Ownership Rights in Research Biobanks: Do We Need a New Kind of 'Biological Property'?

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Abstract This chapter first revisits the classical ongoing legal debate around ownership rights in human biological material, based on the two opposite perspectives – one that defends an absolute non-patrimonial view, denying the possibility of the existence of a property right in this field and the other that defends the existence of a property right over human bodily material and considers that denying participants in scientific research property right over their biological material may be a source of unfairness to them. Second, it analyses the consequences of the application of classical property rights to the biological material, such as the Portuguese Law does, advancing several arguments from in support of the conclusion that classical property rights do not adjust to the juridical characteristics of human biological material and its use in biobanks for research. The chapter ends up, in a third part, with a draft proposal of a new juridical construction for contemporary law, within property rights, that is, a new concept of 'biological property', which should be shaped by a balanced respect for both individual and scientific/society interests and a specific legal framework within property rights law that could reflect the norms of biolaw already applying in our societies to human biological material (e.g. principle of non-commercialisation and principle of informed consent). Because of its novelty and complexity the idea of a 'biological property' presented in this chapter is in need of further development. Only an international normative framework would be adequate to create and determine the juridical background of a new kind of property adjustable to human biological material and its significance in modern societies.

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Introduction

Biobanking for profit is still a relatively small industry in the EU (Hirtzlin et al. 2003a, b), and it is natural that legal problems arising from donors who see their biological material giving birth to huge amounts of profit to research entities are still perceived as a kind of science fiction. Opinions like the one given by the European Group on Ethics in Science and New Technologies on the Charter of Fundamental Rights (European Group on Ethics in Science and New Technologies 2000) that acknowledges the controversial nature of the issue of the commercialisation of human biological material, drawing attention to the necessity of a deeper discussion around it, have not yet led to any changes in the European legal framework.

European law is shaped by the fundamental principle of the prohibition against financial gain from the human body and its products, and also by the philanthropic view that the donation of human organs, tissues, and cells should be unpaid and seen either as a moral duty or as a public welfare service. The majority of voices representing the European legal doctrine[1] as well as national bioethics committees in Europe seem to follow this postulate with rigour, refusing to accept the idea of the existence of a property right between a person and her/his body.

Europe has to date not experienced any judicial cases with an impact similar to the *Moore* vs. *Regents of the University of California* case (1990), which very early alerted the US jurists to the potential unfairness of research profits that would not benefit the person who contributed the biological material for the research, or The *Washington University* vs. *W.J. Catalona et al.* (2005) case that only very recently (January 2008) was resolved, showing that the US judges have so far preferred to choose the solution that reflects the 'best general interest', thus rejecting the 'private property model' where one or few individuals could dominate the biological resources for research (Noiville and Bellivier 2007).

Nevertheless, it is relevant to continue to debate these issues in Europe to try to avoid the emergence of conflicts between the different actors involved in research biobanking and also to prepare the European legal and jurisdictional system to respond to possible court actions on the domain of ownership rights of donors of biological samples. Neither European nor North American doctrine and jurisprudence seem to agree on a formula that would define the proper 'ownership link' between a person and her/his biological material, be it donated (e.g. organs, blood, tissues and cells) or wasted (e.g. umbilical cord, placenta, urine, faeces); this makes obvious that we are dealing with a very controversial and difficult problem in the realm of biolaw (Annas 2004; Bovenberg 2006).

Even when a national law exceptionally decides to give a property right to the citizens over their biological material (such as is the case with the Portuguese law), conflicting situations do not seem to disappear showing that classical property rights are not compatible with the complexity of juridical, bioethical or social

[1] The majority of the authors cited in the list of references contest the application of property rights to human body materials.

idiosyncrasies associated with the collection and use of human biological material in research biobanking.

The aim of this chapter is threefold. First, to revisit the core controversy and the difficulties behind the apparent incapacity of the legal system to arrive at a solution that would provide a satisfactory answer to the problem of ownership rights between the person and her/his body products. Second, to analyse the legal and practical implications in research biobanking of the property rights formula introduced in the Portuguese law to handle this issue. Finally, to provide the legal doctrine of biolaw with a draft proposal of a new category, that of 'biological property', that would allow for a more appropriate legal framework for the juridical relations established in research biobanking between the subjects who have provided biological material and other stakeholders and institutions involved, e.g. researchers, universities, health institutions and industry.

