JOHN MOORE, Plaintiff and Appellant, v. THE REGENTS OF THE UNIVERSITY OF CALIFORNIA et al., Defendants and Repondents

No. S006987

Supreme Court of California

51 Cal. 3d 120; 793 P.2d 479; 271 Cal. Rptr. 146; 1990 Cal. LEXIS 2858; 16 A.L.R.5th 903; 15 U.S.P.Q.2D (BNA) 1753

July 9, 1990

JUDGES:

Opinion by Panelli, J., with Lucas, C. J., Eagleson and Kennard, JJ., concurring. Separate concurring opinion by Arabian, J. Separate concurring and dissenting opinion by Broussard, J. Separate dissenting opinion by Mosk, J.

OPINIONBY:

PANELLI

OPINION:

I. Introduction

We granted review in this case to determine whether plaintiff has stated a cause of action against his physician and other defendants for using his cells in potentially lucrative medical research without his permission. Plaintiff alleges that his physician failed to disclose preexisting research and economic interests in the cells before obtaining consent to the medical procedures by which they were extracted. The superior court sustained all defendants' demurrers to the third amended complaint, and the Court of Appeal reversed. We hold that the complaint states a cause of action for breach of the physician's disclosure obligations, but not for conversion.

II. Facts

The plaintiff is John Moore (Moore), who underwent treatment for hairy-cell leukemia at the Medical Center of the University of California at Los Angeles (UCLA Medical Center). The five defendants are: (1) Dr. David W. Golde (Golde), a physician who attended Moore at UCLA Medical Center; (2) the Regents of the University of California (Regents), who own and operate the university; (3) Shirley G. Quan, a researcher employed by the Regents; (4) Genetics Institute, Inc. (Genetics Institute); and (5) Sandoz Pharmaceuticals Corporation and related entities (collectively Sandoz).

Moore first visited UCLA Medical Center on October 5, 1976, shortly after he learned that he had hairy-cell leukemia. After hospitalizing Moore and "withdr[awing] extensive amounts of blood, bone marrow aspirate, and other bodily substances," Golde confirmed that diagnosis. At this time all defendants, including Golde, were aware that "certain blood products and blood components were of great value in a number of commercial and scientific efforts" and that access to a patient whose blood contained **[***5]** these substances would provide "competitive, commercial, and scientific advantages."

On October 8, 1976, Golde recommended that Moore's spleen be removed. Golde informed Moore "that he had reason **[***6]** to fear for his life, and that the proposed splenectomy operation . . . was necessary to slow down the progress of his disease." Based upon Golde's representations, Moore signed a written consent form authorizing the splenectomy.

Before the operation, Golde and Quan "formed the intent and made arrangements to obtain portions of [Moore's] spleen following its removal" and to take them to a separate research unit. Golde gave written instructions to this effect on October 18 and 19, 1976. These research activities "were not intended to have . . . any relation to [Moore's] medical . . . care." However, neither Golde nor Quan informed Moore of their plans to conduct this research or requested his permission. Surgeons at UCLA Medical Center, whom the complaint does not name as defendants, removed Moore's spleen on October 20, 1976.

Moore returned to the UCLA Medical Center several times between November 1976 and September 1983. He did so at Golde's direction and based upon representations "that such visits were necessary and required for his health and well-being, and based upon the trust inherent in and by virtue of the physician-patient relationship . . . ." On each of these visits **[***7]** Golde withdrew additional samples of "blood, blood serum, skin, bone marrow aspirate, and sperm." On each occasion Moore travelled to the UCLA Medical Center from his home in Seattle because he had been told that

the procedures were to be performed only there and only under Golde's direction.

"In fact, [however,] throughout the period of time that [Moore] was under [Golde's] care and treatment, . . . the defendants were actively involved in a number of activities which they concealed from [Moore] . . . ." Specifically, defendants were conducting research on Moore's cells and planned to "benefit financially and competitively . . . [by exploiting the cells] and [their] exclusive access to [the cells] by virtue of [Golde's] ongoing physician-patient relationship . . . ."

Sometime before August 1979, Golde established a cell line from Moore's T-lymphocytes. n2 On January 30, 1981, the Regents applied for a patent on the cell line, listing Golde and Quan as inventors. "[B]y virtue of an established policy . . ., [the] Regents, Golde, and Quan would share in any royalties or profits . . . arising out of [the] patent." The patent issued on March 20, 1984, naming Golde and Quan as the inventors of the cell line and the Regents as the assignee of the patent. (U.S. Patent No. 4,438,032 (Mar. 20, 1984).)

n2 A T-lymphocyte is a type of white blood cell. T-lymphocytes produce lymphokines, or proteins that regulate the immune system. Some lymphokines have potential therapeutic value. If the genetic material responsible for producing a particular lymphokine can be identified, it can sometimes be used to manufacture large quantities of the lymphokine through the techniques of recombinant DNA. (See generally U.S. Congress, Office of Technology Assessment, New Developments in Biotechnology: Ownership of Human Tissues and Cells (1987) at pp. 31-46 (hereafter OTA Report); see also fn. 29, *post*.)

> While the genetic code for lymphokines does not vary from individual to individual, it can nevertheless be quite difficult to locate the gene responsible for a particular lymphokine. Because T-lymphocytes produce many different lymphokines, the relevant gene is often like a needle in a haystack. (OTA Rep., *supra*, at p. 42.) Moore's T-lymphocytes were interesting to the defendants because they overproduced certain lymphokines, thus making the corresponding genetic material easier to identify. (In published research papers, defendants and other researchers have shown that the overproduction was caused by a virus, and that normal T-lymphocytes infected by the virus will also overproduce. See fn. 30, *post*.)
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> Cells taken directly from the body (primary cells) are not very useful for these purposes. Primary cells typically reproduce a few times and then die. One can, however, sometimes continue to use cells for an extended period of time by developing them into a "cell line," a culture capable of reproducing indefinitely. This is not, however, always an easy task. "Longterm growth of human cells and tissues is difficult, often an art," and the probability of succeeding with any given cell sample is low, except for a few types of cells not involved in this case. (OTA Rep., *supra*, at p. 5.)

The Regent's patent also covers various methods for using the cell line to produce lymphokines. Moore admits in his complaint that "the true clinical potential of each of the lymphokines . . . [is] difficult to predict, [but] . . . competing commercial firms in these relevant fields have published reports in biotechnology industry periodicals predicting a potential market of approximately $ 3.01 Billion Dollars by the year 1990 for a whole range of [such lymphokines] . . . ."

With the Regents' assistance, Golde negotiated agreements for commercial development of the cell line and products to be derived from it. Under an agreement with Genetics Institute, Golde "became a paid consultant" and "acquired the rights to 75,000 shares of common stock." Genetics Institute also agreed to pay Golde and the Regents "at least $ 330,000 over three years, including a pro-rata share of [Golde's] salary and fringe benefits, in exchange for . . . exclusive access to the materials and research performed" on the cell line and products derived from it. On June 4, 1982, Sandoz "was added to the agreement," and compensation payable to Golde and the Regents was increased by $ 110,000. "[T]hroughout this period, . . . Quan spent as much as 70 [percent] of her time working for [the] Regents on research" related to the cell line.

III. Discussion

A. *Breach of Fiduciary Duty and Lack of Informed Consent*

Moore repeatedly alleges that Golde failed to disclose the extent of his research and economic interests in Moore's cells before obtaining consent to the medical procedures by which the cells were extracted. These allegations, in our view, state a cause of action against Golde for invading a legally protected interest of his patient. This cause of action can properly be characterized either as the breach of a fiduciary duty to disclose facts material to the patient's consent or, alternatively, as the performance of medical procedures without first having obtained the patient's informed consent.

(1) a physician must disclose personal interests unrelated to the patient's health, whether research or

economic, that may affect the physician's professional judgment; and (2) a physician's failure to disclose such interests may give rise to a cause of action for performing medical procedures without informed consent or breach of fiduciary duty.

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the law already recognizes that a reasonable patient would want to know whether a physician has an economic interest that might affect the physician's professional judgment. As the Court of Appeal has said, "[c]ertainly a sick patient deserves to be free of any reasonable suspicion that his doctor's judgment is influenced by a profit motive

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It is important to note that no law prohibits a physician from conducting research in the same area in which he practices. Progress in medicine often depends upon physicians, such as those practicing at the university hospital where Moore received treatment, who conduct research while caring for their patients.

Yet a physician who treats a patient in whom he also has a research interest has potentially conflicting loyalties. This is because medical treatment decisions are made on the basis of proportionality -- weighing the benefits *to the patient* against the risks *to the patient*. As another court has said, "the determination as to whether the burdens of treatment are worth enduring for any individual patient depends upon the facts unique in each case," and "the patient's interests and desires are the key ingredients of the decision-making process." (*Barber v. Superior Court (1983) 147 Cal.App.3d 1006, 1018-1019 [195 Cal.Rptr. 484, 47 A.L.R.4th 1].)* A physician who adds his own research interests to this balance may be tempted to order a scientifically useful procedure or test that offers marginal, or no, benefits to the patient. n8 The possibility that an interest extraneous to the patient's health has affected the physician's judgment is something that a reasonable patient would want to know in deciding whether to consent to a proposed course of treatment. It is material to the patient's decision and, thus, a prerequisite to informed consent. (See *Cobbs v. Grant, supra, 8 Cal.3d at p. 245.)*

n8 This is, in fact, precisely what Moore has alleged with respect to the postoperative withdrawals of blood and other substances.

Golde argues that the scientific use of cells that have already been removed cannot possibly affect the patient's medical interests. The argument is correct in one instance but not in another. If a physician has no plans to conduct research on a patient's cells at the time he recommends the medical procedure by which they are taken, then the patient's medical interests have not been impaired. In that instance the argument is correct. On the other hand, a physician who does have a preexisting research interest might, consciously or unconsciously, take that into consideration in recommending the procedure. In that instance the argument is incorrect: the physician's extraneous motivation may affect his judgment and is, thus, material to the patient's consent.

…

Accordingly, we hold that a physician who is seeking a patient's consent for a medical procedure must, in order to satisfy his fiduciary duty and to obtain the patient's informed consent, disclose personal interests unrelated to the patient's health, whether research or economic, that may affect his medical judgment.

B. *Conversion*

Moore also attempts to characterize the invasion of his rights as a conversion -- a tort that protects against interference with possessory and ownership interests in personal property. He theorizes that he continued to own his cells following their removal from his body, at least for the purpose of directing their use, and that he never consented to their use in potentially lucrative medical research. Thus, to complete Moore's argument, defendants' unauthorized use of his cells constitutes a conversion. As a result of the alleged conversion, Moore claims a proprietary interest in each of the products that any of the defendants might ever create from his cells or the patented cell line.

