

MISREPRESENTATION, CONVERSION, AND COMMERCIAL HUMAN TISSUE RESEARCH

Recent advances in science have revolutionized the use of human tissues in research.¹ Increasingly, these research results have commercial

1. NEW DEVELOPMENTS IN BIOTECHNOLOGY: OWNERSHIP OF HUMAN TISSUE AND CELLS—SPECIAL REPORT OTA-BA-337 (Washington, DC: U.S. Government Printing Office, Mar. 1987) 3-4 [hereinafter OTA REPORT]. The report raises questions of tissue and patent ownership, ethics, and profit allocation. *Id.* The following is a summary of several recent advances.

1) *Tissue and cell culture*: Scientists often need to study one isolated type of cell, allowing them to identify its particular properties, observe the effects of adding or removing chemicals, or compare its interaction with other specific cells. B. ALBERTS, D. BRAY, J. LEWIS, M. RAFF, K. ROBERTS, J. WATSON, *MOLECULAR BIOLOGY OF THE CELL* 160-01 (1983) [hereinafter ALBERTS]. A single cell will multiply itself in the laboratory by dividing and produce a "cell line." However, the cells from higher organisms (eukaryotes) will not grow indefinitely outside the organism. OTA REPORT, *supra*, at 5. While some cells, such as skin cells, regularly yield cell lines, the probability of successfully establishing a cell line from others, such as some liver tissues, is as low as .01 percent. *Id.* Thus, the development of some cell lines requires the researcher's extensive training, skill and effort. Once established, cell cultures are widely used as tools in academic and commercial research for basic research as discussed above. Cell lines also act as "biological factories," producing biological substances. Companies use them to test drugs and toxins. Variations on tissue cell culture technology are used to study human genes, inheritable diseases and cancer. *Id.* at 35.

2) *Hybridoma*: An antibody is a protein molecule that the body uses to bind with foreign substances (antigens) and fight infections. ALBERTS, *supra*, at 181; OTA REPORT, *supra*, at 37. Vertebrates produce millions of different antibodies. Because each type of antibody is specific to the antigen to which it attaches, scientists consider antibodies invaluable in isolating a specific desired molecule in the laboratory. ALBERTS, *supra*, at 181. Traditional techniques for producing antibodies can only produce a mixture of various types (polyclonal antibodies). OTA REPORT, *supra*, at 37. "Hybridoma" technology allows the scientist to fuse a cell that produces only a single antibody with a cell that divides infinitely (immortal), creating a cell line that infinitely produces a distinct, pure antibody (monoclonal antibody) in large quantities. ALBERTS, *supra*, at 182. Monoclonal antibodies have "revolutionized" research, medicine and commercial science. OTA REPORT, *supra*, at 38. Laboratories universally use them as tools in basic research. Monoclonals also have commercial uses, such as in home pregnancy tests. *Id.* at 38.

Hybridoma technology also allows scientists to fuse cells and create a cell line that produces large quantities of pure "lymphokines"—proteins that aid the body's immune response. *Id.* at 38-39. Lymphokines, such as interferon, are used in basic research to understand diseases, as well as in therapeutic treatments for patients. Lymphokines are naturally present in human blood, but in such small amounts that extraction is impractical. Hybridoma technology allows the commercial production of lymphokines in large enough quantities for patient treatment. *Id.* at 40.

3) *Recombinant DNA*: Recombinant DNA technology is a combination of techniques that allows a scientist to more easily and accurately study the structure and function of "genes" (sequences of DNA in every cell that encode the blueprints for each living organism). ALBERTS, *supra*, at 185. These techniques allow a scientist to produce significant amounts of the protein encoded in a specific gene by using a complex process to insert the gene into a host organism that acts as a factory to produce large amounts of the enclosed protein. OTA REPORT, *supra*, at 42-43. This technology permits scientists to "identify, isolate and scrutinize scarce biological compounds," either for research or commercial use. *Id.* at 44.

applications.² The growing use of human tissue³ in potentially profitable research raises the question of whether the human donor of such tissue has a claim to the proceeds.⁴ *Moore v. Regents of the University of California*⁵ is apparently the first such case to reach the courts.⁶ As part of Moore's leukemia treatment, UCLA physicians removed his spleen.⁷ Using this spleen and blood samples from Moore, researchers developed and patented a cell line and sold the rights to a pharmaceutical company for use in producing a valuable therapeutic product.⁸ Moore claimed recovery under theories of property, tort, and statutory violations.⁹ The

2. Commercial applications of these advances generally involve medicine or scientific research products. OTA REPORT, *supra* note 1, at 8. The U.S. has approximately 350 biotechnology companies, and an estimated 25% to 30% are working to produce human therapeutic or diagnostic reagents. *Id.* Corporations also use human tissue products internally, as tools to study and test products, and to manufacture other biological products. *Id.* at 54.

3. In 1985, a congressional subcommittee survey found that patent applications for university-based research with origins in human tissue increased threefold for the period of 1980 - 1984 compared with the preceding five years. Human-derived products accounted for 22% of total patent applications by the responding schools for that same time period. *The Use of Human Biological Materials in the Development of Biomedical Products: Hearing Before the Subcomm. on Investigations and Oversight of the House Comm. on Science and Technology*, 99th Cong., 1st Sess. 4 (1985) [hereinafter *Use of Human Biological Materials*].

4. The money involved may be substantial. One plaintiff alleged that sale of research on his tissue yielded his physicians at least \$440,000, lucrative consulting jobs, and stock options in the purchasing company. Appellant's Opening Brief at 12-13, *Moore v. Regents of the Univ. of Cal.*, 249 Cal. Rptr. 494 (Cal. App. 2 Dist. 1988) [hereinafter Appellant's Opening Brief]. The defendant researchers estimate that the market for products they produced from the plaintiff's tissue could reach three billion dollars by 1990. *Moore*, 249 Cal. Rptr. at 498-99. One scientist estimated that in 1984 human tissue research patents provided U.S. universities with royalties ranging up to \$5 million. *Use of Human Biological Materials*, *supra* note 3, at 149.

5. *Moore v. Regents of the Univ. of Cal.*, 249 Cal. Rptr. 494 (Cal. App. 2 Dist. 1988).

6. At least three other disputes over the right to profits from human tissue research have settled before court decision. OTA REPORT, *supra* note 1, at 24-26. In one case, a donor of cancerous tissue claimed ownership in the cell line which researchers developed from the tissue. The parties reached an agreement giving the researcher patent rights and the donor exclusive rights to exploit the patent in Asia. *Id.* at 26. See also Andrews, *My Body, My Property*, HASTINGS CENTER REP., Oct. 1986, at 28.

7. *Moore*, 249 Cal. Rptr. at 494-95.

8. *Id.* at 495. See also OTA REPORT, *supra* note 1, at 26. Moore's cells overproduced the lymphokine interferon. Sun, *Ownership of Cells Raises Sticky Issues*, 230 SCIENCE 789 (Nov 15, 1985). These lymphokines had potential for therapeutic uses and basic research. OTA REPORT, *supra* note 1, at 38-40.

9. Moore alleged: violation of federal and California research experimentation laws, conversion, deceit, breach of fiduciary duty, fraud, unjust enrichment, quasi-contract, bad faith breach of implied covenant of good faith and fair dealing, intentional infliction of emotional distress, negligent misrepresentation, intentional interference with prospective advantageous economic relationship, slander of title, accounting, and declaratory relief. *Moore*, 249 Cal. Rptr. at 499. See also Delgado &

trial court dismissed the case for failure to state a cause of action.¹⁰ Moore declined to amend his complaint and filed an appeal of the dismissal.¹¹

On appeal, the California Court of Appeal for the Second District held that Moore had stated a claim for conversion.¹² The court reversed the dismissal and remanded to the trial court for determination of the validity of Moore's other claims, including reconsideration of the conversion claim.¹³

The increasing use of human tissue in research will soon force the courts to fashion—or deny—a cause of action for tissue donor plaintiffs. This Note will examine the feasibility of two potential claims: misrepresentation and conversion.¹⁴ Factual questions such as knowledge or consent on the part of the patient may be dispositive in these claims, and these, in turn, may revolve around an individual hospital's internal procedures. Thus, this Note will adopt as representative the practices of a major metropolitan teaching hospital, which, like most others, has no comprehensive policy on distributing human tissue for research.¹⁵ Under the procedures at Barnes, a researcher may obtain tissue either from the pathology laboratory or directly from the surgeon in the operating room. This Note labels as "excising physician" whichever doctor actually removes the tissue, and thus whose work unquestionably requires the consent of the patient.¹⁶ To obtain tissue from pathology, researchers

Leskovic, *Informed Consent in Human Experimentation: Bridging the Gap between Ethical Thought and Current Practice*, 34 UCLA L. REV. 67, 85 (1986) (summary of Third Amended Complaint).

10. The court sustained a general demurrer to the conversion claim. In granting leave to amend, the court suggested the plaintiff correct his failure to allege that he did not consent to scientific study, or that defendants knew the commercial value of the tissue and intended to exploit it prior to surgery, or that the splenectomy was unrelated to therapeutic purposes. *Moore*, 249 Cal. Rptr. at 502.

11. *Id.*

12. *Id.* at 504.

13. *Id.* at 512, 513, 515.

14. An examination of all the potentially applicable causes of action is beyond the scope of this Note. Moore brought his original claim under at least 14 causes of action. See *supra* note 9. In addition, patent, copyright, and trade secret law could also apply. OTA REPORT, *supra* note 1, at 70, 78.

