

Property Rights in Human Biological Materials: A Case Study of John Moore v. Regents of the University of California (1990)

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Abstract- This paper examines the critical legal and ethical failures in property rights for human biological materials, focusing on the landmark case John Moore v. Regents of the University of California (1990). The California Supreme Court's decision created a profoundly unjust paradox: third parties can patent and commercialize human cells while the person from whose body they were removed has no ownership rights or financial benefits. This paper argues that denying property rights in excised tissue violates fundamental human dignity, undermines patient autonomy, and enables systematic exploitation—particularly of women, whose ova and reproductive tissues face disproportionate commercialization without adequate informed consent. The court's reliance on the flawed "abandonment theory" and bias toward protecting the biotechnology industry over individual rights demonstrates judicial misconduct incompatible with justice. Through analysis of ownership theory, personhood theory, and intellectual property versus bodily property conflict, this paper reveals how the current legal framework fails to protect individual rights while claiming to facilitate medical innovation. The paper proposes comprehensive legislative reform establishing limited donor property rights, mandatory benefit-sharing mechanisms, explicit commercial use consent requirements, and prohibitions on direct human cell patenting. True medical advancement does not require the denial of human rights. The path forward demands a balanced framework protecting both individual autonomy and scientific progress, recognizing that individuals are rightful owners of their biological materials and deserve control, benefit sharing, and the right to refuse commercial exploitation.

Keyword: Property rights in human biological materials, John Moore v. Regents of the University of California (1990), Human tissue commercialization, Patient autonomy and informed consent, medical ethics and biotechnology, Donor ownership rights, Benefit-sharing mechanisms, Feminist jurisprudence and bodily autonomy, Intellectual property vs. bodily property, Human dignity and personhood theory`

I. INTRODUCTION

In the landmark case of John Moore Vs regent of the University of California, it examines the complex legal and ethical questions surrounding property rights in human biological materials. This case marks a significant turning point in American jurisprudence as the California Supreme Court considered the question of whether individuals have ownership rights to cells, tissues and organs that have been removed from them and were subsequently patented and commercialized by medical institution

In a study of the Moore case, we explore the significance of commercialized human body parts and thereby determines the legal responsibility of medical professionals to reveal financial interests and obtain informed consent regarding the use of patients' biological materials in research and commercial development.

Human biological materials mean any components of the human body that contain living cells, tissues or genetic material including but not limited to blood, bone marrow, organs, skin, hair, sperm, eggs, stem cells and more specifically in the case of Moore's spleen cells and other cellular materials removed during medical procedures. Human biological materials are defined to include not only raw biological substances, but also more refined products derived from them, such as "Mo" Line cell lines which were derived from Moore's spleen cells.

The traditional common law approach to cases involving the commercial use of biological material has traditionally adhered to a strict dichotomy between persons and things, based on the principle of *summa divisio*. In this context, human body parts shall not generate money. This is in accordance with the ethical principle that organs and tissues shall not be

considered as commodities to be bought and sold. The courts have traditionally rejected claims to excised tissue based on the “abandonment theory,” which considers biological materials as abandoned property once separated from the body. This approach prioritized the advancement of medical research and the protection of intellectual property rights over the individual patient’s claim to ownership by creating a legal presumption that individuals lose all property rights in their removed cells and tissues. The traditional approach has also focused on human dignity and the non-commercialization principle, which have been enshrined in international instruments such as Article 21 of the Council of Europe Convention of 1997 and the EU Charter of Fundamental Rights (2000).

However, the commercial value of human tissue and cells has altered the legal landscape dramatically. Human biological materials have now become valuable resources for biotechnologies, drug development, genetic research, and medical innovation. Human tissue cell lines can be patented, licensed and can make millions of dollars. In Moore’s case, the licensed commercial development of the patented cell line from his spleen cells earned “significant amounts of money” for the defendants. The commercialization of human body materials has created a strange situation in which third parties, such as research institutions, universities and biotech companies, can own property rights in human body materials through patents, but the person from whom the material was obtained cannot claim ownership or benefit financially. The possible profits from human genetic material have intensified the tension between protecting individual bodily rights and promoting scientific progress. It raises important questions of exploitation, of the just distribution of the benefits, and of whether current laws sufficiently protect patients from commercial exploitation of their biological materials.

