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Meaningless DNA: Moore's Inadequate Protection of Genetic Material

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Meaningless DNA: *Moore*'s Inadequate Protection of Genetic Material

Natalie Alexander*

ABSTRACT

Moore v. Regents of the University of California represents the seminal case regarding the protection of genetic material. In this case, the California Supreme Court held that patients do not retain property rights in their excised genetic material; instead, informed consent laws serve as genetic material's only protection. Many states have accepted the *Moore* court's decision not to extend property rights to genetic material, and most states choose to protect genetic material through informed consent alone.

Moore and informed consent do not adequately protect genetic material, creating unjust results in which "donors" of genetic material have little to no recourse against researchers that may seek to exploit them. Moreover, the two most commonly advanced solutions to this lack of protection for genetic material—privacy law and property law—are each often proposed exclusively of the other, allowing researchers to profit off of discarded surgical materials to the detriment of patients. These loopholes have led to two notable victims of genetic exploitation: John Moore of the *Moore* case and Henrietta Lacks.

This Comment uses these two highly publicized victims of genetic material exploitation to argue that *Moore* is an outdated and erroneous decision. It then builds on previously advanced arguments for a combined privacy-and-property law approach to genetic material protection, advocating for a solution that more appropriately addresses the complexities of genetic material. This proposed approach ultimately entails an intersection between privacy, property, and tort law in the area of technical battery, which would preserve both patients' rights and the sense of self that accompanies genetic material.

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INTRODUCTION

First-year law students will likely recognize this Comment's seminal case from their introductory property class.¹ *Moore v. Regents of the University of California*² demonstrates the concept that property rights are defined by the government; property rights can therefore be expanded or revoked as the government sees fit, meaning they are far from absolute.³

While the case's overarching principle does not seem particularly counterintuitive, the details of *Moore* do. The case unequivocally states that property rights are not inherent to one's own body and genetic material.⁴ The background of the case can be equally as shocking: a man with cancer, his body exploited by those bound to help him, finds no recourse for the hundreds of thousands of dollars earned through his stolen cells.⁵

While jarring, the facts of the *Moore* case are merely a refrain of genetic research. Henrietta Lacks, the unwitting donor of the first immortal cell line, was the victim of a similar exploitation.⁶ Her story largely mirrors *Moore*: a woman with an aggressive cancer seeks help from a medical center, only to have her cells stolen from a biopsy meant to aid in her diagnosis and recovery.⁷ Researchers

1. See, e.g., JOHN G. SPRANKLING & RAYMOND R. COLETTA, PROPERTY: A CONTEMPORARY APPROACH 37–46 (4th ed. 2018).

2. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d 479 (Cal. 1990).

3. See SPRANKLING & COLETTA, *supra* note 1, at 26.

4. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 497.

5. *Id.* at 481–82, 497 (noting that, prior to Moore's cancer treatment, researchers developed plans to profit from Moore's cells without his consent, as well as misrepresented several invasive medical procedures to procure additional samples as necessary to cure his condition).

6. Sarah Zielinski, *Henrietta Lacks' 'Immortal' Cells*, SMITHSONIAN MAG. (Jan. 22, 2010), <https://bit.ly/3jNjdVf> [<https://perma.cc/F8HF-NHXV>] (explaining that immortal cells “can grow indefinitely [and] be frozen for decades,” whereas typical cells eventually die in culture).

7. *Id.*

continue to use the resulting cell line to this day, over 70 years later, and the first legal cases aimed toward recovering its millions of dollars in profits have only just begun.⁸

Unjust results such as those of Henrietta Lacks and John Moore necessarily raise a number of questions: Was the *Moore* court's decision correct? Should we still follow it? Perhaps most importantly, what do the appropriate protections for genetic material look like?⁹

This Comment argues that *Moore v. Regents of the University of California* represents an erroneous and outdated decision that requires a reexamination in the modern age of genetic research. Furthermore, the *Moore* court's unilateral approach to the protection of genetic material—through informed consent alone¹⁰ rather than a multifaceted solution—is inadequate to address the complexity of genetic material and the additional complications that the corresponding research entails. To prevent the exploitation of future patients, lawmaking bodies should not protect genetic material using one area of law to the exclusion of all others. Rather, courts and legislatures should take a combined approach to the protection of genetic material, involving privacy, property, and tort law in a manner that both corrects the mistakes of the *Moore* court and expands on its contributions.

I. BACKGROUND

A. *Moore v. Regents of the University of California*

In 1976, John Moore, a California resident, discovered he had developed a type of cancer known as hairy-cell leukemia.¹¹ After seeking treatment at UCLA Medical Center, Moore learned that his spleen, affected by the cancer, was near bursting.¹² His doctors recommended its removal to prevent potentially lethal conse-

8. *Id.*; Carl Zimmer, *A Family Consents to a Medical Gift, 62 Years Later*, N.Y. TIMES (Aug. 7, 2013), <https://nyti.ms/3CvbZfz> [<https://perma.cc/P6D4-74CL>]; Taylor Romine, *Estate of Henrietta Lacks Sues Biotechnical Company for Nonconsensual Use of Her Cells*, CNN (Oct. 5, 2021, 1:03 AM), <https://cnn.it/3Bk6Oyh> [<https://perma.cc/9Q5C-KARV>].

9. See, e.g., Radhika Rao, *Property, Privacy, and the Human Body*, 80 B.U. L. REV. 359, 363–64 (describing “the law of the body” as “currently in a state of confusion and chaos” in fluctuating between property, quasi-property, and privacy approaches).

10. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 484–85, 497.

11. *Id.* at 480–81.