15. Interview with Dr. McKeel, Chairman of the Working Committee on Human Tissue Research at Barnes Hospital in St. Louis, MO (Feb. 1988). In an informal survey in 1985-86, Dr. McKeel's committee found no major institution that had implemented a comprehensive policy regulating human tissue distribution and research. *Id.*

16. *Id.* Thus, the pathologist would be the excising physician for a cadaver. The surgeon who physically removes tissue may or may not be the attending physician who is the highest authority on a team of doctors treating a patient. For example, an initial doctor diagnosed Moore, a specialist

use an informal request form. This procedure does not require consent from the donor or notice to the physician who interacts with the donor.

Some pathology lab specimens are diseased tissues that surgeons remove from living sources and route through pathology. Cadavers provide the rest. Prior to any autopsy, the family of a decedent must sign a consent form which acknowledges that tissues removed will be subject to "research to advance medical knowledge."¹⁷ This form does not discuss potential commercial research results,¹⁸ nor does it apply to tissue excised from a living patient and routed through pathology.

In addition, the hospital does not regulate the use of tissue passed directly from surgeon to researcher. The standard surgery consent form contains a provision consenting to research: "My physician or the hospital staff may examine, use (including use in other patients) or dispose of any bones, organs, tissues, fluids or parts removed from my body."¹⁹ Thus, the Hospital's patients have consented to the research use of their tissues, originating in either a living subject or a cadaver, whether the researcher obtains them directly from surgery, or later from Pathology.²⁰ However, the Hospital's procedures do not require—in fact, render it highly unlikely—that the patient will specifically consent to the commercial exploitation of his cells.

recommended surgery and notified researchers of the upcoming available tissue, and a third team of surgeons performed the actual surgery. *Appellant's Opening Brief, supra* note 4, at 6-7. An examination of the intricacies of these relationships is beyond the scope of this Note. The laws of conspiracy and agency would apply to determine liability among the various parties. For simplicity, this Note will assume that the only parties involved are: 1) the excising physician or pathologist who removes the tissue; 2) a pathologist who does not remove tissue, but acts as a conduit, passing tissue to the researcher; 3) the researcher who receives the tissue and invests his labor in developing it; and 4) a company that may purchase rights from a private researcher.

17. *Id.* The autopsy form lists specific removable tissues: "eyes, brain, pituitary gland, major organs, and, if indicated, incision of the limbs." Any other tissue taken for research may not fall under the general consent, unless the additional provision allowing the autopsy "to whatever extent [the Department of Pathology] feels is necessary" is construed to extend the consent to all removals. Department policy, however, does prohibit removal of tissue without proper consent.

18. A hospital nurse often presents the autopsy form in connection with a statutorily-mandated explanation of organ donation. Thus, a nurse could conceivably discuss the commercial potential of research. McKeel, *supra* note 15. This appears unlikely because the focus of these discussions is transplantation, not traditional research.

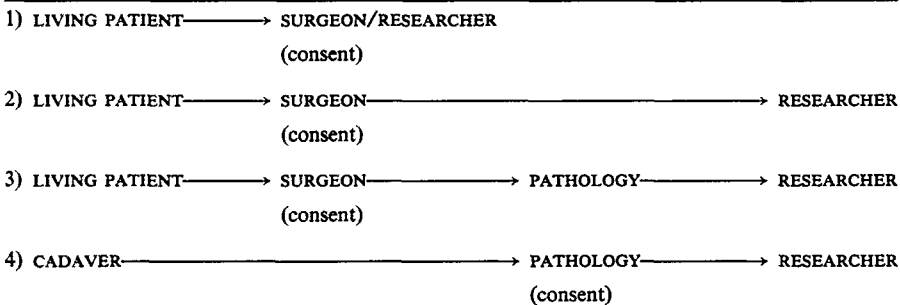
19. However, many departments use specialized forms which may deviate from the standard form. Spencer, R., Director of Medical Records, Barnes Hospital, St. Louis, MO, personal communication, February 1988.

20. Schematically, the pathway and consent is as follows:

I. MISREPRESENTATION

A. Claims and Defenses

At its simplest level, a misrepresentation is an incorrect or false representation.²¹ By misstating or neglecting to explain the possible commercial results of research, the physician who obtains patient consent for tissue removal and research may be liable for misrepresentation in inducing his patient to donate the tissue.²² The availability and form of the action depend initially on the intent of the physician. Some doctors may know the commercial value of tissue and deliberately conceal it from the patient.²³ Such intentional misrepresentation has its remedy in the tort action of deceit.²⁴ The elements of deceit are: 1) a false representation by the defendant; 2) "scienter," the knowledge or belief by the defendant



21. BLACK'S LAW DICTIONARY 903 (5th ed. 1979).

22. This Note assumes that the patient properly consented to the removal of the tissue for therapeutic purposes. If not, the physician may be liable for the patient's lack of informed consent, either in battery or negligence. *E.g.*, *Canterbury v. Spence*, 464 F.2d 772 (D.C. Cir. 1972) (survey of bases for breach of informed consent), *cert. denied*, 409 U.S. 1064 (1972). Traditionally, informed consent has not provided relief in the absence of physical or emotional injury. *Delgado*, *supra* note 9, at 84, 87. Two scholars have proposed that the courts expand informed consent to redress injury to the "right to self determination." *Id.* at 127. This expansion would allow damages to a donor who did not consent to research, or to profitable research. The cause of action of misrepresentation is distinct from that of informed consent, even though they arise from the same action (or inaction) of the physician. *E.g.*, *Bloskas v. Murray*, 646 P.2d 907 (Colo. 1982) (physician may be liable for misrepresenting facts extrinsic to his duty to warn, but that nonetheless influence a patient's decision).

Moore claimed that he consented to research on some, but not all, of his tissue on which the defendants conducted research. *Moore*, 249 Cal. Rptr. at 510-11. However, he claimed that he never consented to *commercial* research. *Id.* at 512. It is not clear whether the court found that informed consent requires patient knowledge of commercial research or merely research for scientific purposes. *See infra* notes, 123, 131-32.

23. For example, Moore claims that his physician knew of the commercial value of his tissue, but denied it in response to Moore's inquiries. *Appellant's Opening Brief*, *supra* note 4, at 8, 10.

24. PROSSER & KEETON ON TORTS, (W. Keeton ed. 1984) § 105, at 726 [hereinafter PROSSER]. "Deceit" sometimes refers to a narrower common law remedy. *Id.*

that the representation is false; 3) an intention to induce the plaintiff to act or refrain from acting in reliance on the misrepresentation; 4) justifiable reliance on the misrepresentation by the plaintiff; and 5) damage to the plaintiff caused by the reliance.²⁵

The requirement of a "false representation" does not shelter from liability a physician who merely fails to address the issue of commerciality.²⁶ Although traditional case law did not allow recovery for pecuniary damages from nondisclosure, modern courts have shown a willingness to expand liability to include such omissions.²⁷ The Restatement of Torts allows liability for "one who fails to disclose to another a fact that he knows may justifiably induce the other to act or refrain from acting . . . if, but only if, he is under a duty to the other to exercise reasonable care to disclose the matter in question."²⁸ This duty extends to "matters known to him that the other is entitled to know because of a fiduciary or other similar relation of trust and confidence between them."²⁹ The comment following this provision specifically cites "physician and patient" as such a relationship.³⁰ Thus, an excising physician appears to have a duty to disclose at least certain selected information to the donor patient.

Despite this general duty, the Restatement language offers several potential barriers to liability. First, the doctor must "know" that his undisclosed fact would induce the patient to refrain from acting—in other words, that the patient would refuse to donate tissue if he knew its research purpose or its potential value.³¹ Similarly, the doctor is "under no

25. *Id.* at 728.

26. Intuitively, a physician is more likely to omit information on the commercial potential of tissue than affirmatively to make a false representation. Because such commercial values are new in medicine it is still possible that the doctor himself is unaware of tissue values. Further, the patient is also unlikely to ask questions about tissue value, the answers to which could trigger a misrepresentation. Both these factors will change as commercial research issues become more prominent.

27. PROSSER, *supra* note 24, § 106, at 737-38. *E.g.*, *Ollerman v. O'Rourke Co., Inc.*, 94 Wis.2d 17, 288 N.W.2d 95 (1980) (real estate developer liable for not informing buyer of underground well).

28. RESTATEMENT (SECOND) OF TORTS § 551(1) (1977).

29. *Id.* § 551(2)(a).

30. *Id.* § 551 comment f. Section 551 applies on its face only to "business transactions," which could arguably exclude the transactions between a physician or researcher and a donor. However, the comment's express inclusion of the doctor-patient relationship belies this interpretation. A court could find an alternate source of duty in § 551(2)(b): "matters known to him that he knows to be necessary to prevent his partial or ambiguous statement of the facts from being misleading." If a doctor reveals that he intends to research the donor's tissue, but not that the research has commercial value, his statement is arguably "partial" and "misleading."

31. RESTATEMENT (SECOND) OF TORTS § 551 (1977). Note that this requirement that the

duty to disclose information that the ordinary man would regard as unimportant."³² In addition, many physicians may be unaware of the impact of this information because of the tradition of donating discarded tissue for research, and the historically low chance of commercial gain from research. Finally, the doctor has a duty to disclose only those matters "that the other is entitled to know."³³ Courts could reasonably mirror the current doctrine of informed consent³⁴ and hold that a patient is not entitled to recover for such a removal of tissue for therapeutic purposes, absent physical or emotional injury.

If the physician did not intentionally misstate or omit information, he has not met the scienter requirement of intentional misrepresentation.³⁵ Although some surgeons and physicians may intentionally conceal information, many more may omit it unwittingly.³⁶ Although courts generally accept recklessness as a basis for deceit,³⁷ negligent misrepresentation has been a subject of much greater debate.³⁸ When the damage is to person or property, the courts generally have offered a rem-

doctor "know" of inducement is less demanding—and more likely to create liability—than Prosser's "intention to induce." See *supra* text accompanying note 25.