No court, however, has ever in a reported decision imposed conversion liability for the use of human cells in medical research. n15 While that fact does not end our inquiry, it raises a flag of caution. **(5)** In effect, what Moore is asking us to do is to impose a tort duty on scientists to investigate the consensual pedigree of each human cell sample used in research. To impose such a duty, which would affect medical research of importance to all of society, implicates policy concerns far removed from the traditional, two-party ownership disputes in which the law of conversion arose. Invoking a tort theory originally used to determine whether the loser or the finder of a horse had the better title, Moore claims ownership of the results of socially important medical research, including the genetic code for chemicals that regulate the functions of every human being's immune system.

n15 The absence of such authority cannot simply be attributed to recent developments in technology. The first human tumor cell line, which still is widely used in research, was isolated in 1951. (OTA Rep., *supra*, at p. 34.) …

…we first consider whether the tort of conversion clearly gives Moore a cause of action under existing law. We do not believe it does. Because of the novelty of Moore's claim to own the biological materials at issue, to apply the theory of conversion in this context would frankly have to be recognized as an extension of the theory. Therefore, we consider next whether it is advisable to extend the tort to this context.

1. *Moore's Claim Under Existing Law*

"To establish a conversion, plaintiff must establish an actual interference with his *ownership* or *right of possession*. . . . Where plaintiff neither has title to the property alleged to have been converted, nor possession thereof, he cannot maintain an action for conversion."

Since Moore clearly did not expect to retain possession of his cells following their removal, n20 to sue for their conversion he must have retained an ownership interest in them. But there are several reasons to doubt that he did retain any such interest. First, no reported judicial decision supports Moore's claim, either directly or by close analogy. Second, California statutory law drastically limits any continuing interest of a patient in excised cells. Third, the subject matters of the Regents' patent -- the patented cell line and the products derived from it -- cannot be Moore's property.

n20 In his complaint, Moore does not seek possession of his cells or claim the right to possess them. This is consistent with *Health and Safety Code section 7054.4*, which provides that "human tissues . . . following conclusion of scientific use shall be disposed of by interment, incineration, or any other method determined by the state department [of health services] to protect the public health and safety."

Neither the Court of Appeal's opinion, the parties' briefs, nor our research discloses a case holding that a person retains a sufficient interest in excised cells to support a cause of action for conversion. We do not find this surprising, since the laws governing such things as human tissues, transplantable organs, n22 blood, n23 fetuses, n24 pituitary glands, n25 corneal tissue, n26 and dead bodies n27 deal with human biological materials as objects sui generis, regulating their disposition to achieve policy goals rather than abandoning them to the general law of personal property. It is these specialized statutes, not the law of conversion, to which courts ordinarily should and do look for guidance on the disposition of human biological materials.

n22 See the Uniform Anatomical Gift Act, *Health and Safety Code section 7150* et seq. The act permits a competent adult to "give all or part of [his] body" for certain designated purposes, including "transplantation, therapy, medical or dental education, research, or advancement of medical or dental science." (*Health & Saf. Code, § § 7151*, *7153*.) The act does not, however, permit the donor to receive "valuable consideration" for the transfer. (*Health & Saf. Code, § 7155*.) **[***35]**

n23 See *Health and Safety Code section 1601* et seq., which regulates the procurement, processing, and distribution of human blood. *Health and Safety Code section 1606* declares that "[t]he procurement, processing, distribution, or use of whole blood, plasma, blood products, and blood derivatives for the purpose of injecting or transfusing the same . . . is declared to be, for all purposes whatsoever, the rendition of a service . . . and shall not be construed to be, and is declared not to be, a sale . . . for any purpose or purposes whatsoever."

n24 See *Health and Safety Code section 7054.3*: "Notwithstanding any other provision of law, a recognizable dead human fetus of less than 20 weeks uterogestation not disposed of by interment shall be disposed of by incineration."

n25 See *Government Code section 27491.46*: "The coroner [following an autopsy] shall have the right to retain pituitary glands solely for transmission to a university, for use in research or the advancement of medical science" (*id*., subd. (a)) or "for use in manufacturing a hormone necessary for the physical growth of persons who are, or may become, hypopituitary dwarfs . . ." (*id*., subd. (b)).

n26 See *Government Code section 27491.47*: "The coroner may, in the course of an autopsy [and subject to specified conditions], remove . . . corneal eye tissue from a body . . ." (*id*., subd. (a)) for "transplant, therapeutic, or scientific purposes" (*id*., subd. (a)(5)).

n27 See *Health and Safety Code section 7000* et seq. While the code does not purport to grant property rights in dead bodies, it does give the surviving spouse, or other relatives, "[t]he right to control the disposition of the remains of a deceased person, unless other directions have been given by the decedent . . . ." (*Health & Saf. Code, § 7100*.)

Lacking direct authority for importing the law of conversion into this context, Moore relies, as did the

Court of Appeal, primarily on decisions addressing privacy rights. n28 One line of cases involves unwanted publicity. These opinions hold that every person has a proprietary interest in his own likeness and that unauthorized, business use of a likeness is redressible as a tort. But in neither opinion did the authoring court expressly base its holding on property law. Each court stated that it was "pointless" to debate the proper characterization of the proprietary interest in a likeness. For purposes of determining whether the tort of conversion lies, however, the characterization of the right in question is far from pointless. Only property can be converted.

n28 No party has cited a decision supporting Moore's argument that excised cells are "a species of tangible personal property capable of being converted." On this point the Court of Appeal cited only *Venner v. State (1976) 30 Md.App. 599 [354 A.2d 483]* (hereafter *Venner*), which dealt with the seizure of a criminal defendant's feces from a hospital bedpan by police officers searching for narcotics. The court held that the defendant had abandoned his excrement for purposes of the Fourth Amendment. *(354 A.2d at pp. 498-499.)*

> In dictum, the *Venner* court observed that "[i]t is not unknown for a person to assert a continuing right of ownership, dominion, or control, for good reason or for no reason, over such things as excrement, fluid waste, secretions, hair, fingernails, toenails, blood, and organs or other parts of the body . . . ." *(354 A.2d at p. 498.)* This slender reed, alone, supported the Court of Appeal's conclusion in the case before us that "it cannot be said that a person has no property right in materials which were once part of his body." However, because *Venner* involved a criminal-procedure dispute over the suppression of evidence, and not a civil dispute over who was entitled to the economic benefit of property, the opinion is grounded in markedly different polices and has little relevance to the case before us.

Not only are the wrongful-publicity cases irrelevant to the issue of conversion, but the analogy to them seriously misconceives the nature of the genetic materials and research involved in this case. Moore, adopting the analogy originally advanced by the Court of Appeal, argues that "[i]f the courts have found a sufficient proprietary interest in one's persona, how could one not have a right in one's own genetic material, something far more profoundly the essence of one's human uniqueness than a name or a face?" However, as the defendants' patent makes clear -- and the complaint, too, if read with an understanding of the scientific terms which it has borrowed from the patent -- the goal and result of defendants' efforts has been to manufacture lymphokines. n29 Lymphokines, unlike a name or a face, have the same molecular structure in every human being and the same, important functions in every human being's immune system. Moreover, the particular genetic material which is responsible for the natural production of lymphokines, and which defendants use to manufacture lymphokines in the laboratory, is also the same in every person; it is no more unique to Moore than the number of vertebrae in the spine or the chemical formula of hemoglobin. n30

n29 Inside the cell, a gene produces a lymphokine (see fn. 2, *ante*) by attracting protein molecules, which bond to form a strand of "messenger RNA" (mRNA) in the mirror image of the gene. The mRNA strand then detaches from the gene and attracts other protein molecules, which bond to form the lymphokine that the original gene encoded. (OTA Rep., *supra*, at pp. 38-44.)

In the laboratory, scientists sometimes use genes to manufacture lymphokines by cutting a gene from the chromosome and grafting it onto the chromosome of a bacterium. The resulting chromosome is an example of "recombinant DNA," or DNA composed of genetic material from more than one individual or species. As the bacterium lives and reproduces, the engrafted gene continues to produce the lymphokine that the gene encodes. (OTA Rep., *supra*, at pp. 41-44, 158.)

It can be extremely difficult to identify the gene that carries the code for a particular lymphokine. "Since the amount of DNA in a human cell is enormous compared to the amount present in an individual gene, the search for any single gene within a cell is like searching for needle in a haystack." (OTA Rep., *supra*, at p. 42.) As the Regents' patent application explains, the significance of a cell that overproduces mRNA is to make the difficult search for a particular gene unnecessary. (U.S. Patent No. 4,438,032 (Mar. 20, 1984) at col. 2.) If one has an adequate source of mRNA -- the gene's mirror image -- it can be used to make a copy, or clone, of the original gene. The cloned gene can then be used in recombinant DNA, as already described, for large-scale production of lymphokines. (*Id*., at col. 3.)

n30 By definition, a gene responsible for producing a protein found in more than one

individual will be the same in each. It is precisely because everyone needs the same basic proteins that proteins produced by one person's cells may have therapeutic value for another person. (See generally OTA Rep., *supra*, at pp. 38-40.) Thus, the proteins that defendants hope to manufacture -- lymphokines such as interferon -- are in no way a "likeness" of Moore.

Because all normal persons possess the genes responsible for production of lymphokines, it is sometimes possible to make normal cells into overproducers. (See OTA Rep., *supra*, at p. 55.) According to a research paper to which defendants contributed, Moore's cells overproduced lymphokines because they were infected by a virus, HTLV-II (human T-cell leukemia virus type II). (Chen, Quan & Golde, *Human T-cell Leukemia Virus Type II Transforms Normal Human Lymphocytes* (Nov. 1983) 80 Proceedings Nat. Acad. Sci. USA 7006.) The same virus has been shown to transform normal T-lymphocytes into overproducers like Moore's. (*Ibid.*)

Another privacy case offered by analogy to support Moore's claim establishes only that patients have a right to refuse medical treatment. (*Bouvia v. Superior Court (1986) 179 Cal.App.3d 1127 [225 Cal.Rptr. 297].)* In this context the court in *Bouvia* wrote that "'[e]very human being of adult years and sound mind has a right to determine what shall be done with his own body . . . .'" (*Id., at p. 1139,* quoting from *Schloendorff v. New York Hospital, supra, 211 N.Y. 125 [105 N.E. 92, 93].)* Relying on this language to support the proposition that a patient has a continuing right to control the use of excised cells, the Court of Appeal in this case concluded that "[a] patient must have the ultimate power to control what becomes of his or her tissues. To hold otherwise would open the door to a massive invasion of human privacy and dignity in the name of medical progress." Yet one may earnestly wish to protect privacy and dignity without accepting the extremely problematic conclusion that interference with those interests amounts to a conversion of personal property. Nor is it necessary to force the round pegs of "privacy" and "dignity" into the square hole of "property" in order to protect the patient, since the fiduciary-duty and informed-consent theories protect these interests directly by requiring full disclosure.

