"He Wants To Do What?" Cryonics: Issues in Questionable Medicine and Self-Determination

John LaBouff

Follow this and additional works at: http://digitalcommons.law.scu.edu/chtlj

Part of the Law Commons

Recommended Citation
Available at: http://digitalcommons.law.scu.edu/chtlj/vol8/iss2/7
"HE WANTS TO DO WHAT?"
CRYONICS: ISSUES IN QUESTIONABLE MEDICINE AND SELF-DETERMINATION

John Paul LaBouff

sn·ics n: the practice of freezing a dead diseased human in hopes of bringing him back to life at some future time when a cure for his disease has been developed.

Dr. Thomas Donaldson needs to commit suicide before his brain tumor kills him. However, he does not wish to do this because he is weary of a life lived in pain. Nor does his desire to die stem from mental illness or depression. Rather, it seems Dr. Donaldson wants to end his life because, as a cryonicist, he believes that there is an opportunity to live this life again without the tumor. If it comes at all, this opportunity would follow fifty or a hundred years of sub-zero freezing. However, time is against him. He risks dying before he can take his own life. He needs to freeze himself soon, because any chance of being reanimated depends on minimizing the amount of damage to his brain by the tumor.

Dr. Donaldson’s situation is complicated by the fact that he requires a staff of cryonic suspension experts from Alcor Life Extension Foundation (hereafter Alcor), a California based cryonics organization, to assist him. These experts are needed because they will aid Donaldson in the particular manner of death necessary if cryonic suspension is going to be followed by life in the future. However, those who assist Donaldson in his distinctive death are probably breaking the law. If the State of California is not enjoined from prosecuting those who would help him, he will likely die within five years. If they risk assisting him without the injunction and cause his death by cryonic suspension, members of Alcor will

Copyright © 1992 by John Paul LaBouff.
† J.D. 1992, Santa Clara University School of Law; B.A. 1989, University of California Santa Cruz.
1. The author wishes to thank Professors Alexander and Steinman of Santa Clara University School of Law for their insight and encouragement. In addition, the author would like to recognize Chris Ashworth of Garfield, Tepper, Ashworth, and Epstein for sharing his time and writings.
2. WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 312 (1988).
almost surely be charged with murder\textsuperscript{3} or assisting a suicide.\textsuperscript{4}

I. INTRODUCTION

The History of Cryonics

Cryonics is the practice of maintaining those who have been declared legally dead at \(-320\) degrees, for possible reanimation when a cure is found for the cause of their death. The conceptual foundation for the practice was laid in science fiction beginning in the 1930s.\textsuperscript{5} In 1964 Robert C. W. Ettinger, a professor of physics, published \textit{The Prospect for Immortality}. This was the first time anyone seriously suggested that cryonics might be possible. Specifically, Professor Ettinger outlined how and why the freezing aspect of the procedure would work, leaving the more difficult procedures of thawing and reanimation for future breakthroughs.\textsuperscript{6} In 1967 James Bedford, Ph.D. was the first “patient” to be cryonically suspended. However, unlike the cause of death that Donaldson desires, Dr. Bedford’s death was from natural causes. The organization that assumed his care is now defunct. Presently he is in the custody of Alcor, the same association of which Dr. Donaldson is a member.\textsuperscript{7}

Currently there are 34 cryonics “patients” in the United States.\textsuperscript{8} All but two are in California laboratories. Alcor’s membership (those who will undergo cryonic suspension upon their death) is 303, more than triple what it was in 1987.\textsuperscript{9} To date, twenty Alcor members have been suspended.\textsuperscript{10} Currently there are 163 people in the process of becoming members, a procedure that takes somewhere between four to five months. Moreover, there are

\textsuperscript{3} "Murder is the unlawful killing of a human being . . . with malice aforethought." \textit{CAL. PENAL CODE} § 187(a) (West 1988).

\textsuperscript{4} “Every person who deliberately aids, or advises, or encourages another to commit suicide, is guilty of a felony.” \textit{CAL. PENAL CODE} § 401 (West 1988).

\textsuperscript{5} BRIAN WOWK & MICHAEL DARWIN, \textit{ALCOR: THRESHOLD TO TOMORROW} 8 (1989).

\textsuperscript{6} \textit{Id.}

\textsuperscript{7} \textit{ALCOR LIFE EXTENSION FOUNDATION, ORIENTATION MATERIAL} (July 1990) (on file with the \textit{Santa Clara Computer & High Technology Law Journal}) [hereinafter ORIENTATION MATERIAL].

\textsuperscript{8} Telephone Interview with Carlos Mondragon, President, Alcor Life Extension Foundation (Jan. 13, 1992) [hereinafter Mondragon]. During the interview it was revealed that in the last three years, between 60% and 80% of all new members were from the computer industry and work in the Silicon Valley. Mr. Mondragon went so far as to describe the current cryonic trend in the trade as “becoming part of the corporate culture.”

\textsuperscript{9} Mondragon, \textit{supra} note 8.

\textsuperscript{10} Telephone Interview with Hugh Hixon, M.S., Biochemist and Facilities Engineer, Alcor Life Extension Foundation (Jan. 13, 1992).
approximately 400 subscribers to Alcor's periodicals. Notable patients in Alcor's care include Dick Clair, a television producer and writer who received three Emmy's, and Dora Kent, whose death and ensuing suspension brought Alcor national attention following suspicion by local authorities of foul play. Both Mr. Clair's and Mrs. Kent's wishes to be suspended were accompanied by legal action and much ensuing publicity. In the former case, Alcor had to compel Sherman Oaks Hospital in court to cooperate with the procedure. In the case of Dora Kent, Alcor was required to defend itself when the Riverside County coroner sought to perform an autopsy on her remains. The coroner suspected that Mrs. Kent was not yet legally dead when cryonic suspension had begun, resulting in an accusation of murder. After an extensive legal battle, Alcor was cleared of all wrong-doing, and no autopsy was performed.

The Arguments

This comment considers the legal issues surrounding consensual death caused by cryonic suspension. In order to examine the legal controversy surrounding Dr. Donaldson's case, it is necessary to understand the cryonic procedure. Following a discussion of the history of cryonics and the science itself, this comment will analyze two possible arguments supporting Dr. Donaldson's desire to be allowed to consent to his death, without threat of prosecution to those who assist him with the cryonic suspension. These arguments are as follows:

1. The right to privacy in both the U.S. and California Constitutions embraces suicide as a right, and therefore prosecution is precluded against those who actively assist Dr. Donaldson in committing suicide.
2. Dr. Donaldson has a right to choose the kinds of medical care he wishes, including cryonics, and gamble on the success of new treatments.

Following consideration of these arguments, new developments in both technology and the law which may impact both medically assisted suicide and cryonics are presented. A brief conclusion follows.

11. Mondragon, supra note 8.
12. ORIENTATION MATERIAL, supra note 7.
II. A New Motive for Suicide

Dr. Donaldson is a 46 year old scientist, mathematician, computer programmer and science writer. His cryonic suspension arrangements have been made since 1975. In the last eighteen years he has been a member of various cryonics organizations, and has published articles on cryonics in journals devoted to the topic. One of his recent pieces, in January of 1990, was titled *Bioethics and Cryonics*. There, he considered what the purpose of medicine ought to be in the face of increasing understanding of molecular biology and advancing technological ability. His attempt to have himself cryonically suspended has received extensive public attention both in the press and popular media, having been the inspiration of episodes of both "L.A. Law" and "Cheers."