32. RESTATEMENT (SECOND) TORTS § 551 comment c (1977). This rule does not apply if the doctor knows that this particular patient is likely to attach importance to the information even though an ordinary man would not. *Id.* Arguably, the ordinary patient would be uninfluenced by a small likelihood that his diseased tissue may become profitable after extensive research.

33. RESTATEMENT (SECOND) OF TORTS § 551(2)(a) (1977). This phrase, of course, begs the question of whether the physician wrongfully withheld information.

34. See *supra* note 22.

35. Scienter is the "intent to deceive, to mislead, to convey a false impression," as distinguished from intentions to make a statement, to convey a certain meaning, or to cause the recipient to act on it in a specific way. PROSSER, *supra* note 24, § 107, at 741.

36. Excising physicians who are not themselves researchers do not gain monetarily from commercial research, and so would not benefit by concealing it. See *supra* note 20 for a diagram of physician-researcher relationships. Further, many physicians are unaware of the commercial nature of research, or the importance of that information to the patient. See *supra* note 32 and accompanying text.

37. PROSSER, *supra* note 24, § 107, at 741-42. Such recklessness is generally formulated as a "reckless disregard for the truth of the statement." *Id.* In an omission, the recklessness would have to apply to truthfulness of the physician's silence, which is essentially his decision to not speak.

38. Much of the scholarly disagreement concerns not whether some cause of action should lie for negligent statements, but whether it should take the form of deceit/fraud or a tort negligence action. See, e.g., Williston, *Liability for Honest Misrepresentation*, 24 HARV. L. REV. 415 (1911); Bohlen, *Should Negligent Misrepresentations Be Treated as Negligence or Fraud*, 18 VA. L. REV. 703 (1932). An early English case, *Derry v. Peek*, 14 A.C. 337 (1889), held that deceit included only intentional misrepresentation. A majority of American courts adopted this rule, but many have gradually abandoned it, or created exceptions which eviscerate it. PROSSER, *supra* note 24, § 107, at 740-41.

edy for negligence.³⁹ However, when the damage is merely pecuniary, as in tissue research suits, courts have been concerned about the potential extent of liability for negligent statements.⁴⁰ Most modern courts recognize the cause of action,⁴¹ but many do not hold an actor liable for all "foreseeable consequences" of his action, which is the traditional negligence test.⁴²

The Restatement grants recovery for pecuniary loss from negligent misrepresentations if the defendant made a false statement "for the guidance of others in their business transactions," and if he "fails to exercise reasonable care or competence in obtaining or communicating the information."⁴³ Although the law is unclear, a tissue donation is arguably a business transaction.⁴⁴ Under the Restatement, liability extends only to the transaction that the defendant intended to influence, or to people he intended to guide, or to those that he knew the recipient of his false statement intended to influence or guide.⁴⁵ This limitation does not appear to deny a cause of action to tissue donors. Clearly, an excising physician,

39. PROSSER, *supra* note 24, § 107, at 745. A patient may fall into this category if he can establish a property interest in his tissue. See *infra* text accompanying notes 89-101.

40. As Cardozo explained

If liability for negligence exists, a thoughtless slip or blunder, the failure to detect a theft or forgery . . . may expose accountants to a liability in an indeterminate amount for an indeterminate time to an indeterminate class. The hazards of a business conducted on these terms are so extreme as to enkindle doubt whether a flaw may not exist in the implication of a duty that exposes to these consequences.

Ultramares Corp. v. Touche, Niven & Co., 255 N.Y. 170, 174 N.E. 441, 444 (N.Y. 1931).

The Restatement also acknowledges and affirms this trend in the courts:

When the harm that is caused is only pecuniary loss, the courts have found it necessary to adopt a more restricted rule of liability, because of the extent to which misinformation may be, and may be expected to be, circulated, and the magnitude of the losses which may follow from reliance upon it.

RESTATEMENT (SECOND) OF TORTS § 552 comment a (1977).

41. 37 AM. JUR. 2D *Fraud and Deceit* § 209 (1968).

42. RESTATEMENT (SECOND) OF TORTS § 552 comment a (1977); PROSSER, *supra* note 24, § 107, at 745.

43. RESTATEMENT (SECOND) OF TORTS § 552 (1977).

44. The Restatement does not define a "business transaction" but comment a refers to it alternatively as a "commercial transaction," and states that "the law promotes the important social policy of encouraging the flow of commercial information upon which the operation of the economy rests." RESTATEMENT (SECOND) OF TORTS § 552 comment a (1977).

On the one hand, the physician is guiding a patient in a tissue *donation*, which does not appear "commercial." Yet the very problem in tissue donation arises because the tissue is potentially profitable. In fact, it seems contradictory for a plaintiff to claim that he incurred purely pecuniary damage in a noncommercial transaction. If a court determines that the physician did not offer guidance for a "business transaction," the Restatement offers the plaintiff no grounds for recovery against the physician for his misrepresentation.

45. *Id.* § 552(2).

who must obtain consent for tissue removal and research, intends to guide his patient and influence the decision to donate tissue. Even if the excising physician's actions do not rise to negligence, because he himself did not have enough information, the researcher who gave—or omitted to give—the doctor the relevant information knows that the doctor (now acting as the “recipient”) intended to influence his patient's decision. Thus, the scope of duty in negligent misrepresentation would always provide some possible defendant to a patient.⁴⁶

Some courts appear willing to recognize the doctrine of negligent omission,⁴⁷ while other courts do not.⁴⁸ The Restatement's view implicitly recognizes such a cause of action.⁴⁹ In an omission, the physician could be negligent in either not obtaining the information, or in not transmitting it to the patient. In cases of affirmative representations, the Restatement explicitly supports a cause of action for negligence.⁵⁰ The section on nondisclosure, however, extends the duty to disclose only to “matters known” to a physician.⁵¹ Furthermore, courts disagree about whether knowledge of information on the part of the defendant is essential for negligence in its nondisclosure.⁵² Even if a court accepts the

46. See *infra* notes 54-71 and accompanying text.

47. *E.g.*, *Easton v. Strassburger*, 152 Cal. App. 3d 99, 199 Cal. Rptr. 383 (1984) (real estate broker liable for negligently failing to disclose erosion damage to property buyer.); see *Gardner v. Jones*, 464 So.2d 1144 (Miss. 1985) (In dictum, court found defendant merely negligent, but did not deny a cause of action for an omission representation.)

48. *E.g.*, *Kurti v. Fox Valley Radiologists, Ltd.*, 124 Ill. App. 3d 933, 464 N.E.2d 1219 (1984) (In order for concealment of facts to constitute a fraud, it must be shown to have been done with the intention to deceive).

49. Restatement § 551 triggers liability on a mere failure to disclose, with no element of culpability. RESTATEMENT (SECOND) OF TORTS § 551(1) (1977). However, the duty breached under § 551 is to “exercise reasonable care to disclose.” *Id.* § 551(1), (2) (emphasis added). Read literally, the Restatement provides that even a reasonable failure to disclose breaches a duty to act reasonably. The better interpretation is that the actor is liable for any *unreasonable* failure to disclose. The Restatement's separate discussion of a limited cause of action for innocent misrepresentation further supports this negligence interpretation. *Id.* § 552(c). See *infra* note 53 for further discussion of § 552(c).

50. RESTATEMENT (SECOND) OF TORTS § 552(1) (1977) (duty to “exercise reasonable care or competence in obtaining or communicating the information”).

51. *Id.* § 551(2). Not all duties to disclose are subject to this knowledge requirement. This language occurs in paragraph (a), attaching liability to a relationship of trust and confidence. Paragraph (e), requiring disclosure of facts basic to a transaction, does not address knowledge of the undisclosed fact. Thus, if a researcher's duty exists by operation of paragraph (e), he is more likely than the excising physician to be liable under the Restatement for negligently failing to obtain information on commerciality. See *infra* note 64 and accompanying text for further discussion of § 551(2)(c).

52. *E.g.*, *Easton v. Strassburger*, 152 Cal. App. 3d 90, 199 Cal. Rptr. 383, 387-91 (1981) (Real

cause of action, the patient still has the burden of proving negligence—that the physician acted unreasonably in not discovering or communicating the commercial value of the research.⁵³ Courts may find that commercial potential is insignificant, and that the defendant reasonably omitted it.

B. Possible Defendants

In negligent misrepresentation actions, modern courts generally limit liability to losses incurred by those individuals the defendant intended to guide, or knew the recipient of information intended to guide.⁵⁴ This limitation would not bar an action against the excising physician (surgeon or pathologist), or a researcher.⁵⁵ However, in some situations, the chain of persons involved in a tissue donation may limit a patient's choice of defendants.⁵⁶ If the excising physician is the researcher himself, he will be liable due to whatever information he did or did not transfer to the patient. Similarly, he will be liable if an independent researcher communicates the commercial potential of research in a request for tissue, and the physician negligently fails to transfer the information to the patient. However, if the excising physician merely relays incomplete information because the researcher failed to fully inform the physician, the physician's liability will depend on the court's willingness to find him negligent in failing to obtain complete information.⁵⁷ Thus, many courts

estate broker has duty both to reasonably investigate condition of property and to disclose any material discovery to buyer); *Williams v. Benson*, 3 Mich. App. 9, 141 N.W.2d 650, 656 (1966) ("Knowledge of the prior defect . . . is essential, for we do not intend to impose liability where no knowledge has ever existed."), *rev'd. on other grounds*, 378 Mich. 721 (1967).