The next consideration that makes Moore's claim of ownership problematic is California statutory law, which drastically limits a patient's control over excised cells. Pursuant to *Health and Safety Code section 7054.4*, "[n]otwithstanding any other provision of law, recognizable anatomical parts, human tissues, anatomical human remains, or infectious waste following conclusion of scientific use shall be disposed of by interment, incineration, or any other method determined by the state department [of health services] to protect the public health and safety." n32 Clearly the Legislature did not specifically intend this statute to resolve the question of whether a patient is entitled to compensation for the nonconsensual use of excised cells. A primary object of the statute is to ensure the safe handling of potentially hazardous biological waste materials. n33 Yet one cannot escape the conclusion that the statute's practical effect is to limit, drastically, a patient's control over excised cells. By restricting how excised cells may be used and requiring their eventual destruction, the statute eliminates so many of the rights ordinarily attached to property that one cannot simply assume that what is left amounts to "property" or "ownership" for purposes of conversion law.

n32 Although section 7054.4 occurs in a division of the Health and Safety Code entitled "Dead Bodies," only the term "human remains" refers solely to cadavers. This is because section 7001 so defines it. (*Health & Saf. Code, § 7001*.) The additional terms "recognizable anatomical parts" and "human tissues" are not expressly defined and must be given their ordinary meanings, which are not limited to dead bodies. Surgically removed organs, such as a spleen, are both "recognizable anatomical parts" and "human tissues." Virus-infected cells, such as Moore's T-lymphocytes, fit reasonably within the statute's definition of "infectious waste." (See fn. 33, *post.*)

n33 The policy of keeping biological materials in safe hands has substantial relevance to this case. The catalog of the American Type Culture Collection, an organization that distributes cell lines to researchers, gives this warning about the cell line derived from Moore's T-lymphocytes: Because "[t]he cells . . . contain a replication competent genome of Human T Cell Leukemia Virus II (HTLV-II) [i.e., genetic material capable of reproducing the virus] . . ., they must be handled as potentially biohazardous material under P-II [level II] containment." (American Type Culture Collection, *Catalogue of Cell Lines and Hybridomas* (6th ed. 1988) p. 176.) Level II containment is a standard established by the National Institutes of Health and the Center for Disease Control for handling hazardous biological materials. The level II standard requires, among other things, the use of

> a biological safety cabinet when the cell line is manipulated, and the autoclaving (sterilization by heat) and disposal of contaminated materials. (*Id.*, at p. xi.)

It may be that some limited right to control the use of excised cells does survive the operation of this statute. There is, for example, no need to read the statute to permit "scientific use" contrary to the patient's expressed wish. A fully informed patient may always withhold consent to treatment by a physician whose research plans the patient does not approve. That right, however, as already discussed, is protected by the fiduciary-duty and informed-consent theories.

Finally, the subject matter of the Regents' patent -- the patented cell line and the products derived from it -- cannot be Moore's property. This is because the patented cell line is both factually and legally distinct from the cells taken from Moore's body. n35 Federal law permits the patenting of organisms that represent the product of "human ingenuity," but not naturally occurring organisms. (*Diamond v. Chakrabarty (1980) 447 U.S. 303, 309-310 [65 L.Ed.2d 144, 150, 100 S.Ct. 2204].)* Human cell lines are patentable because "[l]ong-term adaptation and growth of human tissues and cells in culture is difficult -- often considered an art . . .," and the probability of success is low. (OTA Rep., *supra*, at p. 33; see fn. 2, *ante*.) It is this *inventive effort* that patent law rewards, not the discovery of naturally occurring raw materials. Thus, Moore's allegations that he owns the cell line and the products derived from it are inconsistent with the patent, which constitutes an authoritative determination that the cell line is the product of invention. n37

> n35 The distinction between primary cells (cells taken directly from the body) and patented cell lines is not purely a legal one. Cells change while being developed into a cell line and continue to change over time. (OTA Rep., *supra*, at p. 34.) "[I]t is clear that most established cell lines . . . are not completely normal. Besides [an] enhanced growth potential relative to primary cells, they frequently have highly abnormal chromosome numbers . . . ." (2 Watson et al., Molecular Biology of the Gene (4th ed. 1987) p. 967; see also OTA Rep., *supra*, at p. 36.)
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> The cell line in this case, for example, after many replications began to generate defective and rearranged forms of the HTLV-II virus. A published research paper to which defendants contributed suggests that "the defective forms of virus were probably generated during the passage [or replication] of the cells rather than being present in the original tumour cells of the patient." Possibly because of these changes in the virus, the cell line has developed new abilities to
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> n37 To avoid this conclusion, the dissent endorses a proposal to expand Congress's definition of "joint inventor" *(35 U.S.C. § 116)* to include the human source of biological materials used in research. (Dis. opn. of Mosk, J., *post*, at pp. 168-169.) Because exclusive power to effect change in the law of patents lies with Congress and the federal courts (U.S. Const., art. I, § 8, cl. 8; *28 U.S.C. § § 1295*, 1338), the dissent's criticism of the law's present state has no legitimate bearing on our disposition of this case.

2. *Should Conversion Liability Be Extended?*

As we have discussed, Moore's novel claim to own the biological materials at issue in this case is problematic, at best. Accordingly, his attempt to apply the theory of conversion within this context must frankly be recognized as a request to extend that theory. While we do not purport to hold that excised cells can never be property for any purpose whatsoever, the novelty of Moore's claim demands express consideration of the policies to be served by extending liability …

There are three reasons why it is inappropriate to impose liability for conversion based upon the allegations of Moore's complaint. First, a fair balancing of the relevant policy considerations counsels against extending the tort. Second, problems in this area are better suited to legislative resolution. Third, the tort of conversion is not necessary to protect patients' rights. For these reasons, we conclude that the use of excised human cells in medical research does not amount to a conversion.

Of the relevant policy considerations, two are of overriding importance. The first is protection of a competent patient's right to make autonomous medical decisions. That right, as already discussed, is grounded in well-recognized and long-standing principles of fiduciary duty and informed consent. (See, e.g., *Cobbs v. Grant, supra, 8 Cal.3d at pp. 242-246; Bowman v. McPheeters, supra, 77 Cal.App.2d at p. 800.)* This policy weighs in favor of providing a remedy to patients when physicians act with undisclosed motives that may affect their professional judgment. The second important policy consideration is that we not threaten with disabling civil liability innocent parties who are engaged in socially useful activities, such as researchers who have no reason to believe that their use of a particular cell sample is, or may be, against a donor's wishes.

To reach an appropriate balance of these policy considerations is extremely important. In its report to Congress (see fn. 2, *ante*), the Office of Technology Assessment emphasized that "[u]ncertainty about how courts will resolve disputes between specimen sources and specimen users could be detrimental to both academic researchers and the infant biotechnology industry, particularly when the rights are asserted long after the specimen was obtained. The assertion of rights by sources would affect not only the researcher who obtained the original specimen, but perhaps other researchers as well.

"Biological materials are routinely distributed to other researchers for experimental purposes, and scientists who obtain cell lines or other specimen-derived products, such as gene clones, from the original researcher could also be sued under certain legal theories [such as conversion]. Furthermore, the uncertainty could affect product developments as well as research. Since inventions containing human tissues and cells may be patented and licensed for commercial use, companies are unlikely to invest heavily in developing, manufacturing, or marketing a product when uncertainty about clear title exists." (OTA Rep., *supra*, at p. 27.)

Indeed, so significant is the potential obstacle to research stemming from uncertainty about legal title to biologicalmaterials that the Office of Technology Assessment reached this striking conclusion: "[R]egardless of the merit of claims by the different interested parties, resolving the current uncertainty may be more important to the future of biotechnology than resolving it in any particular way." (OTA Rep., *supra*, at p. 27.)

We need not, however, make an arbitrary choice between liability and nonliability. Instead, an examination of the relevant policy considerations suggests an appropriate balance: Liability based upon existing disclosure obligations, rather than an unprecedented extension of the conversion theory, protects patients' rights of privacy and autonomy without unnecessarily hindering research.

To be sure, the threat of liability for conversion might help to enforce patients' rights indirectly. This is because physicians might be able to avoid liability by obtaining patients' consent, in the broadest possible terms, to any conceivable subsequent research use of excised cells. Unfortunately, to extend the conversion theory would utterly sacrifice the other goal of protecting innocent parties. Since conversion is a strict liability tort, n38 it would impose liability on all those into whose hands the cells come, whether or not the particular defendant participated in, or knew of, the inadequate disclosures that violated the patient's right to make an informed decision. In contrast to the conversion theory, the fiduciary-duty and informed-consent theories protect the patient directly, without punishing innocent parties or creating disincentives to the conduct of socially beneficial research.

> n38 "'The foundation for the action for conversion rests neither in the knowledge nor the intent of the defendant. . . . [Instead,] "the tort consists in the breach of what may be called an absolute duty; … questions of good faith, lack of knowledge and motive are ordinarily immaterial."].)

Research on human cells plays a critical role in medical research. This is so because researchers are increasingly able to isolate naturally occurring, medically useful biological substances and to produce useful quantities of such substances through genetic engineering. These efforts are beginning to bear fruit. Products developed through biotechnology that have already been approved for marketing in this country include treatments and tests for leukemia, cancer, diabetes, dwarfism, hepatitis-B, kidney transplant rejection, emphysema, osteoporosis, ulcers, anemia, infertility, and gynecological tumors, to name but a few. (Note, *Source Compensation for Tissues and Cells Used in Biotechnical Research: Why a Source Shouldn't Share in the Profits (1989) 64 Notre Dame L. Rev. 628 & fn. 1* (hereafter Note, Source Compensation); see also OTA Rep., *supra*, at pp. 58-59.)

