice animals based on the conclusion that humans are higher beings and have relationships unparalleled in the animal kingdom.¹²⁵

These relationships, such as love, loyalty, empathy, sympathy, family-feeling, protectiveness, shame, community-mindedness, a sense of history, and a sense of responsibility, which ground many moral duties and set the backdrop for distinguishing virtuous conduct and character, do not, despite the sociality of some species, appear to exist in animals.¹²⁶

The history of xenotransplantation is riddled with accounts of needless animal cruelty.¹²⁷

The optimism and social justification of those who support xenografting is met by strong opposition from two groups.¹²⁸ First, it is disapproved of by animal-rights activists, those who advocate for animals because they cannot speak for themselves.¹²⁹ Second, xenografting is opposed by human-rights activists, those who advocate for humankind and fear that the use of animal parts will not only increase the gamut of diseases capable of infecting the human race, but also that the use of animal parts will take away from our natural human essence.¹³⁰ Though many legal, ethical, and social arguments can be made both for and against

125. Caplan, *supra* n. 99, at 129.

126. *Id.*

127. Lamb, *supra* n. 62, at 19–21 (giving an account of the dispassionate treatment of animals exhibited by Dr. Robert J. White who “transplanted the brains of dogs into other dogs,” who “transplanted the head of one monkey to the body of another,” and who experimented by keeping “alive two severed monkey heads for a week”). After transplanting the brains of the monkeys, Dr. White observed the following:

In the ensuing hours following surgery, a complete awake state supervened and, through the available cranial nerve function, the preparation did respond appropriately to external stimulation! It was obvious that the animals could see and did appreciate movement, and indeed, would track with their eyes objects of interest placed in their visual fields. . . . [I]ndeed, one had the impression that the animals were ‘hungry and thirsty’ and underwent the oral processing of food and liquid with alacrity.

Id. at 20. Dr. White was the Co-Chairman of Neurosurgery at Case Western Reserve Medical School. The Society of Neurological Surgeons, *Senior Society, Senior Member, Robert J. White* <<http://www.societyns.org/society/bio.asp?MemberID=193>> (accessed Mar. 21, 2003). He performed these experiments at the Brain Research Laboratory, which was established in 1961, within the Division of Neurosurgery at the Medical School. *Id.*

128. Bach, Iverson & Weeramantry, *supra* n. 1, at 292–293.

129. *Id.* at 292.

130. *Id.* at 293–294.

xenotransplantation, the reality is that this scientific endeavor, initiated due to the scarcity of viable human organs available for life-saving transplantation, is still a theory and not an actual treatment available to those in need of most organs.¹³¹

C. Cadaver Donors

Cadaver organs, those taken after the donor has died, are the most plentiful source of organs today.¹³² When individuals “opt-in” to the organ-donor system, they are consenting to become a cadaver donor upon their death pursuant to the “dead-donor” rule.¹³³ This rule, followed by all United States hospitals, declares that “the procurement of organs can neither precede nor cause the death of the donors.”¹³⁴ Essentially, before organs can be removed from cadaver donors, the donors actually have to be dead.¹³⁵ If surgeons break this rule, they may be charged with homicide.¹³⁶ This rule may seem unambiguous on the surface, but because different states have different definitions of death, and the legal and clinical definitions of death differ, determining when an individual is actually dead may require further analysis.

1. When Is An Organ Donor Really Dead?

The simple concept of determining death by listening for heartbeat and respiration, or searching for a pulse, that is presented to most Americans through books, movies, and television is not an accurate portrayal of death.¹³⁷ Instant death is rare, and death more accurately is described as a process.¹³⁸ An individual’s

131. Ronald Munson, *Organ Transplants, Ethics, and Society* 219 (Oxford U. Press 2002). However, some animal tissue, such as the heart valves of pigs and cows, can be transplanted safely into a human recipient. U.S. Cal., *Cardiothoracic Surgery Home Page, Heart Valve Surgery, A Patient’s Guide to Heart Surgery, Replacing a Valve* <<http://www.cts.usc.edu/hpg-heartvalvesurgery.html>> (accessed Jan. 6, 2003).

132. Stuart J. Younger & Robert M. Arnold, *Non-Heart-Beating Cadavers: The Beat Goes On*, in *Organ and Tissue Donation: Ethical, Legal, and Policy Issues*, *supra* n. 120, at 70.

133. Shelly Ozark & Michael A. DeVita, *Ethical Issues in Non-Heartbeating Cadaver Donors*, in *The Ethics of Organ Transplantation*, *supra* n. 27, at 169.

134. *Id.* at 169–170.

135. *Id.*

136. Fla. Stat. § 782.04(1)(a)(1) (2002) (defining murder as “[t]he unlawful killing of a human being . . . when perpetrated from a premeditated design to effect the death of the person killed or any human being”); Ozark & DeVita, *supra* n. 133, at 170.

137. Lamb, *supra* n. 62, at 27.

138. Iserson, *supra* n. 10, at 17. Dr. Iserson explains, “Biologically, . . . death is not a

loss of consciousness, respiration, heartbeat, circulation, and other vital systems is seldom concurrent.¹³⁹ Additionally, in our era, the signs of life can be prolonged artificially.¹⁴⁰

So, when is the candle of life extinguished? It may be helpful to engage the beliefs of other cultures in determining the definition of death. Many Orthodox rabbinical scholars stridently resist the concept of brain death, espousing that “where there is breath[,] there is life.”¹⁴¹ Some Buddhists “see the presence of life in the whole body, not just in the brain.”¹⁴² Some Christians claim that the concept of brain death interferes with the pro-life movement.¹⁴³

Could it be that death occurs when the soul leaves the body? Should death instead be determined by using the traditional standards of the cessation of heartbeat and breathing? Would it be more accurate for doctors to determine that a person is dead only after there is no activity occurring in the brain? Before the introduction of organ donation, the doctor’s choice of determination of death was seldom called into question.¹⁴⁴ But because of organ donation, the method by which a doctor determines the death of his or her patient affects not only that patient, but also other members of society.¹⁴⁵ One commentator described the ethical quagmire that doctors face when deciding how to determine death for purposes of organ donation by stating, “To delay too long, so that metabolism ceases and tissue is damaged, can be fatal to the recipient. To act precipit[ously], when there is still a possibility of restoration of the donor, is unthinkable.”¹⁴⁶

discrete event but is a gradual process that ends with the irreversible loss of function of the entire organism. . . . ‘Death is no more a single, clearly delimited, momentary phenomenon than is infancy, adolescence, or middle age.’” *Id.*

139. Lamb, *supra* n. 62, at 26.

140. *Id.*

141. Robert M. Veatch, *Transplantation Ethics* 117 (Geo. U. Press 2000).

142. *Id.*

143. *Id.* at 117–118; see generally Janice J. O’Connell, *The Religious and Spiritual Perspective toward Human Organ Donation and Transplantation*, in *The Ethics of Organ Transplantation*, *supra* n. 27, at 277–292 (describing the religious and spiritual traditions of Buddhism, Islam, Christianity, Hinduism, Judaism, and a variety of other faiths).

