YOUR SPLEEN IS NOT WORTH WHAT IT USED TO BE: MOORE V. REGENTS OF UCLA

INTRODUCTION

Until recently, severed tissue had no market value. Cells, tissues, and body parts from live patients were either used for dissection or simply discarded. But as the field of biotechnology has broadened, the components of the human body have begun to have monetary value. The essential tissues and cells used in the biotechnical industry must come from the human body. As that industry has now discovered, along with these tissues and cells come individuals who claim property rights.

In a 1989 report, the Office of Technology Assessment ("OTA") found that research results are usually derived from specimens from many patients. This finding has led researchers to fear lawsuits by the numerous individuals who can be identified as possible sources of specimens, as well as a fear of class actions by all who contributed cells to the research. Such lawsuits could create a great burden on the important research being conducted in this field. Researchers are also wary of the potential for abuse if a court decides that patients should be compensated for their cells. Patients in search of the highest bidder for their cells could create dangerous delays in the research process, as well as an increase in the cost of the research. Because a decision affirming the property rights in cells removed from a patient could decrease financial incentives for researchers, the decision by the Supreme Court of California in Moore v. Regents of the University of California has been eagerly anticipated by hospi-

2. Id. at 630 n.15.
5. Id.
7. Id. at 4.
8. Note, 64 Notre Dame L. Rev. at 633.
9. Id.
10. Id. at 634.
tals and researchers in the biotechnical industry.\textsuperscript{12}

In Moore, the California Supreme Court held that cells are not the property of the patient from whom they have been removed.\textsuperscript{13} Specifically, the court decided that the unique cells removed from a patient during treatment for hairy-cell leukemia were not his property.\textsuperscript{14} As a result patients may not rely on a claim of conversion in seeking compensation for the profits derived from the use of their cells in products.\textsuperscript{15}

This Note examines three aspects of this issue. First, this Note traces the development of the informed consent doctrine and its application to medical research.\textsuperscript{16} Second, this Note discusses the development of the concept of an individual's property interest in his own body parts.\textsuperscript{17} Third, this Note suggests that the court created severe inequities in the physician-patient relationship by deciding that the proper remedy for cases in which the physician has a commercial interest in a patient's excised cells are remedies derived from disclosure obligations.\textsuperscript{18}

\textbf{FACTS AND HOLDING}

In October of 1976, John Moore began treatment at the University of California at Los Angeles Medical Center ("UCLA") for a form of cancer known as hairy-cell leukemia.\textsuperscript{19} Because one of the characteristics of the disease is an enlarged spleen, Dr. Golde recommended that Moore's spleen be removed as part of the treatment.\textsuperscript{20} During the course of treatment, Dr. Golde and another UCLA employee, Shirley Quan, determined that Moore's cells were unique and that the cells would be of great value in "commercial and scientific efforts."\textsuperscript{21} Moore returned to UCLA Medical Center from his home in Seattle, Washington several times between 1976 and 1983 in order for Golde to continue monitoring his condition and taking tissue sam-

\begin{itemize}
\item \textsuperscript{12} Note, Cells, Sales, and Royalties: The Patient's Right to a Portion of the Profits, 6 YALE L. & POL'Y REV. 179, 181 (1988).
\item \textsuperscript{13} Moore, 51 Cal. 3d at —, 793 P.2d at 489, 271 Cal. Rptr. at 156.
\item \textsuperscript{14} Id. at —, 793 P.2d at 480-81, 271 Cal. Rptr. at 147-48. Hairy cell leukemia is a rare form of cancer medically known as leukemic reticuloendotheliosis, the characteristics include destruction of normal blood cells, enlarged spleen and infiltration of the bone marrow, spleen, and lymph nodes by tumor cells. INTERNATIONAL DICTIONARY OF MEDICINE AND BIOLOGY 2476 (1986).
\item \textsuperscript{15} Moore, 51 Cal. 3d at —, 793 P.2d at 489, 271 Cal. Rptr. at 156.
\item \textsuperscript{16} See infra notes 98-153 and accompanying text.
\item \textsuperscript{17} See infra notes 154-83 and accompanying text.
\item \textsuperscript{18} See infra note 240-80 and accompanying text.
\item \textsuperscript{19} Moore v. Regents of the University of California, 51 Cal. 3d 120, —, 793 P.2d 479, 481, 271 Cal. Rptr. 146, 148 (1990).
\item \textsuperscript{20} Id. See supra note 14.
\item \textsuperscript{21} Moore, 51 Cal. 3d at —, 793 P.2d at 481, 271 Cal. Rptr. at 148.
\end{itemize}
During the seven years following the removal of Moore's spleen, Golde withdrew samples of blood, blood serum, bone marrow aspirate, skin, and sperm from Moore. Moore was told that the "visits were necessary and required for his health and well-being." Golde agreed to continue traveling to UCLA based upon the "trust inherent in and by virtue of the physician-patient relationship." He was also informed that the procedures could be conducted only at UCLA. During this time period, Golde and Quan used Moore's cells to conduct research and to develop a cell line capable of "producing pharmaceutical products of enormous therapeutic and commercial value." Moore was not informed by either Golde or Quan of their intention to conduct this research.

In April of 1983, Moore had signed a consent form allowing Golde and Quan to engage in research, however, in September of 1983, he expressly denied any rights to his cell line. Despite this denial of consent, Golde and Quan continued in their "commercial exploitation of the cell line."

In 1984, Dr. Golde and Shirley Quan obtained a patent on the cell line developed from Moore's cells and were to share in any profits earned from the cell line. Competing commercial firms in the biotechnical industry had estimated that, by 1990, the market potential of the products derived from plaintiff's cell line would be in excess of three billion dollars. Golde and Quan contracted with Sandoz Pharmaceuticals ("Sandoz") and Genetics Institute, Inc. ("Genetics") for the rights to the cell line and the products derived from it. As a result of this arrangement, Golde, Quan, and the Regents of the University of California ("Regents") received hundreds of
thousands of dollars.\textsuperscript{34}

Moore filed suit in 1984 in the California Superior Court against Golde, Quan, the Regents, Sandoz, and Genetics.\textsuperscript{35} Moore claimed that he had a property interest in his own cells, even after they are removed from his body.\textsuperscript{36} Moore alleged that the defendant's conduct constituted a substantial interference with his possession of or right to his cells.\textsuperscript{37} Because Moore had never authorized the use of his cells for research, he claimed that Golde's use of the cells constituted conversion.\textsuperscript{38} Therefore, Moore claimed a proprietary interest in any product created, or to be created, from his cells or the cell line.\textsuperscript{39} Moore alleged causes of action including conversion, lack of informed consent, and breach of fiduciary duty.\textsuperscript{40}

The Superior Court, however, considered only the action for conversion in reaching its decision.\textsuperscript{41} Under California law, conversion is a strict liability tort; therefore, the court noted that Moore was required to prove that his spleen was personal property and that he had been damaged.\textsuperscript{42} The Superior Court then sustained the defendants' demurrers to the allegation of conversion.\textsuperscript{43}