The extension of conversion law into this area will hinder research by restricting access to the necessary raw materials. Thousands of human cell lines already exist in tissue repositories, such as the American Type Culture Collection and those operated by the National Institutes of Health and the American Cancer Society. These repositories respond to tens of thousands of requests for samples annually. Since the patent office requires the holders of patents on cell lines to make samples available to anyone, many patent holders place their cell lines in repositories to avoid the administrative burden of responding to requests. (OTA Rep., *supra*, at p. 53.) At present, human cell lines are routinely copied and distributed to other researchers for experimental purposes, usually free of charge. This exchange of scientific materials, which still is relatively free and efficient, will surely be compromised if each cell sample becomes the potential subject matter of a lawsuit. (OTA Rep., *supra*, at p. 52.) n40

> n40 The dissent's factual premise that biological materials no longer pass freely among researchers is greatly overstated. In the most important research contexts the distribution of biological materials is still essentially unrestricted. The

> Office of Technology Assessment found that "[i]nformal transfers are common among researchers and universities around the country." (OTA Rep., *supra,* at p. 52.) In addition, tissue repositories provide cell lines and tissue samples to any qualified researcher, either without cost or for a nominal fee. (OTA Rep., *supra*, at p. 53.) The availability of patent protection for cell lines actually *increases* the availability of research materials, since the United States Patent Office requires patent holders to make patented microorganisms available to researchers immediately after a patent issues

… the theory of liability that Moore urges us to endorse threatens to destroy the economic incentive to conduct important medical research. If the use of cells in research is a conversion, then with every cell sample a researcher purchases a ticket in a litigation lottery. Because liability for conversion is predicated on a continuing ownership interest, "companies are unlikely to invest heavily in developing, manufacturing, or marketing a product when uncertainty about clear title exists." (OTA Rep., *supra*, at p. 27.) In our view…"[i]t is not unreasonable to conclude in these circumstances that the imposition of a harsher test for liability would not further the public interest in the development and availability of these important products." (*Brown v. Superior Court, supra, 44 Cal.3d at p. 1065.)*

In this case, limiting the expansion of liability under a conversion theory will only make it more difficult for Moore to recover a highly theoretical windfall. Any injury to his right to make an informed decision remains actionable through the fiduciary-duty and informed-consent theories.

If the scientific users of human cells are to be held liable for failing to investigate the consensual pedigree of their raw materials, we believe the Legislature should make that decision. Complex policy choices affecting all society are involved, and "[l]egislatures, in making such policy decisions, have the ability to gather empirical evidence, solicit the advice of experts, and hold hearings at which all interested parties present evidence and express their views . . . ." (*Foley v. Interactive Data Corp., supra, 47 Cal.3d at p. 694, fn. 31.)* Legislative competence to act in this area is demonstrated by the existing statutes governing the use and disposition of human biological materials. n43 Legislative interest is demonstrated by the extensive study recently commissioned by the United States Congress. (OTA Rep., *supra*.) Commentators are also recommending legislative solutions. (See Danforth, *Cells, Sales, and Royalties: The Patient's Right to a Portion of the Profits (1988) 6 Yale L. & Pol'y Rev. 179, 198-201;* Note, *Source Compensation, supra*, 64 Notre Dame L. Rev. at pp. 643-645.)

n43 See footnotes 21 through 27, *ante*.

Finally, there is no pressing need to impose a judicially created rule of strict liability, since enforcement of physicians' disclosure obligations will protect patients against the very type of harm with which Moore was threatened. So long as a physician discloses research and economic interests that may affect his judgment, the patient is protected from conflicts of interest. Aware of any conflicts, the patient can make an informed decision to consent to treatment, or to withhold consent and look elsewhere for medical assistance. As already discussed, enforcement of physicians' disclosure obligations protects patients directly, without hindering the socially useful activities of innocent researchers.

For these reasons, we hold that the allegations of Moore's third amended complaint state a cause of action for breach of fiduciary duty or lack of informed consent, but not conversion. n44

[*148] IV.

The decision of the Court of Appeal is affirmed in part and reversed in part. The case is remanded to the Court of Appeal, which shall direct the superior court to: (1) overrule Golde's demurrers to the causes of action for breach of fiduciary duty and lack of informed consent; (2) sustain, with leave to amend, the demurrers of the Regents, Quan, Sandoz, and Genetics Institute to the purported causes of action for breach of fiduciary duty and lack of informed consent; (3) sustain, without leave to amend, all defendants' demurrers to the purported cause of action for conversion; and (4) hear and determine all defendants' remaining demurrers.

CONCURBY:

ARABIAN; BROUSSARD (In Part)

CONCUR:

ARABIAN, J., Concurring.

I join in the views cogently expounded by the majority. I write separately to give voice to a concern that I believe informs much of that opinion but finds little or no expression therein. I speak of the moral issue.

Plaintiff has asked us to recognize and enforce a right to sell one's own body tissue *for profit*. He entreats us to regard the human vessel -- the single most venerated and protected subject in any civilized society -- as equal with the basest commercial commodity. He

urges us to commingle the sacred with the profane. He asks much.

My learned colleague, Justice Mosk, in an impressive if ultimately unpersuasive dissent, recognizes the moral dimension of the matter. "[O]ur society," he writes, "acknowledges a profound ethical imperative to respect the human body as the physical and temporal expression of the unique human persona." (Dis. opn. of Mosk, J., *post,* p. 173.) He concludes, however, that morality militates in favor of recognizing plaintiff's claim for conversion of his body tissue. Why? Essentially, he answers, because of these defendants' moral shortcomings, duplicity and greed. Let them be compelled, he argues, to disgorge a portion of their ill-gotten gains to the uninformed individual whose body was invaded and exploited and without whom such profits would not have been possible.

I share Justice Mosk's sense of outrage, but I cannot follow its path. His eloquent paean to the human spirit illuminates the problem, but not the solution. Does it uplift or degrade the "unique human persona" to treat human tissue as a fungible article of commerce? Would it advance or impede the human condition, spiritually or scientifically, by delivering the majestic force of the law behind plaintiff's claim? I do not know the answers to these troubling questions, nor am I willing -- like Justice Mosk -- to treat them simply as issues of "tort" law, susceptible of *judicial* resolution.

It is true, that this court has not often been deterred from deciding difficult legal issues simply because they require a choice between competing social or economic policies. (*Foley v. Interactive Data Corp. (1988) 47 Cal.3d 654, 719-723 [254 Cal.Rptr. 211, 765 P.2d 373]* (conc. and dis. opn. of Kaufman, J.).) The difference here, however, lies in the nature of the conflicting moral, philosophical and even religious values at stake, and in the profound implications of the position urged. The ramifications of recognizing and enforcing a property interest in body tissues are not known, but are greatly feared -- the effect on human dignity of a marketplace in human body parts, the impact on research and development of competitive bidding for such materials, and the exposure of researchers to potentially limitless and uncharted tort liability. (See Danforth, *Cells, Sales, & Royalties: The Patient's Right to a Portion of the Profits (1988) 6 Yale L. & Pol'y Rev. 179, 195;* Note, *Source Compensation for Tissues and Cells Used in Biotechnical Research: Why a Source Shouldn't Share in the Profits (1989) 64 Notre Dame L. Rev. 628, 634.)*

Whether, as plaintiff urges, his cells should be treated as property susceptible to conversion is not, in my view, ours to decide. The question implicates choices which not only reflect, but which ultimately define our essence. A mark of wisdom for us as expositors of the law is the recognition that we cannot cure every ill, mediate every dispute, resolve every conundrum. Sometimes, as Justice Brandeis said, "the most important thing we do, is not doing." n1

n1 Bickel, The Least Dangerous Branch (1962) page 71.

Where then shall a complete resolution be found? Clearly the Legislature, as the majority opinion suggests, is the proper deliberative forum. Indeed, a legislative response creating a licensing scheme, which establishes a fixed rate of profit sharing between researcher and subject, has already been suggested. (*Danforth, supra,* 6 Yale L. & Pol'y Rev. at pp. 198-201.) Such an arrangement would not only avoid the moral and philosophical objections to a free market operation in body tissue, but would also address stated concerns by eliminating the inherently coercive effect of a waiver system and by compensating donors regardless of temporal circumstances.

The majority view is not unmindful of the seeming injustice in a result that denies plaintiff a claim for conversion of his body tissue, yet permits defendants to retain the fruits thereof. As we have explained, the reason for our holding is essentially twofold: First, plaintiff in this matter is not without a remedy; he remains free to pursue defendants on a breach-of-fiduciary-duty theory, as well as, perhaps, other tort claims not before us. Second, a judicial pronouncement, while supple, is not without its limitations. Courts cannot and should not seek to fashion a remedy for every "heartache and the thousand natural shocks that flesh is heir to." n2 Sometimes, the discretion of forbearance *is* the better part of responsive valor. This is such an occasion.

n2 Shakespeare, *Hamlet*, act III, scene 1.

DISSENT:

BROUSSARD, J., Concurring and Dissenting.

Given the novel scientific setting in which this case arises and the considerable interest this litigation has engendered within the medical research community and the public generally, it is easy to lose sight of the fact that the specific allegations on which the complaint in this case rests are quite unusual, setting this matter apart from the great majority of instances in which donated organs or cells provide the raw materials for the advancement of medical science and the development of new and beneficial medical products. Ordinarily, when a patient consents to the use of a body part for scientific purposes, the potential value of the excised organ or cell

is discovered only through subsequent experimentation or research, often months or years after the removal of the organ. In this case, however, the complaint alleges that plaintiff's doctor recognized the peculiar research and commercial value of plaintiff's cells *before* their removal from plaintiff's body. Despite this knowledge, the doctor allegedly failed to disclose these facts or his interest in the cells to plaintiff, either before plaintiff's initial surgery or throughout the ensuing seven-year period during which the doctor continued to obtain additional cells from plaintiff's body in the course of periodic medical examinations.

The majority opinion, of course, is not oblivious to the significance of these unusual allegations. It relies on those allegations in concluding that the complaint states a cause of action for breach of fiduciary duty. I concur fully in that holding.

When it turns to the conversion cause of action, however, the majority opinion fails to maintain its focus on the specific allegations before us. Concerned that the imposition of liability for conversion will impede medical research by innocent scientists who use the resources of existing cell repositories -- a factual setting not presented here -- the majority opinion rests its holding, that a conversion action cannot be maintained, largely on the proposition that a patient generally possesses no right in a body part that has already been removed from his body. Here, however, plaintiff has alleged that defendants interfered with his legal rights before his body part was removed. Although a patient may not retain any legal interest in a body part after its removal when he has properly consented to its removal and use for scientific purposes, it is clear under California law that before a body part is removed it is the patient, rather than his doctor or hospital, who possesses the right to determine the use to which the body part will be put after removal. If, as alleged in this case, plaintiff's doctor improperly interfered with plaintiff's right to control the use of a body part by wrongfully withholding material information from him before its removal, under traditional common law principles plaintiff may maintain a conversion action to recover the economic value of the right to control the use of his body part. Accordingly, I dissent from the majority opinion insofar as it rejects plaintiff's conversion cause of action.

I

To begin with, I concur fully in the majority's conclusion that the facts alleged in the complaint state a cause of action for breach of fiduciary duty against Dr. Golde. As the majority persuasively explains, because a physician's research activities and related commercial ventures may potentially affect his or her professional judgment, a physician has an obligation to disclose such personal interests to his patient. In this case, the complaint clearly alleges that Dr. Golde failed to fulfill this duty.