II. UNDERSTANDING THE JOHN MOORE CASE

John Moore had hairy-cell leukemia. In 1976 Dr David Golde of University of California Medical Center recommended splenectomy to slow the progression of the disease. Mr Moore signed a written consent form

for splenectomy, and the surgeon removed his spleen. Dr Golde and a research assistant collected tissue from the discarded spleen because they realized the tissue's value for research to develop ant-cancer treatment. The assistants extracted T-lymphocytes to establish a cell line in 1976, which became available three years later. Mr. Moore was not told about this research or the cell line's potential to help develop cancer treatment. In 1984 Dr Golde was awarded US patent 4438032 on this cell line, which created revenue through commercial contracts with two biotech companies.

John Moore sued, purporting an ownership interest in the patent and to redress Dr. Golde for breach of his professional obligations. On appeal, the Supreme Court of California found for Mr. Moore that he was not an inventor and therefore did not have an ownership interest in the patent. Nor, the Supreme Court also found, could a patient have property rights over discarded body tissues. But the Supreme Court found that a physician did have a “fiduciary duty” to inform a patient of any economic or personal interest in using or studying his tissues; and that if the fiduciary bond of trust is broken, the patient may sue for breach of that duty. The distinction made by the Court is significant in that it separates the legal context of access to genetic material, from that of the legal context of patenting a subsequent invention which made use of that material.

But debate persists over the legal and bioethical connections between access to genetic resources and downstream patent activity on derived research. If an individual consents to basic research, is that automatically assumed to cover the patenting and commercialization process that results? Is specific prior information required of the future invention by the researcher? Who can – or must – give, or withhold, consent? This question becomes even more difficult when the same genetic resources (like a particular gene mutation) are shared among members of a family or community, or even neighboring countries.

Legal Issues Before the Court

1. Primary Legal Issue: Property Rights in Excised Spleen

The central legal question before the California Supreme Court was whether an individual has property rights in their excised spleen and the cells

derived from it. Specifically, the court had to determine:

- Can Moore assert ownership over his removed spleen tissue?
- Do patients possess property rights in discarded cells or biological materials once removed from their body?
- Can an individual claim that their excised body part fits under traditional legal notions of property with "unrestricted right to use, enjoyment, and disposition"?

The court ultimately held that individuals do not have a property right in their surgically removed body tissue. The majority opinion decided that Golde's use of Moore's cells did not amount to "conversion" (the legal tort for wrongful taking of property) based on the proposition that "a patient generally possesses no right to a body part that has already been removed from his body". Once cells leave a patient's body, they are no longer that patient's property.

2. Commercial Profits Should Be Shared

The second critical legal issue was whether commercial profits derived from Moore's biological materials should be shared with him. Moore argued that:

- The defendants made "significant amount of money" from the patented cell line developed from his spleen cells
- As the source of the biological materials, he should share the financial benefits
- The patented cell line and products derived from it should be considered his property

Court's Decision: The court rejected Moore's claim that commercial profits should be shared. The court found that Moore had no property rights to his discarded cells or any profits made from them. The court held that the patented cell line and products derived from it could not be Moore's property. This created the paradox where "third parties can possess property rights in human body materials, but the person from whose body they have been removed cannot".

The court also rejected Moore's argument that his cells were "unique" and therefore he had a right over them. The court further rejected the argument that his spleen

should be protected as property to protect Moore's privacy and dignity, holding these interests were already protected by informed consent.

3. Informed Consent

The third legal issue concerned whether valid informed consent was obtained for the commercial and research use of Moore's biological materials:

Key Questions:

- Did Moore's consent forms apply to the removal of tissue only, or did they imply consent to commercial exploitation?
- Was Moore's consent obtained for the use of his cells in research and commercial development?
- Did the physicians fail to make proper disclosures about their research and economic interests?