144. Thomas D. Overcast, *Legal Aspects of Death and Informed Consent in Organ Transplantation*, in *Human Organ Transplantation: Societal, Medical-Legal, Regulatory, and Reimbursement Issues*, *supra* n. 78, at 59.

145. *Id.*

146. *Id.* (brackets in original).

2. Two Types Of Cadaver Organ Donors

Thirty-four U.S. jurisdictions have modeled their definitions of death on the Uniform Determination of Death Act.¹⁴⁷ This Act sets forth two legally recognized determinations of death.¹⁴⁸ Death is first defined as the “irreversible cessation of circulatory and respiratory functions,” which is the traditional cardiac definition of death.¹⁴⁹ The second recognized definition of death is the “irreversible cessation of all functions of the entire brain, including the brain stem.”¹⁵⁰

This duality in the definition of death creates two classes of organ donors.¹⁵¹ The first class of donors is the non-heart-beating cadaver donors (NHBCD).¹⁵² When the organ donor’s physician certifies death using traditional cardiac criteria (death upon the cessation of heartbeat), the organ donor will be a NHBCD.¹⁵³ The second class of organ donors are “brain-dead donors” that arise when a physician determines that the “whole brain” (both the upper brain — neocortex — and brainstem) is completely devoid of activity.¹⁵⁴ When an individual is brain-dead, he or she may still appear “alive,”¹⁵⁵ but once activity ceases in the brain, the body

147. Unif. Determination of Death Act Tbl. of Jxns. Wherein Act Has Been Adopted, 12A U.L.A. 61 (West Supp. 2002) (listing the jurisdictions that have enacted the Uniform Determination of Death Act as follows: Alabama, Arkansas, California, Colorado, Delaware, District of Columbia, Georgia, Idaho, Indiana, Kansas, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Vermont, Virgin Islands, West Virginia, and Wyoming).

148. *Id.* § 1, 12A U.L.A. 593 (1994).

149. *Id.*

150. *Id.*

151. Ozark & DeVita, *supra* n. 133, at 167–168.

152. *Id.* at 167.

153. *Id.*

154. Iserson, *supra* n. 10, at 20.

The most widely accepted and only legal definition of death by brain criteria in the United States, Britain, Canada, and most other Western countries is ‘death by whole brain criteria.’ This refers to the complete loss of function in the *upper brain* and the *brainstem*.

Id. (emphasis in original). The upper brain “generates thoughts, perceives pain and pleasure, and controls voluntary actions; it is the person.” *Id.* The brainstem “controls basic biological functions” such as wakefulness, breathing, and blood pressure. *Id.* Physicians diagnose brain death by testing a patient’s ability to breathe, looking for reflexes — such as the gag reflex, constriction of the pupil when exposed to light, and movement of the eyes when the head is rotated — and performing an electroencephalogram (EEG). *Id.* at 22–23.

155. *Id.* at 19. Once a patient has been declared brain-dead, he or she may still move, e.g., brain-dead cadavers jerk their fingers, arch their backs, or turn their heads. *Id.* Dr.

cannot act as an integrated whole, and thus, will soon perish if not artificially maintained by life support or other measures.¹⁵⁶

V. THE HARVEST

Harvesting organs and other tissue from NHBCDs sometimes poses more medical challenges than performing similar procedures on brain-dead donors.¹⁵⁷ This is because NHBCDs arise under two sets of circumstances.¹⁵⁸ The first circumstance is in a “controlled setting,” where the donor is terminally ill, depends on life support, and has made the decision to withdraw the life support to become an organ donor.¹⁵⁹ In these instances, organ donation has been planned and is easier to carry out than in the second circumstance, which is known as an “uncontrolled setting.”¹⁶⁰ In uncontrolled settings, such as when a patient suffers from a fatal cardiac arrest on the operating table, doctors have little time to take the steps necessary to effectuate organ donation.¹⁶¹

Organs from NHBCDs must be harvested from the donor’s cadaver almost immediately after the donor dies because the organs die within the body quickly after the donor’s heart stops and blood circulation ceases.¹⁶² During this stage, known as the “warm ischemic time,” the amount of oxygenated blood supplying the organs falls below the requisite amount necessary to keep the organs alive.¹⁶³ Though some organs live longer than others in a dead body, the maximum warm ischemic time that most organs can endure in a dead body, without being damaged, is about forty-five minutes.¹⁶⁴ After this amount of time, the organs need to be

Iserson explains that “these movements originate in the spinal cord, not in the brain, and their presence does not mean that there is brain activity.” *Id.*

156. *Id.* at 23. Brain-dead cadavers cannot breathe on their own and are thus placed on ventilators. *Id.* “When patients are kept on ventilators despite being dead, their hearts stop within hours to days.” *Id.*

157. Ozark & DeVita, *supra* n. 133, at 167–169.

158. *Id.* at 168.

159. *Id.*

160. *Id.* at 169.

161. *Id.* The hypothetical Joe Carson died in an uncontrolled setting, and that is why the doctors had little time to find consent. *Supra* pt. I.

162. Ozark & DeVita, *supra* n. 133, at 171.

163. *Id.*

164. *Id.*

cooled to slow down the process and allow transport to a recipient.¹⁶⁵

Due to the small window of opportunity that exists to harvest organs between the death of the NHBCD and the death of his or her individual organs, most organs from NHBCDs cannot be used for organ transplantation unless special measures are taken.¹⁶⁶ These measures include “rapid-cooling” techniques, and other protocols such as “reanimation” of the organs with devices and medicines that circulate blood and perfuse or cleanse and cool the organs.¹⁶⁷ With a NHBCD, time is of the essence.¹⁶⁸ This is not the case with brain-dead donors whose organs can be maintained artificially in the brain-dead cadaver for hours or even days before being harvested and transplanted.¹⁶⁹

The following description of the harvest from a brain-dead donor is provided to elucidate what really happens from inspection, disconnection of the respirator, and, finally, to organ harvest.

First the heart surgeon divides the breastbone to expose the heart and its major blood vessels, which are inspected carefully to make sure there are no disqualifying abnormalities. . . . Then the liver team opens the abdomen and dissects the blood vessels supplying blood to the liver and intestines. . . . Next, the pancreas is separated from the nearby spleen. . . . Finally, the kidneys are prepared so that they may be extracted with a length of the ureter that transports urine from the kidney to the bladder. All this time [the donor’s] heart continues to beat. . . . [After inspecting the do-

165. *Id.*

166. Vawter, *supra* n. 120, at 59.

167. *Id.* Dr. David Anaise, a leader in the field, described the organ-perfusion process of a NHBCD as follows:

The clinical situation envisioned is of a trauma victim who succumbs in the emergency room shortly after arrival. All resuscitative measures are attempted but fail. After formal declaration of death by the emergency room physician, a team not involved in the resuscitative process will be called. An organ procurement tube will be inserted into the femoral artery of the deceased, and [a] rapid high flush pressure . . . cooling . . . solution will be instituted. Simultaneously, two peritoneal dialysis catheters will be inserted percutaneously. Continuous hypothermic peritoneal perfusion will further reduce and maintain the core temperature of the organs for five hours after death.