On April 30, 1990, Donaldson filed a complaint with the Superior Court of California in Santa Barbara County. The complaint sought declaratory relief and an injunction preventing prosecution of any members of Alcor who assist in his death from cryonic suspension. Moreover, Donaldson sought to prevent an autopsy upon his remains. The named defendants are John Van De Kamp, Attorney General for the State of California, Thomas Sneddon, Jr., District Attorney of the County of Santa Barbara, and James Vizzolini, Acting Coroner of the County of Santa Barbara.14 This complaint followed a diagnosis in 1988 that Donaldson is suffering from a Grade II astrocytoma, an incurable and malignant brain tumor. He can expect a fatal outcome by August 1993. Such an outcome will occur sooner if his condition worsens and becomes an even more serious astrocytoma.15

If Donaldson waits for his condition to worsen and ultimately cause his death, a significant amount of brain tissue will be destroyed as the tumor grows and compromises surrounding areas. Any future hope that he might have of being reanimated would likely be lost, for according to cryonicists there would not be enough brain matter left to maintain life, if life were possible in the future. With this in mind, Donaldson apparently feels that he needs to immediately force the issue of his right to die, in the manner, and for the reasons he chooses. This makes his case different from other cases of euthanasia.

Donaldson’s situation is different because, broadly speaking,

15. *Id.*
right to die cases have largely involved patients who were suffering or unconscious, and who were in need of life support systems to maintain life. These acts of euthanasia involved withholding care in some way, either by ceasing intravenous feeding or not resuscitating patients who could be resuscitated. Specifically, the act of euthanasia was passive inasmuch as the affliction was allowed to run its course. Donaldson’s case is different because the cause of his death would be the active process of preparing him for cryonic suspension. His tumor will not be the cause of his death. Actually, his death from the tumor would not even be imminent when he is suspended. (see part III.)

There are two further reasons why Donaldson’s situation is different from other cases of euthanasia. First, unlike others, he intends to live this life again. This is not the same as saying other patients do not want to die, and would rather not have to make a decision to die or live on life support. It would be safe to assume that Donaldson feels the same way. Instead, he and the people who help him, are taking what they consider to be a rational gamble that in the future science will provide him the opportunity to be reanimated: to come back to life as Thomas Donaldson, Ph.D.

The final reason this case is different is the unsettling, seemingly macabre scenario that will cause Donaldson’s death. We tend to sympathize with an accident victim in a prolonged coma, and may not blanch at the idea of ending that suffering. Nor might many argue, though possibly more than in the case of a comatose patient, that a terminal and pain-ridden patient who wishes to end her life, should be denied the right to die with dignity and a physician’s assistance, in her sleep. However, the procedure Donaldson has consented to seems fiendish and gruesome by comparison. It involves the use of technology and drugs, unfamiliar to most, which will actually kill him when he is not near death. Finally, as will be explained later, it will involve severing his head from his body.

III. THE CRYONIC SCIENCE

The Cryonic View of Death

Those who subscribe to the theory of cryonics see their objective by analogy to traditional medicine. “Just as the CPR rescuer seeks to stabilize the cardiac arrest victim and move him over distance to medical assistance, the cryonics rescuer seeks to stabilize his patient and move him through time to an era when effective
medical help is likely to be available.”

Those who subscribe to the theory behind cryonics do not accept the prevailing standards of death in law and medicine. More precisely, they believe that today's medicine uses incorrect, flawed standards. In California, death is deemed to occur upon the irreversible cessation of circulatory and respiratory functions, or the irreversible cessation of activity in the brain and brain stem.

Instead of function, cryonicists use structure to define death, since traditional standards change from time to time. For example, prior to electroshock anyone whose heart had stopped following a heart attack would be considered dead. Now this is an outdated view. The death-in-terms-of-structure view says that death occurs where there is not sufficient structure to maintain life, if life could be somehow breathed back into the patient. A cryonicist sees death only in instances of advanced cell damage or extreme trauma; instances where life could be neither inferred nor deduced from the damaged state of the person. Bluntly, the victim of a shotgun blast to the head is probably dead by a cryonicist's definition. However, current clinical death from lung cancer is not death for a cryonicist, since enough brain structure likely remains to infer life.

If Dr. Donaldson's brain tumor is allowed to run its course, he will be dead by both views. The tumor will increase in size and begin to reduce the amount of oxygen being circulated in the brain. This will ultimately stop both brain and respiratory activity. Moreover, as it increases in size it compromises the surrounding tissue, ultimately destroying the structure of the brain. For a cryonicist, this is a fate worse than death. It would mean that no life could ever be supported by the amount of brain left, if the patient could be reanimated.

For this reason, Dr. Donaldson's complaint seeks to enjoin an autopsy upon his body following his cryonic suspension. "If the patient's chance is to be maximized, embalming and autopsy must be avoided.”

---

17. ALCOR LIFE EXTENSION FOUNDATION, MEDIA FACT SHEET 3 (July 1990) (available as part of a media release, on file in the Santa Clara Computer & High Technology Law Journal).
18. CAL. HEALTH & SAFETY CODE § 7180 (West 1982).
19. ORIENTATION MATERIAL, supra note 7.
the point of making reanimation unlikely or impossible. For this reason the purpose of exercising any right to end his life before his death would be defeated. However, California law regarding the duties of coroners requires that the coroner shall “inquire into and determine the circumstances, manner and cause of all . . . known [or] suspected homicides, suicides. . . .”22 The coroner is afforded discretion to determine the extent of the inquiry.23

The Cryonic Procedure

The cryonic suspension procedure has never before been performed on a living human.24 However, it has been performed on at least 34 humans following death, as well as lab animals. In 1987 a dog underwent cryonic suspension and was revived, although the freezing temperature was not nearly as low as the current freezing level for deceased humans who are suspended.25 Moreover, the time the dog spent dead was measured in hours, whereas humans are suspended in the anticipation of revival in decades. As of yet, “no whole organ, including the brain, has ever been shown to recover normal function following warming from the temperatures required for long-term storage. Nevertheless, abundant evidence exists suggesting that high quality brain preservation can be, and is being, achieved with current technology.”26

The procedure should begin as quickly as possible following a pronouncement of death. This is to minimize the damage from ischemia: impaired or arrested blood circulation such as occurs in clinical death.27 In many cases a suspension team is stationed at a hospital on a stand by basis when death seems imminent for a member of a life extension organization. Since there is not always a way to know that death is imminent, Alcor members wear stainless steel identification tags with instructions to call Alcor’s Emergency Response Team. This will summon a response team around the clock.

The first thing such a team does is restore circulatory and respiratory function by use of a heart-lung resuscitator (Thumper) and/or heart lung machine (blood pump and artificial lung).28 The

22. CAL. GOV'T CODE § 27491 (West 1988).
23. Id.
26. WOWK & DARWIN, supra note 5, at 14.
27. Id. at 40.
28. Id. at 40-41.
patient will then be treated with cryoprotectant drugs to minimize damage from the freezing process. The drugs, such as glycerol, are administered through use of a heart-lung machine by circulating a blood substitute through the patient’s tissues. Next the patient will be cooled to -110 degrees in a silicone oil bath for 2-3 days. If a patient opts for what is called nuerosuspension, the head is removed from the body and the procedure is performed on this alone.\textsuperscript{29} The cooling process in such a case takes only one day. Dr. Donaldson has chosen this course.