Court's Holding: The California Supreme Court ruled that Moore's consent was not obtained for the commercial use of his tissue. The court held that consent forms signed by Moore only applied to the removal of tissue and did not imply his consent to its commercial exploitation.

The court determined that patients have the right to be informed of consent to the commercial use of their tissue. This means that consent to medical treatment does not automatically constitute consent to research or commercial exploitation of removed biological materials.

4. Fiduciary Duty of Medical Professionals

The fourth legal issue was whether medical professionals breached their fiduciary duty to the patient by failing to disclose financial interests:

Key Questions:

- Did Dr. Golde have a fiduciary duty to disclose his financial interests in Moore's cells?
- Did the research physician have an obligation to reveal his financial interest in the materials harvested from Moore?
- Must physicians disclose all material personal interests that may influence their professional judgment before securing informed consent?

Court's Decision: The court concluded that the research physician did have an obligation to reveal his financial interest in the materials harvested from Moore. Specifically, a physician has a fiduciary duty

to disclose all facts material to a patient's decision—regardless of whether they relate to potential adverse outcomes of a procedure or matters that could influence the physician's professional judgment.

The court held that a doctor has a fiduciary duty to disclose to his or her patients the prospect of potential commercial gain from the use of their tissue. This expands the doctrine of informed consent beyond traditional medical risks to include matters that could influence the physician's professional judgment.

Key Principle: "A physician has a fiduciary duty to disclose all material personal interests that may influence her professional judgment before securing a patient's informed consent to medical treatment". When the physician fails to disclose their personal research and economic interests beforehand, a patient's consent to the medical procedure is not effective.

The court found that the doctors were in breach of their fiduciary duty by omitting their financial interests in Moore's cells. Moore need not allege either the defendant's knowledge of the cells' value or the defendant's intent to exploit the cells to assert this claim.

III. INFORMED CONSENT AND PATIENT AUTONOMY

Informed consent and patient autonomy are the most important legal and ethical mechanisms through which people are entitled to some control over their bodily integrity and biological materials. Informed consent is the basis of ethical medical practice and patient autonomy. This refers to the right of patients to control their medical care and the use of their biological materials as well. The case of *Moore v. Regents* is a good example of how the consent forms signed only for the removal of spleen for patient's medical treatment is not consent to the medical treatment for other purposes, especially commercialization. The physicians' forms did not include other uses such as research, (commercialization) interests because the informed consent requires the patient to know all the implications of signing the consent. The California Supreme Court found that the consent forms signed by

Mr. Moore were for the removal of the spleen but not the commercialization of his body.

Contemporary jurisprudence affirms the four components of informed consent, which are decision-making capacity, adequate understanding of the subject matter, voluntariness, and full disclosure of all relevant information to a decision, including any risks, benefits, and alternatives. The Moore case recognizes that physicians must reveal their personal financial investment in the biological material of the patient as a part of informed consent, which is the extension of the dissolution of duty beyond the scope of health care and medical establishment. The court clarified that a doctor has a fiduciary duty to patients to disclose to them any prospect of potential commercial gain from the use of their own biological materials. Thus, a physician must disclose all material personal interests that may influence their professional judgment before securing informed consent. The court found that the doctors were in breach of their fiduciary duty by omitting their financial interests in Moore's cells, and Moore need not allege either the defendant's knowledge of the cells' value or the defendant's intent to exploit the cells to assert this claim.

Human biological materials are increasingly used in research and commercial endeavors. Patient autonomy is central to the discourse on the ownership of human biological materials. Autonomy-oriented claims emphasize the patients' rights to control the use of their biological materials, to refuse participation in research with an exemption from adverse medical treatment, to learn how and by whom the cells are used and to benefit from the commercial uses of their cells. A major innovation is the "right to benefit sharing". The Moore case illustrates the fact that patients are not sufficiently informed about the commercial value of their biological materials, third parties who would gain from the research with the cells, and patent applications, leading to an autonomy violation. The court established that informed consent protects privacy and dignity interests, but not property rights. The court also established a paradox. The court participated in creating patient autonomy, but not by enforcing property rights.