Clark, *supra* n. 32, at 934 (quoting David Anaise, *The Non-Heartbeating Cadaveric Donor: A Solution to the Organ Shortage Crisis*, UNOS Update 32 (Oct. 1992)).

168. Younger & Arnold, *supra* n. 132, at 71.

169. Vawter, *supra* n. 120, at 59.

nor's organs] the respirator is stopped. [The donor's] heart beats for a minute and then falters. . . . The heart is extracted, perfused, and chilled Next, the lungs are extracted. . . . Then the liver is excised, and then the kidneys. . . . The pancreas is extracted last.¹⁷⁰

After these procedures are completed, the organs are packaged safely in coolers and quickly shipped off to the designated recipients.¹⁷¹ The corpse, absent a few organs, is stitched back together and then returned to the donor's family so that burial arrangements can be made.¹⁷²

Often, prospective organ-donor families are unsure about whether certain funeral services will be possible if the decedent is an organ donor.¹⁷³ The funeral industry has responded that "removing organs and tissue *does not* interfere with customary burial arrangements, 'regardless of the type or extent of the donation.'"¹⁷⁴ Open-casket funerals are possible after organ donation.¹⁷⁵ In fact, donations of organs such as the lungs, pancreas, heart, kidneys, and liver make the embalmer's job easier.¹⁷⁶ Embalmers have little trouble restoring the appearance of a donor's skin, ribs, and other bones.¹⁷⁷ Skin often is taken from the stomach and other areas that customarily would be clothed during a funeral service.¹⁷⁸ In addition, donated skin is almost always "only a few cells thick[;] simply painting it with embalming solution restores the area."¹⁷⁹ When ribs are donated, only every other rib is harvested; thus, the chest remains firm.¹⁸⁰ When large and small bones are

170. Koch, *supra* n. 11, at 68–69.

171. *Id.* at 68.

172. *Id.* at 69.

173. Iserson, *supra* n. 10, at 94.

174. *Id.* (emphasis in original).

175. *Id.* at 250.

176. *Id.* The process of embalming involves cleansing the exterior of the corpse, injecting the arteries with chemicals — embalming fluid — to preserve the corpse, removing blood and body fluids from all organs and body cavities, and cosmetically improving the appearance of the corpse. *Id.* at 241–244; *see generally id.* at 204–288 (describing step-by-step how corpses are embalmed).

177. *Id.* at 251.

178. *Id.* at 89.

The layer of skin removed is between .005 and .018 inches thick, about the same as the skin that peels after a sunburn. Most U.S. tissue centers routinely remove donor skin from the lower chest, abdomen, back, and the front and back of the legs.

Id.

179. *Id.* at 251.

180. *Id.*

harvested, surgeons customarily replace the removed parts with prosthetics.¹⁸¹ Dr. Kenneth V. Iseron reports that surgical teams customarily work with members of the funeral industry in an effort to ensure that the donor's body will look as presentable as possible at the funeral.¹⁸²

VI. THE CURRENT LEGAL BOUNDARIES OF ORGAN DONATION

With the advent of mass organ transplantation, some entrepreneurs developed schemes to exploit the "organ market" by buying and selling organs for research and transplantation.¹⁸³ A notorious incident of profiteering occurred in 1983 when Dr. H. Barry Jacobs invited United States hospitals to participate in a plan to buy and sell human kidneys through his "International Kidney Exchange, LTD."¹⁸⁴ His proposal sought to induce indigent individuals to sell their organs.¹⁸⁵ To prohibit this type of profiteering and to increase the number of organ donors, the United States Congress enacted the National Organ Transplant Act.¹⁸⁶

A. The National Organ Transplant Act of 1984

With the continued progress of organ-transplantation technology, including better immunosuppressive drugs, and the implementation of more transplant facilities in hospitals, more individuals than ever before became candidates for organ transplants.¹⁸⁷ However, organs were in short supply, and no concrete laws were available to guide doctors, hospitals, and patients through the legal aspects of organ donation and transplantation.¹⁸⁸ To ensure that the American organ donation and transplantation system retained its policy of altruism and to increase

181. *Id.*

182. *Id.*

183. Banks, *supra* n. 6, at 72.

184. *Id.*

185. *Id.*

186. 42 U.S.C. § 273 (2000); Richard J. Howard, *Organ Donation: Social Policy, Ethical, and Legislative Issues*, in *Biopsychosocial Perspectives on Transplantation*, *supra* n. 71, at 42.

187. Howard, *supra* n. 186, at 42.

188. *Id.*

the number of organ donors, the United States Congress enacted the National Organ Transplant Act (NOTA).¹⁸⁹

The NOTA prohibits the purchase of human organs and provides that individuals guilty of buying or selling organs can face both imprisonment for five years and a \$50,000 fine.¹⁹⁰ This provision debilitated the arguments by doctors and entrepreneurs that there should be an organ market and that organ donors should be offered financial incentives.¹⁹¹ To increase the number of organ donors, the NOTA established the Task Force on Organ Transplantation (Task Force).¹⁹² One of the Task Force's many purposes is to "conduct comprehensive examinations of the medical, legal, ethical, economic, and social issues presented by human-organ procurement and transplantation."¹⁹³ In addition, the NOTA created qualifications for Organ Procurement Organizations (OPOs) and set forth eleven specific tasks for OPOs.¹⁹⁴ One such task is to "conduct and participate in systematic efforts, including professional education, to acquire all useable organs from potential donors."¹⁹⁵ Finally, the NOTA established the Organ Procurement and Transplantation Network (OPTN).¹⁹⁶ This OPTN was designated as a private-sector entity, and the United Network for Organ Sharing won the contract.¹⁹⁷

B. United Network for Organ Sharing

Administering America's only OPTN, the United Network for Organ Sharing (UNOS) joins together all the members of the

189. 42 U.S.C. § 273; Howard, *supra* n. 186, at 42.

190. 42 U.S.C. § 274(e)(a) (providing that "[i]t 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.* § 274(e)(c) (defining human organ as "the human (including fetal) kidney, liver, heart, lung, pancreas, bone marrow, cornea, eye, bone, and skin or any subpart thereof and any other human organ").

191. Howard, *supra* n. 186, at 42.

192. *Id.*

193. Pub. L. No. 98-507, § 101(b)(1)(A), 98 Stat. 2339, 2339 (1984) (providing for "the establishment of the Task Force on Organ Transplantation and the Organ Procurement and Transplantation Network").