Following this first cooling the patient is further cooled to the temperature of liquid nitrogen (-320 degrees), and then is submerged in liquid nitrogen. Chemical and biological activity is essentially stopped at this point, so long as this temperature is maintained. No further cell breakdown will occur and patients may be stored indefinitely if the liquid nitrogen is monitored and replenished, as it is depleted by the small amount of heat that enters the storage container.\textsuperscript{30}

The storage containers in which patients are held at Alcor are inside concrete vaults to guard against fire, vandalism, and earthquakes. Additionally, they are equipped with alarm systems in case there is a problem with liquid nitrogen levels. Finally, the facility is guarded by security personnel.\textsuperscript{31}

The two kinds of cryonic suspension are distinguished by dramatic costs. Full body suspension costs $120,000, whereas the suspension of a head only comes to $41,000.\textsuperscript{32} This is to be paid in full, up front, before death. The reasons why one might choose nuerosuspension begin with the cost. Other reasons include the fact that the brain is the source of a patient’s identity. One’s memories and personality are stored there. Those who choose nuerosuspension rely on the fact that in order to reanimate a full body patient, significant technological advances must be made to repair the damage done during freezing. If such advances occur these people believe that they will likely lead to the regrowth or cloning of a patient’s body. Both choices however, are founded on the belief that “humanity will soon have detailed control over living systems, allowing us to end most human illness, reverse and control the aging process.”\textsuperscript{33} Such advances will require the ability to manipulate

\begin{thebibliography}{9}
\bibitem{29} Id.
\bibitem{30} Id. at 45.
\bibitem{31} Id. at 46.
\bibitem{32} Mondragon, \textit{supra} note 8.
\bibitem{33} \textit{Orientation Material}, \textit{supra} note 7.
\end{thebibliography}
matter at the level of the atom. The first step towards this technology was announced recently by researchers at IBM’s Almaden Research Center in San Jose, California.

Cryonicists do not promise that the procedure will work. The Alcor organization admits to daunting social and technological problems that will work against success, including “low public regard for the procedure.” They also believe that the procedure of cryonic suspension is not perfected. However, those who are active members, including the staff of the various organizations, generally believe that cryonics is a rational gamble: “For although the results of being suspended cannot be guaranteed, the results of not being suspended can be guaranteed! The value of cryonics is its broad ability to transform certain disaster into uncertain survival.”

IV. A FEDERAL RIGHT TO DIE AND PRIVACY

Dr. Donaldson contends that he has a privacy interest in determining the means and manner of his death. He also asserts that if this is true, he is entitled to be assisted in his death by those who wish to do so. If he can prove this, he can be assured of his right to undergo cryonic suspension premortem: to allow the suspension to cause his death in the eyes of the law.

Actually, Donaldson and other cryonicists do not even consider themselves dead following a cryonic suspension. In this sense, the issue is not adequately described as a right to die case, or even as a suicide issue. The latter is so because “popular perception normally views an action of suicide as a choice which recognizes the worthlessness of life.” Donaldson’s cryonic suspension would be an affirmation of his life - a desire not to stop living, presumably because his life is not worthless to him.

Instead of a right to die or a right to suicide, this case is generally about autonomy. It is about Dr. Donaldson’s right to determine for himself what medical treatment, even treatment of dubious

36. WOWK & DARWIN, supra note 5, at 50.
37. Id. at 51.
38. For an excellent account of the history and development of the constitutional law relating to physician assisted death, see George J. Alexander, Death By Directive, 28 SANTA CLARA L. REV. 67 (1988).
value, he may seek in the face of legitimate state interests. However, cases about euthanasia serve as a strong source of precedent, from which a suicide right may be inferred. Ultimately, the claim will be based on the fact that there is no distinction between active and passive euthanasia strong enough to prohibit Donaldson to have his suicide assisted.

The most recent, high profile right to die case, *Cruzan v. Missouri Director of Health,*\(^40\) was decided in June of 1990. There, the State of Missouri sought to protect its interest in the life of Nancy Cruzan, who had been in a vegetative state following an automobile accident in 1983. The Court held that a State may apply a clear and convincing evidence standard in proceedings where a guardian seeks to discontinue nutrition and hydration of a person diagnosed to be in a persistent vegetative state. In so doing the Court affirmed a Missouri Supreme Court decision allowing the State to continue to provide and bear the cost of medical care, over the wishes of Ms. Cruzan's parents, for lack of evidence. The only evidence offered that she would wish the withdrawal of hydration and nutrition was a conversation with a friend in which she said that "if sick or injured, she would not wish to continue her life unless she could live at least halfway normally."\(^41\) This was not deemed sufficient to meet the clear and convincing standard.

It is interesting to note that prior to the Supreme Court's decision, Mike Darwin, Director of Research for Alcor, published an article calling for the Court to decide the case in favor of Missouri.\(^42\) Mr. Darwin's point relies on the hope that medicine would provide some breakthrough that will help Ms. Cruzan in the future. He also noted that in the absence of any prior legally recognized directions from Ms. Cruzan for the discontinuation of her life support, her parents contention that she is essentially dead is telling:

> It would seem that Joe and Joyce Cruzan are mostly concerned about the suffering of Joe and Joyce Cruzan. If they are right, then Nancy is beyond suffering and the issues are aesthetic and related to whether keeping Nancy in that state is a reasonable expenditure of their and other's tax dollars.

No one is saying that Nancy is not suffering. It is possible that she is, although we see no evidence of it. This society has already made a commitment to provide money to care for people like

\(^{40}\) *Cruzan v. Director, Mo. Dep't of Health*, 110 S. Ct. 2841 (1991).

\(^{41}\) *Id.* at 2846 (quoting App. to Pet. for Cert. 97-98).

Nancy. In fact, such a commitment is part of a long and, I believe good, tradition of not giving up, of maintaining that where there is life there is hope.  

There is at least one troubling aspect to Mr. Darwin's analysis of Ms. Cruzan's situation. If she ought to be considered alive enough for the State to take a substantial economic interest in her life, thus preventing the family from interfering, why should Dr. Donaldson not have to wait out the future of advancing medicine rather than be allowed to cryonically suspend himself?

In a concurring opinion in *Cruzan*, Justice Scalia expressed his concern for the fact that the Court did not announce that federal courts had no business in the field of suicide. "American law," he said, "has always accorded the State the power to prevent, by force if necessary, suicide - including suicide by refusing to take appropriate measures necessary to preserve one's life. . . ." Donaldson's federal privacy right to suicide, although never explicitly announced by any court, has nevertheless not been ruled out following *Cruzan*. The following analysis will consider the strength of his claim to a right under the United States Constitution and will be followed by an evaluation of his claim under the California State Constitution.

A. The Foundation of a Federal Right to Die

At no time has suicide ever explicitly been held to be a right, considered fundamental, or "implicit in the concept of ordered liberty." The common law prohibited both suicide and consenting to one's death. This is made quite clear in "Suicide: A Constitutional Right?" There the authors extensively document the fact that when the 14th Amendment was ratified, only eight of the thirty-seven states definitely did not have laws that made assisting a suicide a criminal offense. Although suicide and attempted suicide are not currently crimes in any state, they have not always been so. The traditional punishments associated with English common law were lifted out of deference to surviving family. It seems clear

43. *Id.* at 11-12.
44. *Cruzan*, 110 S. Ct. at 2859.
47. *Marzen, supra* note 45.
48. *Id.* at 75-76.
50. *Marzen, supra* note 45, at 76.
then that any claim to a right to kill oneself, or to a right to be aided in one's suicide, must be inferred from facts that do not look exactly like suicide cases.