The court discussed four reasons for its decision.\textsuperscript{44} First, the court said that Moore had failed to specifically allege that he did not know that tissues removed during his treatment at UCLA might be used for research as well as for his personal medical treatment.\textsuperscript{45} Second, Moore had failed to specifically allege that Golde and Quan knew that Moore's tissues had commercial value at the time the tissues were removed and that Golde and Quan had formed the intent to exploit the substances commercially.\textsuperscript{46} Third, the court stated that Moore had failed to specifically allege whether he consented to the splenectomy for therapeutic purposes.\textsuperscript{47} As the court pointed out, Moore had never alleged that the removal was unrelated to therapeutic purposes, he merely alleged that he had consented to the re-

\textsuperscript{34} Id. at \textemdash, 249 Cal. Rptr. at 498.
\textsuperscript{35} Id. at \textemdash, 249 Cal. Rptr. at 498 (noting that the Regents are the entity that operates UCLA).
\textsuperscript{36} Id. at \textemdash, 249 Cal. Rptr. at 501.
\textsuperscript{37} Id. at \textemdash, 249 Cal. Rptr. at 501.
\textsuperscript{38} Id. at \textemdash, 249 Cal. Rptr. at 498.
\textsuperscript{39} Moore, 51 Cal. 3d at \textemdash, 733 P.2d at 478, 271 Cal. Rptr. at 154.
\textsuperscript{40} Moore, 202 Cal. App. 3d at \textemdash, 249 Cal. Rptr. at 498-99.
\textsuperscript{41} Moore, 51 Cal. 3d at \textemdash, 733 P.2d at 482, 271 Cal. Rptr. at 149.
\textsuperscript{43} Moore, 202 Cal. App. 3d at \textemdash, 249 Cal. Rptr. at 501.
\textsuperscript{44} Id. at \textemdash, 249 Cal. Rptr. at 501-02.
\textsuperscript{45} Id. at \textemdash, 249 Cal. Rptr. at 501-02.
\textsuperscript{46} Id. at \textemdash, 249 Cal. Rptr. at 502.
\textsuperscript{47} Id. at \textemdash, 249 Cal. Rptr. at 502.
Finally, the court noted that Moore had failed to include copies of the consent forms in the complaint. Because the court did not rule out a cause of action based on these facts, Moore was given leave to amend. Moore decided not to file an amended complaint, instead, he appealed to the California Court of Appeal.

The court of appeal reversed the dismissals of the trial court and concluded that because no legal authority, public policy, or scientific facts compelled the conclusion that Moore had no property interest in his own tissues, Moore's allegation was sufficient as a matter of law. With this in mind, the court concluded that one has a property right in one's own genetic material. The Court of Appeal also found that Moore had not consented to the manner in which the defendants used his tissues. The court considered the importance of Moore's personal autonomy and dignity with regard to his claim of property in his cells when it stated that "[t]he evolution of civilization from slavery to freedom, from regarding people as chattels to recognition of the individual dignity of each person, necessitates prudence in attributing the qualities of property to human tissue." The court of appeal also considered Moore's spleen to be something over which he enjoyed unrestricted rights to use and control.

The California Court of Appeal relied on the Maryland case of Venner v. State in holding that Moore's spleen was his personal property. In Venner, the defendant had swallowed numerous balloons containing hashish oil. Venner was admitted to the hospital and observed until he passed the balloons in his feces. The police subsequently took custody of these balloons. The Maryland court stated that "it [can] not be said that a person has no property right in wastes or other materials which were once a part of or contained within his body, but which normally are discarded after their separation from the body." The court further stated that it is not unknown for one to assert continuing rights of ownership or control.

48. Id. at —, 249 Cal. Rptr. at 502.
49. Id. at —, 249 Cal. Rptr. at 502.
50. Id. at —, 249 Cal. Rptr. at 502.
51. Id. at —, 249 Cal. Rptr. at 502.
52. Id. at —, 249 Cal. Rptr. at 502.
53. Id. at —, 249 Cal. Rptr. at 502.
54. Id. at —, 249 Cal. Rptr. at 502.
55. Id. at —, 249 Cal. Rptr. at 502.
56. Id. at —, 249 Cal. Rptr. at 502.
58. Moore, 202 Cal. App. 3d at —, 249 Cal. Rptr. at 505.
60. Id. at —, 354 A.2d at 486.
61. Id. at —, 354 A.2d at 486.
62. Id. at —, 354 A.2d at 498.
over such things as fluid waste, secretions, hair, fingernails, blood, organs, or other body parts, whether they were separated from the body intentionally, accidentally, or merely as the result of normal bodily functions.63

The court of appeal noted that although the material in which Venner claimed a property interest did not have the dignity of the human cell, it found significance in the Maryland court’s opinion that a person has some property rights in substances which were once a part of their body.64 Thus, the court of appeal held that Moore had stated a cause of action for conversion.65

On appeal, the Supreme court of California reversed the decision of the court of appeals and held that Moore was not entitled to share in the profits from the patented cell line because the cell line was distinct, both factually and legally, from Moore’s cells.66 The court remarked that organisms that are a result of inventive effort may be patented but naturally occurring organisms may not.67 Therefore, the court reasoned that Moore’s claim to ownership of the cell line was inconsistent with the idea of a patent.68

The court held, however, that Moore should be allowed to go to trial based on disclosure obligations.69 The court found that Moore’s allegations of Golde’s failure to disclose his research and economic interests stated a cause of action.70 The court characterized this cause of action as either a breach of fiduciary duty for failing to disclose material facts before obtaining consent, or, alternatively, as the performance of a medical procedure without having obtained informed consent.71

The court found that questions about the validity of consent given by a patient usually arise with regard to failure to disclose risks in a procedure.72 The court went on to comment that the concept of informed consent is broad enough to cover cases such as Moore’s, specifically, cases in which the physician has an economic or research interest in the procedure.73 Therefore, the court held that in order to satisfy the physician’s fiduciary duty in seeking consent for a medical procedure, the physician must disclose any such interests which may

63. Id. at —, 354 A.2d at 498.
64. Moore, 202 Cal. App. 3d at —, 249 Cal. Rptr. at 505.
65. Id. at —, 249 Cal. Rptr. at 502.
66. Moore, 51 Cal. 3d at —, 793 P.2d at 492, 271 Cal. Rptr. at 159.
67. Id. at —, 793 P.2d at 492, 271 Cal. Rptr. at 159.
68. Id. at —, 793 P.2d at 492, 271 Cal. Rptr. at 159.
69. Id. at —, 793 P.2d at 494, 271 Cal. Rptr. at 161.
70. Id. at —, 793 P.2d at 483, 271 Cal. Rptr. at 150.
71. Id. at —, 793 P.2d at 483, 271 Cal. Rptr. at 150.
72. Id. at —, 793 P.2d at 483, 271 Cal. Rptr. at 150.
73. Id. at —, 793 P.2d at 483, 271 Cal. Rptr. at 150.
be unrelated to the patient's health.\textsuperscript{74} This includes any interests that may affect his medical judgment, whether they stem from research or economic motives.\textsuperscript{75}

The court stated that treatment decisions are properly based on a weighing of the benefits and risks to the patient, so when a physician has research interests in the patient in addition to his concern for the patient's health, conflicting loyalties may arise.\textsuperscript{76} Any other interests that the physician may have that can affect the physician's judgment must be revealed to the patient as a prerequisite to informed consent.\textsuperscript{77}