194. 42 U.S.C. §§ 273(b)(3)(A)–(K).

195. *Id.* § 273(b)(3)(E). A related task is that of "arrang[ing] to cooperate with tissue banks for the retrieval, processing, preservation, storage, and distribution of tissues as may be appropriate to assure that all useable tissues are obtained from potential donors." *Id.* § 273(b)(3)(I).

196. *Id.* § 274(a).

197. Howard, *supra* n. 186, at 42.

transplant community.¹⁹⁸ The UNOS is a nonprofit, charitable organization that regulates the procurement and distribution of organs for transplant purposes.¹⁹⁹ The UNOS mission statement is “[t]o advance organ availability and transplantation by writing and supporting its communities for the benefit of patients through education, technology, and policy development.”²⁰⁰

The UNOS accomplishes its functions by maintaining America’s national organ-transplant “waiting list” under contract with the U.S. Department of Health and Human Services.²⁰¹ Twenty-four hours a day, 365 days a year, the UNOS matches donated organs to prospective recipients registered on the UNOS waiting list.²⁰² Every OPO must participate in the UNOS.²⁰³ Likewise, each individual in need of an organ transplant must be a waiting-list participant to receive an organ transplant.²⁰⁴ The UNOS also serves as a scientific registry.²⁰⁵ Data on every solid-organ transplant performed since 1986 can be found in the UNOS scientific registry.²⁰⁶ The UNOS has received praise for its efficiency and also for its dedication to saving the lives of those suffering from organ failure.²⁰⁷

C. The Uniform Anatomical Gift Act of 1968

Predating the NOTA, the National Conference of Commissioners on the Uniform State Laws and the American Bar Association approved the Uniform Anatomical Gift Act of 1968 (UAGA),²⁰⁸ which was later revised in 1987.²⁰⁹ This UAGA was written with the goal of encouraging organ donation in the United

198. UNOS, *Who We Are, The OPTN* <<http://www.unos.org/whoWeAre/theOPTN.asp>> (accessed Feb. 2, 2003).

199. *Id.*

200. UNOS, *About Unos, Mission Statement* <http://www.unos.org/About/mission_main_default.htm> (accessed May 29, 2002) (emphasis removed).

201. *Id.*

202. UNOS, *What We Do, Organ Center* <<http://www.unos.org/WhatWeDo/organCenter.asp>> (accessed Feb. 7, 2003).

203. 98 Stat. at 2339.

204. UNOS, *supra* n. 202.

205. UNOS, *What We Do, Research* <<http://www.unos.org/WhatWeDo/research.asp>> (accessed Feb. 7, 2003).

206. *Id.*

207. Koch, *supra* n. 11, at 71 (stating “that ‘no part of the health care system has done more to resolve questions of justice than transplantation”).

208. Unif. Anatomical Gift Act of 1968 hist. nn., 8A U.L.A. 64.

209. *Id.*

States.²¹⁰ It seeks to harmonize competing interests in the transplant field and to answer “troublesome legal questions.”²¹¹ The 1968 version of this uniform law has been adopted — with some variations — in all fifty States, the District of Columbia, and the Virgin Islands.²¹²

D. The Competing Interests

The UAGA lists the five competing interests in the transplant field, as follows:

1. the deceased’s wishes during his or her lifetime;
2. the wishes of the deceased’s next of kin;
3. the state’s interest in performing autopsies to determine the cause of death in a crime;
4. the “need of autopsy to determine the cause of death when private legal rights are dependent upon such cause”; and
5. the society’s need for “bodies, tissues, and organs for medical education, research, therapy, and transplantation.”²¹³

The UAGA neutralizes the above-listed competing interests by providing a hierarchy of priority within the organ-donation context.²¹⁴ The wishes of the deceased during his or her lifetime are given the most respect.²¹⁵ If the deceased has executed a donor card or has communicated in some other way that he or she consents to an organ donation, then these wishes will take priority over protesting family members’ wishes.²¹⁶ Likewise, if the deceased, while living, has refused to make an anatomical gift, his or her organs will not be donated, even if the family of the deceased wishes to make an anatomical gift.²¹⁷ Conflicting interests among family members who may disagree as to whether a gift shall be made are harmonized by the UAGA’s classification of

210. *Id.* prefatory n., 8A U.L.A. 64–65.

211. *Id.* at 64.

212. Unif. Anatomical Gift Act of 1987 hist. nn., 8A U.L.A. 19.

213. Unif. Anatomical Gift Act of 1968 prefatory n., 8A U.L.A. 64.

214. *Id.*

215. *Id.*

216. *Id.* § 2(a), 8A U.L.A. 99.

217. *Id.*

these individuals in a prioritized list.²¹⁸ The spouse of the deceased has the highest priority.²¹⁹ The next individuals on the list are the adult sons and daughters of the deceased, then the deceased's parents, then the adult brothers and sisters of the deceased, and finally any "guardians" of the deceased.²²⁰

The UAGA resolves the conflict of interest between the doctor who determines when a patient is dead and the doctor who removes the organs, by declaring that these two doctors must not be the same person.²²¹ The UAGA does, however, articulate a standard by which death shall be determined.²²² In addition, the UAGA harmonizes the competing interests that comprise the need for performing autopsies and the need for procuring organs by stating that organ harvesting procedures are subject to the laws governing autopsies.²²³ As a whole, the UAGA encourages organ donation and provides helpful guidance for the procurement of donated organs.²²⁴ However, the UAGA does not place the need for donated organs in a position superior to the freedom of individuals to refuse to make a gift, or the interest of the state in performing autopsies.²²⁵

In addition to balancing the interests of individuals and entities involved in organ donation, the UAGA answers the following legal questions:

1. Who may decide, while living, to make an anatomical gift?
2. What is the next of kin's right either to set aside a decedent's anatomical gift or to make an anatomical gift from the decedent?
3. Who may become recipients?
4. For what purpose can such gifts be made?

218. *Id.* § 2(b), 8A U.L.A. 99.

219. *Id.* § 2(b)(1), 8A U.L.A. 99.

220. *Id.* § 2(b), 8A U.L.A. 99.

221. *Id.* § 7(b), 8A U.L.A. 124.

222. *Id.* § 7(b) cmt., 8A U.L.A. 125 (explaining that the UAGA "leaves the determination of the time of death to the attending or certifying physician. No attempt is made to define the uncertain point in time when life terminates. This point is not subject to clear cut definition and medical authorities are currently working toward a consensus on the matter.").

223. *Id.* § 7(d), 8A U.L.A. 124.

224. *Id.* §§ 1-11, 8A U.L.A. 94-132.