The Classical 'Controversy': Questioning the 'Non-Commercialisation Principle'

As already mentioned, the European law is deeply imbued with the fundamental principle of the prohibition against financial gain from the human body and its products, as attested not only by European fundamental legal texts such as the European Convention on Biomedicine and Human Rights (art. 21), the Charter of Fundamental Rights of the European Union (§2, n. 2 of art. 3) and the Directive2004/23/EC, art.12 (European Commission 2004), but also by the insertion of the non-commercialisation of the human body rule in the national law of the majority of EU member States. However, in some European documents such as the aforementioned Report of the European Group on Ethics in Science and New Technologies on the Charter on Fundamental Rights of the European Union (CFREU) related to technological innovation, we may find that the principle of non-commercialisation is not as unquestioned and absolute as it may seem. In fact, the Group shows significant hesitation in accepting the 'too vague' prohibition of making financial gain from the human body because it considers that this prohibition runs in contradiction with for example the possibility of patenting of inventions derived from human elements, which is allowed by the European law, the payment for tissue banking services – it has always legally been permitted to the donors to receive compensation for the expenses and inconveniences related to the donation – (European Commission 2004), and, we may add, the general acceptance of selling several kinds of human materials (e.g. blood, milk and hair). It is interesting to note that in the same report the Group declares that it would have been preferable to specifically emphasize 'the protection of individuals against organ or tissue trafficking which would affect their dignity and rights', instead of the non-commercialisation of the human body rule, a suggestion that was not accepted in the final version of the Chart. In a former report (European Group on Ethics in Science and New Technologies 1998) the same Group already stressed the opinion

that 'the issue of the commercialisation of human tissues', especially those 'which have been processed and prepared for therapeutic purposes', is 'controversial', mentioning that, the European attachment to the idea of altruism and non-profit in the donation of organs and tissues for research notwithstanding, in the USA an increasing number of patients whose cells provide genes that have been patented are already asking for some rewards in court – something which indicates that Europe could follow soon. These alerts do not seem to have caused much effect in the final versions neither of the CFREU nor of the already cited 2004 Directive on biobanking. The Portuguese National Council on Ethics commenting on the draft of the law on biobanks and genetic information (which stated that the 'stored material is the property of the people from whom it was obtained and of their direct family members') considered that 'it has not been usual in the sphere of biomedical law to accept the right to property in relation to human cells, tissues or organs' (Portuguese National Council on Ethics 2008). The Council based this opinion on the idea that the human genome is internationally considered common patrimony of humanity,[2] suggesting that references to the right of property should be avoided because they can constitute a potential 'source of conflicts' (Portuguese National Council on Ethics 2008). It is curious to note on this point that, in spite of these arguments, the Portuguese legislator did not change the norm. As I will analyse further on in this chapter, there is now in the Portuguese law a property right given to the person in what regards the health information and the biological material (Law no.12/2005, 26 January).[3] In any case, the Portuguese National Council on Ethics seems to have followed the position of the California Supreme Court in the *Moore* case or the US Supreme Court in the *Catalona* case in wanting to avoid the legal existence of an individual property right over one's biological material and to protect above all the European fundamental principles of the prohibition of commercialisation/financial gain from the human body and its attached or detached parts.

The Fear of 'Private Property' in Human Biological Material for Research

A common fear seems to prevail that, if judges had granted a property right to Moore or Catalona, this would constitute a precedent that could jeopardize medical research as a common good, giving too much power to donors or individual researchers. We need to revisit here the California Supreme Court sentence on the

[2] The argument that puts forward the human genome qualification as common patrimony of humanity is only acceptable in what refers to the 'phylogenic' part of the genome, that is the part that is common to the generality of the human species/collective and does not suit the 'ontogenic' part of it, that is the part that is unique to each human being/individual (Faria 1999: 200). For this, see also Universal Declaration on the Human Genome and Human Rights (UNESCO 1997).