12. Dennis McLellan, *John Moore, 56; Sued to Share Profits From His Cells*, L.A. TIMES (Oct. 13, 2001, 12:00 AM), <https://lat.ms/3E5qW8R> [<https://perma.cc/BD9G-H6A3>].

quences.¹³ On October 20, 1976, doctors at the medical center completed the splenectomy.¹⁴ Shortly after the removal of his spleen, Moore's leukemia miraculously went into remission.¹⁵

Moore's association with his doctors should have ended with his recovery from his cancer. However, prior to Moore's splenectomy, researchers at the medical center arranged to receive samples of the excised spleen.¹⁶ Moore signed a consent form before undergoing surgery, which stated that the medical center could "dispose of any severed tissue or member by cremation."¹⁷ The form contained no provisions advising him of the researchers' intentions.¹⁸ As a result, Moore did not discover the researchers' use of his tissues until after they subjected him to numerous additional and invasive sample collections under the guise of follow-up treatments.¹⁹

By the time Moore discovered the medical center's research and use of his tissues in 1984, several of its researchers had already isolated and patented a cell line derived from his excised spleen.²⁰ The cell line, called "Mo" after the first two letters of its "donor's" name, contained unique blood cells that strengthened immune system defenses against infection.²¹ The researchers eventually reached a deal to commercialize the cell line at a profit of over \$400,000 for themselves and UCLA Medical Center.²² Moore did not receive a share, which prompted him to sue the Regents of the University of California and the individual researchers.²³ Notably, the lawsuit included a claim of conversion, which would require a finding of property rights in one's own body to succeed.²⁴

13. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 481.

14. *Id.*

15. McLellan, *supra* note 12.

16. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 481.

17. REBECCA SKLOOT, *THE IMMORTAL LIFE OF HENRIETTA LACKS* 199 (2010).

18. *Id.*

19. *Id.* at 200; *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 481.

20. McLellan, *supra* note 12.

21. *Id.*

22. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 482.

23. McLellan, *supra* note 12.

24. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 482 n.4 (listing additional claims of lack of informed consent, breach of fiduciary duty, fraud and deceit, unjust enrichment, quasi-contract, "bad faith breach of the implied covenant of good faith and fair dealing," intentional infliction of emotional distress, negligent misrepresentation, "intentional interference with prospective advantageous economic relationships," slander of title, accounting, and declaratory relief). To successfully argue conversion, Moore needed to prove the following elements: "(1) [his] ownership or right to possession of the [cells] at the time of the conversion; (2) defendants' conversion by a wrongful act or disposition of [Moore's] property rights; and (3) damages." *Messerall v. Fulwider*, 245 Cal. Rptr. 548, 550 (Cal. Ct.

At the trial court level, each defendant motioned to dismiss all causes of action.²⁵ After reviewing the motions, the trial court held that Moore did not specifically allege that he did not know of the researchers' intentions, he did not specifically allege that the researchers knew of the tissue's value at the time of its removal, and he did not specify "whether he consented to the removal of his spleen for therapeutic purposes."²⁶ Additionally, the court found that Moore did not attach proof of his consent to the splenectomy or any follow-up procedures, he failed to plead his claims of misrepresentation with specificity, and, most importantly, he had no cause of action for his claim.²⁷ The trial court therefore granted the motions.²⁸ After an additional hearing, Moore declined to amend his complaint, and the trial court subsequently dismissed his claim.²⁹

Following the trial court's dismissal of his claim, Moore appealed, arguing that the trial court should not have granted the defendants' motions.³⁰ After hearing Moore's arguments, the Court of Appeals for the Second Appellate District ruled in his favor, reversing the trial court's initial dismissal of Moore's complaint.³¹ Specifically, the Court of Appeals held that Moore's cells were "something over which the plaintiff enjoyed the unrestricted right [of] use, control, and disposition."³² The court characterized any finding otherwise as "a massive invasion of human privacy and dignity," inexcusable even in the interest of medical progress.³³

The California Supreme Court disagreed with the Court of Appeals.³⁴ The court conceded that the researchers had a duty to disclose their intentions to Moore before his initial surgery so that he could give informed consent.³⁵ However, in reviewing Moore's claim of conversion, the court ruled that property rights did not exist in Moore's cells at the time of their removal.³⁶ In its justification, the court effectively rejected the Court of Appeals's opinion that

App. 1988) (quoting *Baldwin v. Marina City Props., Inc.*, 145 Cal. Rptr. 406, 416 (Cal. Ct. App. 1978)).

25. *Moore v. Regents of the Univ. of Cal.*, 249 Cal. Rptr. 494, 501–02 (Cal. Ct. App. 1988).

26. *Id.*

27. *Id.* at 502.

28. *Id.*

29. *Id.*

30. *Id.*

31. *Id.* at 515.

32. *Id.* at 505.

33. *Id.* at 508.

34. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d 479, 497 (Cal. 1990).

35. *Id.* at 483–85.

36. *Id.* at 488–89, 497.

human dignity outweighed the interests of medical research.³⁷ Instead, it claimed the threat of litigation by donors would cause researchers to become “reluctant to undertake research programs to develop some pharmaceuticals that would prove beneficial . . . because of the fear of large adverse monetary judgments.”³⁸ The court also found that the creation of property rights in bodily tissues was a task better left to the legislature and emphasized the lack of a “pressing need” to create a rule of strict liability against researchers.³⁹

Perhaps most importantly, the court cited a hesitancy to define donated genetic material as property while current law treated “human biological materials as objects [*sui generis*].”⁴⁰ In denying Moore’s conversion claim, the court likened Moore’s attempts to claim ownership of his cells to “forc[ing] the round pegs of ‘privacy’ and ‘dignity’ into the square hole of ‘property.’”⁴¹ Similarly, the court worried that current statutes enacted in California “eliminate[d] so many of the rights ordinarily attached to property that one cannot simply assume that what is left amounts to ‘property’ or ‘ownership’ [over cells] for purposes of conversion law.”⁴²

The decision was not without disagreement; it passed by a 5-2 margin, accompanied by two dissenting opinions.⁴³ Justice Broussard, although concurring with the court’s opinion that a patient may not retain property rights in a body part after its removal, emphasized that UCLA Medical Center’s researchers developed an interest in Moore’s spleen *prior to* his surgery.⁴⁴ In so doing, Justice Broussard reprimanded the majority for focusing on an irrelevant point and argued property rights should have been contemplated—and found—in Moore’s spleen pre-removal.⁴⁵ Furthermore, he rejected the court’s public policy argument, citing instead the likelihood that willing donors would continue to provide anatomical

37. *Id.* at 495–96.