The ethical principles governing informed consent in human biological materials are associated with

international guidelines. These guidelines include the International Ethical Guidelines for Biomedical Research Involving Human Subjects. The guidelines entail the provision that human biological materials can only be used for research if

a) The subject has given free and informed consent (further meaning necessitates disclosing all necessary information and can be withdrawn at any time for specific purposes.

b) The World Medical Association Declaration of Helsinki requires that every patient was informed about the goals, methods, sources of external funding and possible conflicts of interest, and that physicians endeavor to ensure that the participants gave informed consent on a voluntary basis.

Furthermore, the Declaration of Helsinki states that consent must be obtained for specific research purposes only. However, considerable challenges to the incorporating of the principle of informed consent in biological research exist. Among these challenges is what the author terms the "notice problem." This problem is since biological materials may be used for research purposes that differ from, or were not anticipated, during the time of written knowledge of participation. Some emerging problems arise from use in research without specific consent (e.g. tissue as a resource for future research) and use in commercial products for ethical use of tissues by other commercial entities (e.g. androids, embryos) without the stakeholders' direct knowledge. Central to the "notice problem" is that biology may be increasingly coupled with data linkage and new commercial products that a stakeholder cannot anticipate or know. This knowledge gap ultimately negates the various aspects of meaningful autonomy.

Informed consent is a basic principle of research and medical ethics. Informed consent protects the autonomy of the patient, and it is a fundamental principle for the development of biomedical research. The proposed changes include reforms to the informed consent process for the use of human tissue in research. The reforms enhance the informed consent process through the enforcement of enhanced disclosure standards. The reforms include: -

1) requirements for consent for the use of biological material for commercial purposes;

2) the obligation to disclose all potential financial interests of the physician and researcher;

3) the disclosure of all parties, including the owners of a manufacturing facility, that may benefit from the commercial development of a bioproduct; and

4) the requirement of specific consent for all future research of unknown purpose. The proposed model includes legislative reforms in the patent act and the organ transplant act, benefit-sharing laws, tax policies that influence commercial gains, and price controls that allow cost regulation of patent products. More sophisticated reforms regard property in the body to be a bundle of rights than a simple ownership right. These rights could be divided into

i.

ii.

Possession rights that belong to the patient and use rights shared by patients and researchers, with the patient's consent; commercial rights shared by patients and researchers; and dispositional rights are the rights of patients to refuse the commercial use of their body.

This model attempts to reconcile the patient's autonomy, the researcher's interests, and the commercial interests while protecting the autonomy of the individual and the advancement of biomedical research.

The feminist jurisprudence critique argues that the informed consent alone is not the best tool for protecting patient autonomy. Informed consent is of particular concern for reproductive health because it might be a marketing mechanism, especially with communist concerns about what women offer to the community, their biological materials such as ova, reproductive tissues and umbilical cord blood. In this paper, the issue of informed consent is addressed, and the health political ideology and values assessment are explored in comparison and contrast to the core values of feminist jurisprudence, ethics, and feminism. Then, the critique of informed consent from feminist perspectives is discussed. The feminist critiques have pointed out three important issues regarding informed consent: 1. Loss of control of one's biological materials, 2. No benefit sharing, 3. Exploitation of vulnerable persons and loss of dignity. For the offended, it is a matter of bodily integrity rather than commodification of the body.