The supreme court found that Golde had concealed his economic interests from Moore.\textsuperscript{78} The court also found that Golde had an economic interest by May of 1979, when he applied for the patent.\textsuperscript{79} The supreme court also held that Golde had a duty to disclose his research and economic interests regardless of whether or not the splenectomy had a therapeutic purpose.\textsuperscript{80} As a result, Moore's failure to allege that the procedure lacked a therapeutic purpose did not defeat his claim.\textsuperscript{81}

Although the court of appeal relied on Venner in its decision, the supreme court distinguished Venner because it involved criminal procedure unlike the issue in Moore which was a civil dispute over economic benefits.\textsuperscript{82} The supreme court found that Venner was not relevant to the Moore case.\textsuperscript{83}

The supreme court listed three reasons for its refusal to allow the action for conversion.\textsuperscript{84} First, the court stated that a balancing of the relevant policy considerations showed that an action for tort should not have been allowed.\textsuperscript{85} The court stressed the desire to protect innocent parties such as researchers from liability, especially when they would have no reason to believe that their use of the cell line might be against the donor's wishes.\textsuperscript{86} The court also feared that important research would be hindered by restricting access to these cells.\textsuperscript{87} The court also believed that research companies would hesi-
tate to purchase cells for research if no clear title existed.\footnote{88} Second, the court added that it is the duty of the legislature to establish any policies creating a liability for scientists using human cells if these scientists fail to investigate the "consensual pedigree of their raw materials."\footnote{89} The court noted that the ability of the legislature to establish such policies is demonstrated by the existence of the statutes that currently govern the disposition and use of human biological materials.\footnote{90} An example of this is the Health and Safety Code of California which states that following scientific use, human tissues shall be disposed of by interment, incineration, or other method determined to protect the public health.\footnote{91}

Third, the court held that it is not necessary to use the tort of conversion to protect the patient's rights.\footnote{92} A patient would be adequately protected by requiring that physicians disclose any research or economic interests that may affect their judgment.\footnote{93} Thus, the court found that currently existing disclosure obligations would protect Moore without hindering research.\footnote{94}

In conclusion, the Supreme Court of California decided that although Moore had no property rights in his excised cells, the court did not foreclose the possibility that property rights could exist in excised cells.\footnote{95} Policy considerations led the court to hold that because Moore could be adequately protected by extending liability based on the enforcement of existing disclosure obligations, it was not necessary to apply a conversion theory in such an unprecedented manner.\footnote{96} The court determined that this disclosure method would protect the patient's rights without hindering research.\footnote{97}

BACKGROUND

INFORMED CONSENT

Currently, the informed consent doctrine requires physicians to disclose medical information to the patient based on prevailing stan-
standards of medical practice. In some jurisdictions, this standard of disclosure is determined by what the reasonable physician practicing in a similar area would disclose, and in the remainder of jurisdictions the nature of the treatment is disclosed according to what knowledge the reasonable patient would need to possess in order to make an intelligent choice.

One of the earliest cases addressing informed consent was decided by the New York Court of Appeals in 1914. In *Schloendorff v. Society of New York Hospital*, a patient was admitted to the hospital with abdominal pain and was later diagnosed as having a fibroid tumor. The patient had consented to further examination of the mass but had insisted that there be no operation. Without her consent, she was taken to the surgical ward, ether was administered, and the tumor was removed. The patient claimed that this surgical procedure was done without her knowledge or consent. Judge Cardozo found that the surgical procedure constituted a trespass and stated that "every human being of adult years and sound mind has a right to determine what shall be done with his own body." The concept of the right to refuse to consent to medical treatment was further developed in *Bouvia v. Superior Court*. In *Bouvia*, a patient in a public hospital in California wanted her nasogastric tube removed. Elizabeth Bouvia was a twenty-eight year-old woman who had suffered from severe cerebral palsy since birth. She was a quadriplegic and was unable to care for herself. Because Bouvia expressed a desire to starve herself, the medical staff inserted the nasogastric tube to keep her alive. This was done against both Bouvia's wishes and her written instructions. Bouvia alleged that she had the right to decide to forego medical treatment or life-support through mechanical means regardless of

99. *Id.*
101. 211 N.Y. 125, 105 N.E. 92 (1914).
102. *Id.* at —, 105 N.E. at 93.
103. *Id.* at —, 105 N.E. at 93.
104. *Id.* at —, 105 N.E. at 93, Mary Schloendorff testified that the physician informed her that he would need to do an ether examination to determine the character of the lump. *Id.* at —, 105 N.E. at 93.
105. *Id.* at —, 105 N.E. at 93.
106. *Id.* at —, 105 N.E. at 93.
108. *Id.* at —, 225 Cal. Rptr. at 298.
109. *Id.* at —, 225 Cal. Rptr. at 299.
110. *Id.* at —, 225 Cal. Rptr. at 299-300.
111. *Id.* at —, 225 Cal. Rptr. at 300.
112. *Id.* at —, 225 Cal. Rptr. at 300.
the fact that it would hasten her death. The California Court of Appeal held that "[t]he right to refuse medical treatment is basic and fundamental." The court then directed the hospital to remove the nasogastric tube and prohibited the medical staff from replacing it without Bouvia's consent.

In Natanson v. Kline, the patient, Irma Natanson, consented to medical treatment for a cancerous tumor in her left breast. The tumor was removed by a radical mastectomy and tests later showed that the cancer cells had not spread beyond the tumor. Although there was no urgency in the administration of cobalt treatment, the physician made no disclosures to the patient with regard to the nature and probable consequences of the treatment. The Supreme Court of Kansas held that the duty of the physician to disclose, is limited to those disclosures which a reasonable medical practitioner would make under the same or similar circumstances. So long as the disclosure is sufficient to assure an informed consent, the physician's choice of plausible courses should not be called into question if it appears . . . that the physician was motivated only by the patient's best therapeutic interest.

In Natanson, the court found that the physician was obligated to make a reasonable disclosure of the nature and probable consequences of the cobalt treatment, and that he had failed to do so.

Three years after Natanson, the Kansas Supreme Court in Williams v. Menehan, clarified its requirement that a physician make reasonable disclosure to a patient regarding the probable risks and consequences of a proposed treatment. The court held that the disclosure must be sufficient to appear that the physician acted as a competent physician in a similar situation would have acted, and that the physician's only motivation was the patient's therapeutic interests.