225. *Id.*

5. What instruments may contain an anatomical gift (will, donor card, etc.)?
6. How may a donor revoke an anatomical gift in his or her lifetime?
7. What are the rights of the survivors to the decedent's body after the removal of the gifted parts?
8. What protections from liability should be afforded to practitioners of medicine who carry out anatomical gifts?
9. Should this limited liability be unwavering or conditional?
10. What will happen if there is a conflict of law concerning the anatomical gift and the autopsy?
11. Should the law define the time of death?
12. "[S]hould the interest in preserving life by the physician in charge of a decedent preclude him [or her] from participating in the transplant procedure by which donated tissues or organs are transferred to a new host?"²²⁶

The UAGA generally provides that any adult can choose to give an anatomical gift,²²⁷ and that once this choice is made, the donor's family cannot set aside this decision.²²⁸ The UAGA provides that if the intent of the decedent is not known, a family member with priority may choose for the deceased.²²⁹ Medical centers, medical personnel, or the specific individual in need of the organ for transplantation may be the recipient of an organ.²³⁰ Anatomical gifts can be made for "medical or dental education, research, advancement of medical or dental science, therapy, or transplantation."²³¹ The gift can be made in a will, donor card, or other signed and witnessed document.²³² The gift, if made by will, becomes effective upon the donor's death, so that the doctors do

226. *Id.* prefatory n., 8A U.L.A. 64.

227. *Id.* § 2(a), 8A U.L.A. 99 (explaining that "[a]ny individual of sound mind and 18 years of age or more may give all or part of his body for any purpose specified in [S]ection 3, the gift to take effect upon death").

228. *Id.* § 2(e), 8A U.L.A. 100 (stating that "[t]he rights of the donee created by the gift are paramount to the rights of others except as provided by [S]ection 7(d)" (Section 7(d) is the autopsy section.)).

229. *Id.* § 2(b), 8A U.L.A. 99.

230. *Id.* § 3, 8A U.L.A. 106-107 (stating that hospitals, surgeons, doctors, medical schools, organ banks, and specified individuals can be recipients).

231. *Id.* § 3(1), 8A U.L.A. 107.

232. *Id.* § 4, 8A U.L.A. 109.

not have to wait until the will is probated.²³³ Additionally, a donor can revoke or amend his or her consent to make an anatomical gift.²³⁴ Furthermore, the UAGA provides that a decedent's donated organs will be removed without unnecessary mutilation of the body, and the body will be returned to the family after the specified organs are removed.²³⁵ The UAGA also provides a good-faith immunity provision for the doctors and hospitals involved in the anatomical-gift-procurement process.²³⁶

The UAGA was written with the intent to promote organ donation in America.²³⁷ The Prefatory Note states that “[it] will provide a useful and uniform legal environment throughout the country for this new frontier of modern medicine.”²³⁸ Though the UAGA has not been able to cure all of America's troubles concerning the scarcity of organs for transplantation, the UAGA does contain several general provisions designed to achieve that end. Because the UAGA is a uniform law, states can adopt it, adopt it with modifications, or refuse to adopt it all together. Florida adopted this earlier version of the UAGA with modifications.²³⁹

E. The Uniform Anatomical Gift Act of 1987

In response to more current problems in the organ donation and transplantation system, the National Conference of Commissioners on the Uniform State Laws drafted and approved the 1987 version of the UAGA.²⁴⁰ The new version varies from the original in four significant ways.²⁴¹ The most important difference between the old and new versions of the UAGA is the new UAGA's provi-

233. *Id.* § 4(a), 8A U.L.A. 109.

234. *Id.* § 6, 8A U.L.A. 122.

235. *Id.* § 7(a), 8A U.L.A. 124.

236. *Id.* § 7(c), 8A U.L.A. 124 (providing that “[a] person who acts in good faith in accord with the terms of this Act or with the anatomical gift laws of another state [or a foreign country] is not liable for damages in any civil action or subject to prosecution in any criminal proceeding for his act”).

237. *Id.* prefatory n., 8A U.L.A. 65.

238. *Id.*

239. Fla. Stat. §§ 765.510–765.522.

240. Banks, *supra* n. 6, at 66–67; Fitzgibbons, *supra* n. 24, at 81.

241. Banks, *supra* n. 6, at 67–70; Fitzgibbons, *supra* n. 24, at 81–83 (explaining that the newer version of the UAGA (1) simplified the process of becoming an organ donor by eliminating the requirement of a witnessed document and allowing a driver's license to evidence the intent to make an anatomical gift; (2) mandated routine inquiry; (3) codified the NOTA's prohibition of the sale of human organs; and (4) implemented a system of limited presumed consent to organ donation).

sion allowing presumed consent for organ harvesting in the event that no objection from the prospective donor or the donor's family is known after a reasonable search for the family.²⁴² From a practical perspective, this law would allow a surgeon to remove a decedent's organs without receiving consent from that individual or that individual's family.²⁴³ As mentioned, all fifty states, the District of Columbia, and the Virgin Islands have adopted the earlier version of the UAGA.²⁴⁴ However, only twenty-two states and the Virgin Islands have adopted the 1987 version of the UAGA.²⁴⁵ Of these twenty-two states, fourteen have adopted the provision that allows hospitals to remove any and all organs via the presumed consent of the donor.²⁴⁶

Several states have refused to embrace the total presumed-consent doctrine of the 1987 UAGA and instead have developed a system in which only specific organs can be harvested without an

242. Unif. Anatomical Gift Act of 1987 § 4(a), 8A U.L.A. 43. It states the following:

- (a) The [coroner] [medical examiner] may release and permit the removal of a part from a body within that official's custody, for transplantation or therapy, if:
- (1) the official has received a request for the part from a hospital, physician, surgeon, or procurement organization;
 - (2) the official has made a reasonable effort, taking into account the useful life of the part, to locate and examine the decedent's medical records and inform persons listed in Section 3(a) [the prioritized list of family members] of their option to make, or object to making, an anatomical gift;
 - (3) the official does not know of a refusal or contrary indication by the decedent or objection by a person having priority to act as listed in Section 3(a);
 - (4) the removal will be by a physician, surgeon, or technician; but in the case of eyes, by one of them or by an enucleator;
 - (5) the removal will not interfere with any autopsy or investigation;
 - (6) the removal will be in accordance with accepted medical standards; and
 - (7) cosmetic restoration will be done, if appropriate.

Id. (bracketed terms in original).

243. *Id.* So, in the hypothetical, the surgeons could have removed Joe's organs without receiving consent from him or his family. *Supra* pt. I.

244. Unif. Anatomical Gift Act of 1987 hist. nn., 8 U.L.A. 19.

245. *Id.* Tbl. of Jxns. Wherein Act Has Been Adopted, 8A U.L.A. 3 (West Supp. 2002) (demonstrating that the following jurisdictions have adopted the 1987 UAGA in some version: Arizona, Arkansas, California, Connecticut, Hawaii, Idaho, Indiana, Iowa, Minnesota, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Oregon, Rhode Island, Utah, Vermont, Virgin Islands, Virginia, Washington, West Virginia, and Wisconsin).