53. The Restatement of Torts recognizes a cause of action for innocent misrepresentation (or "strict liability"), but only in "a sale, rental or exchange transaction." *RESTATEMENT (SECOND) OF TORTS* § 552(C) (1977). This limitation appears to exclude a gift or donation, as with tissue donations.

54. *RESTATEMENT (SECOND) OF TORTS* § 552(2) (1977). See *supra* notes 44-46 and accompanying text. Such limitation does not apply to intentional misrepresentation, however. Some courts find the Restatement position too broad, and require privity for liability. *E.g.*, *Essex v. Ryan*, 446 N.E.2d 368 (Ind. App. 1983). If applied to tissue donation, this doctrine would insulate a researcher from independent liability, although he might still be liable under agency law. See *infra* note 69 and accompanying text for further discussion of agency.

55. See *supra* notes 44-46 and accompanying text for a discussion of the scope of liability.

56. See *supra* note 18 and accompanying text for a discussion of the factual sequence in transferring tissue.

57. See *supra* notes 50-52 and accompanying text for a discussion of negligent failure to obtain information.

may bar patients from suing the excising physician for negligent misrepresentation.

Nor would the law of agency expand the defendant pool. Agency is "the fiduciary relation which results from the manifestation of consent by one person to another that the other shall act on his behalf and subject to his control, and consent by the other so to act."⁵⁸ This Note will assume an agent-principal relationship exists between the excising physician and the researcher.⁵⁹ In general, an agent (here the excising physician)

who makes untrue statements based upon the information given to him by the principal is not liable because of the fact that the principal knew the information to be untrue. An agent can properly rely upon statements of the principal to the same extent as upon statements from any other reputable source.⁶⁰

Many courts agree.⁶¹

Regardless of its effect on the excising physician, a researcher's nondisclosure to that physician may render the researcher liable to the patient. Again, the Restatement and most courts generally extend liability for negligent misrepresentation far enough to include a researcher-to-patient relationship.⁶² Although the law is unsettled, a court could find that the

58. RESTATEMENT (SECOND) OF AGENCY § (1) (1958). The mere communication that one is to act for the other is sufficient to create the authority to act as agent. REUSCHLEIN AND GREGORY, HANDBOOK ON THE LAW OF AGENCY AND PARTNERSHIP § 1, at 34 (1979).

59. More than an initial examination of the agency relationship is beyond the scope of this Note. When a researcher contacts a surgeon and requests tissue, then the surgeon who gains the donor's consent, removes and transfers the tissue is acting on "behalf" of the researcher during the whole procedure. If the surgeon gained the patient's consent for research *before* consulting a particular researcher, the researcher could argue that the surgeon was not an agent during the tortious misrepresentation (which occurred during the consent procedure). Because excised tissue has a short life span, however, physicians are likely to have made arrangements with a researcher before an operation, to assure prompt transfer. On the other hand, standardized consent forms increase the chances that the excising physician may have obtained consent—including consent for research use of removed tissue—far prior to surgery.

The same factors operate in a pathologist-research setting. If the researcher submits his request form for tissue, and the pathologist then obtains the donor's consent, the researcher is properly considered a principal to the pathologist/agent's consent negotiations. Unlike surgeons, pathology labs regularly grant tissue for research, and have an established procedure for request and transfer. Thus, it may be more likely for a pathologist to obtain research consent before he ever deals with a researcher. Again, however, short tissue life may limit these possibilities.

60. RESTATEMENT (SECOND) OF AGENCY § 348 comment b (1958).

61. *E.g.*, *Green v. Geer*, 239 Kan. 305, 720 P.2d 656, (1986) (an agent making false representations on behalf of his principal, honestly believing them to be true, is not guilty of, nor liable for, fraud, because necessary scienter is not present).

62. *See supra* notes 44-46, 54-55 and accompanying text for a discussion of the scope of negligent misrepresentation liability.

researcher owes a fiduciary duty to the patient, and thus has a duty to disclose similar to that of the excising physician.⁶³ Alternatively, the researcher might have a duty to disclose the possible commercial elements of the donation, because they are "basic to the transaction," and the patient would "reasonably expect a disclosure of those facts."⁶⁴ However, the Restatement comments suggest that a patient will have more difficulty establishing a duty if he must prove the information was "basic to the transaction."⁶⁵ If the court did find a duty, the plaintiff would have the same burden as he would against the excising physician: establishing the elements of negligent omission,⁶⁶ proving the defendant's negligence,⁶⁷ and proving the other elements of misrepresentation.⁶⁸

Agency law may also allow a patient to recover from an innocent researcher on the basis of the excising physician's negligence. According to the Restatement, "the principal, although personally innocent . . . may also be liable for the neglectful representation of an agent resulting in pecuniary loss in a jurisdiction in which such representations are actionable."⁶⁹

Finally, if either the excising physician or the researcher are liable, the hospital that employed them may be liable under the doctrine of respondeat superior.⁷⁰ However, if the excising physician merely has admitting

63. The duty derives from RESTATEMENT (SECOND) OF TORTS, § 551 (2)(a)(1977). For a discussion of the physician's duty arising from a relationship of "trust and confidence," see *supra* notes 28-30 and accompanying text. For an argument that researchers generally owe a fiduciary duty to their subjects, see Delgado & Leskovac, *supra* note 9, at 107-12.

64. RESTATEMENT (SECOND) OF TORTS § 551(2)(e) (1977).

65. The duty under § 551(2)(e) is to disclose "basic" facts—those that go "to the basis, or essence, of the transaction, and [are] an important part of the substance of what is . . . dealt with." RESTATEMENT (SECOND) OF TORTS § 551, comment j (1977). It is not sufficient that the facts are "important or persuasive inducements to enter the transaction." Given these criteria, courts may characterize the commercial nature of research not as basic, but as peripheral to the main question of donation. Further, the duty arises only if the patient "reasonably expects disclosure." The Restatement further comments that the cases in which courts find such an expectation are those in which the defendants's actions are "shocking," and "so extreme and unfair as to amount to a form of swindling." *Id.* at comment i. Again, this is a strict standard, and courts could easily find that neglecting to communicate a slim chance of profit is not "shocking."

66. See *supra* notes 47-52 and accompanying text.

67. See *supra* note 53 and accompanying text.

68. See *supra* note 25 and accompanying text.

69. RESTATEMENT (SECOND) OF AGENCY § 257 comment b (1977). The representation must be authorized, apparently authorized, or within the power of the agent to make for the principal. *Id.* § 257(a), (b), (c).

70. *E.g.*, *Jeffcoat v. Phillips*, 534 S.W.2d 168, 172 (Tex. Civ. App. 1976) ("In general a hospital is liable under respondeat superior for injuries negligently inflicted by an employee of the hospital acting within the course and scope of his employment.")

privileges at the hospital and is not an employee, the hospital generally will not be liable for his negligence.⁷¹

The utility of these multiple defendants may be limited. If the excising physician is liable, he is likely to be sufficiently insured to allow the patient to recover. Private researchers/scientists appear less likely to carry sufficient insurance,⁷² and a plaintiff may benefit particularly from the ability to include an employing hospital. Finally, the plaintiff may have a more sympathetic case if he can sue a wealthy commercial researcher whose profits flow, directly or indirectly, from the plaintiff's tissue.

C. Damages

In calculating damages from misrepresentation, courts use either the "loss (or benefit) of the bargain," or the "out of pocket" measures.⁷³ The benefit of the bargain rule is the majority view.⁷⁴ It grants the plaintiff the difference between the value of the property he received and the value he would have received had the representations about the property been true.⁷⁵ Where, as in tissue donor cases, the plaintiff does not receive property but rather parts with it at less than its true value, the benefit of the bargain rule is inappropriate for two reasons. First, any property he receives as a result of the bargain was not the subject of the misrepresentation, and so would not change in value had the representations been true. Secondly, in tissue donation cases, the plaintiff in fact expects nothing out of the bargain, and could hardly be suing for his anticipated return.

The "out of pocket" rule awards the plaintiff the difference between the value the plaintiff gave and the value he received.⁷⁶ Courts deciding damages when a defrauded plaintiff parts with property for less than its value have generally awarded the difference between the value given and the value received, both measured at the time of the transaction.⁷⁷ Be-

71. *Id.* at 172, 173. Pathologists are much more likely to be hospital employees.

72. Of course, if donors begin suing researchers, scientists may quickly join the ranks of the insured.

73. C. MCCORMICK, *HANDBOOK ON THE LAW OF DAMAGES* § 121 (1935). Some jurisdictions acknowledge both and chose according to the claim. For example, Wisconsin applies the benefit of the bargain rule for intentional misrepresentation (*Chimekas v. Marvin*, 25 Wis. 2d 630, 131 N.W.2d 297 (1964)), but the out of pocket rule for negligent misrepresentation (*Costa v. Neimon*, 123 Wis. 2d 410, 366 N.W.2d 896 (1985)). See also PROSSER, *supra* note 24, § 110, at 768.

74. MCCORMICK, *supra* note 73, § 121.

75. *Id.*

76. *Id.* § 122.

77. See, e.g., *Republic Mining & Mfg. Co. v. Elrod*, 208 Ark. 150, 185 S.W.2d 99 (1945) (plain-

cause a tissue donor receives no compensation for his donation, his "value received" is zero and the measure of his recovery will be the value of his tissue at the time of donation.⁷⁸ The standard measurement of value is "market value", *i.e.*, the price given in the ordinary course of transaction between a willing buyer and a willing seller.⁷⁹ The actual market value of specific tissue will be very difficult to determine because the U.S. has no general market for human tissue cells.⁸⁰ The tissue's value will depend on the probability of commercial value which may be very low at the time of the transaction unless the tissue has immediately-recognizable, unusual traits.⁸¹ Thus, a patient's recovery under the measure of what a willing buyer would pay a willing seller—without the benefit of hindsight—may be only a fraction of the tissue's ultimate value after research.