38. *Id.* at 495 (quoting *Brown v. Superior Court*, 751 P.2d 470, 479 (Cal. 1988)).

39. *Id.* at 496–97.

40. *Id.* at 489.

41. *Id.* at 491.

42. *Id.* at 491–92 (citing CAL. HEALTH & SAFETY CODE § 7054.4 (Deering 1990)).

43. *Id.* at 498–523.

44. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 501–03 (Broussard, J., dissenting).

45. *Id.* (arguing that property rights necessarily exist in the human body before excision, making the majority’s focus on the property status of the spleen post-surgery misplaced).

samples and highlighting researchers' access to vast existing cell repositories.⁴⁶

Justice Mosk delivered a scathing dissent in which he condemned the majority for producing an “amateur biology lecture” and ignoring the court’s duty to further the principles of common law.⁴⁷ Justice Mosk decried the majority’s opinion as baseless, resting solely on speculation and legal provisions that at best were only loosely applicable.⁴⁸ He referred to Moore’s lack of compensation, despite being the source of the researchers’ lucrative cell line, as “inequitable and immoral.”⁴⁹ He also voiced a concern that the majority’s reliance on the requirement for informed consent would be inadequate to protect future patients from similar exploitation.⁵⁰

Although *Moore* was decided in the California state court system, rendering it merely persuasive precedent elsewhere, it is recognized as a landmark case.⁵¹ Numerous other jurisdictions throughout the United States have adopted its ruling, often to the detriment of patients similar to John Moore.⁵² Although Alaska’s legislature has statutorily recognized property rights in one’s own genetic material—thereby accepting the *Moore* court’s delegation of what Justice Mosk sees as its common law responsibility—it remains the only state to have done so.⁵³

John Moore did not receive the happy ending his initial surgery seemed to foretell. In 1991, the Supreme Court denied Moore’s petition for certiorari.⁵⁴ As a result, Moore was forced to accept the California Supreme Court’s remand of his case, which was based on its findings that the UCLA researchers breached their fiduciary duty to seek Moore’s informed consent.⁵⁵ On remand, Moore received what he termed a “token” settlement estimated to have to-

46. *Id.* at 504–05.

47. *Id.* at 521, 507–08 (Mosk, J., dissenting).

48. *Id.* at 508–10.

49. *Id.* at 516.

50. *Id.* at 518–21.

51. See, e.g., J.E. Ferrell, *Who Owns John Moore’s Spleen?*, CHI. TRIB. (Feb. 18, 1990, 12:00 AM), <https://bit.ly/3mnUGYP> [<https://perma.cc/8D93-AKUZ>] (referring to *Moore* as a “landmark” case).

52. See, e.g., *Greenberg v. Miami Child.’s Hosp. Rsch. Inst., Inc.*, 264 F. Supp. 2d 1064, 1074–76 (S.D. Fla. 2003) (holding that ownership rights do not exist in voluntarily donated genetic material, and donors therefore cannot dictate its use); *Wash. Univ. v. Catalona*, 437 F. Supp. 2d 985, 995–98 (E.D. Mo. 2006) (holding that tissue donations are inter vivos gifts, and donors therefore cannot request that they be used only by particular researchers).

53. ALASKA STAT. § 18.13.010 (2021).

54. *Moore v. Regents of the Univ. of Cal.*, 499 U.S. 936, 936 (1991).

55. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 497.

taled between \$200,000 and \$600,000.⁵⁶ This sum was largely aimed at covering his legal fees.⁵⁷ Moore spent much of the remainder of his life fighting for recognition of patients' property rights in their own bodies.⁵⁸ In 1996, Moore's cancer returned, and on October 1, 2001, after undergoing experimental treatment in Seattle, Moore passed away at the age of 56.⁵⁹

B. Henrietta Lacks and the Continuing Need for Protection of the Human Body

John Moore is not the only—or even the first—patient who exemplifies the need for legal protection of the human body from unauthorized research. In 1951, Henrietta Lacks, a young Black woman from southern Virginia, visited Johns Hopkins Medical Center to address her abnormal vaginal bleeding.⁶⁰ Although Lacks had been aware of strange pains for several months and over the course of her last pregnancy, she did not address them immediately due to concerns that “a doctor would take her womb.”⁶¹

Doctors at the medical center discovered Lacks had an aggressive cervical cancer, for which they performed a biopsy and began radium treatments.⁶² Without consulting Lacks or her family, doctors retained a portion of the tissue retrieved during the biopsy.⁶³

56. McLellan, *supra* note 12; SPRANKLING & COLETTA, *supra* note 1, at 48–49.

57. McLellan, *supra* note 12; SPRANKLING & COLETTA, *supra* note 1, at 48–49.

58. McLellan, *supra* note 12.

59. *Id.*

60. SKLOOT, *supra* note 17, at 18, 26 (noting that, though Lacks spent most of her early life living in Clover, Virginia with her grandfather, she later moved to Turner Station, a steel town near Baltimore, Maryland); *The Legacy of Henrietta Lacks*, JOHNS HOPKINS MED. (Nov. 4, 2016), <https://bit.ly/2ZwTyZE> [<https://perma.cc/UU4Q-WQZS>].

61. SKLOOT, *supra* note 17, at 14, 16; *see also* Alexandra Stern, *Forced Sterilization Policies in the US Targeted Minorities and Those with Disabilities – and Lasted into the 21st Century*, THE CONVERSATION (Aug. 26, 2020, 8:20 AM), <https://bit.ly/3npPFyJ> [<https://perma.cc/S3SV-5FM5>] (providing an overview of forced sterilization, a longtime U.S. policy based on scientifically unsupported theories of eugenics, which targeted Black women and other minority populations and may have contributed to Lacks's fears).