…

II

With respect to the conversion cause of action, I dissent from the majority's conclusion that the facts alleged in this case do not state a cause of action for conversion.

If this were a typical case in which a patient consented to the use of his removed organ for general research purposes and the patient's doctor had no prior knowledge of the scientific or commercial value of the patient's organ or cells, I would agree that the patient could not maintain a conversion action. In that common scenario, the patient has abandoned any interest in the removed organ and is not entitled to demand compensation if it should later be discovered that the organ or cells have some unanticipated value. I cannot agree, however, with the majority that a patient may *never* maintain a conversion action for **[**168]** the unauthorized use of his excised organ or cells, even against a party who knew of the value of the organ or cells before they were removed and breached a duty to disclose that value to the patient. Because plaintiff alleges that defendants wrongfully interfered with his right to determine, prior to the removal of his body parts, how those parts would be used after removal, I conclude that the complaint states a cause of action under traditional, common law conversion principles.

In analyzing the conversion issue, the majority properly begins with the established requirements of a common law conversion action, explaining that a plaintiff is required to demonstrate an actual interference with his "ownership or right of possession" in the property in question. (Maj. opn., *ante*, p. 136.) Although the majority opinion, at several points, appears to suggest that a removed body part, by its nature, may never constitute "property" for purposes of a conversion action (see maj. opn., *ante*, pp. 138, 140), there is no reason to think that the majority opinion actually intends to embrace such a broad or dubious proposition. If, for example, another medical center or drug company had stolen all of the cells in question from the UCLA Medical Center laboratory and had used them for its own benefit, there would be no question but that a cause of action for conversion would properly lie against the thief, and the majority opinion does not suggest otherwise. Thus, the majority's analysis cannot rest on the broad proposition that a removed body part is not property, but rather rests on the proposition that *a patient* retains no ownership interest in a body part once the body part has been removed from his or her body.

The majority opinion fails to recognize, however, that, in light of the allegations of the present complaint, the pertinent inquiry is not whether a patient generally retains an ownership interest in a body part after its removal from his body, but rather whether a patient has a right to determine, before a body part is removed, the use to which the part will be put after removal. Although the majority opinion suggests that there are "reasons to doubt" that a patient retains "any" ownership interest in his organs or cells after removal (maj. opn., *ante*, p. 137), the opinion fails to identify any statutory provision or common law authority that indicates that a patient does not generally have the right, before a body part is removed, to choose among the permissible uses to which the part may be put after removal. On the contrary, the most closely related statutory scheme -- the Uniform Anatomical Gift Act (*Health & Saf. Code, § 7150* et seq.) makes it quite clear that a patient does have this right.

The Uniform Anatomical Gift Act is a comprehensive statutory scheme that was initially adopted in California in 1970 and most recently revised in 1988. Although that legislation, by its terms, applies only to a donation of all or part of a human body which is "to take effect upon or after [the] death [of the donor]"… -- and thus is not directly applicable to the present case which involves a living donor -- the act is nonetheless instructive with regard to this state's general policy concerning an individual's authority to control the use of a donated body part…. the act clearly recognizes that it is the donor of the body part, rather than the hospital or physician who receives the part, who has the authority to designate, within the parameters of the statutorily authorized uses, the particular use to which the part may be put.

Although, as noted, the Uniform Anatomical Gift Act applies only to anatomical gifts that take effect on or after the death of the donor, the general principle of "donor control" which the act embodies is clearly not limited to that setting. In the transplantation context, for example, it is common for a living donor to designate the specific donee -- often a relative -- who is to receive a donated organ. If a hospital, after removing an organ from such a donor, decided on its own to give the organ to a different donee, no one would deny that the hospital had violated the legal right of the donor by its unauthorized use of the donated organ. Accordingly, it is clear under California law that a patient has the right, prior to the removal of an organ, to control the use to which the organ will be put after removal.

It is also clear, under traditional common law principles, that this right of a patient to control the future use of his organ is protected by the law of conversion. As a general matter, the tort of conversion protects an individual not only against improper interference with the right of possession of his property but also against unauthorized use of his property or improper interference with his right to control the use of his property.

…The application of these principles to the present case is evident. If defendants had informed plaintiff, prior to removal, of the possible uses to which his body part could be put and plaintiff had authorized one particular use, it is clear under the foregoing authorities that defendants would be liable for conversion if they disregarded plaintiff's decision and used the body part in an unauthorized manner for their own economic benefit. Although in this case defendants did not disregard a specific directive from plaintiff with regard to the future use of his body part, the complaint alleges that, before the body part was removed, defendants intentionally withheld material information that they were under an obligation to disclose to plaintiff and that was necessary for his exercise of control over the body part; the complaint also alleges that defendants withheld such information in order to appropriate the control over the future use of such body part for their own economic benefit. If these allegations are true, defendants clearly improperly interfered with plaintiff's right in his body part at a time when he had the authority to determine the future use of such part, thereby misappropriating plaintiff's right of control for their own advantage. Under these circumstances, the complaint fully satisfies the established requirements of a conversion cause of action.

As already noted, the majority maintains that there are a number of "reasons to doubt" that a patient retains any legally protectible interest in his organs after removal (maj. opn., *ante*, p. 137), but none of these reasons withstands scrutiny. The majority first relies on the fact that "no reported judicial decision supports Moore's claim, either directly or by close analogy." (Maj. opn., *ante*, p. 137.) By the same token, however, there is no reported judicial decision that rejects such a claim. This is simply a case of first impression. And while the majority goes on to emphasize that it is the "specialized statutes" dealing with human biological materials to which the court should look for guidance in determining whether a patient has any legal rights with respect to an organ after removal (maj. opn., *ante*, p. 137), the majority fails to recognize that the Uniform Anatomical Gift Act, as we have seen, expressly confirms a patient's right to designate, prior to removal, the use to which a body part will be put. (See *ante*, pp. 154-155.)

The majority next relies on the provisions of section 7054.4, a statute that addresses the potential health hazards posed by the improper disposal of human body parts, reasoning that this statute "drasticallylimits a patient's control over excised cells." (Maj. opn., *ante*, p.

140.) While I agree with the majority that section 7054.4 should reasonably be interpreted to apply to body parts removed from a living patient as well as from dead bodies, the statute nonetheless provides absolutely no support for the majority's conclusion. Although section 7054.4 limits a patient's control over an excised body part in the sense that it prohibits him from taking the removed part to his home and keeping it on his mantel, the statute certainly does not suggest that a patient does not have the right to choose among the legally permissible uses of his organ. Similarly, there is nothing in section 7054.4 which indicates that a doctor or medical facility that removes a patient's organ possesses any greater right than the patient himself to choose the further use to which the removed organ will be put. Since the majority does not suggest that the provisions of section 7054.4 should be interpreted to prohibit the research or commercial activities at issue in this case -- and I agree that the statute cannot reasonably be interpreted to prohibit such use -- I cannot understand how section 7054.4 provides any assistance to the majority's argument.

Finally, the majority maintains that plaintiff's conversion action is not viable because "the subject matter of the Regents' patent -- the patented cell line and the products derived from it -- cannot be Moore's property." (Maj. opn., *ante*, p. 141.) Even if this is an accurate statement of federal patent law, it does not explain why plaintiff may not maintain a conversion action for defendants' unauthorized use of his own body parts, blood, blood serum, bone marrow, and sperm. Although the damages which plaintiff may recover in a conversion action may not include the value of the patent and the derivative products, the fact that plaintiff may not be entitled to all of the damages which his complaint seeks does not justify denying his right to maintain any conversion action at all. Similarly, although the question whether plaintiff's cells are "unique" may well affect the amount of damages plaintiff will be able to recover in a conversion action, the question of uniqueness has no proper bearing on plaintiff's basic right to maintain a conversion action; ordinary property, as well as unique property, is, of course, protected against conversion.

Thus, unlike the majority, I conclude that under established common law principles the facts alleged in the complaint state a cause of action for conversion.

Although the majority opinion does not acknowledge that plaintiff's conversion action is supported by existing common law principles, its reasoning suggests that the majority would, in any event, conclude that considerations of public policy support a judicially crafted limitation on a patient's right to sue anyone involved in medical research activities for conversion of a patient's excised organs or cells. (Maj. opn., *ante*, pp. 142-147.) For a number of reasons, I cannot agree that this court should carve out such a broad immunity from general conversion principles.

One of the majority's principal policy concerns is that "[t]he extension of conversion law into this area will hinder research by restricting access to the necessary raw materials" -- the thousands of cell lines and tissues already in cell and tissue repositories. (Maj. opn., *ante*, p. 144.) The majority suggests that the "exchange of scientific materials, which still is relatively free and efficient, will surely be compromised if each cell sample becomes the potential subject matter of a lawsuit." (Maj. opn., *ante*, p. 145.)

This policy argument is flawed in a number of respects. First, the majority's stated concern does not provide any justification for barring plaintiff from bringing a conversion action against a party who does not obtain organs or cells from a cell bank but who directly interferes with or misappropriates a patient's right to control the use of his organs or cells. Although the majority opinion suggests that the availability of a breach-of-fiduciary-duty cause of action obviates any need for a conversion action against this category of defendants (see maj. opn., *ante*, p. 147), the existence of a breach-of-fiduciary-duty cause of action does not provide a complete answer. Even if in this case plaintiff may obtain the same remedy against such defendants under a breach-of-fiduciary-duty theory as he could under a conversion cause of action, in other factual settings an unlawful interference with a patient's right to control the use of his body part may occur in the absence of a breach of fiduciary duty. For example, if a patient donated his removed cells to a medical center, reserving the right to approve or disapprove the research projects for which the cells would be used, and if another medical center or a drug manufacturer stole the cells after removal and used them in an unauthorized manner for its own economic gain, no breach-of-fiduciary-duty cause of action would be available and a conversion action would be necessary to vindicate the patient's rights. Under the majority's holding, however, the patient would have no right to bring a conversion action, even against such a thief. As this hypothetical illustrates, even if there were compelling policy reasons to limit the potential liability of innocent researchers who use cells obtained from an existing cell bank, those policy considerations would not justify the majority's broad abrogation of *all* conversion liability for the unauthorized use of body parts.

Second, even with respect to those persons who are not involved in the initial conversion, the majority's policy arguments are less than compelling. To begin with, the majority's fear that the availability of a conversion remedy will restrict access to existing cell lines is unrealistic. In the vast majority of instances the

tissues and cells in existing repositories will *not* represent a potential source of liability because they will have come from patients who consented to their organ's use for scientific purposes under circumstances in which such consent was not tainted by a failure to disclose the known valuable nature of the cells. Because potential liability under a conversion theory will exist in only the exceedingly rare instance in which a doctor knowingly concealed from the patient the value of his body part or the patient's specific directive with regard to the use of the body part was disregarded, there is no reason to think that application of settled conversion law will have any negative effect on the primary conduct of medical researchers who use tissue and cell banks.