A plaintiff in a misrepresentation action may generally recover conse-

tiff who was fraudulently induced to sell interest in land for less than its value was awarded difference between the value of the property at the time the sale was made, and the price paid); *La Masters v. Springer*, 251 Iowa 69, 99 N.W.2d 300 (1959) (plaintiff fraudulently induced to sign contract as a manufacturer's representative awarded the difference between the value of his services and the wages he was paid for them).

78. The donor may gain psychic benefits or good will from his donation, but it seems highly unlikely that a court would label these as consideration, or that the court could measure their monetary value.

79. McCormick *supra*, note 73, § 44. When market value is inadequate as a measure of damages, the courts use the alternative measure of "value to the owner," in which the court considers the original cost of the property, the extent of its use, and its condition at the time of the loss. *Id.* at § 45. This rule would be inappropriate for calculating the value of excised—and generally diseased—human tissue.

80. Plasma and some patented cell lines are among the few exceptions to the lack of market system for the transfer of human tissue. OTA REPORT, *supra* note 1, at 12. Blood and sperm is also commonly bought and sold. See Note, *Toward the Right of Commerciality: Recognizing Property Rights in the Commercial Value of Human Tissue*, 34 UCLA L. REV. 207, 219, 229 (1986). Current law may actually prohibit a market in organs. Federal law prohibits transfer of human organs for valuable consideration for use in transplantation. 42 U.S.C. § 274(e) (1984). The restriction does not expressly apply to tissue used for research, and the public policy rationales for the transplantation prohibition may or may not apply to nontransplantation use. OTA REPORT, *supra* note 1, at 76. See generally Dukeminier, *Supplying Organs for Transplantation*, 68 MICH. L. REV. 811 (1970).

81. The Office of Technology Assessment found:

The great majority of cultures and cloned genes are of no commercial value—only a small fraction are ever patented and only a fraction of patents are licensed However, there may be certain types of tissues or cells which, through rarity or immediately apparent special properties, would have some ascertainable market value once they were cultured.

OTA REPORT, *supra* note 1, at 85 (citing U.S. CONGRESS, OFFICE OF TECHNOLOGY ASSESSMENT, WORKING GROUP ON PATIENT'S RIGHTS IN HUMAN BIOLOGICAL MATERIALS: LEGAL AND ETHICAL ISSUES, Washington, D.C., Jan 17, 1986, and Jansen, *Sperm and Ova as Property*, 11 J. OF MEDICAL ETHICS 123 (1985)). Moore claims that his physicians knew of the unique characteristics of his tissue prior to its removal. Appellant's Opening Brief, *supra* note 4, at 7-8.

quential damages, if they are reasonably certain, and proximately caused by the fraudulent action.⁸² However, the main damage in a tissue donation case is the loss of value of the tissue, and no consequential damages are apparent.⁸³ A plaintiff may also recover interest on his loss.⁸⁴ Nominal damages are not available.⁸⁵ Punitive damages attach to "malicious or wanton or oppressive misconduct,"⁸⁶ and most jurisdictions allow their recovery only for intentional misrepresentation.⁸⁷

II. TORTS TO PROPERTY

If a patient can establish a property interest in his own excised tissue, he may have several property-related claims. Traditionally, the common law has used tort doctrines, rather than property, to redress injury to human tissue.⁸⁸ Scholars have argued both for and against recognizing a person's property interest in his own body parts.⁸⁹ Several areas of law

82. MCCORMICK, *supra* note 73, § 122; PROSSER, *supra* note 24, § 110, at 767. The damages generally must also be reasonably foreseeable to the defendant. *Id.*

83. In a separate section, McCormick describes consequential damages to include "the reasonable expense of attempting to reclaim the property." MCCORMICK, *supra* note 73, § 123. Thus, a patient might be able to recover some costs of, for example, his research in locating his tissue after its removal. The Restatement allows recovery in negligent misrepresentation for "loss suffered otherwise as a consequence of the plaintiff's reliance upon the misrepresentation." RESTATEMENT (SECOND) OF TORTS § 552B comment b (1977).

84. MCCORMICK, *supra* note 73, § 122. This is at the jury's discretion, and the loss must be "based upon reasonably ascertainable market values." *Id.*

85. PROSSER, *supra* note 24, § 110, at 765.

86. MCCORMICK, *supra* note 73, § 81.

87. 37 C.J.S. *Fraud* § 144, at 489 (1943).

88. OTA REPORT, *supra* note 1, at 79; Wagner, *Human Tissue Research: Who Owns the Results?*, 14 J.C.U.L. 259, 267 (1987). For example, if a defendant hits plaintiff's car he is liable for trespass to chattel; if he hits plaintiff's leg he is liable for battery. This difference has required courts to contort traditional tort concepts to encompass injury to severed body parts, or to fetuses. *See, e.g., Mink v. University of Chicago*, 460 F. Supp. 713 (N.D. Ill. 1978) (partially-consenting patients given drugs dangerous to future offspring have cause of action in battery despite lack of requisite touching); *Mokry v. University of Texas Health Science Center at Dallas*, 529 S.W.2d 802 (Tex. Civ. App. 1975) (patient recovered for mental anguish caused by hospital losing patient's eyeball which had been removed for diagnosis). For a discussion on the expansion of tort to accommodate informed consent issues, see Delgado & Leskovac, *supra* note 9, at 80-84. If the courts acknowledge a property interest of a person in his body, such cases would be easily resolved as an interference with property rights.

89. Those that argue for some type of property right include: Andrews, *My Body, My Property*, 16 HASTINGS CENTER REP. No. 5 (1986) (acknowledging property right will facilitate self-determination, and useful market in body parts); Dickens, *The Control of Living Body Materials*, 27 U. TORONTO L.J. 142, 183 (1977) (advocating "an inchoate right of property in materials issuing from his body, which right he may expressly or by implication abandon to another, or . . . make prevail over a contending claim"); Note, *Toward the Right of Commerciality: Recognizing Property Rights in*

offer analogies to support such a property right. Slavery is a precedent for the ownership of the human body,⁹⁰ but this can be distinguished from a person owning his own tissue.⁹¹ Cadaver law also grants a "quasi-property right" to the next of kin, allowing them to bury the dead.⁹² However, leading authorities have characterized this cause of action as infliction of emotional distress rather than as a property-based action.⁹³ As plaintiff, a patient would have the burden of establishing sufficient differences between cadavers and living tissue to overcome the precedent of not granting property rights in the human body.⁹⁴

On the other hand, courts occasionally, for tax purposes, have recognized the property nature of blood donations. The Tennessee Supreme Court expressly held that human blood is tangible personal property under the state tax statute,⁹⁵ and the Fifth Circuit made a similar finding in dictum.⁹⁶ On the other hand, many state statutes characterize blood

the Commercial Value of Human Tissue, 34 UCLA L. REV. 207, 258 (1986) (courts should create limited property right in the commercial potential of body parts, but not an absolute property right in human tissue). The most recent argument against the property right is contained in Wagner, *supra* note 88, at 268 ("[I]f the human body is owned by the persona it embodies, it becomes a subordinate object or res having something less than full human dignity.").

90. See Note, *supra* note 80, at 224-25.

91. See Matthews, *Whose Body? People as Property*, 36 CURRENT LEGAL PROBS. 192, 221-29 (1983) (property rights inhere in body parts, but not whole bodies). Otherwise, the property right could arguably be prohibited by the thirteenth amendment. U.S. CONST. amend. XIII, § 1 ("Neither slavery nor involuntary servitude . . . shall exist"). One author argues that slavery itself is a poor precedent for a person's ownership of his own tissue, because slaves themselves had no property rights, thus did not own themselves. Dickens, *supra* note 89, at 143-44.

Similarly, the court in *Moore* reasoned "There is, however, a dramatic difference between having property rights in one's own body and being the property of another." *Moore*, 249 Cal. Rptr. at 504. Because slavery is morally repugnant, a plaintiff may also have difficulty arguing that any precedent it established should be extended.

92. *E.g.*, Spiegel v. Evergreen Cemetery Co., 117 N.J.L. 90, 186 A. 585 (1936). For a general discussion of the history and rights involved, see OTA REPORT, *supra* note 1, at 72; Note, *supra* note 80, at 225-26.

93. PROSSER, *supra* note 24, § 12, at 63. The Restatement of Torts also recognizes a tort right to the survivor of the decedent, rather than a property right to the cadaver itself. RESTATEMENT (SECOND) OF TORTS, § 868 (1977).

The *Moore* court, however, examined cadaver law and found that "even though full property rights are not recognize [sic] in a dead body, a limited property interest has been found." *Moore*, 249 Cal. Rptr. at 506.

94. If an estate is claiming rights to tissue donated through autopsy, it would be particularly difficult to overcome these cadaver law precedents.

95. Parkridge Hospital, Inc. v. Woods, 561 S.W.2d 754 (Tenn. 1978).

96. U.S. v. Garber, 607 F.2d 92, 95 (5th Cir. 1979) (en banc) ("Blood plasma. . .is tangible property which in this case commanded a selling price dependent on its value.")

donation as a service, rather than a sale of property.⁹⁷ Thus, the analogy of blood as property can support either side of a general property recognition.