62. SKLOOT, *supra* note 17, at 27–28, 172, 213 (explaining that Lacks's cancer was originally misdiagnosed as an epidermoid carcinoma, then posthumously re-diagnosed as a cervical adenocarcinoma caused by HPV infection); *The Legacy of Henrietta Lacks*, *supra* note 60 (noting that radium therapies were the time period's standard treatment for cervical cancers such as Lacks's).

63. Ava-joye Burnett, *Henrietta Lacks' Family To Sue Pharmaceutical Companies Continuing To Use Her 'HeLa' Cells Without Their Permission*, CBS BALT. (July 29, 2021, 10:30 PM), <https://cbsloc.al/3gGVmoN> [<https://perma.cc/24QK-HWXX>].

George Gey, a researcher at the medical center, later discovered the cells recovered from Lacks's sample were "immortal," meaning they continue to grow and multiply outside the setting of a human body.⁶⁴ Lacks's cells were the first known immortal cells, and Johns Hopkins Medical Center researchers subsequently used them to create a new series of cells known as the "HeLa" line.⁶⁵

Lacks passed away on October 4, 1951, the same year she first visited Johns Hopkins Medical Center.⁶⁶ For over two decades afterwards, Lacks's name was deliberately hidden from the public.⁶⁷ Until the 1970s, scientists used fake names—including "Helen Lane" and "Helen Larsen"—to explain the "HeLa" designation attached to the cell line.⁶⁸ This policy was abandoned when, 25 years after Lacks's death, scientists contacted her descendants to inquire about the possibility of obtaining similar cell samples.⁶⁹ Through this communication, Lacks's family learned of the medical center's exploitation of her cells.⁷⁰

Today, HeLa cells facilitate vaccines, fertility treatments, disease research, and even space travel.⁷¹ In 2013, the National Institutes of Health ("NIH") and Lacks's family came to an agreement wherein members of the Lacks family will serve indefinitely as members of a board tasked with approving access to recently sequenced HeLa genome data.⁷² The agreement marks a first-of-its-kind solution to the Lacks family's concerns surrounding the privacy of the HeLa genome and resulting research.⁷³

However, the director of the Mayo Clinic has noted that such advisory board positions are a "one-off solution," not a uniform privacy protection measure.⁷⁴ Furthermore, the agreement does not compensate the family for Lacks's unwitting medical contributions, despite the family members' repeated requests for the same.⁷⁵ The Lacks family has stated its intent to "[sue] pharmaceutical companies that continue to use Lacks'[s] cells without compensating the

64. SKLOOT, *supra* note 17, at 30, 40–41; Zielinski, *supra* note 6.

65. Zielinski, *supra* note 6.

66. SKLOOT, *supra* note 17, at 86; Romine, *supra* note 8.

67. Zielinski, *supra* note 6.

68. *Id.*

69. *Id.* (explaining that Lacks's cells had contaminated other cultures through airborne spread, and researchers sought to identify such instances of cross-contamination through comparison to descendants' cells).

70. *Id.*

71. See Zimmer, *supra* note 8; Zielinski, *supra* note 6.

72. Zimmer, *supra* note 8.

73. *Id.*

74. *Id.*

75. *Id.*

family.”⁷⁶ The family recently filed the first of these lawsuits against Thermo Fisher Scientific, Inc., claiming unjust enrichment based on the company’s knowing use of Lacks’s unethically procured cells.⁷⁷ The lawsuit requests that Thermo Fisher Scientific, which has sold HeLa cells for over \$2,000 per milliliter, “disgorge the full amount of its net profits obtained by commercializing the HeLa cell line to the Estate of Henrietta Lacks.”⁷⁸ The lawsuit was filed at the U.S. District Courthouse in Baltimore, Maryland, and currently, there is no controlling precedent in the Fourth Circuit that signals how the court will rule.⁷⁹

The Lacks family’s current and potential future lawsuits portend lasting reforms for privacy and property rights in biological material used for research purposes. The one-off nature of the family’s advisory board agreement with NIH raises concerns about the future of genetic and biological privacy.⁸⁰ The agreement primarily highlights “a lack of policies to balance the benefits of studying genomes with the risks to the privacy of people whose genomes are studied,” echoing Justice Mosk’s concerns in the *Moore* case about the adequacy of informed consent as protection for potential donors.⁸¹ Furthermore, the lawsuit addresses property rights and the undertones of race that surround the Henrietta Lacks story, expressly stating that “Black people have the right to control their bodies. And yet Thermo Fisher Scientific treats Henrietta Lacks[s] living cells as chattel to be bought and sold.”⁸² While Johns Hopkins Medicine claims the 1951 exploitation of Lacks’s body “would not happen today,” the family’s lawsuit cites ongoing modern concerns about a “racially unjust medical system.”⁸³

Henrietta Lacks’s story also demonstrates that the exploitation of patients’ bodies to procure unwilling donations is not limited to the past. Lacks’s cells continue to live on in contemporary laborato-

76. Burnett, *supra* note 63.

77. Romine, *supra* note 8.

78. Michael Kunzelman, *Henrietta Lacks Estate Sues Company Using Her ‘Stolen’ Cells*, AP NEWS (Oct. 4, 2021), <https://bit.ly/3Fw9fA0> [<https://perma.cc/GL8D-XDGC>]; see also Laura Wadsten & Ellie Rose Mattoon, *Henrietta Lacks’ Family Sues Thermo Fisher*, JOHNS HOPKINS NEWS-LETTER (Oct. 11, 2021), <https://bit.ly/3qOCv10> [<https://perma.cc/KKY9-XVRG>].

79. Meredith Cohn & Hallie Miller, *Family of Henrietta Lacks Files Suit Against Biotech Company for Using Famous ‘HeLa’ Cells Without Permission*, BALT. SUN (Oct. 4, 2021, 8:53 PM), <https://bit.ly/3qUWfAc> [<https://perma.cc/2DYC-NZP3>].