The federal courts have recognized a right to refuse medical treatment, even where it is likely to result in death. The Cruzan decision not only affirms this, it is essential to the decision. Had Ms. Cruzan left explicit directions, through a durable power of attorney, about the kinds of health care she would approve in the event that she were ever to be unable to give consent, she and her family would likely not have found themselves in the position they did. Nutrition and hydration almost certainly would have been disconnected long ago, and she would have been allowed to die.

The decision in Cruzan is the latest in a series of cases concerning the right to die. The thought behind such a right began with In re Quinlan. The New Jersey Supreme Court grounded its decision in notions of privacy found in the Federal Constitution, holding that Ms. Quinlan, who was in a prolonged vegetative condition, had the right to have her care discontinued. The court did not find Ms. Quinlan's privacy right to be compelling in every instance, however. Rather, her privacy right was to be considered alongside legitimate state interests.

Since the decision in Quinlan, four legitimate state interests in right to die cases have been identified. They are as follows: preserving life, preventing suicide, third party concerns, and protection of the medical community's integrity. Third party concerns are exemplified by the compulsion to undergo a blood transfusion because of a duty to a minor child or an unborn baby. In the decisions following Quinlan no appellate court has found any of the identified

51. Cruzan v. Director, Mo. Dep't of Health, 110 S. Ct. 2841, 2852 (1991). The Court said: "But for the purposes of this case, we assume that the United States Constitution would grant a competent person a constitutionally protected right to refuse lifesaving hydration and nutrition."


53. Note that the Quinlan decision differs from the Supreme Court's decision in Cruzan. In Quinlan, the New Jersey Supreme Court allowed a guardian and the family to substitute their judgment as to whether the patient would want care to be discontinued, even though there was no durable power of attorney.

54. Alexander, supra note 38, at 78.

state interests sufficient to override the wishes of the plaintiff.56

Other courts have followed New Jersey's lead and extended a federal privacy right to the refusal of medical treatment.57 In Superintendent of Belchertown State School v. Saikewicz,58 the Massachusetts Supreme Court decided that an incompetent, retarded patient of a mental health hospital could decline to undergo chemotherapy in an attempt to treat his leukemia.59 Another example is the case of In re Spring.60 There an elderly, senile patient was being treated for kidney disease with lengthy hemodialysis three times a week. Despite requests from the patient's wife and son, doctors would not cease treatment. After a series of prolonged appeals, the appellate court ordered that the dialysis be discontinued. However, unlike Quinlan, in both Spring and Saikewicz, the courts used the doctrine of substituted judgment, taking any decision about continued care upon itself, as opposed to allowing family to decide the direction of treatment.

It is important to note that each of these cases involved unconscious or incompetent patients, and no active assistance by third parties. The significance of this is that Donaldson is fully competent, the effects of his illness to date being only some speech problems, right sided weakness, and seizures.61 Otherwise, he is sharp and alert, and fully aware of the consequences of his desire to be cryonically suspended. Indeed, he has written articles on the subject, as well as having been interviewed about his case on national television. There is no chance he will be acting against his wishes or that a mistake will be made, an obvious and compelling concern of those opposed to euthanasia in any form. A possibility for a mistake always exists in cases like Quinlan, Spring, and Saikewicz. There, neither the state nor the families could have been entirely sure that the patient wanted medical care to cease and allow death to follow. Regardless of whether it is done by a court or a spouse, substituting judgment always creates doubt.

Donaldson's case is not made because we can verify the fact that he wants to die. Despite the clarity of his convictions, the law requires more. It requires that the manner, the cause, of the death be scrutinized. The distinction has been made in right to die cases.

56. Alexander, supra note 38, at 78.
57. Notable among these is California. See discussion supra part V.
59. Id.
60. 405 N.E.2d 115 (Mass. 1980).
between active and passive euthanasia. The former is against the law and likely amounts to what the Alcor members who assist in his death would face under prosecution.\textsuperscript{62}

If Dr. Donaldson is not allowed to be cryonically suspended, his tumor would eventually render him incompetent, and ultimately cause his death in the eyes of the law and traditional medical community. As part of this process he will eventually suffer a sufficient amount of brain damage to diminish his chances of preserving his life through cryonics. When the time finally comes when Dr. Donaldson is dependent on medical support, he could then refuse treatment through a durable power of attorney or by making his intentions clear to his doctor. In the event he is already dependent on such support, it could be discontinued simply because he does not like needles, and therefore objected to the intrusion of an intravenous tube in his arm. The effects of his tumor would slowly be allowed to run its course. Almost certainly the public would never know that this happened.

In the scenario just described, the doctor's action with respect to Donaldson's care would be inaction. In current euthanasia terms, declining to treat Dr. Donaldson would passively cause his death. This is what occurred in the privacy cases discussed above. No doctor did anything to actively hasten the death of the patients. Treatment was simply stopped and the sickness took the person's life.

This analysis is suspect. It is suspect because the distinction between passive and active euthanasia cannot be significant enough to preclude Donaldson from seeing his suspension through premortem, particularly since when the time comes, and his condition has caused him considerable pain and distress, he will be allowed to choose suicide through the refusal of treatment. Why should he have to wait to reach that point? Any suggestion that it is unnecessary for Donaldson to wait to become so ill that his refusal of medical treatment becomes relevant, because he may simply take his life himself quietly and without the assistance of others, misses the point. He requires a particular kind of death, which involves the help of others. The state's interest in some innocent, dependent third party is moot because he has no dependents. Moreover, it may not even be compelling at this point anyway.\textsuperscript{63} The interest in


\textsuperscript{63} As Professor Alexander points out in \textit{Death By Directive}, supra note 38, since \textit{In re President of Georgetown College, Inc.}, 331 F.2d 1000 (D.C. Cir. 1964), \textit{cert. denied}, 377 U.S. 978 (1964), Jehovah's Witnesses have been allowed to refuse urgent care even where there
preventing a murder or suicide is misdirected, because neither he nor the members of Alcor want him dead. The intent is to allow him to live some time in the future, in the hope that he can be reanimated and live this life again, doing all the things he did before, including paying his taxes. Nor can the State claim fraud or deception. Dr. Donaldson is a scientist, has been involved in cryonics for over eighteen years, and has never seen anyone revived from a cryonic suspension. This is not the description of a man who has been duped. Yet, he still wishes to see the procedure through.

Justice Scalia recognizes the weak distinction between active and passive euthanasia/suicide in his concurrence in *Cruzan*:

But to return to the principal point for present purposes: the irrelevance of the action-inaction distinction. Starving oneself to death is no different from putting a gun to one’s temple as far as the common-law definition of suicide is concerned; the cause of death in both cases is the suicide’s conscious decision to put an end to his own existence.64

The end result of walking into the sea to drown and waiting on the shore for the tide to come in and overcome you is not morally different,65 although it is currently legally significant. Donaldson is going to die from this tumor in five years. Maybe sooner. The end result of refusing treatment and waiting for his tumor to overcome him, and walking into death early and willingly is no different. Completely aside from the issue of cryonics, which is at least a noble, albeit doubtful, attempt to overcome his ailment, maybe he ought to be able to choose to end his life when he wishes. More-

---

64. *Cruzan v. Director, Mo. Dep’t of Health*, 110 S. Ct. 2841 (1991). Justice Scalia joined in the majority’s opinion, but in a concurring opinion stated,

I would have preferred that we announce, clearly and promptly, that American law has always accorded the State the power to prevent, by force if necessary, suicide — including suicide by refusing to take appropriate measures necessary to preserve one’s life; that the point life becomes “worthless,” and the point at which the means necessary to preserve it become “extraordinary” or “inappropriate,” are neither set forth in the Constitution nor known to the nine Justices of this Court any better than they are known to nine people picked at random from the Kansas City telephone directory; and hence, that even when it is demonstrated by clear and convincing evidence that a patient no longer wishes certain measures to be taken to preserve her life, it is up to the citizens of Missouri to decide, through their elected representatives, whether that wish will be honored.