In Canterbury v. Spence, the United States Court of Appeals for the District of Columbia Circuit found that the majority of courts

113. Id. at —, 225 Cal. Rptr. at 300.
114. Id. at —, 225 Cal. Rptr. at 301.
115. Id. at —, 225 Cal. Rptr. at 307.
117. Id. at —, 350 P.2d at 1095.
118. Id. at —, 350 P.2d at 1106.
119. Id. at —, 350 P.2d at 1106.
120. Id. at —, 350 P.2d at 1106.
121. Id. at —, 350 P.2d at 1106.
123. Id. at —, 379 P.2d at 294.
124. Id. at —, 379 P.2d at 294.
make their duty of disclosure depend on whether physicians practicing in the community would customarily make that particular disclosure to the patient.\textsuperscript{126} However, the court decided that a better test would be to require disclosure based on the patient's need for information material to the decision.\textsuperscript{127} The court remarked that "[a] risk is thus material when a reasonable person, in what the physician knows or should know to be the patient's position, would be likely to attach significance to the risk or cluster of risks in deciding whether or not to forego the proposed therapy."\textsuperscript{128}

Despite these and other cases addressing the issue of informed consent, no authority had addressed the issue of disclosing information about the prospect of commercial gain.\textsuperscript{129} However, in March of 1987, the Office of Technology Assessment published a special report analyzing the economic, legal, and ethical rights of human sources of tissues and cells.\textsuperscript{130} The report also discussed the issue of informed consent and disclosure with respect to the prospect of commercial gain.\textsuperscript{131} The report stated that both the right to personal autonomy and the right to decide the disposition of a person's own body should be given full legal recognition; therefore, a physician's prospect of commercial gain must be disclosed because this information is relevant to a person's decision whether or not to take part in the research.\textsuperscript{132}

The California Administrative Code also addresses the issue of informed consent.\textsuperscript{133} The statute provides that patients have the

\begin{enumerate}
\item[	extsuperscript{126}.] Id. at 783.
\item[	extsuperscript{127}.] Id. at 786-87.
\item[	extsuperscript{128}.] Id. at 787.
\item[	extsuperscript{129}.] U.S. CONGRESS, OFFICE OF TECHNICAL ASSESSMENT, OTA-BA-337, NEW DEVELOPMENTS IN BIOTECHNOLOGY: OWNERSHIP OF HUMAN TISSUES AND CELLS — SPECIAL REPORT 10 [hereinafter OTA REPORT].
\item[	extsuperscript{130}.] Id.
\item[	extsuperscript{131}.] Id.
\item[	extsuperscript{132}.] Id.
\item[	extsuperscript{133}.] CAL. ADMIN. CODE tit. 22, § 70707 (1990). Section 70707 provides, in pertinent part, that:
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\item[(a)] Hospitals and medical staffs shall adopt a written policy on patients' rights.
\item[(b)] A list of these patients' rights shall be posted in both Spanish and English in appropriate places within the hospital so that such rights may be read by patients. This list shall include but not be limited to the patients' rights to:
\begin{itemize}
\item (5) Receive as much information about any proposed treatment or procedure as the patient may need in order to give informed consent or to refuse this course of treatment. Except in emergencies, this information shall include a description of the procedure or treatment, the medically significant risks involved in this treatment, alternate courses of treatment or nontreatment and the risks involved in each, and to know the name of the person who will carry out the procedure or treatment.
\item (6) Participate actively in decisions regarding medical care. To the extent permitted by law, this includes the right to refuse treatment.
\end{itemize}
\end{enumerate}
\end{enumerate}
right to "receive as much information about any proposed treatment or procedure as the patient may need in order to give informed consent or to refuse a course of treatment."

However, California courts have not applied the statute to the issue of commercial gain.

**Federal Regulation**

Both the Food and Drug Administration ("FDA") and the Department of Health and Human Services ("HHS") have promulgated regulations governing research on human tissues. The FDA regulations apply to clinical investigations with regard to applications for the marketing of products such as food additives, drugs, biological products and medical devices. The HHS regulations address research which has been funded in whole or in part by federally sponsored programs. Research involving pathological or diagnostic specimens is exempt from these regulations if the sources are publicly available or if the subjects cannot be identified. The HHS regulations identify the basic elements that must be provided to research subjects in order to obtain informed consent.

(a)(1) the purposes of the research, expected duration of the procedures, and identification of any procedures that are experimental;

(2) description of reasonably foreseeable risks or discomforts to the subject;

(3) description of benefits accruable to the subject or others which may reasonably be expected from the research;

(4) disclosure of available, alternative treatments;

(5) the extent of confidentiality of records;

(6) availability of compensation or treatment if injury occurs;

(7) the identity of individuals that a subject can contact

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Id.

134. Id.


136. OTA REPORT, supra note 129, at 10.

137. Id.

138. 45 C.F.R. § 46.101(a) (1989). This section provides that "[e]xcept as provided in paragraph (b) of this section, this subpart applies to all research involving human subjects conducted by the Department of Health and Human Services or funded in whole or in part by a Department grant, contract, cooperative agreement or fellowship." 45 C.F.R. § 46.101(a) (1989).

139. 45 C.F.R. § 46.101(b)(5). Section (b) addresses those research activities that are exempt from the regulations, part (5) provides that "[r]esearch involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly, or through identifiers linked to the subjects."
for answers to questions regarding the research and the subject’s rights; and

(8) the right to discontinue participation at any time without any penalty or loss of benefits.

* * * *

(b)(5) A statement must be made to the subject if significant new findings have developed that may affect the subject’s willingness to continue in the research.\textsuperscript{140}

The HHS regulations do not specifically address the issue of commercialization with regard to tissues and cells used in research, and the federal government has not regulated commercialization, research, or property rights in biotechnology in any way.\textsuperscript{141} However, the regulations on human research by HHS do not allow patients to waive any legal rights, including any right to potential commercial gain.\textsuperscript{142} These regulations do not require that researchers inform patients of commercial use or tissue disposition.\textsuperscript{143} They also do not require informed consent procedures to be followed for research involving pathological or diagnostic specimens.\textsuperscript{144} The only type of research under HHS regulations which requires informed consent from the patient is when human material is taken specifically for the research, or when the person can be identified as the research subject.\textsuperscript{145}

\section*{EFFECTS ON THE DOCTOR-PATIENT RELATIONSHIP}

Hospitals are sometimes approached by companies looking for specific tissues.\textsuperscript{146} These companies generally require that the tissues be free of legal entanglements, including questions of ownership or title.\textsuperscript{147} Many hospitals have refused to provide these tissues on the theory that they cannot waive the legal rights of a patient.\textsuperscript{148} The same hospitals also have refused to include royalty payment waivers in their surgical consent forms because the hospitals believe that this practice would interfere with the physician-patient relationship.\textsuperscript{149}

Clearly, the prospect of commercial gain represents a conflict of

\textsuperscript{140} 45 C.F.R. §§ 46.116(a), 46.116(b)(5) (1989).
\textsuperscript{142} Manhattan Lawyer, Feb. 7, 1989, at 12 (referring to 45 C.F.R. § 46.116).
\textsuperscript{143} Id. Prior to Moore, regulation in the research setting focused not only on the nature of the study but also its effects on subjects. OTA REPORT, supra note 129, at 10.
\textsuperscript{144} Andrews, My Body, My Property, 16 HASTINGS CENTER REP. 28, 30 (1986).
\textsuperscript{145} Id.
\textsuperscript{146} Chicago Tribune, Feb. 18, 1990, Tempo at 1; Zone: C.
\textsuperscript{147} Id.
\textsuperscript{148} Id.
\textsuperscript{149} Id.
interest between the research physician and his patient. When the patient's attending physician is also doing research, the desire for financial gain could outweigh what should be his primary concern — the well-being of the patient. The California Business and Professions Code addresses this issue by requiring that:

a physician may not charge a patient on behalf of or refer a patient to, any organization in which the physician has a significant beneficial interest, unless this physician first discloses in writing to the patient, that there is such an interest and advises the patient that the patient may choose any organization for the purposes of obtaining the services ordered or requested by the physician.