80. See Zimmer, *supra* note 8.

81. *Id.*

82. Romine, *supra* note 8.

83. *Id.*; *The Legacy of Henrietta Lacks*, *supra* note 60.

ries and medical discoveries, perpetuating the HeLa researchers' past wrongdoing.⁸⁴ Additionally, the use of Lacks's—or any other donor's—living cells without compensation or informed consent presents ethical questions about whether such use constitutes enslavement of the human body.⁸⁵ Without an adequate expansion of rights to genetic and biological material, there is no guarantee that what happened to Lacks and John Moore will not happen again to others.

This Comment argues for such an expansion of rights to genetic and biological material. The following analysis begins by identifying the mistakes the *Moore* court made in holding that John Moore could not bring a claim of conversion over his excised cells. It then highlights the need for legislation to counteract the effects of the decision, arguing specifically for an approach that combines property, privacy, and tort law. Such an approach would facilitate the creation of a new field of genetic information law, effectively overcoming the *Moore* court's inability to reconcile the exclusive use of property law with the unique features of cells.⁸⁶

II. ANALYSIS

A. *The Moore Court's Mistakes*

Moore remains the premier source of guidance regarding claims of ownership over discarded tissue and genetic material, as indicated by its consistent citation in rulings analyzing such claims.⁸⁷ Thus, although the *Moore* court may have viewed its decision as limited in application at the time of its ruling, the growing relevance and development of genetic research reveal the consequences of continued reliance on *Moore* and its increasingly obsolete reference points.

84. Burnett, *supra* note 63.

85. See Kasim Kabbara, *Henrietta Lacks Family Seeks Justice: Grandchildren Sue Biotech Company*, ABC NEWS (Oct. 14, 2021, 10:17 AM), <https://abcn.ws/3blvM5E> [<https://perma.cc/FAW6-5SPP>] (quoting lawyer Benjamin Crump's characterization of the cells as "chattel property . . . [which] reminisces of days of slavery when they sold [B]lack people as chattel property and we never got to [benefit] from our labor, our contributions").

86. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d 479, 489, 491–92 (Cal. 1990).

87. See, e.g., *Greenberg v. Miami Child's Hosp. Rsch. Inst., Inc.*, 264 F. Supp. 2d 1064, 1074–76 (S.D. Fla. 2003) (determining that ownership rights do not exist in voluntarily donated genetic material, and donors therefore cannot dictate its use); *Wash. Univ. v. Catalona*, 437 F. Supp. 2d 985, 995–98 (E.D. Mo. 2006) (holding that tissue donations are inter vivos gifts, and donors therefore cannot request that they be used only by particular researchers).

In determining the suitability of recognizing ownership rights in excised tissue or genetic material, the *Moore* court first cited its concern that “no court . . . [had] ever in a reported decision imposed conversion liability for the use of human cells in medical research.”⁸⁸ Although the court conceded, somewhat appropriately, that such a lack of precedent did not end its inquiry,⁸⁹ even its partial reliance thereon was misplaced. At the time of the *Moore* court’s ruling, genetic research was still in its infancy. The discovery of the double-helical structure of DNA had taken place less than 40 years prior, and the first successfully synthesized gene was barely 20 years old.⁹⁰ The court’s recognition of the novelty of John Moore’s claim is therefore unsurprising, and in this light, its consideration of the lack of precedent as a factor seems almost apathetic.⁹¹

The court, seemingly recognizing such a lack of precedent, held that “the absence of [relevant] authority [could not] 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.”⁹² In light of the specific circumstances of Moore’s claim, however, this statement falls flat. The court refers to the 1951 HeLa line, which—as previously noted—multiplied automatically as a result of its inherent immortality.⁹³ Such cell lines are rare, a fact that the *Moore* court openly acknowledged.⁹⁴ Conversely, at no point did the court indicate that Moore’s cells were as readily equipped for research; in fact, the court admitted that “cells taken directly from the body . . . are not very useful for [the] purposes” intended by the UCLA researchers.⁹⁵ The UCLA researchers instead relied on later-developed technologies, using recombinant DNA techniques to isolate portions of Moore’s cells.⁹⁶ Prior to technological advances allowing for such techniques, the low success rate of isolating cell lines would have been unlikely to produce precedential

88. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 487.

89. *Id.*

90. *The Discovery of the Double Helix, 1951–1953*, U.S. NAT’L LIBR. OF MED., <https://bit.ly/3FB2wVB> [<https://perma.cc/2BWC-QMHH>] (last visited Mar. 3, 2022); Walter Sullivan, *Complete Synthesis of Gene Reported*, N.Y. TIMES (June 3, 1970), <https://nyti.ms/3FEKkdA> [<https://perma.cc/RQG4-D2BS>].

91. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 488.

92. *Id.* at 487 n.15.

93. *Id.*; see also Zielinski, *supra* note 6.

94. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 481 n.2 (noting that “‘long-term 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”) (internal citation omitted).

95. *Id.*

96. *Id.*

cases.⁹⁷ Although the area of genetic research and the corresponding number of donations continue to grow, courts remain constrained by a single, admittedly outmoded decision.

The bulk of the ruling relied on other, more notable points. The court primarily cited three concerns in its determination of whether to extend conversion liability to the researchers' actions: "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."⁹⁸

In assessing policy considerations, the court determined two to be "of overriding importance": "protection of a competent patient's right to make autonomous medical decisions" and the threat of dissuading research in the interest of medical advancement.⁹⁹ To balance the public's interest in each of these policies, the court placed its faith in the statutory requirements of informed consent from patients.¹⁰⁰ Doing so, however, exposed these statutes to Justice Mosk's concerns of whether informed consent requirements would provide adequate protection for patients such as Moore.¹⁰¹ The question remains: how can a "patient . . . prove a *causal connection* between his or her injury and the physician's failure to inform" under the traditional negligence theories that govern informed consent?¹⁰² Moore did not learn of the UCLA researchers' actions until *after* researchers patented the cell line and subjected him to unnecessary "treatments."¹⁰³ Similarly, Henrietta Lacks's family did not discover the exploitation of her cells until years after her death.¹⁰⁴ These instances demonstrate that patients not in contact with the scientific community may have little chance of discovering researchers' wrongful use of their cells.¹⁰⁵ Furthermore, even if a patient learns of such misconduct, they still face additional hur-

97. *Id.*

98. *Id.* at 493.