246. *Id.* § 4 (Action in Adopting Jxns.), 8A U.L.A. 12–13, 45–46 (West 1993 & Supp. 2002) (demonstrating that the following states have adopted the full presumed-consent provision of the UAGA: Arizona, Arkansas, California, Connecticut, Hawaii, Idaho, Minnesota, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Rhode Island, the Virgin Islands, and West Virginia).

effort to obtain the consent of the donor.²⁴⁷ These state statutes historically have been limited to presumed consent to donate corneas or pituitary glands or both.²⁴⁸ Some of these statutes designate that the organs will be used for transplantation; some designate the organs for medical research.²⁴⁹ In Minnesota, hospitals are permitted to remove the entire brain of deceased individuals who suffered from Alzheimer's disease to further efforts to find a cure.²⁵⁰ As mentioned, the statutes allowing presumed consent for corneas and pituitary glands vary widely in their methodology and the prescribed destinations for the designated organs.²⁵¹ However, the common strand between these individual laws is that the organs of the deceased are being removed and permanently withheld without the actual consent of the donor or the donor's family.

VII. EXPANDING FLORIDA'S CURRENT PRESUMED-CONSENT DOCTRINE

Florida's waiting list for organs is shorter than that of many states.²⁵² For some Florida residents, a much-needed kidney can become available in a matter of days.²⁵³ Florida's organ donors and medical community deserve praise for their continuing efforts in the organ-procurement process. However, the fact still remains that the demand for transplantable organs in Florida greatly exceeds the supply.²⁵⁴ This scarcity exists despite the fact that organs are available from living donors, brain-dead donors, and

247. Nelkin & Andrews, *supra* n. 3, at 288 n. 282.

248. *Id.* (finding that there are more than seventeen state statutes currently permitting some form of presumed consent to donate either pituitary glands or corneas. For example, in Arkansas, the coroner may remove the pituitary gland automatically for research. In Michigan, both corneas and pituitary glands can be removed for research purposes.).

249. *Id.* (explaining that some of the statutes provide the organs for research to cure dwarfism and a variety of other genetic disorders).

250. *Id.* at 288–289.

251. *Id.* at 288 n. 281 to 289 n. 283.

252. Filaroski, *supra* n. 37.

253. *Id.* (reporting the story of a Florida man who was placed on the waiting list and received a new kidney within the same week).

254. OPTN, *Overall by Organ, Current Waiting List, Florida* <<http://www.optn.org/latestData/rptData.asp>> (accessed Mar. 5, 2003) (demonstrating that, as of February 28, 2003, 3,028 people were waiting for organs in Florida); OPTN, *Removal Reasons by Year, Florida* <<http://www.optn.org/latestData/rptData.asp>> (accessed Mar. 5, 2003) (showing that 266 individuals in Florida died in 2002 waiting for an organ transplant).

NHBCDs.²⁵⁵ To procure enough organs to meet the current demand, the Florida Legislature should amend its anatomical gift statutes to include a provision for presumed consent to be an organ donor.

With advanced procedures such as organ “reanimation,” “rapid cooling,” and “perfusion,” doctors can successfully use the organs of both brain-dead donors and NHBCDs to save the lives of others.²⁵⁶ Presumed consent to be an organ donor currently is implemented for the removal of corneas in Florida and many other states.²⁵⁷ Florida should expand its current limited presumed-consent doctrine of organ donation to encompass presumed consent to donate all needed organs. If the doctrine of presumed consent is valid for the removal of the cornea (a nonessential organ), why should it be considered invalid when applied to other, essential organs such as the heart or liver?²⁵⁸

To save lives and eliminate suffering, Florida’s Anatomical Gift Statute should be amended to include a provision akin to Section 4 of the 1987 UAGA,²⁵⁹ unequivocally stating that all individuals will be presumed organ donors unless the prospective donor or his or her family objects. In addition to declaring that all individuals will be presumed to be organ donors, the Statute also should provide a clear and effective manner by which an individual opposed to organ donation may “opt-out.” Just as Florida organ donors currently can demonstrate their status as organ donors via their Florida identification cards or driver’s licenses, the new law should provide that the designation of non-organ donor be available as a means of opting out of the presumed organ-donation system. Similarly, a non-organ donor could demonstrate his or her intent to refuse organ donation through a will or other document. Florida’s Anatomical Gift Statute should be amended to include the following section concerning presumed consent:

**Presumed Consent to Organ Donation for
Transplantation**

255. *Supra* nn. 92–120, 132–136, 147–156, and accompanying text.

256. Vawter, *supra* n. 120, at 58–59; *supra* n. 167 and accompanying text (discussing these advanced procedures).

257. Nelkin & Anderson, *supra* n. 3, at 288 n. 282.

258. Florida’s current laws allow for the removal of a decedent’s corneas, like the hypothetical Joe Carson, but leaves the other needed organs to decay. *Supra* pt. I.

259. Unif. Anatomical Gift Act of 1987 § 4, 8A U.L.A. 43.

- (1) In any case in which a patient needs an organ for transplantation and it is possible to remove the organ within the useful life of the organ, the organ of a decedent may be harvested if all of the following conditions have been met:
 - (a) a decedent who may provide a suitable organ for donation has been certified dead by a physician using either cardiac or whole brain death standards;
 - (b) no objection to organ donation by the decedent or the decedent's family is known or suspected;
 - (c) the surgeon, physician, or technician who harvests the organ is not the same individual who certifies the death of the decedent;
 - (d) all reasonable efforts are made to restore cosmetically the decedent's appearance after the organ is harvested;
 - (e) the removal is in accordance with accepted medical standards;
 - (f) the organ removal does not interfere with the subsequent course of an investigation or autopsy; and
 - (g) no individual or organization involved in the organ procurement process may be held liable in any civil or criminal action for failure to obtain the consent of the donor's family.
- (2) If an individual does not wish to become an organ donor, he or she may carry a non-organ donor card.
 - (a) The Florida Department of Motor Vehicles shall present to every individual receiving a driver's license or other identification card the option to have placed on such identification card the designation of non-organ donor.
 - (b) In the absence of a non-organ donor card or an objection by the decedent or decedent's family, individuals and organizations involved in the organ procurement process may assume that all decedents are organ donors.

In addition to the proposed statutory language above, the "definitions" section of the Florida Statute should be amended to include the following definition of "organ": any part or subpart of the human body including but not limited to the kidneys, heart,

lungs, liver, pancreas, intestine, stomach, eyes, tissue, bone, and skin.