PROPERTY RIGHTS IN HUMAN TISSUE

Currently, no area of existing law defines the rights of a patient who provides tissues and cells to a commercial researcher, nor does the law clearly define ownership rights of these tissues and cells. The legal system has, however, examined property rights of human tissue in three areas. First, according to common law, property rights in dead bodies are limited to quasi-property rights which are designed to allow for the disposal of these bodies. Second, Congress has outlawed the sale of human organs. Third, state legislatures and courts have refused to extend property rights to include replenishable tissues such as blood and semen.

As early as the nineteenth century, courts recognized that rights to possession of a body for burial belong to the next of kin. These rights were frequently characterized as property rights. Although the issue of property rights in bodies first arose with respect to dead bodies, the concept was then applied to the area of organ and blood donation. In all of these areas, courts have reached the same conclusion, that "property rights are limited to the right to determine

150. OTA REPORT, supra note 129, at 97.
151. Id.
153. OTA REPORT, supra note 129, at 69.
155. Id.
156. Id.
157. Id. Property rights are not extended to replenishable tissues, and no state or federal law prohibits their sale in nonvital amounts. OTA REPORT, supra note 129, at 76.
158. OTA REPORT, supra note 129, 72 (noting that as early as 1860, courts began to recognize a right of possession for burial purposes).
159. Id.
160. Note, 75 VA. L. REV. at 1370.
the disposition of one's tissue." 161

The Supreme Court of California decided in Enos v. Synder 162 that the right of burial of the deceased belongs to the surviving spouse, or to the next of kin. 163 In Enos, a man left a will which directed that the details of his burial should be decided by a Mrs. R. J. Snyder, the woman with whom he was living prior to his death. 164 The decedent's surviving wife and daughter demanded possession of his body for burial. 165 The court held that the wife and daughter were entitled to possession for this purpose. 166

In the twentieth century, American courts began referring to property rights in bodies as limited quasi-property rights. 167 In Gray v. Southern Pacific Co., 168 a California court held that a quasi-property right to the possession of a dead body will be recognized for the limited purpose of deciding who will have custody for burial. 169 The quasi-property right to possession included the right of possession of the body for burial, the right to have the body remain undisturbed in its burial place, and the right to damages for any injury to the body of the deceased. 170

In cases involving a right to recover damages for injury to the body of the deceased, courts continue to characterize the right as a quasi-property claim. 171 In Georgia Lions Eye Bank, Inc. v. Lavant, 172 the mother of an infant who had died of sudden infant death syndrome sued an eye bank and a hospital for wrongfully removing the corneal tissue from the infant. 173 The court considered the evolution of the quasi-property concept with regard to the interests of the surviving relative, but upheld the validity of the Georgia statute authorizing removal of corneal tissue of decedents. 174

Ownership rights of tissues removed during diagnosis or treatment have never been granted to a patient by either state statute or

161. Id.
162. 131 Cal. 68, 63 P.170 (1900).
163. Id. at 70, 63 P. at 171.
164. Id. at 68, 63 P. at 171.
165. Id. at 68-69, 63 P. at 171.
166. Id. at 73, 63 P. at 172.
167. OTA REPORT, supra note 129, at 72. These property rights arose out of the next of kin's legal duty to bury the dead. Id.
169. Id. at —, 68 P.2d at 1015.
172. Id. at 60, 335 S.E.2d at 127 (1985).
173. Id. at —, 335 S.E.2d at 128.
174. Id. at —, 335 S.E.2d at 128-29.
the common law. Of the uniform acts and federal statutes concerning medical research, none directly apply to the issues addressed in Moore. The Uniform Anatomical Gift Act ("UAGA"), which has been adopted by all fifty states and the District of Columbia, governs gifts of tissues and organs for research or therapeutic transplants. Although the UAGA does not address the issue of commerce in body parts, it does establish the general policy that a donor has the authority to decide the particular use of a donated body part. The National Organ Transplant Act of 1984 ("NOTA") is a federal act that prohibits the sale of human tissues and organs for transplantation. This prohibition does not apply to nontransplantation purposes such as the sale of human tissues and cells for research. Several states have enacted statutes which protect cultures and micro-organisms against larceny. These statutes implicitly recognize the existence of a property interest in cultures made from a patient's excised tissues and cells.

175. OTA REPORT, supra note 129, at 80.
176. Id. at 10.
178. Id. at 4 (Prefatory Note).
179. 42 U.S.C. § 274e (1988). Section 274e states that:
(a) Prohibition
It shall be unlawful for any person to knowingly acquire, receive, or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce.
(b) Penalties
Any person who violates subsection (a) of this section shall be fined not more than $50,000 or imprisoned not more than five years, or both.
(c) Definitions
For purposes of subsection (a) of this section:
(1) The term "human organ" means 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 (or any subpart thereof, including that derived from a fetus) specified by the Secretary of Health and Human Services by regulation.

Id.

180. OTA REPORT, supra note 129, at 76.
181. Id. at 80. See, e.g., CAL. PENAL CODE § 499c (West 1988). This section is entitled "crimes against property" and defines an "article" within this statute to include "any object, material, device or substance or copy thereof, including any writing record, recording, drawing, sample, specimen, prototype, model, photograph, micro-organism, blueprint, map, or tangible representation of computer program or information, including both human and computer readable information and information while in transit."
182. OTA REPORT, supra note 129, at 80.
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ANALYSIS

INFORMED CONSENT

The California Supreme Court in *Moore v. Regents of the University of California* \[183\] held that a physician's failure to disclose commercial and research interests was a breach of fiduciary duty and that there was a lack of informed consent. \[184\] The court based this holding on the fact that Dr. Golde had failed to disclose both his research interests and his economic interests in Moore's cells before obtaining consent for the medical procedures in which he removed Moore's cells. \[185\]

As the issue of informed consent has been developed, courts have applied the doctrine to a variety of cases including (1) cases in which no consent to treat was given, (2) cases involving inadequate disclosure, and (3) cases in which the physician was motivated by factors other than the patient's best therapeutic interest. \[186\] *Moore* was the first case to address the issue of disclosure of information about potential commercial gain by a physician. \[187\] The Department of Health and Human Services requires communication of all relevant medical information necessary to provide the patient with an adequate opportunity to weigh all factors before deciding whether or not to participate in certain types of research. \[188\] Informed consent is as important in providing the patient with the opportunity not to consent to participate in the research as it is in providing the opportunity to consent. \[189\] This is true because the right to refuse to donate tissue cannot be exercised unless the patient has a full understanding that the tissue will be used in commercial activities. \[190\]

John Moore was not informed about Dr. Golde's commercial and research interests in Moore's cells and spleen prior to treatment. \[191\] Thus, Moore's case can be categorized as one in which he received inadequate disclosure and one in which the physician was motivated by factors other than the patient's best interest. \[192\] Courts have placed great emphasis on providing the patient with all relevant medical in-