Furthermore, even in the rare instance -- like the present case -- in which a conversion action might be successfully pursued, the potential liability is not likely "to destroy the economic incentive to conduct important medical research," as the majority asserts. (Maj. opn., *ante*, p. 146.) If, as the majority suggests, the great bulk of the value of a cell line patent and derivative products is attributable to the efforts of medical researchers and drug companies, rather than to the "raw materials" taken from a patient (maj. opn., *ante*, pp. 141-142), the patient's damages will be correspondingly limited, and innocent medical researchers and drug manufacturers will retain the considerable economic benefits resulting from their own work. Under established conversion law, a "subsequent innocent converter" does not forfeit the proceeds of his own creative efforts, but rather "is entitled to the benefit of any work or labor that he has expended on the [property] . . . ." (1 Harper et al., The Law of Torts (2d ed. 1986) § 2.34, p. 234. See generally *Rest.2d Torts, § 927*, coms. f, g.)

Finally, the majority's analysis of the relevant policy considerations tellingly omits a most pertinent consideration. In identifying the interests of the patient that are implicated by the decision whether to recognize a conversion cause of action, the opinion speaks only of the "patient's right to make autonomous medical decisions" (maj. opn., *ante*, p. 143) and fails even to mention the patient's interest in obtaining the economic value, if any, that may adhere in the subsequent use of his own body parts. Although such economic value may constitute a fortuitous "windfall" to the patient (maj. opn., *ante*, p. 147), the fortuitous nature of the economic value does not justify the creation of a novel exception from conversion liability which sanctions the intentional misappropriation of that value from the patient.

This last point reveals perhaps the most serious flaw in the majority's public policy analysis in this case. It is certainly arguable that, as a matter of policy or morality, it would be wiser to prohibit any private individual or entity from profiting from the fortuitous value that adheres in a part of a human body, and instead to require all valuable excised body parts to be deposited in a public repository which would make such materials freely available to all scientists for the betterment of society as a whole. The Legislature, if it wished, could create such a system, as it has done with respect to organs that are donated for transplantation. (See § 7155, subd. (a); *Pen. Code, § 367f*. See also *42 U.S.C. § 274e.)* To date, however, the Legislature has not adopted such a system for organs that are to be used for research or commercial purposes, n5 and the majority opinion, despite some oblique suggestions to the contrary (see maj. opn., *ante*, pp. 144-145), emphatically does not do so by its holding in this case. Justice Arabian's concurring opinion suggests that the majority's conclusion is informed by the precept that it is immoral to sell human body parts for profit. (See conc. opn., *ante*, p. 149.) But the majority's rejection of plaintiff's conversion cause of action does *not* mean that body parts may not be bought or sold for research or commercial purposes or that *no* private individual or entity may benefit economically from the fortuitous value of plaintiff's diseased cells. Far from elevating these biological materials above the marketplace, the majority's holding simply bars *plaintiff*, the source of the cells, from obtaining the benefit of the cells' value, but permits *defendants*, who allegedly obtained the cells from plaintiff by improper means, to retain and exploit the full economic value of their ill-gotten gains free of their ordinary common law liability for conversion.

n5 As the dissent points out (dis. opn., *post*, pp. 176-177), although the Uniform Anatomical Gift Act expressly authorizes the gift of body parts for the purposes of "transplantation, therapy, medical or dental education, research, or advancement of medical or dental science" (§ 7153, subd. (a) (1)), the provision of the act that is specifically concerned with the purchase or sale of a body part for valuable consideration only prohibits a person from knowingly purchasing or selling a body part "for transplantation [or] therapy" (§ 7155, subd. (a)), and does not extend its prohibition to purchases or sales of body parts for the other purposes authorized by the statute, i.e., for research, education, or the advancement of medical science.

MOSK, J.

I dissent.

Contrary to the principal holding of the Court of Appeal, the majority conclude that the complaint does not -- in fact cannot -- state a cause of action for

conversion. I disagree with this conclusion for all the reasons stated by the Court of Appeal, and for additional reasons that I shall explain. For convenience I shall discuss the six premises of the majority's conclusion in the order in which they appear.

1.

The majority first take the position that Moore has no cause of action for conversion under existing law because he retained no "ownership interest" in his cells after they were removed from his body. (Maj. opn., *ante*, p. 137.) To state a conversion cause of action a plaintiff must allege his "ownership or right to possession of the property at the time of the conversion" (*Baldwin v. Marina City Properties, Inc. (1978) 79 Cal.App.3d 393, 410).* Moore alleges that his blood and bodily substances "are his tangible personal property, and the activities of the defendants as set forth herein constitute a substantial interference with plaintiff's possession or right thereto…"

The majority impliedly hold these allegations insufficient as a matter of law, finding three "reasons to doubt" that Moore retained a sufficient ownership interest in his cells, after their excision, to support a conversion cause of action. (Maj. opn., *ante*, p. 137.) In my view the majority's three reasons, taken singly or together, are inadequate to the task.

The majority's first reason is that "no reported judicial decision supports Moore's claim, either directly or by close analogy." (Maj. opn., *ante*, p. 137.) Neither, however, is there any reported decision rejecting such a claim. The issue is as new as its source -- the recent explosive growth in the commercialization of biotechnology.

The majority next cite several statutes regulating aspects of the commerce in or disposition of certain parts of the human body, and conclude in effect that in the present case we should also "look for guidance" to the Legislature rather than to the law of conversion. (*Id*. at p. 137.) Surely this argument is out of place in an opinion of the highest court of this state. As the majority acknowledge, the law of conversion is a creature of the common law. '"The inherent capacity of the common law for growth and change is its most significant feature. Its development has been determined by the social needs of the community which it serves. It is constantly expanding and developing in keeping with advancing civilization and the new conditions and progress of society, and adapting itself to the gradual change of trade, commerce, arts, inventions, and the needs of the country.. . . Although the Legislature may of course speak to the subject, in the common law system the primary instruments of this evolution are the courts…,

My point is that if the cause of action for conversion is otherwise an appropriate remedy on these facts, we should not refrain from fashioning it simply because another court has not yet so held or because the Legislature has not yet addressed the question. We need not wait on either event, because neither is a precondition to an exercise of our long-standing "power to insure the just and rational development of the common law in our state" (*Rodriguez v. Bethlehem Steel Corp., supra, 12 Cal.3d 382, 394).*

2.

The majority's second reason for doubting that Moore retained an ownership interest in his cells after their excision is that "California statutory law . . . drastically limits a patient's control over excised cells." (Maj. opn., *ante*, p. 140.) For this proposition the majority rely on *Health and Safety Code section 7054.4* The majority concede that the statute was not meant to directly resolve the question whether a person in Moore's position has a cause of action for conversion, but reason that it indirectly resolves the question by limiting the patient's control over the fate of his excised cells: "By restricting how excised cells may be used and requiring their eventual destruction, the statute eliminates so many of the rights ordinarily attached to property that one cannot simply assume that what is left amounts to 'property' or 'ownership' for purposes of conversion law."

First, in my view the statute does not authorize the principal use that defendants claim the right to make of Moore's tissue, i.e., its commercial exploitation. By its terms, section 7054.4 permits only "scientific use" of excised body parts and tissue before they must be destroyed…

Dr. David W. Golde and Shirley G. Quan were not only scientists, they were also full-fledged entrepreneurs: the complaint repeatedly declares that they appropriated Moore's tissue in order "to further defendants' independent research and commercial activities and promote their economic, financial and competitive interests." The complaint also alleges that defendant Regents of the University of California (hereafter Regents) actively assisted the individual defendants in applying for patent rights and in negotiating with bioengineering and pharmaceutical companies to exploit the commercial potential of Moore's tissue. Finally, the complaint alleges in detail the contractual arrangements between the foregoing defendants and defendants Genetics Institute, Inc., and Sandoz Pharmaceuticals Corporation, giving the latter companies exclusive rights to exploit that commercial potential while providing substantial financial benefits to the individual defendants in the form of cash, stock options, consulting fees, and

fringe benefits. To exclude such traditionally commercial activities from the phrase "scientific use," as I do here, does not give it a restrictive definition; rather, it gives the phrase its usual and ordinary meaning, as settled law requires.

Secondly, even if section 7054.4 does permit defendants' commercial exploitation of Moore's tissue under the guise of "scientific use," it does not follow that -- as the majority conclude -- the statute "eliminates so many of the rights ordinarily attached to property" that what remains does not amount to "property" or "ownership" for purposes of the law of conversion. (Maj. opn., *ante*, p. 141.)

The concepts of property and ownership in our law are extremely broad. (See *Civ. Code, § § 654, 655*.) A leading decision of this court approved the following definition: '"The term "property" is sufficiently comprehensive to include every species of estate, real and personal, and everything which one person can own and transfer to another. It extends to every species of right and interest capable of being enjoyed as such upon which it is practicable to place a money value.'" (*Yuba River Power Co. v. Nevada Irr. Dist. (1929) 207 Cal. 521, 523 [279 P. 128].)*

Being broad, the concept of property is also abstract: rather than referring directly to a material object such as a parcel of land or the tractor that cultivates it, the concept of property is often said to refer to a "bundle of rights" that may be exercised with respect to that object -- principally the rights to possess the property, to use the property, to exclude others from the property, and to dispose of the property by sale or by gift. But the same bundle of rights does not attach to all forms of property. For a variety of policy reasons, the law limits or even forbids the exercise of certain rights over certain forms of property. For example, both law and contract may limit the right of an owner of real property to use his parcel as he sees fit. Owners of various forms of personal property may likewise be subject to restrictions on the time, place, and manner of their use. n7 …..

> n7 Public health and safety laws restrict in various ways the manufacture, distribution, purchase, sale, and use of such property as food, drugs, cosmetics, tobacco, alcoholic beverages, firearms, flammable or explosive materials, and waste products. Other laws regulate the operation of private and commercial motor vehicles, aircraft, and vessels.

In each of the foregoing instances, the limitation or prohibition diminishes the bundle of rights that would otherwise attach to the property, yet what remains is still deemed in law to be a protectible property interest. "Since property or title is a complex bundle of rights, duties, powers and immunities, the pruning away of some or a great many of these elements does not entirely destroy the title . . . ." The same rule applies to Moore's interest in his own body tissue: even if we assume that section 7054.4 limited the use and disposition of his excised tissue in the manner claimed by the majority, Moore nevertheless retained valuable rights in that tissue. Above all, at the time of its 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. Defendants certainly believe that *their* right to do the foregoing is not barred by section 7054.4 and is a significant property right, as they have demonstrated by their deliberate concealment from Moore of the true value of his tissue, their efforts to obtain a patent on the Mo cell line, their contractual agreements to exploit this material, their exclusion of Moore from any participation in the profits, and their vigorous defense of this lawsuit. The Court of Appeal summed up the point by observing that "Defendants' position that plaintiff cannot own his tissue, but that they can, is fraught with irony." It is also legally untenable. As noted above, the majority cite no case holding that an individual's right to develop and exploit the commercial potential of his own tissue is *not* a right of sufficient worth or dignity to be deemed a protectible property interest. In the absence of such authority -- or of legislation to the same effect -- the right falls within the traditionally broad concept of property in our law.