[3] In the original: Lei no. 12/2005, de 26 de Janeiro, published in the official journal (Diário da República) no. 18, first series. This law defines the concepts of health and genetic information and the legal framework for biobanks.

appeal of *Moore* vs. *Regents of the University of California* (July 9, 1990) and The *Washington University* vs. *W.J. Catalona et al.* (2005) case where only very recently (January 2008) a final decision was made. Both cases show that US judges reject the 'private property model' in human biological material used for research. Each of them, however, showcases different sides of the controversy surrounding ownership rights in research biobanking. In the *Moore* case it was decided that Mr. Moore could not have a property interest in the 'Mo cell line', which was developed from his cells (without his informed consent) and patented by his physician Dr. Golde and another researcher who both had enormous financial gains from it. This case is most emblematic of the two main streams involved in the legal problem of ownership rights over ones' own body and body products, that is, a sense of unfairness and a legal ineptitude to solve it. The sense of unfairness is shared not only among the jurists who commented directly on the Moore case (Merz et al. 2002; Bovenberg 2006) but also by other authors who wrote generally on the subject of the right to remuneration or benefit sharing of donors of tissues and cells (Berg 2001; Holm 2004). Merz considers that '(...) fairness demands that profits be distributed among those who contributed to the research in an equitable manner' and 'strategies and policies that respect the contributions of the many involved parties need to be developed', while to K. Berg 'a state of unfairness would also exist if research on genes in a family led to marketable products and revenues for the pharmaceutical industry, unless the family was given something back'. If financial gain is obtained from genomic research based on the biological material of a whole population, no one opposes that the recipient of shared benefits should include the whole population. Hence, the authors argue that the same logic should be applied to research profits that have come, for example, from the genetic material of one individual or a small group of individuals.

With regard to the Moore case in particular, it has been argued that this decision creates a situation in which everyone is getting a portion of the profit except the person from whom the tissue originated, something which questions the court premise that a patient does not have sufficient property interests in the cells taken from her/his body and consequently asking 'how can property rights vest anyone then?' (Grandolfo 1992). Even if the interest of patients/individuals involved in biomedical research is normally altruistic or therapeutic, it does not sound fair or right to exclude them from the sharing of any profit that could not have been made by universities or the industry companies without the use of their biological samples.

In the *Catalona* case instead, we have a conflict that does not involve the profit sharing between a tissue donor and the researchers after the outcome of a successful scientific research, but the ownership of the tissue collections in itself. The final U.S. Supreme Court's decision on this case was released on the 22nd of January 2008. The Court let stand a unanimous 2007 ruling by the eighth Circuit Court of Appeal, which stated that prostate tissue and serum samples donated to Washington University can continue to be used by the institution for cancer research. The appeal court had affirmed the lower federal district court ruling that donors who gave tissue or serum samples to the University research cannot later compel the school to transfer ownership of the samples to another research institution. This decision was

against that of W.J. Catalona (MD) who had argued in the lower courts that the University should transfer the tissues to him at his new place of employment. In this case the judge preferred to choose the solution that reflects the 'best general interest', rejecting the 'private property model' where one or few individuals could dominate the biological resources for research (Noiville and Bellivier 2007). It is interesting to refer on this point to a letter written by Catalona himself to the Editor of JAMA (Catalona 2005) where he argues that research participants have a federal level legal right to withdraw from research at any time and that they cannot waive this right, meaning that universities cannot assert sole right of ownership to samples that participants can withdraw at any time for any reason. Catalona was in this letter arguing against an article previously published in the same journal (Hakimian and Korn 2004). These authors replied in the same journal to Catalona, declaring:

> We stated our opposition to a regulatory or legal scheme that recognizes exclusive ownership interests in excised tissue specimens. We urge the expansive use of tissue resources, consistent with the reasoning articulated by the courts that the scientific value of these specimens is unique and irreplaceable, and that their potential contribution to the public library of knowledge should benefit all humankind.

This epistolary exchange in JAMA illustrates very clearly the controversy that has been going on for decades around the problem of ownership in human biological material and its use in research biobanking.