A strong argument for recognizing a property right arises from statutory provisions. Several state statutes include cell cultures and microorganisms in defining property subject to larceny,⁹⁸ allowing a patient to argue that the legislature recognized a property right in cell cultures derived from donated tissue.⁹⁹ Federal law prohibits the sale of organs for transplant, but does not expressly forbid their sale for other uses, and does not explicitly recognize a property nature.¹⁰⁰

In *Moore v. Regents of the University of California*, a California appellate court expressly held that patients have a property interest in their bodily tissue.¹⁰¹ The Court adopted the California Civil Code definition of property ownership (the right of one or more persons to possess and use property to the exclusion of others)¹⁰² and found that various areas of law indicated a right of "domination over one's body":¹⁰³ cadaver law;¹⁰⁴ the law of cornea transplants;¹⁰⁵ statutory restrictions on human experimentation;¹⁰⁶ case law regarding search and seizure¹⁰⁷ and patients' right to refuse medical treatment.¹⁰⁸ Taken together, the court stated, these rights of dominion demonstrate that a human has a right of use and control over his body "so akin to property interests that it would

97. OTA REPORT, *supra* note 1, at 76. States classify blood donation as a service to avoid liability of the donor or hospital or blood bank under product liability law, or implied warranties under the Uniform Commercial Code. *Id.*

98. *E.g.*, CAL. PENAL CODE § 499(c) (West 1986); COL. REV. STAT. § 18-4-408 (1983); FLA. STAT. ANN. § 812-081 (West. 1986).

99. OTA REPORT, *supra* note 1, at 80. The patient may still have difficulty establishing *who* has the property interest in the cell cultures, however.

100. *See supra*, note 80.

101. 249 Cal. Rptr. at 504.

102. *Id.* at 504 (quoting CAL. CIV. CODE § 654 (West 1982)).

103. *Id.* at 505.

104. *Id.* at 505-06, *see supra* note 95.

105. *Id.* at 506. This law "recognizes that body parts are not free for the taking, but are subject to the heir's right to dispose of them." *Id.*

106. *Id.* at 506-07. The court emphasized that the 1978 Protection of Human Subjects in Medical Experimentation Act protects "the right of individuals to determine what is done to their own bodies." *Id.* (quoting CAL. HEALTH & SAFETY CODE § 24171 (West 1982)).

107. The court considered dictum from *Venner v. State*, 30 Md. App. 599, 354 A.2d 483 (Md. App. 1976) that people may have a property right in materials that were once within their bodies. *Moore*, 249 Cal. Rptr. at 505-06.

108. In *Bolivia v. Superior Court*, 179 Cal. App.3d 1127, 1139, 225 Cal. Rptr. 297, 302 (1986), the court cited authority that every human has a right to decide what will be done with his body.

be subterfuge to call them something else.”¹⁰⁹ Finally, the court found that a person has a property interest in his DNA, or genetic code.¹¹⁰

A. *Claims and Defenses*

If a patient can establish a property interest in his body parts, then interference with his tissue without consent may constitute either trespass to chattels or conversion.

1. *Trespass to chattels*

An actor commits trespass to chattels by an “unlawful and serious interference with the possessory rights of another to personal property.”¹¹¹ The Restatement of Torts limits liability for such trespass to actions that “dispossess” the other of the chattel, impair the chattel, deprive the possessor of the chattel’s use “for a substantial time” or cause bodily harm to the possessor.¹¹² Because excised tissue is either diseased or from a cadaver, a patient can hardly claim that research impaired it, or deprived him of its use. However, he has a strong argument that the researcher or excising physician “dispossessed” him of his tissue. Dispossession occurs by an intentional “taking a chattel from the possession of another without the other’s consent,” “obtaining possession . . . by fraud or duress,” or by “barring the possessor’s access” to the chattel.¹¹³ Further, “assuming physical control over [the chattel] with the intention of exercising such control on his own behalf or on behalf of another” is sufficient for dispossession.¹¹⁴ Thus, an excising physician who removes tissue with the intent to use it for research, or give it to another for research, has arguably dispossessed the patient.

The measure of damages for trespass to chattels is limited to the

109. *Moore*, 249 Cal. Rptr. at 505.

110. *Id.* at 508. The question of ownership in a genetic code was at issue because the defendant researchers patented information, products, and processes requiring fragments of Moore’s DNA. *Id.* at 529-30. (Appendix A, patent application). The court cited precedent holding that a person has a protected interest in his identity, and then argued that a person’s genetic material is “far more profoundly the essence of one’s human uniqueness than a name or face.” *Id.* at 508.

111. BLACK’S LAW DICTIONARY 1347 (5th ed. 1979).

112. RESTATEMENT (SECOND) OF TORTS § 218 (1977). This section arguably requires plaintiff to show actual damages from the interference. OTA REPORT, *supra* note 1, at 79. If so, a patient whose tissue was removed for therapeutic purposes may have difficulty meeting this burden. *Id.* However, Prosser states that *any* loss of possession—and thus any dispossession—satisfies the requirement of actual damages. PROSSER, *supra* note 24, § 14, at 87.

113. RESTATEMENT (SECOND) OF TORTS § 221 (1977).

114. *Id.* § 221 comment b (1977).

amount of damage done to the chattel or to the plaintiff's possessory interest in it.¹¹⁵ Again, a patient may have difficulty arguing that research damaged excised, generally diseased, tissue. Further, in measuring damages, a patient will have no opportunity to consider the value added to the tissue by its usefulness in research. Because of this limitation, patients may prefer to bring a claim of conversion.

2. Conversion

Conversion is also "an intentional exercise of dominion or control over a chattel,"¹¹⁶ but allows recovery of the full value of the chattel.¹¹⁷ The test is whether the defendant "has exercised such dominion and control over the chattel, and has so seriously interfered with the other's right to control it, that in justice he should be required to buy the chattel."¹¹⁸ The Restatement lists several criteria for determining conversion which could be applicable to a tissue donation: "the extent and duration of the actor's exercise of dominion or control," "the actor's intent to assert a right in fact inconsistent with the other's right of control," "the extent and duration of the resulting interference with the other's right of control," and, on the other hand, "the actor's good faith."¹¹⁹ A researcher or excising physician who removes tissue for research is exercising total dominion over it for an extended duration. In fact, the Restatement comments that any action which rises to the level of dispossession is normally a conversion.¹²⁰

a. Consent

The plaintiff's valid consent to interference with his rights is a com-

115. *Id.* § 218, comment g, § 222A comment e.

116. *Id.* § 222A. The Restatement describes the difference between trespass to chattels and conversion as merely a matter of degree. *Id.* § 222A comment a. A typical state definition of conversion is that adopted in Missouri: "an unauthorized assumption of the right of ownership over personal property of another to the exclusion of the owner's right of ownership." *Chemical Sales Co., v. Diamond Chem. Co.*, 766 F.2d 364, 367 (8th Cir. 1985).

117. RESTATEMENT (SECOND) OF TORTS § 222A comment c (1977).

118. *Id.* § 222A comment d.

119. *Id.* § 222A.

120. *Id.* § 222 comment a. This comment acknowledges that some dispossessions are too minor to be conversion; for example, a person accidentally taking another's hat and returning it unharmed two minutes later. *Id.* Even if this example does not indicate the maximum control over an object which will not constitute conversion, it is disparate enough from a tissue donation fact situation to indicate that a physician in tissue donation is not innocent of prima facie conversion.

plete defense to conversion,¹²¹ and a patient consents to both tissue removal and research.¹²² However, if the plaintiff limited his consent, the defendant's action is privileged only so far as the interference conforms to the patients's limitations.¹²³ If a patient consents to research, but not to commercial exploitation,¹²⁴ the excising physician could be liable for this unauthorized interference.¹²⁵ The interference rises to conversion if the unauthorized action is so serious as to justify payment of the full value,¹²⁶ and the Restatement finds that most unpermitted uses rise to this level.¹²⁷

The limits of consent are defined by the terms—either express or implied—of the agreement between the parties.¹²⁸ The test is “whether a reasonable man, in the light of all of the circumstances, would regard the use as of such a character that it would have been included within the agreement if the parties had anticipated the occasion for such a use.”¹²⁹

121. *Id.* § 252. Consent is ineffective, however, if the converter obtained it by fraud. *Id.* § 552A. This rule applies even if the fraud went to a collateral matter. *Id.* at comment a. Thus, if the party obtaining patient consent in tissue donation is liable for misrepresentation, he and all the other parties who later deal with the tissue may be liable for conversion.

122. This assumption is based on the representative consent practices of Barnes Hospital in St. Louis. See *supra* notes 14-20 and accompanying text for a discussion of the surgery and consent procedure. The plaintiff in *Moore* claims that he did *not* consent to some tissue research, *Moore*, 249 Cal. Rptr. at 510-11. The issue of commerciality is superfluous in such a situation.

123. *Id.* § 252A comment c. “The actor remains liable for any unauthorized or excessive interference.” *Id.*

124. This question of consent is similar to that arising in misrepresentation. See *supra* note 22. Had the patient not even consented to research with his tissue, his argument for conversion would be even stronger. See *supra* note 122.

125. In analyzing tissue donation, one author reached the same conclusion of liability. However, he assumed that the patient would not have consented to research, and employed a slightly different definition of conversion. Note, *supra* note 80, at 250-51.

126. RESTATEMENT (SECOND) OF TORTS § 228 comment b (1977).

127. *Id.* § 228 comment d. The examples found in the comment to § 228 suggest that “unauthorized use” contemplates an unauthorized physical act, or an assertion of dominion. The comment uses the example of an actor driving a car when the owner consented to merely holding it for sale. Driving it 2000 miles, or driving it with the purpose of asserting an ownership claim is conversion; driving it 10 miles is not. *Id.* at comment d. If a patient has consented to only research applications, and a researcher performs essentially identical experiments whether or not the research has commercial possibilities, then the patient has in effect consented to all the researcher's physical acts. The researcher does not introduce a commercial aspect in order to assert ownership. In these circumstances, the research might not exceed the consent, and any commerciality may not rise to the level of conversion. However, if the researcher applies to patent the research, or sell it, he has arguably physically acted beyond the scope of consent. This action is much more likely to constitute a conversion.