3.

The majority's third and last reason for their conclusion that Moore has no cause of action for conversion under existing law is that "the subject matter of the Regents' patent -- the patented cell line and the products derived from it -- cannot be Moore's property." (Maj. opn., *ante*, p. 141.) The majority then offer a dual explanation: "This is because the patented cell line is both *factually* and *legally* distinct from the cells taken from Moore's body." (*Ibid*., italics added.) Neither branch of the explanation withstands analysis.

First, in support of their statement that the Mo cell line is "factually distinct" from Moore's cells, the majority assert that "Cells change while being developed into a cell line and continue to change over time," and in particular may acquire an abnormal number of chromosomes. (Maj. opn., *ante*, p. 141, fn. 35.) No one disputes these assertions, but they are nonetheless irrelevant. For present purposes no distinction can be drawn between Moore's cells and the Mo cell line. It appears that the principal reason for establishing a cell line is not to "improve" the quality of the parent cells but simply to extend their life indefinitely, in order to permit

long-term study and/or exploitation of the qualities already present in such cells. The complaint alleges that Moore's cells naturally produced certain valuable proteins in larger than normal quantities; indeed, that was why defendants were eager to culture them in the first place. Defendants do not claim that the cells of the Mo cell line are in any degree more productive of such proteins than were Moore's own cells. Even if the cells of the Mo cell line in fact have an abnormal number of chromosomes, at the present stage of this case we do not know if that fact has any bearing whatever on their capacity to produce proteins; yet it is in the commercial exploitation of that capacity -- not simply in their number of chromosomes -- that Moore seeks to assert an interest. For all that appears, therefore, the emphasized fact is a distinction without a difference.

Second, the majority assert in effect that Moore cannot have an ownership interest in the Mo cell line because defendants patented it. The majority's point wholly fails to meet Moore's claim that he is entitled to compensation for defendants' unauthorized use of his bodily tissues *before* defendants patented the Mo cell line: defendants undertook such use immediately after the splenectomy on October 20, 1976, and continued to extract and use Moore's cells and tissue at least until September 20, 1983; the patent, however, did not issue until March 20, 1984, more than seven years after the unauthorized use began. Whatever the legal consequences of that event, it did not operate retroactively to immunize defendants from accountability for conduct occurring long before the patent was granted.

Nor did the issuance of the patent in 1984 necessarily have the drastic effect that the majority contend. To be sure, the patent granted defendants the exclusive right to make, use, or sell the invention for a period of 17 years. *(35 U.S.C. § 154.)* But Moore does not assert any such right for himself. Rather, he seeks to show that he is entitled, in fairness and equity, to some share in the profits that defendants have made and will make from their commercial exploitation of the Mo cell line. I do not question that the cell line is primarily the product of defendants' inventive effort. Yet likewise 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.* Thus the complaint alleges that Moore's "Blood and Bodily Substances were absolutely essential to defendants' research and commercial activities with regard to his cells, cell lines, [and] the Mo cell-line, . . . and that defendants could not have applied for and had issued to them the Mo cell-line patent and other patents described herein without obtaining and culturing specimens of plaintiff's Blood and Bodily Substances." Defendants admit this allegation by their demurrers, as well they should: for all their expertise, defendants do not claim they could have extracted the Mo cell line out of thin air.

Nevertheless the majority conclude that the patent somehow cut off all Moore's rights -- past, present, and future -- to share in the proceeds of defendants' commercial exploitation of the cell line derived from his own body tissue. The majority cite no authority for this unfair result, and I cannot believe it is compelled by the general law of patents: a patent is not a license to defraud. Perhaps the answer lies in an analogy to the concept of "joint inventor." I am aware that "patients and research subjects who contribute cells to research will not be considered inventors." (OTA Rep., *supra,* at p. 71.) Nor is such a person, strictly speaking, a "joint inventor" within the meaning of the term in federal law. *(35 U.S.C. § 116.)* But he does fall within the spirit of that law: "The joint invention provision guarantees that all who contribute in a substantial way to a product's development benefit from the reward that the product brings. Thus, the protection of joint inventors encourages scientists to cooperate with each other and ensures that each contributor is rewarded fairly.

"Although a patient who donates cells does not fit squarely within the definition of a joint inventor, the policy reasons that inform joint inventor patents should also apply to cell donors. Neither John Moore nor any other patient whose cells become the basis for a patentable cell line qualifies as a 'joint inventor' because he or she did not further the development of the product in any intellectual or conceptual sense. Nor does the status of patients as sole owners of a component part make them deserving of joint inventorship status. What the patients did do, knowingly or unknowingly, is collaborate with the researchers by donating their body tissue . . . . By providing the researchers with unique raw materials, without which the resulting product could not exist, the donors become necessary contributors to the product. Concededly, the patent is not granted for the cell as it is found in nature, but for the modified biogenetic product. However, the uniqueness of the product that gives rise to its patentability stems from the uniqueness of the original cell. *A patient's claim to share in the profits flowing from a patent would be analogous to that of an inventor whose collaboration was essential to the success of a resulting product. The patient was not a coequal, but was a necessary contributor to the cell line*." (Danforth, *Cells, Sales, & Royalties: The Patient's Right to a Portion of the Profits (1988) 6 Yale L. & Pol'y Rev. 179, 197,* fns. omitted, italics added (hereafter Danforth).)

Under this reasoning, which I find persuasive, the law of patents would not be a bar to Moore's assertion of an ownership interest in his cells and their products

sufficient to warrant his sharing in the proceeds of their commercial exploitation.

4.

Having concluded -- mistakenly, in my view -- that Moore has no cause of action for conversion under existing law, the majority next consider whether to "extend" the conversion cause of action to this context.

The majority focus …on a policy consideration, i.e., their concern "that we not threaten with disabling civil liability innocent parties who are engaged in socially useful activities, such as researchers who have no reason to believe that their use of a particular cell sample is, or may be, against a donor's wishes." (Maj. opn., *ante*, p. 143.) As will appear, in my view this concern is both overstated and outweighed by contrary considerations. n14

n14 On this record the majority's solicitude for the protection of "innocent parties" seems ironic. The complaint is replete with factual allegations -- which we must accept as true on this appeal -- to the effect that defendants repeatedly lied to Moore about their commercial exploitation of his tissue. For example, the complaint contains detailed allegations that defendants falsely told Moore that his numerous postoperative trips from his home in Seattle to the Medical Center of the University of California at Los Angeles between 1976 and 1983 were necessary because his blood and other bodily fluids could be extracted only by them at the latter facility; that defendants falsely told Moore that the purpose of such extractions was to promote his health, when in fact it was solely to promote defendants' ongoing research and commercial activities; and that even when Moore expressly asked if defendants had discovered anything about his blood that might have potential commercial value, defendants falsely told him "they had discovered nothing of any commercial or financial value in his Blood or Bodily Substances, and in fact actively discouraged such inquiries." These are not the acts of "innocent parties."

The majority begin their analysis by stressing the obvious facts that research on human cells plays an increasingly important role in the progress of medicine, and that the manipulation of those cells by the methods of biotechnology has resulted in numerous beneficial products and treatments. Yet it does not necessarily follow that, as the majority claim, application of the law of conversion to this area "will hinder research by restricting access to the necessary raw materials," The majority observe that many researchers obtain their tissue samples, routinely and at little or no cost, from cell-culture repositories. The majority then speculate that "This exchange of scientific materials, which is still relatively free and efficient, will surely be compromised if each cell sample becomes the potential subject matter of a lawsuit."

…If the relevant exchange of scientific materials was ever "free and efficient," it is much less so today. Since biological products of genetic engineering became patentable in 1980 (*Diamond v. Chakrabarty (1980) 447 U.S. 303 [65 L.Ed.2d 144, 100 S.Ct. 2204]),* human cell lines have been amenable to patent protection and, as the Court of Appeal observed in its opinion below, "The rush to patent for exclusive use has been rampant." Among those who have taken advantage of this development, of course, are the defendants herein: as we have seen, defendants Golde and Quan obtained a patent on the Mo cell line in 1984 and assigned it to defendant Regents. With such patentability has come a drastic reduction in the formerly free access of researchers to new cell lines and their products: the "novelty" requirement for patentability prohibits public disclosure of the invention at all times up to one year before the filing of the patent application. *(35 U.S.C. § 102*(b).)

An even greater force for restricting the free exchange of new cell lines and their products has been the rise of the biotechnology industry and the increasing involvement of academic researchers in that industry. n15 When scientists became entrepreneurs and negotiated with biotechnological and pharmaceutical companies to develop and exploit the commercial potential of their discoveries -- as did defendants in the case at bar -- layers of contractual restrictions were added to the protections of the patent law.

n15 Biotechnology itself began as an academic research activity, and the universities remain a major source of expertise in the field. This connection has led to a relationship of unparalleled intimacy between universities and biotechnology companies: "Commercial ventures between universities and the biotechnology industry now include consulting arrangements, licensing of new technology for development, sponsored research projects, research partnerships, industrial associate programs, and the formation of research departments and institutes."