The Problem with Property Rights and the Human Body: 'Accepting or Not Accepting It': That Is the Question

The majority of the work that has been done in this field relates to the basic question whether or not the legal link between a person and her body can be of a proprietary kind. As stated by Karlsen et al.:

> The issue they want to address [i.e. the issue of ownership rights over the body and its parts] is by no means of a kind that lends itself easily to theoretical speculation. This has, perhaps, as much to do with the inherent intricacy of the issue itself as with the controversy it has managed to arouse.
>
> Karlsen et al. (2006: 215)

Few authors have gone further in trying to answer which kind of social and legal reality would emerge if the answer to the former question was affirmative. This is the case of authors such as Bovenberg who constructed several scenarios in which we could give a solution to the main controversies brought by the post-biotechnological commodification of biological material (Bovenberg 2006), and Bjorkman who went even further drawing a scheme of different kinds of rights to the different types of biological material (Bjorkman 2005, 2007).

These debates take place more rarely in the field of biolaw than in the fields of philosophy, bioethics or social sciences. Nevertheless, George J. Annas presented

in the famous Genetic Privacy Act (1995) an early proposal for a federal US law, which defended the legal existence of a property right as the legal link between an individual and her own DNA. Later on (Annas 2004) he argued for the need to analyse differently the ownership rights and legal bounds between the person and her different types of biological material, mainly considering the nature of the uses or potential uses of these materials.

I agree with this position and also with those who state that 'the ruling framework of bioethical thinking is immanently committed to accepting what it most wishes to deny – that my body and body parts are my property' (Beyleveld and Brownsword 2000). In fact these authors argue very sensibly that article 22 of the Convention on Human Rights and Biomedicine (informed consent requirement) presupposes that 'there is property in our own bodies'.

On the other hand, I am very sceptical to the rhetoric that considers that the construction of the body as information is the strategy to overcome the legal qualification of human biological materials (Tallacchini 2005); it does not seem to suit a proper protection of an individual's right to self-determination over her body or body parts. The anonymity, isolation and purification of human body materials that would unify them all (independently of their individual sources) are rarely possible and valuable to scientific research. Some radical opinions even hold that 'if a living human being may not exercise dispositive control over his or her own body and its attached or detached parts, but someone else has the right to do so, we enter an area that closely resembles slavery' (Grandolfo 1992).

The realm of classical property rights might not be the one that best suits the rights that someone has in relation to their detached body parts but this can not be an argument to jurists to avoid trying to solve this problem.

The Portuguese Case: Considerations on the Legal Consequences of a Property Right Over One's Body

Against this current of doctrinal indecision, Portugal approved on the 26th of January 2005 the national legal framework for biobanks, that is, the Lei n. 12/2005 de 26 de Janeiro. §2 of article 18 states that the material stored in a biobank is 'the property of the people from whom it was collected and after their death or incapacity it is the property of their family members'. As mentioned in the introduction to this chapter, this piece of Portuguese legislation has been approved by the Parliament in spite of the prior opinion formulated by the National Council of Ethics against the use of property rights in relation to biological material. This implies that in Portugal, even if there were voices against the application of property rights to human biological material, these voices would no longer be valid in courts because either private or public biobank owners are obliged to comply with the legal principles. The law caused some reactions in the scientific community but there was no official opposition.

The mentioned disposition has not yet been used in any law case in Portugal, something that precludes us from knowing at this point how it will be used by judges and what consequences it will have in practice. However, it is certain that all the legal corollaries of property will apply with regard to the dispositional link between people and their biological material in the context of research biobanking. So, which corollaries are we then considering here?

First of all, we need to recall at this point some classical legal concepts such as 'disposition', 'right to property' and 'intellectual property' (Walker 1980; Prata 1989). 'Disposition' is a legal term that has two legal meanings:

- Synonymous of legal norm
- The form in which a right is exercised, which has as a consequence the lost, total or partial, absolute or relative of the particular right disposed.

The 'right to property' is the strongest right of ownership, best conceived of not as a single right but as a bundle of distinct rights, some or even many of which may be relinquished temporarily without loss of ownership. The kinds of rights which a right of property confers upon the objects of that right vary accordingly to the nature of the object, including the rights to possess, use, lend, alienate, use up, consume, abuse, let on hire, grant as security, gift, sell and bequeath the object. The right to property may exist in respect to both corporeal things (e.g. buildings, animals) and incorporeal things (e.g. copyrights, claims of damages, etc.). These categories are cross-divided into immovable objects (e.g. land) and movable things (e.g. animals, claims). The owner loses his property only if and when he uses up the object or transfers it without retaining any reversionary rights. Furthermore, the term 'intellectual property' refers to the kinds of property such as copyrights, patents and trademarks. The earliest use of the term 'intellectual property' appears to be an October 1845 Massachusetts Circuit Court ruling in the patent case Davoll et al. vs. Brown (1845) in which judge Charles L. Woodbury wrote that 'only in this way can we protect intellectual property, the labours of the mind, productions and interests as much a man's own as the wheat he cultivates, or the flocks he rears'.