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183. 51 Cal. 3d 120, 793 P.2d 479, 271 Cal. Rptr. 146 (1990).
184. Id. at —, 793 P.2d at 485, 271 Cal. Rptr. at 152.
185. Id. at —, 793 P.2d at 485, 271 Cal. Rptr. at 152.
186. *See supra* notes 100-28 and accompanying text.
188. 45 C.F.R. § 46.116 (1989).
189. *See Moore*, 202 Cal. App. 3d at —, 249 Cal. Rptr. at 500. Moore alleged that if he had known Golde was using his cells for commercial and research activities, he would not have consented to the splenectomy. *Id.* at —, 249 Cal. Rptr. at 500.
190. *Id.* at —, 249 Cal. Rptr. at 500.
191. *Id.* at —, 249 Cal. Rptr. at 500.
192. *See Moore*, 51 Cal. 3d at —, 793 P.2d at 483-87, 271 Cal. Rptr. at 150-54.
formation so that the patient may decide for himself whether or not to undergo the treatment. 193 With this in mind, the Supreme Court of California correctly decided that Moore has a cause of action for lack of informed consent. 194

Golde did not disclose his research or economic interest in Moore's cells, therefore, Moore did not have all of the information that would be relevant to his decision-making process. 195 If Golde had disclosed his research and economic interests to Moore, Moore would have had the opportunity to refuse the treatment following the splenectomy at the UCLA facility. 196 He would also have had the opportunity to seek medical care from a physician whose single concern was Moore's health. 197 Moore also alleged that if he had known that the purpose of his many trips to the University of California at Los Angeles from 1976 to 1983 was to assist Golde in establishing a cell line for commercial exploitation, Moore would have insisted on participation in the economic benefit. 198 Golde's failure to disclose these pertinent interests left Moore with less than enough information to weigh all factors. 199

John Moore was also never given the opportunity to refuse to allow his cells to be excised for use in the cell line which Golde developed and patented. 200 Courts have emphasized the importance of personal autonomy with regard to allowing the patient the right to decide what shall be done with his body. 201 This also includes the right to forego medical treatment. 202 As of May 1979, Golde had be-

193. See, e.g., Natanson v. Kline, 186 Kan. 393, —, 350 P.2d 1093, 1103-04 (1960) (expressing the importance of disclosure and stating that each man is the master of his own body so he may expressly prohibit medical treatment); Wilkinson v. Versey, 295 A.2d 676, 689 (R.I. 1972) (stating that “[i]t is our belief that, in due deference to the patient’s right to self determination, a physician is bound to disclose all the known material risks peculiar to the proposed procedure. Materiality may be said to be the significance a reasonable person, in what the physician knows or should know is his patient’s position, would attach to the disclosed risk or risks in deciding whether to submit or not to submit to surgery or treatment”); Miller v. Kennedy, 11 Wash. App. 272, —, 522 P.2d 852, 86 (1974) (stating that “[w]hen a reasonable person in the patient’s position probably would attach significance to the specific risk in deciding treatment, the risk is material and must be disclosed”).

194. Moore, 51 Cal. 3d at —, 793 P.2d at 483, 271 Cal. Rptr. at 150.
195. Id. at —, 793 P.2d at 481, 271 Cal. Rptr. at 148.
197. Id. at —, 249 Cal. Rptr. at 500.
198. Id. at —, 249 Cal. Rptr. at 500.
199. Id. at —, 249 Cal. Rptr. at 510.
200. Id. at —, 249 Cal. Rptr. at 500.

201. See, e.g., Bouvia v. Superior Court, 179 Cal. App. 3d 1127, —, 225 Cal. Rptr. 297, 300 (1986) (citing Cobbs v. Grant, 8 Cal. 3d 229, 502 P.2d 1, 104 Cal. Rptr. 505 (1972) and stating that the controlling decision with regard to the right to choose or refuse treatment belongs to the competent, informed patient).

gun the procedure for obtaining the patent on the cell line which was developed from Moore's tissues.\textsuperscript{203} Clearly, Golde had developed research and economic interests in Moore's cells prior to the withdrawal of many of the postoperative samples.\textsuperscript{204} Thus, the court correctly decided that Moore had a cause of action for lack of informed consent.\textsuperscript{205}

The report by the Office of Technology Assessment also supports the theory that the court decided the issue of informed consent correctly.\textsuperscript{206} The authors of that report agree that to give full recognition to personal autonomy, the prospect of commercial gain should be disclosed.\textsuperscript{207} The court, adopting this rationale, stated that "it is the prerogative of the patient, not the physician, to determine for himself the direction in which he believes his interests lie."\textsuperscript{208}

The California Administrative Code is further evidence that the court ruled correctly as to the issue of disclosure of commercial gain.\textsuperscript{209} This statute states that a patient has the right to receive all information about a proposed treatment that the patient may need.\textsuperscript{210} Although this statute does not specifically require physicians to disclose any prospect of commercial gain, it is clear that the legislature placed great emphasis on the importance of a patient's right to receive all relevant information prior to deciding whether to allow his tissues to be used in research.\textsuperscript{211} Since Moore was deprived of relevant information because he was not informed of Golde's other interests, he was deprived of knowledge that would have been relevant to his personal decisions regarding his care and treatment.\textsuperscript{212}

The regulations promulgated by Health and Human Services ("HHS") can also be interpreted as requiring that prospects for commercial gain be disclosed by the physician.\textsuperscript{213} Included in these regulations is a clause that states that if there is any benefit to the subject or others, a description of the benefit must be provided to the subject.\textsuperscript{214} The regulations also state that research involving pathological or diagnostic specimens is exempt from HHS regulations only if

\begin{footnotesize}
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\item 203. \textit{Moore}, 51 Cal. 3d at —, 793 P.2d at 486, 271 Cal. Rptr. at 153.
\item 204. \textit{Id.} at —, 793 P.2d at 486, 271 Cal. Rptr. at 153.
\item 205. See supra notes 196-205 and accompanying text.
\item 206. \textit{OTA REPORT, supra} note 129, at 10.
\item 207. \textit{OTA REPORT, supra} note 129, at 10.
\item 208. \textit{Moore}, 51 Cal. 3d at —, 793 P.2d at 485, 271 Cal. Rptr. at 152.
\item 209. See infra notes 211-13 and accompanying text.
\item 211. \textit{CAL. ADMIN. CODE} tit. 22, § 70707 (1990).
\item 212. \textit{Moore}, 202 Cal. App. 3d at —, 249 Cal. Rptr. at 500.
\item 213. See infra notes 215-23 and accompanying text.
\item 214. 45 C.F.R. § 46.116(a)(3) (1989). This section requires that, in order to obtain informed consent, the subject shall be provided with "[a] description of any benefits to
the information is recorded in such a manner that subjects cannot be identified either directly or through identifiers linked to the subject. In Moore, the cell line was originally named the "Mo" cell line. Obviously, Moore could be identified as the subject of the cell line. The HHS regulations specifically apply to research that is federally funded. Because Golde's research and development of the "Mo" cell line was federally funded, he was required to comply with HHS regulations concerning informed consent. Golde failed to comply with these regulations when he failed to inform Moore of the benefits Golde would receive from the research.