In their turn, the biotechnological and pharmaceutical companies demanded and received exclusive rights in the scientists' discoveries, and frequently placed those discoveries under trade secret protection. Trade secret protection is popular among biotechnology companies because, among other reasons, the invention need not meet the strict standards of patentability and the protection is both quickly acquired and unlimited in duration…. Secrecy as a normal business practice is also taking hold in university research laboratories, often because of industry pressure . . . Economic arrangements between industry and universities inhibit open communication between researchers, especially for those who are financially tied to smaller biotechnology firms." (Howard, *supra, 44 Food Drug Cosm. L.J. at p. 339, fn. 72.)*

In any event, in my view whatever merit the majority's single policy consideration may have is outweighed by two contrary considerations, i.e., policies that are promoted by recognizing that every individual has a legally protectible property interest in his own body and its products. First, our society acknowledges a profound ethical imperative to respect the human body as the physical and temporal expression of the unique human persona. One manifestation of that respect is our prohibition against direct abuse of the body by torture or other forms of cruel or unusual punishment. Another is our prohibition against indirect abuse of the body by its economic exploitation for the sole benefit of another person. The most abhorrent form of such exploitation, of course, was the institution of slavery. Lesser forms, such as indentured servitude or even debtor's prison, have also disappeared. Yet their specter haunts the laboratories and boardrooms of today's biotechnological research-industrial complex. It arises wherever scientists or industrialists claim, as defendants claim here, the right to appropriate and exploit a patient's tissue for their sole economic benefit -- the right, in other words, to freely mine or harvest valuable physical properties of the patient's body…

A second policy consideration adds notions of equity to those of ethics. Our society values fundamental fairness in dealings between its members, and condemns the unjust enrichment of any member at the expense of another. This is particularly true when, as here, the parties are not in equal bargaining positions. We are repeatedly told that the commercial products of the biotechnological revolution "hold the promise of tremendous profit." (*Toward the Right of Commerciality, supra, 34 UCLA L.Rev. at p. 211.)* In the case at bar, for example, the complaint alleges that the market for the kinds of proteins produced by the Mo cell line was predicted to exceed $ 3 billion by 1990. These profits are currently shared exclusively between the biotechnology industry and the universities that support that industry. …Thus the complaint alleges that because of his development of the Mo cell line defendant Golde became a paid consultant of defendant Genetics Institute and acquired the rights to 75,000 shares of that firm's stock at a cost of 1 cent each; that Genetics Institute further contracted to pay Golde and the Regents at least $ 330,000 over 3 years, including a pro rata share of Golde's salary and fringe benefits; and that defendant Sandoz Pharmaceuticals Corporation subsequently contracted to increase that compensation by a further $ 110,000.

There is, however, a third party to the biotechnology enterprise -- the patient who is the source of the blood or tissue from which all these profits are derived. While he may be a silent partner, his contribution to the venture is absolutely crucial: as pointed out above (pt. 3, *ante*), but for the cells of Moore's body taken by defendants there would have been no Mo cell line at all. Yet defendants deny that Moore is entitled to any share whatever in the proceeds of this cell line. This is both inequitable and immoral. As Dr. Thomas H. Murray, a respected professor of ethics and public policy, testified before Congress, "the person [who furnishes the tissue] should be justly compensated . . . . If biotechnologists fail to make provision for a just sharing of profits with the person whose gift made it possible, the public's sense of justice will be offended and no one will be the winner." (Murray, *Who Owns the Body? On the Ethics of Using Human Tissue for Commercial Purposes* (Jan.-Feb. 1986) IRB: A Review of Human Subjects Research, at p. 5.) n21

> n21 The quoted view of Dr. Murray stands in stark contrast to the majority's disparaging remark that describes Moore's right to share in these profits as "a highly theoretical windfall." (Maj. opn., *ante*, p. 147.)

There will be such equitable sharing if the courts recognize that the patient has a legally protected property interest in his own body and its products: "property rights in one's own tissue would provide a morally acceptable result by giving effect to notions of fairness and preventing unjust enrichment. . . . [para.] Societal notions of equity and fairness demand recognition of property rights. There are bountiful benefits, monetary and otherwise, to be derived from human biologics. To deny the person contributing the raw material a fair share of these ample benefits is both unfair and morally wrong." (*Toward the Right of Commerciality, supra, 34 UCLA L.Rev. at p. 229.)* "Recognizing a donor's property rights would prevent unjust enrichment by giving monetary rewards to the donor and researcher proportionate to the value of their respective

contributions. Biotechnology depends upon the contributions of both patients and researchers. If not for the patient's contribution of cells with unique attributes, the medical value of the bioengineered cells would be negligible. But for the physician's contribution of knowledge and skill in developing the cell product, the commercial value of the patient's cells would also be negligible. Failing to compensate the patient unjustly enriches the researcher because only the researcher's contribution is recognized." (*Id*. at p. 230.) In short, as the Court of Appeal succinctly put it, "If this science has become science for profit, then we fail to see any justification for excluding the patient from participation in those profits."

5.

The majority's second reason for declining to extend the conversion cause of action to the present context is that "the Legislature should make that decision." (Maj. opn., *ante*, p. 147.) I do not doubt that the Legislature is competent to act on this topic. The fact that the Legislature may intervene if and when it chooses, however, does not in the meanwhile relieve the courts of their duty of enforcing -- or if need be, fashioning -- an effective judicial remedy for the wrong here alleged. As I observed above (pt. 1, *ante*), if a conversion cause of action is otherwise an appropriate remedy on these facts we should not refrain from recognizing it merely because the Legislature has not yet addressed the question. To do so would be to abdicate pro tanto our responsibility over a body of law -- torts -- that is particularly a creature of the common law. And such reluctance to act would be especially unfortunate at the present time, when the rapid expansion of biotechnological science and industry makes resolution of these issues an increasingly pressing need.

The inference I draw from the current statutory regulation of human biological materials, moreover, is the opposite of that drawn by the majority. By selective quotation of the statutes (maj. opn., *ante*, p. 137, fns. 22 & 23) the majority seem to suggest that human organs and blood cannot legally be sold on the open market -- thereby implying that if the Legislature were to act here it would impose a similar ban on monetary compensation for the use of human tissue in biotechnological research and development. But

…despite the statute relied on by the majority, it is perfectly legal in this state for a person to sell his blood for transfusion or for any other purpose -- indeed, such sales are commonplace, particularly in the market for plasma. (See OTA Rep., *supra*, at p. 121.)

It follows that the statutes regulating the transfers of human organs and blood do not support the majority's refusal to recognize a conversion cause of action for commercial exploitation of human blood cells without consent. On the contrary, because such statutes treat both organs and blood as property that can legally be sold in a variety of circumstances, they impliedly support Moore's contention that his blood cells are likewise property for which he can and should receive compensation, and hence are protected by the law of conversion.

6.

The majority's final reason for refusing to recognize a conversion cause of action on these facts is that "there is no pressing need" to do so because the complaint also states another cause of action that is assertedly adequate to the task (maj. opn., *ante*, p. 147); that cause of action is "the breach of a fiduciary duty to disclose facts material to the patient's consent or, alternatively, . . . the performance of medical procedures without first having obtained the patient's informed consent" (*id*. at p. 129). Although last, this reason is not the majority's least; in fact, it underlies much of the opinion's discussion of the conversion cause of action, recurring like a leitmotiv throughout that discussion.

The majority hold that a physician who intends to treat a patient in whom he has either a research interest or an economic interest is under a fiduciary duty to disclose such interest to the patient before treatment, that his failure to do so may give rise to a nondisclosure cause of action, and that the complaint herein states such a cause of action at least against defendant Golde. I agree with that holding as far as it goes.

I disagree, however, with the majority's further conclusion that in the present context a nondisclosure cause of action is an adequate -- in fact, a superior -- substitute for a conversion cause of action. In my view the non-disclosure cause of action falls short on at least three grounds.

First, the majority reason that "enforcement of physicians' disclosure obligations" will ensure patients' freedom of choice… [W]e may infer that the obligations will primarily be enforced by the traditional judicial remedy of an action for damages for their breach. Thus the majority's theory apparently is that the threat of such an action will have a prophylactic effect: it will give physician-researchers incentive to disclose any conflicts of interest before treatment, and will thereby protect their patients' right to make an informed decision about what may be done with their body parts.

The remedy is largely illusory. "As a practical matter…it may be difficult to recover on this kind of … theory because the patient must prove a *causal connection* between his or her injury and the physician's failure to inform.". (Martin & Lagod, *Biotechnology and*

the Commercial Use of Human Cells: Toward an Organic View of Life and Technology, (1989), 5 Santa Clara Computer & High Tech. L.J. 211,222), "the patient must show that if he or she had been informed of all pertinent information, he or she would have declined to consent to the procedure in question." (*Ibid.)*

The second barrier to recovery is still higher, and is erected on the first: it is not even enough for the plaintiff to prove that he personally would have refused consent to the proposed treatment if he had been fully informed; he must also prove that in the same circumstances *no reasonably prudent person* would have given such consent. The purpose of this "objective" standard is evident: "Since at the time of trial the uncommunicated hazard has materialized, it would be surprising if the patient-plaintiff did not claim that had he been informed of the dangers he would have declined treatment. Subjectively he may believe so, with the 20/20 vision of hindsight, but we doubt that justice will be served by placing the physician in jeopardy of the patient's bitterness and disillusionment. Thus an objective test is preferable: i.e., what would a prudent person in the patient's position have decided if adequately informed of all significant perils." *Cobbs v. Grant, supra.*

… Few if any judges or juries are likely to believe that disclosure of such a possibility of research or development would dissuade a reasonably prudent person from consenting to the treatment. For example, in the case at bar no trier of fact is likely to believe that if defendants had disclosed their plans for using Moore's cells, no reasonably prudent person in Moore's position -- i.e., a leukemia patient suffering from a grossly enlarged spleen -- would have consented to the routine operation that saved or at least prolonged his life. In this context, accordingly, the threat of suit on a nondisclosure cause of action is largely a paper tiger.

The second reason why the nondisclosure cause of action is inadequate for the task that the majority assign to it is that it fails to solve half the problem before us: it gives the patient only the right to *refuse* consent, i.e., the right to prohibit the commercialization of his tissue; it does not give him the right to *grant* consent to that commercialization on the condition that he share in its proceeds…. "Informed consent to commercialization, absent a right to share in the profits from such commercial development, would only give patients a veto over their own exploitation. But recognition that the patient[s] [have] an ownership interest in their own tissues would give patients an affirmative right of participation. Then patients would be able to assume the role of equal partners with their physicians in commercial biotechnology research." (Howard, *supra, 44 Food Drug Cosm. L.J. at p. 344.)*

Reversing the words of the old song, the nondisclosure cause of action thus accentuates the negative and eliminates the positive: the patient can say no, but he cannot say yes and expect to share in the proceeds of his contribution. … [T]o that extent, it is therefore not an adequate substitute for the conversion remedy, which does protect the right.

Third, the nondisclosure cause of action fails to reach a major class of potential defendants: all those who are outside the strict physician-patient relationship with the plaintiff. Thus the majority concede that here only defendant Golde, the treating physician, can be directly liable to Moore on a nondisclosure cause of action: "The Regents, Quan, Genetics Institute, and Sandoz are not physicians. In contrast to Golde, none of these defendants stood in a fiduciary relationship with Moore or had the duty to obtain Moore's informed consent to medical procedures."

In sum, the nondisclosure cause of action (1) is unlikely to be successful in most cases, (2) fails to protect patients' rights to share in the proceeds of the commercial exploitation of their tissue, and (3) may allow the true exploiters to escape liability. It is thus not an adequate substitute, in my view, for the conversion cause of action.

I would affirm the decision of the Court of Appeal to direct the trial court to overrule the demurrers to the cause of action for conversion.