99. *Id.*

100. *Id.* at 494.

101. *Id.* at 518–21 (Mosk, J., dissenting).

102. *Id.* at 519 (quoting Patricia A. Martin & Martin L. Lagod, *Biotechnology and the Commercial Use of Human Cells: Toward an Organic View of Life and Technology*, 5 SANTA CLARA COMPUT. & HIGH TECH. L.J. 211, 222 (1989)) (internal quotation marks omitted).

103. *Id.* at 481 (majority opinion).

104. Zielinski, *supra* note 6.

105. See Madison Jennings, *Protected Genetics: A Case for Property and Privacy Interests in One's Own Genetic Material*, 23 RICH. J.L. & TECH. 10, 81 (2017) (raising concerns over what may have occurred had the Lacks family not discovered the exploitation of Henrietta Lacks's cells).

dles.¹⁰⁶ Justice Mosk noted that these hurdles involve proving that not only would the patient have refused consent had they known of the researchers' intentions but that "*no reasonably prudent person* would have given such consent."¹⁰⁷

Having addressed its stated first and third factors, the court ended its analysis by holding that "if the scientific users of human cells are to be held liable for failing to investigate the consensual pedigree of their raw materials . . . the Legislature should make that decision."¹⁰⁸ While the court was correct that "complex policy choices affecting all society [were] involved" in ruling that the matter should be left to the legislature, the remainder of its decision in the case indicated its open disdain for any consideration of biological materials as property.¹⁰⁹ While the court may have left the proverbial door open for any legislation establishing property rights in biological materials, it shut the door for the purposes of providing any precedent in support thereof. Furthermore, in passing its decision off to the legislature, the court ignored that "the law of conversion is a creature of the common law."¹¹⁰ The court therefore rejected what Justice Mosk considered to be its immutable duty to rule conclusively.¹¹¹

Throughout the justification of its decision, the *Moore* court relied on existing statutes to determine whether one retains ownership of their own cells.¹¹² In leaving the ultimate decision of finding property rights in cells to the legislature, the court held that "legislative competence to act in this area is demonstrated by the existing statutes governing the use and disposition of human biological materials."¹¹³ Similarly, in determining whether property rights had previously been found in cells, the court leaned heavily on the California Health and Safety Code, which it found stripped human biological materials of so many property rights as to render them objects *sui generis*.¹¹⁴ These readings of California laws, however, do not automatically remove biological materials from the realm of property as the *Moore* court found.¹¹⁵ A government may grant or

106. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 519 (Mosk, J., dissenting).

107. *Id.*

108. *Id.* at 496 (majority opinion).

109. *Id.*

110. *Id.* at 507 (Mosk, J., dissenting).

111. *Id.*

112. *Id.* at 489, 491–92, 496 (majority opinion).

113. *Id.* at 496.

114. *Id.* at 489, 491–92.

115. *Id.* at 489, 491–92, 496.

deny property rights as deemed necessary; such varying recognition does not necessarily remove the designation of “property” from the object.¹¹⁶ The court noted that “it may be that some limited right to control the use of excised cells does survive the operation of [the California Health and Safety Code].”¹¹⁷ However, its subsequent abandonment of biological materials to the paltry protection of informed consent laws evaded the question of what these rights may entail.¹¹⁸

As biological materials present many unique characteristics that may indeed render them *sui generis*, the *Moore* court was not entirely mistaken in analogizing Moore’s claims to “forc[ing] the round pegs of ‘privacy’ and ‘dignity’ into the square hole of ‘property.’”¹¹⁹ Despite the potential aptness of this observation, the court declined to define exactly how these “pegs” should apply to objects that do not otherwise fit any set legal scheme.¹²⁰ As will be discussed in the following sections, a sufficiently comprehensive approach would not address privacy and dignity to the exclusion of such areas as property and tort law. Instead, only a combined approach can provide protections tailored to the unique characteristics of biological materials.

B. *Improved Protections: Where to Place the Pegs*

Property law should not remain stagnant, especially in the face of rapid medical and technological advancements.¹²¹ Thus, the constantly changing use of human cells should not continue without adequate protection for the donors that provide them. The *Moore* court determined that the “pegs” of privacy and dignity cannot fit neatly enough into the “hole” of a simple property designation.¹²² The issue of the pegs stems not from a mistaken label, but from one that does not adequately address the complexities of human biological materials. These complexities should be addressed by an intersection of at least three areas of law: property, privacy, and tort.

An intersectional approach to the protection of genetic material is not a novel proposition, and this Comment will not attempt

116. SPRANKLING & COLETTA, *supra* note 1, at 26.

117. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 492.

118. *Id.*

119. *Id.* at 491.

120. *Id.*

121. See SPRANKLING & COLETTA, *supra* note 1, at 27 (defining property law as “a dynamic process”).

122. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 491.

to reiterate past arguments.¹²³ However, previously suggested approaches incorporate only privacy law and property law, which represent the two most commonly proposed solutions to the problem of genetic material protection.¹²⁴ Property law approaches typically focus on the *Moore* court's refusal to recognize patients' ownership rights in their genetic material, arguing as this Comment has that the court should have found ownership rights and conversion liability.¹²⁵ Privacy law approaches typically argue, as the *Moore* court does, for informed consent protection of genetic material.¹²⁶ Both fields of law are undoubtedly essential to the protection of genetic material: privacy law protects from unauthorized access to already disseminated genetic material and information, while property law protects from the dissemination of said material in the first place.¹²⁷

Neither of these solutions alone addresses Justice Mosk's concerns over the ability of an unwilling donor to argue a breach of fiduciary duty.¹²⁸ The two must therefore be combined to address both fiduciary duty and the difficulties in proving its breach.¹²⁹ Too often, legal scholars consider these fields to be mutually exclusive, when in reality, each addresses a different stage of the genetic material donation process.¹³⁰ Past approaches to the combination of the two fields have proposed property-and-privacy-law legislation that would facilitate both the informed consent requirements relied upon by *Moore* and the cause of action for conversion that the *Moore* court mistakenly rejected.¹³¹

123. See generally Jennings, *supra* note 105 (arguing for the merits of a combined property-and-privacy law approach to the protection of genetic material).