A. Common-Law Support for Presumed Consent

The Florida Supreme Court has upheld the constitutionality of Florida's presumed-consent-based cornea-donation statute.²⁶⁰ In *State v. Powell*,²⁶¹ the parents of two decedents challenged the constitutionality of Florida's Anatomical Gift Statute after medical examiners removed the corneas of each decedent upon autopsy without notice or prior consent.²⁶² The plaintiffs claimed that the unauthorized removal of the corneal tissue of their children resulted in a violation of the United States and Florida Constitutions,

depriv[ing] survivors of their fundamental personal and property right to dispose of their deceased next of kin in the same condition as lawful autopsies left them, without procedural or substantive due process of law, . . . creat[ing] an invidious classification which deprives survivors of their right to equal protection; and . . . permit[ting] a taking of private property by state action for a non-public purpose. . . .²⁶³

The Court rejected each of the above arguments, upholding the constitutionality of presumed consent to cornea removal.²⁶⁴ The Court began its analysis by underscoring the legal tenet that "a person's constitutional rights terminate at death."²⁶⁵ In its detailed analysis, the Court also emphasized that "the next of kin have no property right in the remains of a decedent,"²⁶⁶ and that the rights of a decedent's next of kin are limited to those of burial and sepulture.²⁶⁷ Discussing the interest of the State in adopting presumed-consent-based organ-donor laws, the Court engaged in a cost-benefit analysis.²⁶⁸ In this analysis, the Court weighed the fact that the State spends a significant amount of money aiding

260. *State v. Powell*, 497 So. 2d 1188, 1189 (Fla. 1986).

261. 497 So. 2d 1188.

262. *Id.* at 1189-1190.

263. *Id.* at 1190.

264. *Id.* at 1193.

265. *Id.* at 1190 (citing *Roe v. Wade*, 410 U.S. 113 (1973), and other authority).

266. *Id.* at 1191.

267. *Id.*

268. *Id.* at 1190.

blind individuals amenable to a cornea transplant against the slight impact that a cornea removal might have on the family of a decedent.²⁶⁹ Delving deeply into the interests affected by presumed-consent corneal donation, the court stated,

The increasing number of elderly persons in our population has also created a great demand for corneas because corneal blindness often is age-related. . . . [In addition,] [c]orneal transplants are particularly important in newborns. The brain does not learn to see if the cornea is not clear. . . . Without [the presumed-consent statute], there would be virtually no corneal tissue available for infants. . . .²⁷⁰

The Court also considered the need for high-quality corneas, which can be procured only if removed within the first few hours after the death of the donor.²⁷¹ Concerning these goals, the Court noted that “[t]he implementation of [the statute] in 1977 has, indisputably, increased both the supply and quality of tissue available for transplantation.”²⁷²

The logic underlying presumed consent to corneal donation can be extended to support arguments for an all-encompassing presumed-consent law. Florida’s elderly and newborns alike could benefit greatly from an increased supply of organs. In addition, racial minorities are in desperate need of organs, as some commentators argue that minorities are treated with inequality by the current organ-allocation system.²⁷³ Additionally, similar to

269. *Id.* (explaining that in 1986, Florida allocated \$138 million to provide the basic necessities of life for its blind citizens).

270. *Id.* at 1190–1191.

271. *Id.* at 1191.

272. *Id.* In 1976, the year before the presumed-consent statute was enacted, merely 500 corneas were procured in Florida for transplantation. *Id.* However, in 1985, more than 3,000 individuals received a sight-restoring corneal transplantation. *Id.*

273. Michele Goodwin, *Deconstructing Legislative Consent Law: Organ Taking, Racial Profiling, and Distributive Justice*, 6 Va. J.L. & Tech. 2, 36 (2001) (arguing that racial minorities provide many quality organs for transplants, but are always last in line to receive an organ for transplantation). Dr. Iserson presents the argument that minorities are less willing to donate organs despite the fact that they comprise a disproportionately large portion of those awaiting organ transplants. Iserson, *supra* n. 10, at 71. In 2000, the race and percentage of total of individuals waiting for a kidney transplant were as follows:

White	21,725 (45.8%)
Black	16,606 (35.0%)
Hispanic	5,684 (12.0%)
Asian	2,496 (5.3%)

corneas, high-quality organs can be harvested only in procedures initiated shortly after the death of the donor.²⁷⁴

Other state courts have upheld the constitutionality of statutes similar to that of Florida's based on presumed consent. In *Georgia Lions Eye Bank v. Lavant*,²⁷⁵ the Georgia Supreme Court, which primarily relied upon the principle that no constitutional right exists in a dead body, ruled that the removal of a deceased infant's corneas without parental approval served the greater good of society and did not violate the parents' constitutional rights.²⁷⁶ Similarly, in *Brotherton v. Cleveland*,²⁷⁷ the federal court, applying Ohio law, denied that the constitutional rights of a decedent's wife were violated because the decedent's corneas were removed despite her request that they remain in the corpse.²⁷⁸ Though "disturbed by the defendants' callous actions," the plaintiff did not have a right upon which she could rest a constitutional claim that would entitle her to her dead husband's body.²⁷⁹ These

Other 979 (2.1%)

Id.

274. *Supra* nn. 161–168 and accompanying text (discussing the time-related issues surrounding organ donation and transplantation).

275. 335 S.E.2d 127 (Ga. 1985).

276. *Id.* at 129. The facts demonstrated that the infant died of Sudden Infant Death Syndrome (SIDS) and that her corneas were removed upon autopsy. *Id.* Over the parents' constitutional arguments, the Court held the following:

The preservation of the public health is one of the duties devolving upon the State as a sovereign power. In fact, among all the objects sought to be secured by governmental laws, none is more important than the preservation of the public health; Health regulations are of the utmost consequence to the general welfare; and if they are reasonable, impartial, and not against the general policy of the State, they must be submitted to by individuals for the good of the public, irrespective of pecuniary loss. . . . Certainly, the General Assembly has within its powers, in the interest of the public welfare, to authorize this procedure, which yearly benefits hundreds of Georgians.

Id. In *Janicki v. Hosp. of St. Raphael*, 744 A.2d 963, 964 (Conn. Super. 1999), a hospital removed organs from a stillborn child in the face of the mother's known prohibition. Drawing from history, film, and literature, the court explained the multifaceted value of the human corpse as follows:

In 1993, during the Battle of Mogadishu in Somalia, American servicemen repeatedly risked their lives to rescue the bodies of slain comrades. . . . This is an ancient military tradition, going back to the battle fought over the body of Patroklos on the plains of Troy. It is also a powerful illustration of the symbolic importance that the bodies of the dead have for the hearts and minds of the living.

Id. (citation omitted). The court upheld the plaintiff–mother's cause of action for negligent infliction of emotional distress, yet barred the other claims based on malpractice and promissory estoppel. *Id.* at 975.

277. 733 F. Supp. 56 (S.D. Ohio 1989).

278. *Id.* at 57.

279. *Id.* at 60.

cases evidence the principle that presumed consent to organ donation is a valid and constitutional method of obtaining organs for transplantation.