*Id.* at 2859.

65. *Id.*
over, maybe he ought to be able to end it in a manner he chooses, among people he trusts to help him do it without pain. With his faith in cryonics, the end result of walking into death early might be different. It could take one hundred years. Maybe it will never happen. But if the intent of medicine is to extend lives, and Donaldson’s intention is to put himself in a suspended state in the hope of living again, that may be construed as no morally different than withholding nutrition and hydration from vegetative people whose judgments have had to be guessed at by courts or families. The intent of those who want to be taken off life-support is to die. As Professor Alexander, author of Death by Directive, observes, “Blaming the underlying disease rather than the act of life-support removal is romantic but illogical . . . To make a case depend on whether the person wishes to die as opposed to having life support removed . . . is too transparent to be useful and too insensitive to be ethical.”

At least one court has recognized the awkward distinction between active and passive euthanasia. In doing so, the same court that considered In re Quinlan extended the ability to refuse treatment in In re Conroy, even where it would cause death, beyond privacy to a generalized right to self determination. However, like privacy interests in refusing treatment, this common law right was not considered absolute. The court seemed to qualify this by saying:

On balance, the right to self determination ordinarily outweighs any countervailing state interests, and competent persons generally are permitted to refuse medical treatment, even at the risk of death. Most of the cases that have held otherwise, unless they involved the interest in protecting innocent third parties, have concerned the patient’s competency to make a rational and considered choice of treatment.

This seems to extend the view established in a case involving a battery by a doctor on an unconsenting patient. In Schloendorff v. Society of New York Hospital, Justice Cardozo’s opinion said:

Every human being of adult years and sound mind has a right to determine what shall be done with his own body; and a surgeon who performs an operation without his patient's consent com-

66. Alexander, supra note 38, at 83.
68. Id. at 1224.
69. Id. at 1225.
mits an assault, for which he is liable in damages.\textsuperscript{70}

This concept of self determination was alluded to by Justice Rehnquist in his decision in \textit{Cruzan}. In addition to quoting \textit{Schloendorff}, he made use of \textit{Union Pacific R. Co. v. Botsford}:\textsuperscript{71}

\[\text{[N]o right is held more sacred, or is more carefully guarded, by the common law, than the right of every individual to the possession and control of his own person, free from all restraint or interference of others, unless by clear and unquestionable authority of law.}\] \textsuperscript{72}

To date, the right of those patients able to secure Court approval in discontinuing medical treatment, thus allowing them to die, has been dependent on others. Someone needed to remove the life-support. Whoever it was did not risk prosecution, because the incompetent person was seen to be exercising his privacy right, thereby precluding the use of the criminal law against those treating him.\textsuperscript{73} Whoever stopped feeding the vegetative patients, allowing them to starve to death in the process of allowing their illness to overcome them, was assisting in those deaths. The right to die, therefore, must include the right to seek the assistance of others willing to make death possible. If Donaldson is not found to have a right to die before his brain tumor kills him, the same people who were cowed into not assisting him could remove his life-support, watch him die, and put him into cryonic suspension after he had suffered into a vegetative condition. If that is his future, Donaldson would surely consider himself worse off than if he had been allowed to die five years earlier, when he had originally wished to do so.

Dr. Donaldson's desire then to be cryonically suspended has not been clearly overruled by federal case law on euthanasia. The states may also have the right generally to make law in the area though. If so, his chances in California, where he currently is a resident, may be his best opportunity.

\section*{V. Right to Die and Privacy in California}

California may provide Dr. Donaldson with his best opportunity to exercise a right to privacy, allowing him to undergo cryonic suspension premortem. Article I, section 1 of the California Constitution says: "All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing, and protecting property, and

\begin{itemize}
  \item Union Pac. R.R. v. Botsford, 141 U.S. 250, 251 (1891).
  \item \textit{Id.} at 251.
  \item See generally, Smith, supra note 39, at 350-354.
\end{itemize}
pursuing and obtaining safety, happiness, and privacy."

Unlike the United States Constitution, California’s Constitution explicitly guarantees a right to privacy. As will be shown, this right has been construed to afford a privacy interest in the right to die. Additionally, the California Natural Death Act,\(^{75}\) says in part:

The legislature finds that adult persons have the fundamental right to control the decisions relating to the rendering of their own medical care, including the decision the have life-sustaining procedures withheld or withdrawn in instances of a terminal condition.

... The legislature further finds that, in the interest of protecting individual autonomy, such prolongation of life for persons with a terminal condition may cause loss of patient dignity and unnecessary pain and suffering, while providing nothing medically necessary or beneficial to the patient.

... In recognition of the dignity and privacy which patients have a right to expect, the Legislature hereby declares that the laws of the State of California shall recognize the right of an adult person to make a written directive instructing his physician to withhold or withdraw life-sustaining procedures in the event of a terminal condition.

As Donaldson’s attorney points out, in every case before a California court involving a competent patient’s right to die, the courts have acknowledged the right to end one’s life before the underlying illness caused prolonged suffering.\(^{76}\) Moreover, courts have also recognized that the ability to end one’s life is often dependent on the assistance of others. The discussion began with Barber v. Superior Court.\(^{77}\) There the family of an unconscious patient in a prolonged coma asked the attending physicians to remove intravenous tubes and allow him to die. The decision of the District Court held that those doctors could not be prosecuted for homicide.

Following Barber, the courts were presented with the case of a conscious patient who was terminal. Bartling v. Superior Court\(^{78}\)

\(^{74}\) CAL. CONST. art I, § 1.

\(^{75}\) CAL. HEALTH & SAFETY CODE § 7186 (West 1991).


\(^{77}\) Barber, 195 Cal. Rptr. 484 (Cal. Ct. App. 1983).

involved a hospitalized patient dependent on a ventilator. He suffered a collapsed lung following a biopsy, a situation complicated by his emphysema which prevented reinflation. He required tubes in both his nasal passage and chest, as well his trachea. Bartling's life expectancy was approximately one year if he remained on the ventilator. His discomfort was so great that several times he attempted to remove the tubes that allowed him to breathe. Despite the fact that he wished these removed, and executed a durable power to this effect, doctors would not disconnect the tubes to the ventilator. They were not removed even after a release was executed relieving the hospital of all liability if his instructions were followed and he subsequently died. Ultimately his hands were restrained to prevent him from a further attempt at removing his ventilator tubes.

Mr. Bartling died the day before the hearing of his petition to request an injunction ordering the hospital to remove the ventilator. However, the court saw fit to decide the case as a means toward establishing guidelines when the situation arose again. The court held that a competent adult patient has the right to refuse medical treatment, including the discontinuation of life support, even though it will hasten death, and even though the physicians and hospital object. It is important to note that Bartling, unlike Donaldson, was not diagnosed as terminal. He would have been allowed to have his life support removed merely because he was uncomfortable and in pain.