128. *Id.* § 228 comment c.

129. *Id.*

Thus, a patient must show that a reasonable man donating tissue for research would not consent to the commercial use of it if he knew it might be put to such a use. A court could reasonably decide for either party on this issue. The plaintiff may have a difficult burden showing that he would consent to research, but not to commercial research. Alternatively, a jury may be sympathetic to a patient whose tissue was donated to benefit mankind, but ultimately used to line a researcher's pockets.

The court in *Moore* refers to consent to "commercial exploitation" as distinct from consent to research.¹³⁰ Although the opinion arguably finds that lack of consent to the commercial nature is sufficient to allow physician liability, the holding is not entirely clear.¹³¹ Even if this holding survives appeal, other jurisdictions may choose not to follow it.

b. *Abandonment*

Like consent, abandonment is a complete defense to conversion.¹³² Abandonment is a voluntary relinquishment of all "right, claim, and possession, with the intention of terminating . . . ownership . . . without vesting it in any other person and with the intention of not reclaiming future possession or resuming its ownership, possession, or enjoyment."¹³³ Several scholars have argued that a patient abandons his tissue

130. *E.g.*, *Moore*, 249 Cal. Rptr. at 510-11 (complaint offers "no basis for concluding . . . that this consent [to surgery] contained a specific authorization for either research unrelated to treatment or commercial exploitation"; plaintiff "consented to research on the tissue," but "nothing indicates he consented to commercial exploitation.").

131. The opinion is ambiguous because *Moore* claims that he did not consent to research on some of his tissue that the researchers used. *Moore*, 249 Cal. Rptr. at 510-12. Thus, the court may not have relied on the commercial aspect in deciding that the pleadings did not show consent. For example, the court states "there is nothing that indicates he consented to commercial exploitation of his tissues." *Id.* at 510-11. Yet the next two sentences explain that the physicians obtained consent to research three months after they began experimenting. *Id.* Thus, *Moore's* consent was invalid independent of the commercial aspect. However, the court concludes that if "plaintiff did indeed consent to any or all of the uses defendants made of his body parts, then, to that extent, his claims will be defeated." *Id.* at 512 (emphasis added). This formulation indicates that the court considered consent to the commercial aspect of research essential to create a full defense to conversion. Furthermore, the dissent characterizes the majority as requiring physicians to give patients "an expanded advertisement concerning potential research and commercial use" of their tissue. *Id.* at 536 (George, J., dissenting) (emphasis added).

132. *E.g.*, *Chemical Sales Co., v. Diamond Chem. Co.*, 766 F.2d 364, 368 (8th Cir. 1985).

133. 1 AM. JUR. 2D *Abandoned, Lost, and Unclaimed Property* § 1 (1962). Some external act manifesting intent must accompany the intent to abandon. *E.g.*, *Sanchez v. Forty's Texaco Service, Inc.*, 5 Conn. App. 438, 499 A.2d 436 (1985), cert. denied, 198 Conn. 803, 502 A.2d 932 (1986). Ironically, the very hospital consent forms that permit defenses to misrepresentation and informed consent may bar the defense of abandonment. Because a consent form arguably grants possession of

after surgery.¹³⁴ Various courts have indicated their agreement. One state court held that if a person takes no action to assert his ownership over his organs or other body parts, the "force of social custom" suggests that "the only rational inference is that he intends to abandon the material."¹³⁵ Another found that unless a hospital patient exercises control over excised tissue, he accepts all the "rules, regulations, and modus operandi" of the hospital, including tissue disposal.¹³⁶

However, the court in *Moore* declined to find as a matter of law that a person who consents to surgery has demonstrated the requisite intent to abandon his excised tissue, even if he reasonably expects the hospital to dispose of the tissue.¹³⁷

A defendant's lack of intent is not a defense to conversion. He need not intend to invade another's possessory interest, and will be liable even if he reasonably, but mistakenly, believes he is entitled to possession, or that the plaintiff had consented to the interference.¹³⁸

B. Possible Defendants

Precisely because mistake is not a defense to conversion, all the parties in the tissue donation may be liable for conversion. The excising physi-

the tissue to the hospital or researcher, it may be characterized "vesting in another person," and thus be a gift. Note, *supra* note 80, at 243-44; Dickens, *supra* note 89, at 187-88. The ultimate resolution will turn on the actual intent of the patient.

134. *E.g.*, Dickens, *supra* note 88, at 184, 186-87 ("The legal inference of the source's silence and passivity is that this inchoate right to his separated body material is yielded to the hospital. . ."); Wagner, *supra* note 88, at 271 (patient probably abandons tissue, considering it repugnant). The arguments would presumably extend to the estate of a decedent that signed an autopsy consent form.

135. *Venner v. State*, 30 Md. App. 599, 627, 354 A.2d 483, 498-99 (1976), *aff'd*, 279 Md. 47, 367 A.2d 949 (1977), *cert. denied*, 431 U.S. 932 (1977).

136. *Browning v. Norton-Children's Hosp.* 504 S.W.2d 713, 714-715 (Ky. 1974).

137. *Moore*, 249 Cal. Rptr. at 509-10. The court argued that a patient's expectation that the hospital would dispose of the tissue is not an "indifference to what may become of a removed organ or who may assert possession of it." *Id.* The assumption of "indifference" is even less warranted in cases involving recombinant DNA technology because such research has raised ethical and religious controversy. *Id.* at 510. However, one must remember that several common forms of human tissue research do not use recombinant DNA technology. See *supra* note 1 for an explanation of three common research techniques.

The *Moore* dissent notes that the California health code that must shape a patient's expectation of disposal calls for the hospital to dispose of tissue only "following conclusion of scientific use." *Moore*, at 536 (George, J., dissenting).

138. RESTATEMENT (SECOND) OF TORTS § 221 comment b (1977). See, *e.g.*, *Row v. Home Sav. Bank*, 29 N.E.2d 552 (Mass. 1940) (defendant's reasonable belief that plaintiff had abandoned property is insufficient defense to conversion).

cian is liable for any dispossession in excess of consent.¹³⁹ The researcher or pathology department that receives tissue from a surgeon is also liable. The Restatement comments that a donee converts if he receives possession "pursuant to a transaction by which he intends to acquire for himself or for a third person such a proprietary interest . . ." ¹⁴⁰ Even a commercial researcher acting as a bona fide purchaser of the tissue from a private researcher does not escape liability.¹⁴¹ Nor does the law exempt an actor serving solely as an agent¹⁴² (here, usually the excising physician) if he both negotiates the transaction and delivers the property.¹⁴³

C. Damages

Generally, a victim of conversion may retake his property from the new possessor.¹⁴⁴ Such a recovery would allow a patient ownership of the improved, commercial tissue. Some courts would bar this taking on the doctrine of "unjust enrichment,"¹⁴⁵ but others would apparently allow it, requiring only that the patient reimburse the researcher for his labor.¹⁴⁶ To prevent such recovery, some researchers may claim the doctrine of accession. Accession provides that "if by skill and labor materials of one person are combined or united with the materials of another, forming a single, joint product, the owner of the principal materials which go to make up the whole acquires by accession the right of property in the whole."¹⁴⁷ The doctrine also applies when the material is "changed into a different species or its value greatly enhanced."¹⁴⁸

139. See *supra* notes 120-29 and accompanying text.

140. RESTATEMENT (SECOND) OF TORTS § 229 comment b (1977).

141. PROSSER, *supra* note 24, § 15, at 93-94.

142. For a discussion of the interacting physician as agent, see *supra* note 59.

143. F. HARPER, F. JAMES, THE LAW OF TORTS, § 2.19, at 153 (1956). The fact that the agent did not know—even had no reason to know—that the principal had no right to possession is irrelevant. *Id.* at 152. However, an innocent agent will not be liable if he merely negotiated, or delivered, but not both. RESTATEMENT (SECOND) OF TORTS § 233 comment b (1977). In tissue donation, the excising physician acting as agent usually performs both functions, and so would not avoid liability on this ground.

144. 1 AM. JUR. 2D *Accession and Confusion* § 25 (1962); OTA REPORT, *supra* note 1, at 84.

145. *E.g.*, Storms v. Reid, 691 S.W. 2d 73 (Tex. App. 1985) (owner could not reclaim possession of a home after converter spent nine times its value in improvements.)

146. 1 AM. JUR. 2D *Accession and Confusion* § 25 (1962). This rule would not apply if the converter sufficiently altered the material. *Id.* See *infra* notes 147-52 and accompanying text.

147. 1 AM. JUR. 2D *Accession and Confusion* § 2 (1962).

148. *Id.* The courts traditionally follow either the "physical identity test" or the "relative value test" to determine accession. In the former, title would vest in the researcher if the "physical identity of the chattel is so changed . . . that it is no longer the same piece of property." Note, *supra* note

Researchers who fuse one patient's immortal cell line with another (creating "hybridomas")¹⁴⁹ would apparently meet this "different species" standard.¹⁵⁰ Generally, a researcher is the instrument that "greatly enhances" the value of the cell line.¹⁵¹

In some cases, the researcher may not sufficiently enhance the tissue. For example, rare tissue may be independently valuable to the scientific community without any research modifications.¹⁵² Furthermore, some research procedures are relatively uncomplicated. In the *Moore* case, for example, researchers produced a cell line by a method that is technologically and conceptually simple.¹⁵³ However, it can require considerable research skill.¹⁵⁴ Thus, courts could reasonably differ about whether the researcher has contributed enough to the final product to trigger the doctrine of accession.