Criticism of the Moore v. Regents' Judgment

1. The law is really confusing when it comes to who owns the rights to our cells. It seems like anyone can claim ownership of our cells except for us. This means that places like universities and companies that work with biology can make money from the cells they take from our bodies. We do not get any money or control over what happens to our cells.
2. When people donate their cells or tissues to help with research they are taking a big risk. The people who take these cells like hospitals and research centers get to make money from them without giving anything back to the person who donated. This does not seem fair because the person who donated is the one who took all the risks.
3. The court made a decision that says people do not own the cells that are taken from their bodies. This is a problem because it means that our bodies are not really ours. It goes against what many people think is right, which is that our bodies are our own and should be treated with respect.
4. When people agree to give their cells or tissues for research, they are often not fully informed about what will happen to them. They might not know that the cells could be used to make money or who will get to use them. This means that the agreement they make is not meaningful because they do not have all the information they need to decide.
5. The court's decision hurts women more than men. This is because women's bodies are often the source of cells and tissues that are used in research like eggs and other reproductive cells. Women are not protected from companies that want to make money from these cells, which is not fair.
6. The court seemed to care more about what companies that work with biology wanted than about what was fair for individuals. They were worried that if people owned their cells, it would hurt the company's ability to make money. This shows that the court was biased towards the companies.
7. The decision goes against laws that say people's bodies should not be used to make money. These laws, like the ones from the Council of Europe and the European Union say that it is wrong to profit from people's bodies.
8. The court said that when people give their cells or tissues, they are abandoning them. This is not true. People do not give up their cells because they want to. Because they need medical treatment. They do not

think that they are giving up all their rights to these cells.

9. The court did not recognize that people work hard to take care of their bodies and that this work should be valued. Instead, they treated the cells and tissues like they were resources that could be used for anything.

10. The court did not make a system for sharing the money that is made from people's cells and tissues. This means that the companies and research centers get to keep all the money while the people who the cells come from do not get anything.

Development of Clear Property Rights Framework

11. Establish Limited Donor Ownership Rights: Create a legal basis for acknowledging that donors have limited property rights in their excised biological materials. This includes the right to control use, refuse commercial exploitation, and share commercial profits.
12. Implement "Bundle of Rights" Model: Recognize property in the body as a collection of rights. This includes possession rights (patients), use rights (with researchers, but requiring consent), commercial rights (shared with institutions), and rights to refuse commercial use (patients).
13. Require Explicit Commercial Use Consent: Mandate separate and clear consent for the commercial use of biological materials, distinct from consent for medical treatment. This ensures patients make informed decisions about commercial exploitation.
14. Create Mandatory Benefit-Sharing Laws: Establish laws that require a fair distribution of commercial profits between donors and research institutions, specifying percentages or fair compensation methods.
15. Amend Patent Act to Prohibit Human Cell Patents: Make changes to legislation that bans the patenting of human cells and biological materials taken directly from human bodies while allowing patents for modified processes and synthetic products.
16. Develop Sui Generis Protection Systems: Create specialized legal frameworks for human biological materials that are more appropriate than traditional patents, recognizing both economic and moral rights similar to European copyright law.
17. Expand Organ Transplant Act: Include a complete ban on the sale of human tissue for any purpose, while

providing legitimate ways for donor compensation and benefit sharing.

18. Implement Tax Policies for Commercial Gains: Set up tax rules on commercial products made from human biological materials, redirecting some funds to donor compensation programs.

19. Create Price Control Mechanisms: Implement price controls on patented products made from human biological materials to ensure they remain affordable and prevent exploitation, while still compensating donors fairly.

20. Establish Prospective Legislation: Enact thorough laws that address uncertainties related to material patents, donor rights protection, and the sharing of commercial benefits, creating clear legal standards.

Balancing Medical Innovation and Individual Rights

The main challenge in property rights for human biological materials is finding a balance between protecting individual rights and supporting medical innovation. The current legal framework set by Moore v. Regents fails to strike this balance. It prioritizes commercial interests and biotechnology progress over individual autonomy. As a result, patients face all the medical risks but receive no commercial benefits from their biological contributions. This situation is unfair and goes against principles of fairness, dignity, and autonomy.

On the other hand, completely banning the commercialization of human biological materials could also pose problems. It might hinder medical research and the development of life-saving treatments that benefit everyone. The solution is to create a legal framework that recognizes limited donor property rights while allowing research and commercial use, but with the right safeguards in place.