Finally, Bouvia involved a young woman who also was not terminal. Although she was bedridden and in extreme pain because of cerebral palsy and arthritis, she had a life expectancy of about twenty years provided she took nourishment through a nasogastric tube. Her condition was so severe that she could not even remove her feeding tubes to end her life. Like Bartling she was restrained. However, unlike Bartling it was not her doctors who restrained her, but rather her cerebral palsy prevented movements toward suicide. After changing her original wish to die, which the trial court considered an inadequate reason because of the motive of suicide, she was allowed to have her tubes removed when she gave the impression that she wanted to take her chances with her condition by exercising her right to refuse medical treatment.

79. Id. at 221.
80. Id. at 221.
81. Id. at 225.
82. Alexander, supra note 38, at 80.
Neither Bouvia nor Bartling explicitly announce a right to suicide. Rather they rely on the privacy right to refuse medical treatment, even where it is likely to cause death. Bouvia did say, however, that the patient’s motives for refusing medical treatment must not be considered. If in fact the refusal is a right, then it must not be scrutinized. This includes looking for whether the ultimate end is suicide. These decisions, however, rely on the same intellectually faulty notion of passive versus active distinction described by both Professor Alexander and Justice Scalia. Justice Compton articulated his understanding of this weakness in his concurring opinion in Bouvia:

In order to seek the assistance which she needs in ending her life by the only means she has available - starvation- she has had to stultify her position before this court by disavowing her desire to end her life in such a fashion and proclaiming that she will eat all she can physically tolerate. Even the majority opinion here must “dance” around the issue. Elizabeth apparently has made a conscious and informed choice that she prefers death to continued existence in her helpless and, to her, intolerable condition. I believe that she has an absolute right to effectuate that decision.

The right to die is an integral part of our right to control our destinies so long as the rights of others are not affected. That right should, in my opinion, include the ability to enlist assistance from others, including the medical profession, in making death as painless as possible. That ability should not be hampered by the state’s threat to impose penal sanctions on those who might be disposed to lend assistance.

Not only did Ms. Bouvia and Mr. Bartling commit suicide, but they did it with court approval. Moreover, they did it with the assistance of others, who were not prosecutable for aiding and abetting a suicide. Justice Compton realized this. It would seem that he thinks the majority opinions in both cases realize this as well, but that they do not come forth and say so.

Donaldson’s case is essentially no different than these two cases. In fact, in the way it is different his position is strengthened. Unlike both Bouvia and Bartling, he is terminal. The significance of this is not limited to the fact that he has fewer years to live than Bouvia. Additionally important is the knowledge that those years are limited by a specific and predictable boundary, which progress

84. Id. at 306.
85. Alexander, supra note 38, at 83.
irreversibly toward a death the details of which can be agonizingly and accurately foretold in stages. Although no one escapes death by some cause, not everyone is burdened with the details of this guaranty in the same manner as are those promised with a terminal illness. Those who are kept in the dark with respect to the details of fate are allowed a certain comfort in the hope that there is always a tomorrow. It is exactly this hope that those diagnosed with a terminal illness are seemingly expected to maintain by the State. Even though belief in miracles is courageous and commendable, and may in fact be the proper moral choice, it might not strike many as the kind of thing that ought to be imposed.

In the end, if his tumor does not cause immediate death, Donaldson will wind up like Quinlan, Bouvia, or Bartling and the results will technically be the same as if he were allowed to legally receive Alcor’s assistance. When his brain tumor ultimately displaces the surrounding matter, he will have a stroke and become somehow dependent on life support. Then he will have a right to exercise his privacy interest in refusing care, and he will be allowed to die. At that point Alcor can assume care and hope that the amount of damage done to his brain was not cryonically prohibitive. Even if the members of the Alcor suspension team assist him, and are convicted of aiding and abetting a suicide, Alcor would be the custodians of his body. However, the damage done to the brain following an autopsy would make cryonic suspension not worthwhile. Donaldson’s case then is clearly a matter of timing. This seems to be a poor foundation for a compelling state interest.

The compelling state interest to prevent assisted suicide is quite weak when the act is undertaken because of a terminal or severely handicapped illness, but admittedly more tenable when a decision to undertake suicide is made when death is not imminent. The state has persuasive arguments to see that its citizens remain healthy, care for their dependents and honor their contracts to fulfill binding legal obligations. Yet, the most humane and practical manner in which to deal with the immediate conundrum is to have suicide and aiding and abetting its execution defined statutorily as non-criminal.

Although Donaldson may have a privacy right in assisted suicide, that does not mean that the state must allow him to choose cryonic suspension as a method of treating his illness. *People v. Privitera* held that the right to privacy does not include the right

of terminally ill patients the right of access to a drug which is of debatable merit, but which they and their doctors believe may alleviate suffering and prolong life. In Privitera the drug in question was whether laetrile may be used for the treatment of cancer.

If the state may forbid the use of certain treatments because of a potential health hazard or because the FDA has not approved its use commercially, then California may forbid the use of cryonic suspension both before and after death as a method of treating brain tumors. Currently though cryonics is a legal treatment option.

At least one trial court in California has announced a constitutional right to undergo premortem cryonic suspension. The significance of this is that death following premortem suspension requires the assistance of third parties. In Kent v. Trask,90 which involved the possible prosecution of Alcor members for the unlicensed practice of medicine Judge Timlin wrote:

This court concludes that the Adherents, including Dora Kent, under Article I, section I of the California Constitution and the Fifth and Ninth Amendments to the United States Constitution have a privacy right to exercise control over his/her body and to determine whether to submit his/her body, or any portion thereof, including the brain, to premortem cryonic suspension. (In ruling on the application, this court in no way comments directly or indirectly on the wisdom of such a choice.)91

VI. CRYONICS AS MEDICAL CARE

In addition to a privacy right, another possible reason Dr. Donaldson may be able to choose to undergo cryonic suspension premortem, is that he may consent to the kinds of medical care he wishes and gamble on the success of new treatments. To date, cryonics is neither an established nor proven form of medicine. Moreover, members of Alcor do not presently publicly describe themselves as providing medical care. However, regardless of whether Dr. Donaldson chooses to claim this argument as his, cryonics groups will be forced into a position of having to call it medicine sooner or later.92 The use of the word "forced" here is important. Until now Alcor has been seen only as doing low temperature research on cadavers. Part of this research has been in areas of great interest to the traditional medical community. For

91. Id. at 11.
example, Alcor has recently applied for a patent on a solution which may be used to support viability during surgery where it is beneficial to remove blood, sustain circulation, and operate at a body temperature as low as five degrees. If they are seen as doing something other than research of this kind, they run the risk of prosecution for practicing medicine without a license.

Those who are in Alcor’s care have had their remains disposed of in a legally recognized manner. Section 7100 of the California Health and Safety Code allows a person prior to their death to direct the preparation for type or place of interment. The application of this statute to Alcor and cryonics has been controversial, but has overcome a recent legal challenge.

In Roe v. Mitchell, Alcor sought injunctive and declaratory relief forcing the Department of Health and the State Registrar to cease its policy of prohibiting the registration of death certificates, as well as interfering with the issuance of disposition permits where the deceased had wished Alcor to take custody of his remains. Alcor was recognized in the order as a proper donee pursuant to the Uniform Anatomical Gift Act.

The fact that Donaldson may pursue cryonics after death does not seem to be subject to strong objection. In the instance where the Riverside coroner threatened to thaw the remains of Dora Kent after she had been placed in suspension, the judge who issued the restraining order took the opportunity to describe the threatened action as “in violation of the rights of the decedent.” Moreover, when the hospital caring for Dick Jones would not see to his requests and release his body to Alcor at the time of his anticipated death, a court intervened and issued a Restraining Order allowing preliminary cryonic suspension procedures to begin. However, for reasons beyond the fact that premortem suspension might be assisting a suicide, Donaldson’s right to undergo suspension before his natural death is doubtful.