If a court finds accession, the damages depend on the culpability of the conversion. If the defendant acted intentionally, most courts will measure the plaintiff's damages by the enhanced value of the property without any deduction for the converter's labor and expense.¹⁵⁵ Thus, a researcher's intentional conversion would allow the patient to reach the

80, at 253. The latter test grants title of the property to the person who added the greatest value to the final product. *Wetherbee v. Green*, 22 Mich. 311, 7 Am. Rep. 653 (1871).

149. For a definition of hybridoma, see *supra* note 1.

150. OTA REPORT, *supra* note 1, at 83. See also Note, *supra* note 80, at 254.

151. This is particularly true because of the probable low value of untested tissue, see *supra* note 81, and the unlikelihood of a plaintiff bringing suit if the final product were not highly profitable. The *Moore* Court, however, rejected the argument that the patient's tissue was valueless because "the cells it contained became the foundation of a multi-billion dollar industry." *Moore*, 249 Cal. Rptr. at 508. The court was refuting the claim that the property could not be converted because it had no value, but this same reasoning could apply to accession questions.

152. OTA REPORT, *supra* note 1, at 83.

153. The appellate court stated that the researchers "extracted [Moore's] genetic material, placed it on a growth medium, and, by cell division, created an immortal cell-line." *Moore*, 249 Cal. Rptr. at 507. This characterization is not quite accurate. The researchers who developed cell lines from Moore's blood and spleen merely used a widely used protocol to isolate intact immortal cells, and grew them in a carefully controlled environment. Golde, Steven, Quan & Saxon, *Immunoglobulin Synthesis in Hairy Cell Leukemia*, 35 BRITISH J. OF HAEMATOLOGY 359, 360 (1977); Saxon, Stevens, Quan & Golde, *Immunologic Characterization of Hairy Cell Leukemias in Continuous Culture*, 120 J. OF IMMUNOLOGY 777, 777-78 (1978).

154. The likelihood of successfully establishing a cell line from some types of tissue is only .01 percent. OTA REPORT, *supra* note 1, at 5. See *supra* note 1 for a general discussion of cell culture technologies.

155. 1 AM. JUR. 2D, *Accession and Confusion*, § 29 (1962). Some courts have allowed only the value of the property as conversion. For example, even though the defendant willfully converted timber, plaintiff cannot recover the value of the finished lumber, but merely the value of the trees at the stump. *Id.*

enhanced value of the final product. However, because the patient has granted at least partial consent, the excising physician or researcher is more likely to convert under the mistaken belief of a right to possession.¹⁵⁶ In that case, courts generally rule that the defendant is liable for only the value of the property before he enhanced it.¹⁵⁷ This value commonly has two possible measurements: either the value of the property at the time of conversion (in which case the damages are the same as in misrepresentation), or the enhanced value of the property, minus the defendant's costs and labor in the accession.¹⁵⁸

If a patient is unable to recover possession of the tissue, he may still bring an action for damages. The measure of damages for conversion is the value of the property at the time and place of conversion.¹⁵⁹ Some courts have held that if the value fluctuates, the plaintiff may recover the highest value between the time of conversion and trial.¹⁶⁰ The time at which to measure value may also be prescribed by statute.¹⁶¹ A plaintiff may also recover consequential damages and interest on the value of the property.¹⁶² Finally, punitive damages are available if the defendant's actions were "malicious or oppressive."¹⁶³

IV. CONCLUSION

Under the doctrines of misrepresentation and conversion, a patient's recovery for the commercial use of his donated tissue will depend largely upon a court's favorable fact determinations, and its willingness to expand existing law (for example, to recognize negligent omissions, or property rights in the human body.) Because existing legal doctrines do

156. See Note, *supra* note 80, at 255-56. Again, good faith mistake is not a defense to conversion. See *supra* text accompanying note 138.

157. 1 AM. JUR. 2D, *Accession and Confusion*, § 30 (1962).

158. *Id.*

159. MCCORMICK, *supra* note 72, § 123; RESTATEMENT (SECOND) OF TORTS § 222A comment c (1977). Case law offers little guidance as to the time of conversion. OTA REPORT, *supra* note 1, at 86. In tissue donation cases, patient plaintiffs benefit from pushing the time of conversion up into the time of research. One United States Supreme Court case cites British cases for the proposition that the value of converted coal should be measured as it was in the mine, and not after excavation. *Bolles Wooden-ware Co. v. U.S.*, 106 U.S. 432 (1883). By analogy, a court might measure tissue value at removal, and a patient could only recover the potential market value, as in misrepresentation cases. See *supra* text accompanying notes 78-81.

160. 18 AM. JUR. 2D *Conversion* § 109 (1985).

161. 18 AM. JUR. 2D *Conversion* § 110 (1985).

162. MCCORMICK, *supra* note 73, § 123. The difficulties in alleging consequential damages are similar to those in misrepresentation cases. See *supra* notes 84-85 and accompanying text.

163. MCCORMICK, *supra* note 73, § 123.

not mandate a conclusion, courts must look to public policy considerations.

Fairness to the donor is the primary—and not insignificant—argument for granting recovery. Even if a patient did not consciously contribute to his cells, it seems more just that their value benefit him rather than unjustly enrich another. As the appeals court in *Moore* noted, “Defendants’ [researchers’] position that plaintiff cannot own his tissue, but that they can, is fraught with irony.”¹⁶⁴ Secondly, allowing recovery may avoid public distrust and resentment of the medical community.¹⁶⁵ It may also facilitate scientific research by creating a ready market in needed tissue.¹⁶⁶

At the opposite extreme, many people may find the idea of a market in human tissue immoral or repulsive.¹⁶⁷ This moral concern may well outweigh the potential injustice of allowing a researcher to profit from another’s tissue. On a more practical level, however, recovery may hamper research by requiring poorly funded scientists to pay for tissue that was once donated. Allowing a cause of action would also require researchers to establish an extensive system to record the use of human tissue. Research may proceed over many years and utilize cell lines from multiple sources,¹⁶⁸ and tissue from thousands of donors.¹⁶⁹ This reporting system may also hinder the free flow of information and materials now common among scientists.¹⁷⁰ Patients may eventually feel obligated to hire an attorney or other consultant to aid in negotiating the tissue trans-

164. *Moore*, 249 Cal. Rptr. at 507.

165. Note, *supra* note 80, at 229.

166. OTA REPORT, *supra* note 1, at 117.

167. The dissent in *Moore* analogizes the sale of excised tissue to baby selling and quotes a phrase from Matter of Baby M, “There are, in a civilized society, some things that money cannot buy There are, in short, values that society deems more important than granting to wealth whatever it can buy, be it labor, love or life.” *Moore*, 249 Cal. Rptr. at 540 (George, J. dissenting) (quoting Matter of Baby M., 537 A.2d 1227, 1249).

The majority in *Moore* sidesteps the problem of a market in tissue. “We are not called on to determine whether use of human tissue or body parts ought to be ‘gift based’ or subject to a ‘free market.’ . . . We are presented with a *fait accompli*, leaving only the question of who shares in the proceeds.” *Moore*, 249 Cal. Rptr. at 504.

168. OTA REPORT, *supra* note 1, at 116.

169. For example, in the process of producing a human hormone (adrenocorticotrophic hormone), one researcher acquired pituitary glands from 7,000 different donors. *Use of Human Biological Materials*, *supra* note 3, at 199. The process is further complicated because not all tissues play the same role in the final product. See OTA REPORT, *supra* note 1, at 5-6.

170. OTA REPORT, *supra* note 1, at 117.

fer.¹⁷¹ If the tissue is not ultimately commercially successful, a patient could actually lose money on the transfer. Further, allowing a cause of action may have an impact on therapeutic treatment. Patients may improperly consider the possibility of profit when weighing the risks of alternative treatments. And adversarial negotiations between patient and doctor over tissue value could destroy patient trust and harm the traditional doctor-patient relationship. Finally, if patients turn to researchers who will buy tissue, they may ignore needy transplant recipients who cannot afford to buy the tissue.¹⁷²

These implications of creating a cause of action are of the type typically juggled by legislatures. The *Moore* court recognized the possible need for legislative intervention, but nevertheless chose to create a cause of action—a decision that the dissent strongly criticized.¹⁷³

Because the negative impact of allowing recovery may be so far-reaching, courts would be wise to reject the path taken by the *Moore* court, and allow legislatures to weigh the necessary—and difficult—policy decisions.

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171. OTA REPORT, *supra* note 1, at 117.

172. Federal law prohibits the sale of human organs for transplantation. 42 U.S.C. § 274(e) (1984). See *supra* note 83 for a discussion of this statute.

173. The court stated:

To the extent that unacceptable consequences, which can now only be the subject of speculation, do follow, legislative solutions are possible and likely. The courts' role in this instance is not to provide solutions to all possible social concerns, but to resolve the dispute presented as to individual rights and interests.

Moore, 249 Cal. Rptr. at 509.

In response, the dissent detailed other areas of tissue use which the legislature has been "willing, able and best suited to regulate . . ." *Id.* at 538. The dissenting opinion raised the specter of a resulting market in body parts similar to that of used cars, but without the regulation given to auto parts. *Id.* This opinion concluded that plaintiff did not have a recognized cause of action, and thus the courts should leave such an expansion of the law to legislatures which can better balance the competing interests and created an "informed regulatory scheme." *Id.* at 540.