Another facet of the common law that supports implied consent to organ donation beyond that of the cornea and pituitary gland is good-faith immunity. As noted, all fifty states, the District of Columbia, and the Virgin Islands have adopted some version of the UAGA.²⁸⁰ The UAGA provides a blanket of immunity from liability for the transplant community so long as organ donation is carried out in good faith.²⁸¹ In *Brown v. Delaware Valley Transplant Program*,²⁸² the transplant team harvested a decedent's heart and kidneys without the family's consent.²⁸³ The decedent's siblings and father sued the transplant program, alleging intentional infliction of emotional distress, mutilation of a corpse, civil conspiracy, and assault and battery.²⁸⁴ The transplant program successfully argued that the Pennsylvania Anatomical Gift Act, modeled after the UAGA, authorized the removal of the decedent's kidneys and heart without the consent of his next of kin.²⁸⁵ The court entered summary judgment in favor of the trans-

280. Unif. Anatomical Gift Act of 1987 hist. nn., 8A U.L.A. 19.

281. Unif. Anatomical Gift Act of 1968 § 7(c), 8A U.L.A. 124 (providing that "[a] person who acts in good faith in accord with the terms of this Act or with the anatomical gift laws of another state [or a foreign country] is not liable for damages in any civil action or subject to prosecution in any criminal proceeding for his act").

282. 615 A.2d 1379 (Pa. Super. 1992).

283. *Id.* at 1380. The facts show that on October 30, 1984, Larry Brown arrived at the Brandywine emergency room at 5:20 a.m. with a gunshot wound to the head. *Id.* One hour later, neurosurgeon James Argires, M.D., diagnosed Mr. Brown as "suffering from a terminal head injury" and placed Mr. Brown on life support. *Id.* Dr. Argires then informed the Delaware Valley Transplant Program that Mr. Brown was a potential organ donor. *Id.* Brain death was documented at 10:35 p.m. on October 31, 1984. *Id.* Mr. Brown's kidneys and heart were harvested for transplantation on the morning of November 1, 1984. *Id.* "The first relative of the decedent to be located as a result of the search undertaken by [S]tate police was the decedent's sister, Virginia Brown, who was located at her office at 10:15 on the morning of November 1, 1984." *Id.*

284. *Id.* at 1381-1382.

285. *Id.* at 1381. The court cited Pennsylvania's Anatomical Gift Act, which provides, Any of the following persons, in order of priority stated, when persons in prior classes are not available at the time of death, and in the absence of actual notice of contrary indications by the decedent or actual notice of opposition by a member of the same or a prior class, may give all or any part of the decedent's body for any purpose specified in Section 8603 of this code: (1) the spouse; (2) an adult son or daughter; (3) either parent; (4) an adult brother or sister; (5) a guardian of the person of the decedent at the time of his death; and (6) any other person authorized or under obligation to dispose of the body.

Id. (emphasis in original) (citing 20 Pa. Consol. Stat. Ann. § 8602(b) (1991)).

plant program on the basis of good-faith immunity,²⁸⁶ noting that the State statute authorized the transplant program to remove the organs, and that the State police had conducted a reasonable search for the decedent's next of kin without success.²⁸⁷ The actions of the transplant program in *Brown* were both authorized under the UAGA and protected by the good-faith immunity clause of the same.²⁸⁸

Fear of legal action should not be an impediment to successful organ donation and transplantation programs. The organization in *Brown* ultimately prevailed, but other organizations should not have to proceed in the shadow of impending litigation. Clear laws authorizing presumed consent are necessary to protect the organizations that provide life-saving organs for those in need of transplantation.

VIII. CONCLUSION

The colorful history of organ donation has resulted in feelings of hope and despair. Hope can be found in the fact that doctors and scientists have developed new procedures for life-saving transplants that would not have been possible in the past. Individuals suffering from organ failure who, in the recent past, would necessarily face a languishing demise now embrace the possibility of survival. Despair, on the other hand, is represented by the grim statistics of organ scarcity. Despair accompanies many of the thousands placed on the UNOS waiting list.

An organ-procurement system based on presumed consent could bridge this gap between hope and despair, uniting individuals in need of an organ with life-saving organs for transplantation.²⁸⁹ The laws that would make possible such a system could be modeled after the 1987 version of the UAGA. Presumed consent is already fast at work procuring corneas for the benefit of the blind, and the practice of organ donation is overwhelmingly supported

286. *Id.* at 1381.

287. *Id.* at 1382. The court stated, "The difficulty encountered by the State Police in their attempt to expeditiously locate Larry Brown's relatives was occasioned not by any failure on the part of appellees but rather by reason of the estrangement between Larry Brown and his family." *Id.*

288. *Id.* at 1385.

289. If there had been a presumed-consent system in the hypothetical, then Joe's life-giving organs could have been united with those individuals in need rather than decaying in his body. *Supra* pt. I.

in our society.²⁹⁰ In this era, when avarice governs the daily affairs of most men, should not the law do all within the confines of its power to support organ donation, a final act of benevolence? Therefore, this doctrine, representing the benevolence and fraternity of humankind, should be expanded to include the procurement of all organs.²⁹¹

290. *Supra* n. 32 and accompanying text.

291. The following poem, "To Remember Me" written by Robert Noel Test, encapsulates the sentiments of this author regarding the choice to donate one's organs.

The day will come when my body will lie upon a white sheet neatly tucked under four corners of a mattress located in a hospital busily occupied with the living and the dying.

At a certain moment a doctor will determine that my brain has ceased to function and that, for all intents and purposes, my life has stopped.

When that happens, do not attempt to instill artificial life into my body by the use of a machine. And don't call this my deathbed. Let it be called the Bed of Life, and let my body be taken from it to help others lead fuller lives.

Give my sight to a man who has never seen a sunrise, a baby's face or love in the eyes of a woman.

Give my heart to a person whose own heart has pain.

Give my blood to the teenager who was pulled from the wreckage of his car, so that he might live to see his grandchildren play.

Give my kidneys to one who depends on a machine to exist from week to week.

Take my bones, every muscle every fiber and nerve in my body and find a way to make a crippled child walk.

Explore every corner of my brain.

Take my cells, if necessary, and let them grow so that, someday, a speechless boy will shout at the crack of a bat and a deaf girl will hear the sound of rain against her windows.

Burn what is left of me and scatter the ashes to the winds to help the lower Flowers grow.

If you must bury something, let it be my faults, my weaknesses, and all prejudice against my fellow man.

Give my sins to the devil. Give my soul to God. If, by chance, you wish to remember me, do it with a kind deed or word to someone who needs you.

If you do all I have asked, I will live forever.

Our World, *To Remember Me* <<http://ourworld.comuserve.com/homepages/robtest1documents/obituaries/RobNoelTest/R>> (updated Nov. 11, 1998) (quoting Robert Noel Test, *To Remember Me*).