---

93. Telephone Interview with Jerry Leaf, Director of Suspension, Alcor Life Extension Foundation (Nov. 7, 1990); Mondragon, supra note 8. The patent application was filed in 1985.
95. Id.
96. ORIENTATION MATERIAL, supra note 7.
98. ORIENTATION MATERIAL, supra note 7.
A. The Physician's Role and Risk

By seeking an early death, Donaldson and those who wish to assist him are forced to face a paradox. The dilemma is that what Donaldson is seeking might be medical care, albeit radical and currently of an unproven nature, even though the care in question will kill him. If it is in fact medical care, then the staff on hand are liable to be prosecuted for the felony practice of medicine without a license. The California Business and Professions Code at Section 2053 stipulates:

Any person who willfully, under circumstances or conditions which cause or create risk of great bodily harm, serious physical or mental illness, or death, practices or attempts to practice any system or mode of treating the sick or afflicted in this state, or diagnoses, treats, operates for, or prescribes for any ailment, blemish, deformity, disease, disfigurement, disorder, injury, or other physical or mental condition of any person without having at the time of so doing a valid, unrevoked and unsuspended certificate as provided in this chapter, or without being authorized to perform that act pursuant to a certificate obtained in accordance with some other provision of law, is punishable by imprisonment in the county jail for not exceeding one year or in the state prison.100

It is clear that if Dr. Donaldson is suspended prior to his natural death, for the purpose of stopping the growth of his tumor, those who perform the procedure risk prosecution under Section 2053. The reason they risk jail for practicing medicine without a license is that cryonic suspension would be a system of treatment for an astrocytoma that has not responded to traditional treatment.101 Otherwise, the “patient” would surely not seek a procedure that would end his life with no promise of being brought back. Donaldson is in fact seeking treatment consistent with the meaning of Section 2053, which will halt the ailment’s effects in the hope of some future breakthrough in treating brain tumors. Cryonic death is therefore, the first step in a system of treatment, the aim of which is to cure Donaldson’s sickness.

This situation does not arise if Donaldson dies before undergoing suspension. By definition one cannot practice medicine on a clinically dead body.102 In the event that cryonic reanimation ever

100. Emphasis added.
Radiation therapy has not had long term success in Donaldson’s case.
became a reality, the definition of what constitutes the practice of medicine might require reexamination. Specifically, what will need to be considered is whether limiting the concept of practicing medicine to a live human is sufficient.\textsuperscript{103}

So far this discussion has assumed that no licensed physician would be present at a cryonic suspension. Until recently, no physician had been present at any suspensions done by Alcor.\textsuperscript{104} Again, they were not necessary, because all of the patients came into Alcor's care deceased. There are no licensed physicians on Alcor's staff.\textsuperscript{105} However, there are physicians who are members of Alcor. Technically, if Dr. Donaldson were to undergo a premortem suspension while a physician/member were present, there would probably be no prosecution for practicing medicine without a license. This is not to say that the state could not prosecute such a physician for aiding and abetting a suicide, or even for murder. One of the things that a physician who assists in a premortem suspension may find is that the state Medical Board of Quality Assurance could take action against him under Section 2004 of the Business and Professions Code, which authorizes the division of medical quality to enforce the discipline and criminal provisions of the medical practice act. These include suspending, revoking, or otherwise limiting certificates after a disciplinary hearing. A conviction for murder or assisting a suicide would surely draw the Board's interest. It could then revoke the physician's license after such a conviction.

B. Alcor and the FDA

It is clear that even if Donaldson wishes to undergo experimental treatment, it does not necessarily mean that any experimental treatment may be performed on him. In addition to the state restrictions discussed above, the FDA limits the kinds of drugs and devices that may be used commercially, and the Department of Health and Human Services regulates testing of human subjects. However, Alcor currently uses nothing absolutely forbidden under

\textsuperscript{103} It seems however that it will be some time before such a discussion is necessary.

\textsuperscript{104} Telephone Interview with Jerry Leaf, Director of Suspension, Alcor Life Extension Foundation (Nov. 7, 1989). In a January 13, 1992 telephone interview with Carlos Mondragon, \textit{supra} note 8, it was revealed that in a few recent suspensions a physician/member was present. However, the role of the physician was that of a Public Health Officer, whose duty was to insure the procedure posed no threat to public safety.

\textsuperscript{105} Telephone Interview with Jerry Leaf, Director of Suspension, Alcor Life Extension Foundation (Nov. 5, 1989).
federal guidelines. Additionally, Alcor does not seem to be subject to the guidelines for testing of human subjects. This is so because the regulations apply to research conducted, funded, or in anyway sponsored by the Department of Health and Human Services. Alcor uses no federal money at all. Presumably then, the only thing currently preventing Alcor from carrying out Donaldson's wishes following assurance of informed consent is the threat of prosecution for murder, aiding and abetting a suicide, or felony practice of medicine without a license. Alternatively, were a physician to consider participating, rather than being prosecuted for practicing without a license, he would be concerned with the threat of having his practice revoked.

VII. THREE IMPORTANT DEVELOPMENTS

A. The Suicide Machine

It is interesting to note that since Dr. Donaldson's case first received public attention a number of parallel developments have occurred. First, in June of 1989, Dr. Jack Kevorkian, a retired pathologist and prominent member of the Hemlock Society, a group committed to legalized, dignified euthanasia, was arrested in Michigan for assisting in the death of Janet Adkins. She was suffering from the early stages of Alzheimer's. Neither he nor Mrs. Adkins were residents of Michigan. They chose the state because at the time there was no law against assisting a suicide. While there they made use of a machine he created, actually three viles attached to a stand, which contained a deadly chemical combination. He introduced an intravenous tube, attached to the viles, into her arm. Afterward she pressed a release valve which she held in her hand. In a few moments she died.

Dr. Kevorkian freely admitted to the police and the press that he assisted this woman. He was arrested and charged with murder. In December District Court Judge Gerald McNally dismissed the case, because it was clear that Dr. Kevorkian had committed no crime under Michigan law.

The woman who took her life in Michigan was as alert and able as Donaldson is now. Indeed, only a week before her death she

108. Mondragon, supra note 8.
beat her 28-year old son at two sets of tennis. However, cryonic reanimation was in no way involved in this case. Dr. Kevorkian was legally allowed to assist a woman whose sole intent was to die.\textsuperscript{110}

\textbf{B. First Steps Toward Nanotechnology}

A second parallel development is the announcement (April of 1990) by IBM that it has created the ability to manipulate matter at the level of an individual atom.\textsuperscript{111} The significance of this is that new molecules, not currently part of nature, could be programmed and built by people. Essentially these molecules will be computers, designed to be injected into the body to seek out and destroy disease organisms or cancer cells or undo damage caused by multiple sclerosis or Alzheimer's disease.\textsuperscript{112} Development of this technology, called nanotechnology, has been a goal of cryonicists for many years. It is one of the keys to reanimation, since such technology would not only serve as a way to reverse the injurious effects of long term freezing, but could cure the underlying cause of death. Estimates of how soon the first of these molecules might be constructed range from a mere few to thirty years.\textsuperscript{113} To announce and demon-

\begin{enumerate}
\item On February 28, 1992, Dr. Kevorkian was once again ordered to stand trial for murder in Michigan. This time it is for two counts of murder, and involves the suicide deaths of Sherry Miller and Marjorie Wantz on October 23, 1991. Neither woman was terminal, though they both were afflicted with painful and debilitating conditions. Wantz's death was the result of the use of the same mechanical device as the one that caused the death of Janet Adkins. However, Miller died after inhaling carbon monoxide, provided by Dr. Kevorkian, from a canister attached to a mask. Since only Dr. Kevorkian and his sister were present at the time of the deaths of the two women, in ruling that Dr. Kevorkian should stand trial for murder, Judge James Sheehy said, "Causation has become a question of fact, and questions of fact are decided by a jury trial." If convicted, Dr. Kevorkian, who is now known in the media as "Dr. Death," faces a mandatory sentence of life without parole. \textit{Doctor Who Assisted Suicides Faces Trial On Murder Charges}, SAN JOSE MERCURY NEWS, Feb. 29, 1992, at A11.