A balanced approach acknowledges that property rights can support medical innovation rather than conflict with it. Property rights can help facilitate responsible research by creating clear legal standards, ensuring informed consent, and protecting vulnerable populations from exploitation. The "bundle of rights" model offers the necessary flexibility. It allows donors to control how their materials are used while giving researchers proper access. This framework safeguards individual autonomy through explicit consent requirements and benefit-sharing mechanisms while

still enabling legitimate research and innovation. The goal is to make sure donors are active participants in the research process, with enforceable rights and real benefits.

The feminist jurisprudence perspective shows that the current system disproportionately harms women. Their biological materials face excessive commercialization without sufficient protection. A balanced framework must include gender-sensitive protections to ensure women's ova, reproductive tissues, and umbilical cord blood are not exploited by male-dominated medical institutions. It is essential to recognize that women's autonomy suffers when they have no control over their biological materials and receive no benefits from commercial exploitation. This balanced approach needs to offer women clear consent requirements, benefit-sharing measures, and the ability to refuse commercial use without losing access to medical treatment.

International human rights standards provide valuable guidance for balancing innovation with individual rights. Article 21 of the 1997 Council of Europe Convention and the EU Charter of Fundamental Rights (2000) show that dignity-based approaches can protect human body parts from commercialization while still allowing legitimate research with the right safeguards. The key is to understand that commercial gain from human body parts is prohibited, but commercial products arising from research processes and modifications may be allowed with donor consent and benefit sharing. This careful approach protects human dignity while fostering innovation in biotechnology and pharmaceutical development.

The path forward needs legislative changes that establish clear property rights while still encouraging research. This includes amending patent laws to prohibit direct human cell patents, implementing benefit-sharing laws that require fair profit distribution, setting tax policies to oversee commercial gains, and introducing price controls to keep medical products affordable. Such an approach would safeguard individual rights with explicit consent requirements and property recognition, while also supporting medical innovation through legitimate research channels and fair compensation methods. By adopting this balanced framework, the legal system

can protect individual freedom and advance medical progress, ensuring that patients are not just sources of biological materials, but partners in research with enforceable rights and meaningful involvement.

The aim is to develop a legal system where medical innovation and individual rights strengthen each other. Property rights can protect donors from being exploited while allowing legitimate research through clear authorization processes. Benefit sharing ensures that patients get fair compensation for their contributions while continuing to fund research. Explicit consent requirements uphold autonomy while allowing research participation. A balanced approach understands that safeguarding individual rights enhances medical innovation by establishing ethical standards, preventing exploitation, and fostering public trust in research. This serves as the foundation for sustainable medical progress that respects human dignity while advancing scientific knowledge and creating life-saving treatments.

CONCLUSION

The *Moore v. Regents of the University of California* case illustrates a profound injustice in American law, where the legal system failed to uphold the basic principle of human autonomy: individuals should control their own biological materials. The court's decision to deny property rights in removed tissues while allowing third parties to patent and profit from those same materials creates a legal paradox that is both intellectually flawed and morally wrong. When the court stated that "anyone can have property rights in your cells, except you," it revealed a judicial system that favors corporate and biotechnology growth over the dignity and rights of individuals.

The broader importance of this case goes beyond the specifics of Moore's spleen cells. It uncovers a legal structure that consistently enables the exploitation of human biological materials, especially those from women, whose eggs, reproductive tissues, and umbilical cord blood face extensive commercialization without sufficient informed consent or benefit sharing. The power imbalance between male-dominated medical institutions and female patients is not just an accident; it is a structural issue rooted in legal precedents that deny property

rights while permitting unchecked commercial exploitation. This represents not just a failure of legal doctrine; it is a failure of justice itself. The court's reliance on the "abandonment theory" and the concern that property rights would "hinder the advancement of the biotechnology industry" show judicial bias toward corporate interests that clash with the rule of law. The biotechnology sector is not a victim needing judicial protection; it is an industry that should.

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