124. *Id.* at 30–31 (noting that “[p]rotections of this kind are generally conceived under one of two already-existing legal frameworks: privacy or property”).

125. See *id.* at 27–30.

126. See *id.* at 30, 34–39.

127. Anya E.R. Prince, *Comprehensive Protection of Genetic Information: One Size Privacy or Property Models May Not Fit All*, 79 BROOK. L. REV. 175, 187 (2013) (explaining privacy law as a means to protect genetic identity); Jennings, *supra* note 105 at 69 (explaining property law as a means to “give individuals autonomy over their own genetic information and material”).

128. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d 479, 519 (Cal. 1990) (Mosk, J., dissenting).

129. See *id.*

130. See Jennings, *supra* note 105, at 30 (“Scholarship on the matter [of genetic material protection] tends to pit these frameworks against one another, asking the question of whether a privacy right or a property interest best protects individuals against the sort of infringement and violation suffered by Henrietta Lacks.”)

131. See *id.* at 64–82, for further discussion of the merits of establishing property rights in genetic material, further discussion of the importance of maintaining informed consent laws, and a proposed statute by which to combine the two types of protection.

However, even when combined, these two fields do not adequately address all facets of the unauthorized use of genetic material. Both privacy and property law envision genetic material as a mere object to be manipulated, refusing to consider the true nature of stealing from another's body—namely, battery.¹³²

Battery envisions one's body as an extension of the self (the "person" of another) rather than an object to which one can attach rights.¹³³ By combining property and privacy law protections of genetic material with battery, lawmaking bodies would provide further disincentive to physicians promulgating the unwilling "donation" of genetic material to research. Equally as importantly, the incorporation of battery into a comprehensive scheme of genetic material protections would avoid an exclusively commoditizing view of the human body, which was a principal concern reflected by both the *Moore* court and the Lacks family lawsuit against Thermo Fisher Scientific.¹³⁴

Technical battery, which primarily addresses physicians' offensive contact with a patient's body, may provide an ideal grounds for the expansion of genetic material protections into tort law.¹³⁵ A medical provider commits a technical battery when, "in the course of treatment, [they exceed] the consent given by the patient."¹³⁶ Although in its current form, technical battery may be secondary to informed consent laws regarding fiduciary duty and therefore re-

132. See, e.g., Jorge L. Contreras, *Genetic Property*, 105 GEO. L.J. 1, 35 (2016) (viewing privacy law regarding the human body as enabling "property-like control" over genetic material); O'Brien v. Synnott, 72 A.3d 331, 335–36 (Vt. 2013) (holding that a nurse was liable for battery where she performed a blood draw on the plaintiff without seeking his express consent to the procedure's purpose); Burchell v. Fac. Physicians & Surgeons of the Loma Linda Univ. Sch. of Med., 269 Cal. Rptr. 3d 44, 54–55 (Cal. Ct. App. 2020) (holding that a surgeon was liable for battery where he removed a mass that was larger than expected and spanned an area that was not encompassed by the plaintiff's consent).

133. See RESTATEMENT (SECOND) OF TORTS § 18 (AM. L. INST. 1965) (defining battery as occurring when "an actor . . . acts intending to cause a harmful or offensive contact with the person of the other . . . and [] an offensive contact with the person of the other directly or indirectly results").

134. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 497 (Arabian, J., concurring) (citing concerns that Moore "entreats [the court] to regard the human vessel—the single most venerated and protected subject in any civilized society—as equal with the basest commercial commodity"); Romine, *supra* note 8 (noting the Lacks family lawsuit's characterization of the use of living cells as "chattel to be bought and sold").

135. See *Berkey v. Anderson*, 1 Cal. App. 3d 790, 803 (Cal. Ct. App. 1969) (raising technical battery as a possible cause of action in a medical malpractice suit); *Dubbs v. Head Start, Inc.*, 336 F.3d 1194, 1219 (10th Cir. 2003) (discussing technical battery in the context of school medical providers performing examinations without consent).

136. *Dubbs*, 336 F.3d at 1219.

dundant, it could be tailored to the protection of genetic material.¹³⁷

Legislatures should create specialized technical battery statutes that specifically address the use of genetic material in research, resolving many of the shortcomings of the *Moore* court's reliance on informed consent for surgery alone.¹³⁸ Rather than limiting informed consent to the "course of treatment," such specialized statutes should require additional and separate informed consent to distribute genetic material and its resulting products.¹³⁹ Thus, any unauthorized use of a person's genetic material would not only continue to treat the removed sample as the patient's self but subject unscrupulous researchers to tort liability as well.

Such specialized statutes would primarily prevent the use of "lengthy, complex, and turgid" informed consent forms "that all but the most sophisticated readers have difficulty understanding" to bury agreements to unlimited research rights.¹⁴⁰ The use of a second, separate form to agree to research use would highlight that patients are agreeing to more than simply a surgery.

Moreover, these specialized technical battery statutes would address many of Justice Mosk's concerns over the high bar set by proving breach of fiduciary duty, in that they would separate consent to the surgery from consent to research-based distributions of the disputed genetic material.¹⁴¹ Patients would no longer be required, as Justice Mosk feared, to prove that "*no reasonably prudent person* would have given [informed] consent" to a surgery while knowing of researchers' intentions for their excised genetic material.¹⁴² Instead, patients would be free to consent to surgery as a reasonable person while denying consent to research-based distributions of their cells.¹⁴³

Separate, informed consent has already been established in many states, albeit for genetic testing and information rather than

137. *See id.*

138. *See Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 519 (Mosk, J., dissenting) (reflecting concerns over whether informed consent alone would provide adequate protection to patients who are susceptible to exploitation).