Until the article of the Portuguese law that states the legal existence of a property right between the person and her biological material came into force the considerations over this subject were purely speculative and doctrinal. When a law acknowledges the ownership rights over our body as a property right, a new paradigm is emerging. We can no longer argue against it or for it. The property right is a legal reality and the considerations have to follow this starting point. So, even if we can see this law as an isolated case, it presents us with an interesting exercise that no longer is a discussion whether there is or not a property right but what will the implications and characteristics of this new property right be, considering all the legal, social and argumentative background of this issue.

Laura Underkuffler considers that the core interest asserted in the existence of a property right over human biological material is the vindication of personal decision making over one's own body and substances (Underkuffler 2003: 103–106). The same author argues that 'the competing interests in these cases, on the other

hand seek to achieve states of affairs in which the body or its substances are publicly controlled or publicly used, in order to safeguard public health, or to enable others (through research or transplants) to live. As laudable as such public interests may be, they do not share the core values that the individual claims assert' (Underkuffler 2003: 105). This is very true as a first implication of the existence of a property right over one's biological material, that is, the assumption of a higher hierarchical position of individual rights within the context of research biobanking. It is not a coincidence that the political party that proposed the mentioned law in the Portuguese Parliament and wrote its draft was at the time pleading for the legalisation of abortion in the country.

Another interesting implication of the existence of a property right over one's body is that human biological material consequently has to be classified as a 'thing', because only 'things' (not 'persons') can be the object of a right to property; this may not comply with the androgynous status of DNA, which is at the same time a material (patrimony) and information (personal). It is true that the issues involved are brand new to a legal system that is still constructed according to ancient Roman categories like the one that divides the juridical world in 'things' and 'persons' and which cannot classify DNA as one or the other (Faria 1999: 193–203). There are a lot of divergences arising between those who defend the idea that biological material, including DNA, should be seen by the law as a 'thing' and those who absolutely reject this position and therefore hold that DNA is still more a 'person' than a 'thing'. To consider DNA as an object of a property right is then to cancel the dispute whether DNA is a thing or still part of the person.

Property rights' inherent powers apply, meaning that the person has the right to 'use, enjoy and dispose' her biological material (the 'jus utendi, jus fruendi and jus abutendi' of Roman law), the only limit to property rights being the principle of 'a right's abuse', which determines that 'it is not permitted to exercise one's rights when it manifestly exceeds the limits imposed by good faith and good practices, or by the social or economic aim of that right'. Or, if the right to property implies that the person has a right to enjoy the fruits (natural or man made) of her property, the owner of the biological material has a right to (at least) share the benefits resulting from research-industrial work over the same material.

Hence, when property rights apply to biological material, we are entitled to decide either to transfer the property of our biological material to biobanks or not. In case we do, we will have to declare it in a contractual form. Otherwise, the property of the material remains with the person from whom it was collected. This one has the right to withdraw that material from research at any time. Furthermore, it is possible that biobanks will have to share the benefits of the industrial outcome of the research done with somebody's biological material, but here again the person has to declare in a previous contractual form that she waives this right. If this waiving clause does not exist, we may consider that the outcome of a 'Moore case' in Portugal nowadays could have been different from the one in the USA.

Consequently, we may draw the conclusion that a classical property right to cover the link of one's own biological material has the merit of protecting the individual's

self-determination but it underestimates the interest of science and the common good. In fact, if the individual claims on biological material are property rights, they will enjoy presumptive power over competing public interests. The conflict is real because the values of personal freedom and autonomy that such claims represent will almost never be shared by the public interests that oppose them (Underkuffler 2003). A classical property right applied to the ownership of human biological material does not allow the desirable achievement of a legal equilibrium between those two complementary interests. On the contrary, it may even endanger such interests by implicitly promoting a conflicting environment.