It is important to note here that what Dr. Kevorkian is being tried for is not the physician assisted suicides of Sherry Miller and Marjorie Wantz. Rather, the prosecution seems to be making the argument that Dr. Kevorkian himself activated the switches that caused the chemicals to be introduced into the bodies of the women, and by so doing committed two murders. This is different than what the prosecution argued in the earlier case. There it was alleged that Dr. Kevorkian broke the law by providing a machine that Janet Adkins could activate herself. \textit{"Suicide Machine" Doctor Case Will Be Dropped}, LOS ANGELES TIMES, Dec. 15, 1990, at I27.


\item Jon Roland, \textit{Molecular Machines; Tiny Computers Based on Nanotechnology — The Next Generation After Semi-conductors}, COMPUTERWORLD, Sep. 19, 1988, at 87.

\item \textit{Id.}
\end{enumerate}
strate the technology as it stands, scientist's used individual atoms, magnified on a monitor to spell out the letters “I-B-M.”

C. A Life Saved by Suspended Animation

In a final parallel development, surgeons at Columbia Presbyterian Medical Center performed brain surgery in November of 1990 on Donald Rogers, Jr. of Kansas, who suffered from an aneurysm. What was unique about the surgery was the fact that it was done after cooling the patient's body temperature to 60 degrees, almost 40 degrees below normal. Moreover, his blood was completely drawn from his body and drained into a container on the floor of the operating room. The patient was, therefore, in an uncertain condition, somewhere between alive and dead, literally in suspended animation. This state was achieved by cooling his body temperature and circulating his blood by machine after his heart stopped beating at 72 degrees. When his temperature reached 60 degrees, circulation was stopped and his blood was then removed into a container on the floor of the operating room.

This radical surgery was necessary because of the large size of the aneurysm. It was so likely to burst during surgery, thus causing the death of the patient, that only by ceasing circulation and removing the patient's blood could any procedure be successful.

The significance of this operation is that the patient's ambiguous state during this surgery would be analogous to the condition of Thomas Donaldson following cryonic suspension. Despite the fact that Donaldson's body temperature will be drastically lower than this patient's, and that he will be maintained at that temperature for decades rather than hours, the theories behind the two procedures are essentially the same: patients may receive treatment for their illnesses when maintained at low temperatures, even though they may appear, or in fact are, dead. This is not to say however, that the procedure performed in New York to treat an extraordinarily large aneurysm proves that cryonics will be successful. Rather, it suggests that belief in the possibility of cryonic reanimation may not be absurd.

114. Elisabeth Rosenthal, At Surgery’s Frontier: Suspended Animation, NEW YORK TIMES, Nov. 13, 1990, at Cl.

115. Currently the patient is recovering. Dr. Solomon, one of the surgeons who performed the operation said, “I’m encouraged and expecting very good things. We've cured the aneurism. He has a long road but he certainly has an opportunity to lead a normal life.” Id. at Cl2.
If cryonics is a legitimate pursuit with the possibility for success, as its adherents believe, it would do well for the movement to attempt to make it a more mainstream concept. This would not take a public relations campaign. Either the science stands on its own and shows potential, or it does not. If there is even a slight chance that it could ever be made to work, then it is my belief that the potential would be so mesmerizing, not to mention profitable, that traditional backers would take notice.

It is also my belief that as sincere, rational, and committed as the adherents of cryonics are, some of the individuals who are involved in the research enjoy their renegade posture. This is not to suggest that they are evil, or even mad, scientists. Rather, the concept of cryonics began with a science fiction writer. Its roots are not in medicine, but are nearer to comic books. The concept of cryonics first called out to the nontraditional. My own impression, from interviews with proponents of cryonics, is that some of the people enjoy that aspect. The draw of cryonics is, of course, that it might be possible to live forever. However, another appeal for many cryonicists is, I suspect, that few in the field of traditional medicine think it will work.

I have come to believe that those with whom I spoke in the traditional medical community were right when they said that cryonics is not yet a compelling science. More experiments need to be done in the area of animal research. When told that there has been a documented instance of low temperature suspension and reanimation of a dog, Doctor Darrel Chinn, Department of Radiology President at Hougue Memorial Presbyterian Hospital, felt that no fewer than hundreds of examples would be adequate before the kind of procedure Donaldson desires to undergo should be allowed.

When such experiments prove the initial stages of cryonics’ viability, efforts should be taken to associate with hospitals and universities. Research could then be conducted with larger budgets. More importantly, the process of institutional review by boards overseeing experimental research would lend cryonics credibility.

None of this advice is of any use to Dr. Donaldson. The amount of research needed to reach the point of becoming part of a


117. Telephone Interview with Darrel H. Chinn, M.D., Department of Radiology President, Hougue Memorial Presbyterian Hospital (Nov. 8, 1990).
traditional institutional review board would take years. He does not have that much time. Despite the fact that the probable benefits to him from undergoing experimental cryonic death and suspension are not greater than the risks, it seems difficult to deny him his chance at immortality. He is in fact not harming anyone but himself by allowing his life to be taken by a cryonic suspension team. Even the fact that he is harming himself has an outside chance of not being true, because he might in fact come back to life in a world that has cured astrocytoma. Moreover, the state's interest in him not taking his life is dubious. The truth of the matter is that there would be no way for the state to stop him from killing himself if he were determined to do so, except for the fact that he wants the assistance of others in causing this unusual death. The moral character of the country could probably survive this assisted suicide.

Clearly there is no easy answer to this problem. It is yet another in a growing number of examples where technology has put us in the position of moral reaction to what technology itself has made possible. In this sense, Donaldson's dilemma is like the recent moral discussions following the breakthroughs made in treating Parkinson's disease with the cells of aborted fetuses, or the court battle over which parent ought to be awarded custody of frozen embryos following a divorce. It is increasingly difficult for our values to keep up with the times.\textsuperscript{118}

\textsuperscript{118} Just prior to publication, the California Court of Appeal, Second Appellate District, held that Donaldson has no constitutional right to either premortem cryonic suspension or to an assisted suicide. Moreover, the court held that no member of Alcor has a constitutional right to aid, advise, or encourage Donaldson's suicide. Donaldson v. Van de Kamp, No. B055657, 1992 Cal. App. Lexis 104 (Cal. Ct. App., 2d Dist. filed Jan. 29, 1992) (to be released tentatively as 2 Cal. App. 4th 1614 (1992)).

Chris Ashworth, Donaldson's attorney, has stated that no further appeals will be filed. However, Donaldson still plans to be cryonically suspended following his death. When his condition, which has temporarily stabilized, begins to become unbearable Donaldson intends to end his life on his own, without risk of prosecution to members of Alcor. Telephone Interview with Chris Ashworth, Donaldson's Attorney (Feb. 29, 1992).