The HHS regulations also require that significant new findings that occur during the course of the research must be revealed to the subject if it affects the subject's willingness to continue participation. It is clear that Golde's discovery of unique cells capable of being used in a cell line was a significant new finding, therefore, Golde had a duty to disclose this discovery to Moore.

The California Business and Professions Code ("Code") is intended to ensure proper disclosure of non-therapeutic interests by a physician. The Code requires disclosure of any significant beneficial interests a physician has in an organization to which a physician refers the patient. Golde had a beneficial interest in having the tests performed on Moore at UCLA because Golde and the UCLA Regents had applied for a patent on a cell line derived from Moore.

the subject or to others which may reasonably be expected from the research." See supra note 141 and accompanying text.


216. Moore, 51 Cal. 3d at —, 793 P.2d at 511, 271 Cal. Rptr. at — (Mosk, J., dissenting).

217. Id. Justice Mosk states in his dissent that "no one can question Moore's crucial contribution to the invention — an invention named, ironically, after him: but for the cells of Moore's body taken by defendants, there would have been no Mo cell-line."


220. Moore, 51 Cal. 3d at —, 793 P.2d at 480-86, 271 Cal. Rptr. at 147-64.


222. OTA REPORT, supra note 129, at 10-11.


224. Id. The California code provides that:

[i]t is unlawful for any person licensed under this division or under any act referred to in this division to charge, bill, or otherwise solicit payment from a patient on behalf of, or refer a patient to, an organization in which the licensee, or the licensee's immediate family, has a significant beneficial interest, unless the licensee first disclose in writing to the patient, that there is such an interest and advises the patient that the patient may choose any organization for the purpose of obtaining the services ordered or requested by the licensee.

Id.
cells. The code requires that if the physician does have a beneficial interest in the organization, that physician must advise the patient that the patient may choose any organization for the purposes of obtaining the prescribed treatment. Moore was told that the test could be done only at UCLA under Golde's direction. Moore believed these representations and continued to come to UCLA based on the trust he had in his relationship with Golde. Because of Golde's desire to continue his research for UCLA, it was in his interest to have Moore come to UCLA for the withdrawals of the postoperative samples. Accordingly, Golde should have disclosed this interest to Moore.

Disclosure of Golde's commercial and research interests was required by the California Business and Professions Code, the HHS regulations, the California Administrative Code, and the HHS definition of informed consent, but this disclosure was never made. If Moore had been informed of Golde's potential for commercial gain, he would not have consented to the use of his cells for the commercial activity, or he would have insisted on participation in the economic benefit to be received from this cell line. Moore was deprived of the information necessary to make any of these decisions. The supreme court's holding that Moore may bring an action for informed consent and breach of fiduciary duty may enable Moore to recover some of the profits Golde has earned at Moore's expense. In his dissent, Judge Broussard found that although the majority did not identify the amount of damage or injury that Moore may recover in his action, it is clear that, in appropriate circumstances, an action such as Moore's may bring compensatory as well as punitive damages.

PROPERTY RIGHTS

The California Supreme Court decided in Moore that once an organ or cells have been removed from a patient they are no longer the

225. See Moore, 51 Cal. 3d at —, 793 P.2d at 481-82, 271 Cal. Rptr. at 148-49.
227. Moore, 51 Cal. 3d at —, 793 P.2d at 481, 271 Cal. Rptr. at 148.
228. Id. at —, 793 P.2d at 481, 271 Cal. Rptr. at 148.
229. Id. at —, 793 P.2d at 481, 271 Cal. Rptr. at 148.
230. See supra notes 224-30 and accompanying text.
231. See supra notes 224-27 and accompanying text.
232. See supra notes 214-23 and accompanying text.
233. See supra notes 210-13 and accompanying text.
234. See supra note 189 and accompanying text.
236. Moore, 51 Cal. 3d at —, 793 P.2d at 485, 271 Cal. Rptr. at 152.
237. Id. at —, 793 P.2d at 500, 271 Cal. Rptr. at 167 (Broussard, J., concurring and dissenting).
Therefore, the court found that the patented cell line and the products derived from it were not Moore's property. The court held that "the patented cell line is both factually and legally distinct from the cells taken from Moore's body." The court noted that patent law should reward the inventive effort rather than the discovery of naturally occurring raw materials. Thus, the court reasoned that Moore's claim of ownership rights in the cell line and the products derived from it was inconsistent with the patent which determined that the cell line was the product of invention. The dissent noted that this reasoning failed to address Moore's claim — that Moore was entitled to compensation for Golde's unauthorized use of Moore's tissues before Golde obtained the patent. Golde began extracting Moore's cells after the splenectomy in 1976 and continued until 1983, the patent was not issued until 1984.

The court of appeal found irony in the defendant's contention that although Moore could not own the tissue, Golde could. The court had difficulty reconciling the defendant's assertion of a property interest and exclusive control in the removed tissue with the contention that Moore, the source, had no rights in it. In his dissent, Justice Mosk found that "at the time of excision he at least had the right to do with his own tissue whatever the defendants did with it: i.e., he could have contracted with researchers and pharmaceutical companies to develop and exploit the vast commercial potential of his tissue and its products." Mosk's contention that Moore retained rights in his tissues is in accord with commentators on the subject. One commentator has noted that "other people seem to have property rights in our body parts, but we do not." Despite the fact that individuals have no property interests in their cell lines, scientists have been quick to claim such an interest in those cell lines.

Although the issue of property rights in a body has appeared most often in the context of possession for burial, it is possible to use the same rationale to claims of property rights in live tissue removed

238. Id. at —, 793 P.2d at 489, 271 Cal. Rptr. at 156.
239. Id. at —, 793 P.2d at 492, 271 Cal. Rptr. at 159.
240. Id. at —, 793 P.2d at 492, 271 Cal. Rptr. at 159.
241. Id. at —, 793 P.2d at 492, 271 Cal. Rptr. at 159.
242. Id. at —, 793 P.2d at 493, 271 Cal. Rptr. at 160.
243. Id. at —, 793 P.2d at 511, 271 Cal. Rptr. at 178 (Mosk, J., dissenting).
244. Id. at —, 793 P.2d at 511, 271 Cal. Rptr. at 178 (Mosk, J., dissenting).
245. Moore, 202 Cal. App. 3d at —, 249 Cal. Rptr. at 507.
246. Id. at —, 249 Cal. Rptr. at 507.
247. Moore, 51 Cal. 3d at —, 793 P.2d at 510, 271 Cal. Rptr. at 177 (Mosk, J., dissenting).
248. Id. at —, 793 P.2d at 510, 271 Cal. Rptr. at 177 (Mosk, J., dissenting).
250. Id.
during the patient's life because both types of tissues contain the patient's unique genetic information, and neither tissue would be of any use to the patient in the future. The quasi-property rights associated with dead bodies include the right to possession of the body for disposal and the right to recover damages for indignity or injury to it. Moore desired simply to have the right to determine the ultimate use or disposal of his excised cells and tissues. His claim for proprietary rights in the patented cell line can be considered similar to the right to recover for indignity, or injury to a body.