139. *Dubbs*, 336 F.3d at 1219.

140. Contreras, *supra* note 132, at 29.

141. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 519 (Mosk, J., dissenting); *see also Jameson v. Desta*, 155 Cal. Rptr. 3d 755, 771 (Cal. Ct. App. 2013) (stating that a physician's fiduciary duty to disclose information material to a patient's medical decisions relates to *medical procedures*).

142. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 519 (Mosk, J., dissenting).

143. *See Jameson*, 155 Cal. Rptr. 3d at 771.

for genetic material specifically.¹⁴⁴ New Hampshire in particular directs that “no person shall refuse to . . . do business with an individual, solely because the individual to be tested refuses to consent to providing test results to some or all persons,” a provision that could be extended under technical battery or supplementary statutes to refusal to perform medical procedures.¹⁴⁵ Additionally, Minnesota provides that consent to disseminate genetic information remains valid for only one year.¹⁴⁶ Applied in technical battery or supplementary statutes, similar provisions may prevent the indefinite use of genetic samples in a manner comparable to that of HeLa cells.¹⁴⁷

Not every aspect of these statutes would be transferable to the technical battery statutes this Comment proposes. Iowa’s statute, for example, includes a provision exempting the retention of genetic information from informed consent if the retention is for research purposes and does not identify the donor.¹⁴⁸ Similar provisions would undermine the purpose of this Comment’s proposed technical battery statutes.

Some may also argue that the addition of tort law into a comprehensive scheme of genetic material protection law would be unnecessary, as privacy law features already adequately protect the sense of self surrounding the human body.¹⁴⁹ This argument declines to recognize the increasing similarities between developing privacy law protections of genetic material (largely as a related result of protection of genetic information) and rejected applications of property law to genetic material.¹⁵⁰ Such an argument also de-

144. *See, e.g.*, N.H. REV. STAT. ANN. § 141-H:2(III) (LexisNexis 2021) (stating that “no person shall disclose the results of [genetic] testing to any other person . . . without the prior written and informed consent of the individual”); IOWA CODE § 729.6(3)(b) (2021) (stating that “a person shall not . . . collect, retain, transmit, or use genetic information without the informed and written consent of the individual”); MINN. STAT. § 13.386(3)(a) (2021) (stating that “genetic information about an individual . . . may be used only for purposes to which the individual has given written informed consent”).

145. N.H. REV. STAT. ANN. § 141-H:2(II) (LexisNexis 2021).

146. MINN. STAT. § 13.386(3)(a)(4)(ii) (2021).

147. *See* Zimmer, *supra* note 8; Zielinski, *supra* note 6 (citing ongoing modern usage of HeLa cells).

148. IOWA CODE § 729.6(3)(c)(6) (2021) (providing that informed consent to retention of genetic information does not apply “for the purposes of medical or scientific research and education and for the use of medical repositories and registries so long as the information does not contain personally identifiable information of an individual”).

149. *See, e.g.*, Rao, *supra* note 9, at 429–32 (arguing that “privacy conceives the body as one with the person and bundles all privacy interests together in a single individual”).

150. *See* Contreras, *supra* note 132, at 20–24 (comparing the concepts of the rights to exclude and destroy, as reflected by genetic information privacy laws, to

clines to address the aforementioned high bar set by burdens of proof in breach of fiduciary duty cases, as raised by the *Moore* dissent.¹⁵¹

Ultimately, the introduction of tort law to a comprehensive scheme of genetic material protection law would simply provide a much-needed extra layer of statutory protection. The current fragmented approach to the protection of genetic material attempts to categorize genetic samples under one label or another at the expense of leaving loopholes for researchers to exploit. A combined property, privacy, and tort law approach to the protection of genetic material would effectively avoid exploitative objectification of the human body and provide additional avenues of recourse to unwilling donors of genetic material to research.

CONCLUSION

The landscape of statutory genetic protections is still growing with that of genetic research. In October 2021, Florida enacted the Protecting DNA Privacy Act to provide more concrete definitions of genetic materials.¹⁵² Similarly, as of January 2022, California has enacted the Genetic Information Privacy Act to provide improved protection for genetic material and information.¹⁵³

This growth need not be hindered by a single, outdated decision. *Moore v. Regents of the University of California* is a product of a time when the full potential of genetic material had not been realized, creating a lack of precedent and a push towards genetic discovery with little regard for donors' rights.

Nor does the growth of genetic protection need to be hindered by insufficient protections. The *Moore* court's attempts to force genetic material under one of two labels—property or privacy—fails to recognize the true nature of genetic material.¹⁵⁴ Genetic material is both a tangible object and an extension of the self, an entity that can only be recognized appropriately through an intersection of property, privacy, and tort law. This approach is neither unfeasible nor without merit. The use of all three areas of law would properly

those that would be reflected by property rights in genetic material); Jennings, *supra* note 105, at 74 (recognizing that “a right to privacy is, at its core, a property interest, and always has been”).

151. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d 479, 519 (Cal. 1990) (Mosk, J., dissenting).

152. FLA. STAT. § 760.40 (2021); H.R. 833, 2021 Leg., 123d Reg. Sess. (Fla. 2021).

153. CAL. CIV. CODE §§ 56.181–56.186 (Deering 2022); S. 41, 2021 Leg., 2021 Reg. Sess. (Cal. 2021).

154. *Moore v. Regents of the Univ. of Cal.*, 793 P.2d at 491.

recognize the complex nature of genetic material while utilizing law that is largely already in place. Above all, such an intersection of law would provide contemporary and vulnerable patients with the protections denied to them in the past, which could have prevented the tragedies of John Moore and Henrietta Lacks.