Using these quasi-property rights, the next of kin have also claimed possessory rights in corneal tissue removed from their deceased relatives. Georgia has enacted a statute which authorizes such procedures if there is no objection made by the decedent during his life or by his family after death. The fact that a court allows the decedent to forbid the removal of one's cornea after death may be evidence of some type of property right in one's tissue.

Although ownership rights of tissues removed during diagnosis or treatment have never been granted by common law or state statute, the general policy of the Uniform Anatomical Gift Act ("UAGA") states that the donor of a body part has the authority to designate how that part will be used. The UAGA allows a competent adult to make a gift of all or any part of his body for research, education, or transplantation. In his dissent, Justice Broussard found it quite clear that the UAGA gives a patient the right to decide, before the body part is removed, how that part may be used af-

252. OTA REPORT, supra note 129, at 72. See supra notes 170-71.
253. See Moore, 202 Cal. App. 3d at —, 249 Cal. Rptr. at 500. The Court of Appeals stated that "[a] patient must have the ultimate power to control what becomes of his or her tissue." Id. at —, 249 Cal. Rptr. at 508.
254. See supra notes 253-55 and accompanying text.
255. See Georgia Lions Eye Bank v. Lavant, 255 Ga. 60, 335 S.E.2d 127 (1985). In that case the court stated that "the courts conceived the notion of 'quasi-property' right, when referring to the interest of relatives in the bodies of their next-of-kin," but the Georgia court held that the common law concept of quasi property rights is not of constitutional dimension. Therefore, the court upheld a statute allowing the removal of corneal tissue from decedents to use in transplants. Id. at —.
256. GA. CODE ANN. § 31-23-6(a)(1)(B) and (b)(1)(B) (1990) (stating that the eye or corneal tissue of a decedent may be removed if "[t]he express written consent to the removal of the eye is given by the next of kin of the decedent; and . . . [n]o objection by the decedent during his lifetime . . . is known to the coroner.
257. Georgia Lions Eye Bank, 255 Ga. at —, 335 S.E.2d at 128-29.
ter it has been removed. Justice Broussard also argued that the majority should have focused on whether Moore had the right to decide, prior to the time the body part was removed, how that part should be used. Instead, the majority focused on whether a patient retains a property interest in a part after it has been removed. Because Moore was claiming proprietary rights for the cell line that Golde developed from cells removed from Moore’s body, Moore should have had the right, prior to removal of the cells, to designate how they would be used after removal. Furthermore, Moore should have had the ability to refuse to make a gift of his tissues for commercial activity.

The enactment of state statutes providing protection for cultures and micro-organisms against larceny may also be evidence of a property interest in excised tissues and cells. If these organisms are not property, then they could not be protected by such statutes.

It has been argued that cells fall into the category of regenerative tissues such as blood and semen. Although states consider the sale of replenishable tissues to be a service rather than a sale of goods, the fact that they can be sold shows there may be a property nature in these tissues. The reason for characterizing the sale of these tissues as a service is simply to avoid for contaminated blood products liability. Courts have repeatedly recognized that avoidance of this liability is the purpose of this characterization. Therefore, if there is no prohibition on the sale of human blood, it follows that Moore should receive compensation for a conversion of replenishable tissues, such as his cells.

The National Organ Transplant Act prohibition on the sale of human tissues and organs is not applicable to replenishable tissues, because the legislative history of the act specifically excludes replenishable tissues such as blood or sperm. If cells are categorized as

260. Moore, 51 Cal. 3d at —, 793 P.2d at 501, 271 Cal. Rptr. at 168-69 (Broussard, J., dissenting).
261. Id. at —, 793 P.2d at 501, 271 Cal. Rptr. at 168 (Broussard, J., dissenting).
262. Id. at —, 793 P.2d at 501, 271 Cal. Rptr. at 168 (Broussard, J., dissenting).
263. Moore, 202 Cal. App. 3d at —, 249 Cal. Rptr. at 508.
265. OTA REPORT, supra note 129, at 80.
266. Id.
269. OTA REPORT, supra note 129, at 76.
270. Moore, 51 Cal. 3d at —, 793 P.2d at 518, 271 Cal. Rptr. at 185 (Mosk, J., dissenting).
271. Id. at —, 793 P.2d at 518, 271 Cal. Rptr. at 185 (Mosk, J., dissenting).
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replenishable tissues, and Moore has the right to sell his blood and sperm, he should also have the right to sell his tissues. The right to sell these cells, should be strong evidence that they are his property. The decision of the California Supreme Court in Moore turned on the issue of whether or not the cell line could be described as "factually and legally distinct from the cells from which it was derived." If the cell line was determined to be a product of invention rather than a natural organism, then Moore could no longer claim any property rights in the cells. In response to this argument, the court of appeal responded that the plaintiff's complaint alleged a conversion of the cells themselves and their progeny, and not a conversion of the ideas gained from their study. The court of appeal found that because the cells removed from the plaintiff were indispensable to the cell line, Moore should have been entitled to an interest in the profits.

CONCLUSION

The decision of the California Supreme Court in Moore v. Regents of the University of California addressed many previously unanswered issues in the field of biotechnology. The court's decision that a patient has no property rights in removed cells or tissues may be a source of relief to research institutes. However, these institutes will still be faced with the difficult dilemma of how to obtain informed consent for the use of an individual's cells without the fear of confusing the patient's decision-making process with regard to whether or not to undergo the treatment or procedure. Institutions engaging in research may protect themselves from cases such as Moore's by re-evaluating their consent forms.

274. Id.
275. Moore, 51 Cal. 3d at —, 793 P.2d at 492-93, 271 Cal. Rptr. at 159-60.
276. Id. at —, 793 P.2d at 493, 271 Cal. Rptr. at 160.
278. Id. at —, 249 Cal. Rptr. at 507. "The uniqueness of the product that gives rise to its patentability stems from the uniqueness of the original cell. . . . The patient was not a coequal, but was a necessary contributor to the cell line." Note, 6 YALE L. & POL'Y REV. at 197.
279. 51 Cal. 3d 120, 793 P.2d 479, 271 Cal. Rptr. at 146 (1990).
280. See supra notes 151-52 and accompanying text.
281. Prentice, Wiltse, Sharp, & Antonson, An Institutional Policy on the Right to Benefit from the Commercialization of Human Biological Material, 18 LAW, MED. & HEALTH CARE 162, 164-65 (1990). The Court of Appeals analysis of the Moore case prompted the University of Nebraska Institutional Review Board to analyze the issue of commercialization in human tissue. That Board varies its disclosure requirements based on when the element of commercialization arises. The Board does not believe
The court's finding that tissues and cells are not the property of the patient from whom they were removed seems to create severe inequities in the field of research and medicine. Golde was given the ability to extract Moore's unique tissues and cells and to use them in a very profitable research venture, yet Moore's single remedy is to bring an action for failure to disclose.\textsuperscript{282} Although Moore may have this remedy, there is no assurance that this will give him or other donors a right to share in the profits of products derived from their unique cells.

\textit{Catherine Caturano Horan—'92}

\footnotesize{that a consent form should include commercialization issues unless the "purpose of the research initially includes the element of commercialization." \textit{Id.}}

\footnotesize{282. \textit{Moore}, 51 Cal. 3d at \textemdash, 793 P.2d at 494, 271 Cal. Rptr. at 160-61.}