The Legal and Bioethical Construction of a New 'Biological Property'

In spite of the prevalent perception of unfairness with regard to the outcome of the Moore case, it has become evident that the classical qualifications of the law, such as property and personal rights, are not sufficient or adequate per se to adapt to new circumstances where someone's body products are the raw material to the industry and financial gains of others. If it seemed to be a shared agreement or perception that a person possesses exclusive 'dispositional' rights over her body and its products *before* they are removed or expelled from it, the same is not necessarily the case *after* this happens.

Several pathways have been pursued to try to overcome this dilemma, from proposing a model where DNA would be 'taxable property', as is the case with Bovenberg (2006: 192–204) who argues that 'a new tax on cell and tissue products derived from a donor, or set of donors, could provide a means of ensuring a fairer distribution of the fruits of regenerative medicine and the commercial use of tissue in general' to the rhetoric that considers that the construction of the body as information is the strategy to overcome the legal qualification of human biological materials (Tallacchini 2005).

I am aware of the complexity of the issue but I also think that it is time to create a legal and ethical framework that would avoid cases like Moore or Catalona. I will briefly argue that contemporary law needs a new kind of property right to adjust to the human body and its parts. This is the premise that leads me to propose a new kind of property right appropriate to human biological material and consequently also to introduce a new legal concept, that of 'biological property'. As already observed in relation to 'intellectual property', it is not novel that a new kind of property is invented legally. The kind of property definition I propose to introduce would be a juridical entity with an hybrid nature, balancing property and personality rights, thus allowing for the gap between a total identification of the human biological material as an untouchable subjective good (material property) and the total exclusion of these interests leading to an absolute free deliverance of human biological material to industry and research to be bridged.

Even when the law gives a property right to citizens over their biological material (such as the Portuguese law), this proprietary right, I argue, cannot have the same legal contours as classical property rights. The concept of property right, I suggest, would have the following characteristics:

- Object of the right: I call this *sui generis* property right 'biological property' because it is the ownership link between someone and its 'biological material' (there is a 'bio' link, i.e. there must be a DNA identification between the person and the object of property). Hence, the object of this right has to be a defined concept of 'human biological material' – all that contains human DNA.
- Distinction/criteria between 'in the commerce' (hair, milk, etc.) and 'out of the commerce' body products: Even if they use different arguments, Annas (2004) and Holm (2004) seem to approach a common theory in what concerns the need to regulate human products of biobanking differently according to the particular circumstances of each case. To the first quoted author the reason why the purchase and sale of human organs is prohibited is because it will probably put donors at risk of potentially coercive monetary inducements, and also because the 'altruistic/gift relationship' in organ transplantation is highly morally valued as a 'rare and praiseworthy event in medicine' (Annas 2004: 150). Nevertheless, not every donation of biological products obeys to the same premises as organ transplantation. If we adopt the transplantation analogy for all of them, we will most likely focus on the risks of the live donors and forbid commerce and sale. Annas considers that the dominant organ transplantation analogy is dysfunctional and misleading to be useful in the collection and banking of certain kinds of human biological materials such as placental blood or umbilical cord blood (Annas 2004: 150) because there are no such dangers as in organ donation. On the contrary, the blood analogy that allows some commerce and even to inform the donors if they want to opt for private banking is a much better framework in these cases.
- Respect of the individual, the familiar and the scientific/society good: Previous to the legal definition of a property right over our biological parts and material, there were already several other legal premises that can not be overridden. One example is the importance that my biological material can have to other people, such as family members, people who belong to the same genetic cluster or even humanity as a whole. Each biobanking activity should be well identified in terms of private or public nature, profit or non-profit finalities, therapeutic and/or research purposes, forms of identification of donors/subjects, protection of the confidentiality of identified donors/subjects, identification of financial sources, etc. This would allow the definition of the situations where the person can share benefits and the situations where the common good should prevail. Only after knowing all these elements, I believe, it will be possible to create an adequate legal framework in terms of ownership rights and possibilities of benefit sharing between all the actors involved in research biobanking.

Conclusions

To defend an almost absolute principle of non-profit with regard to human biological material seems to be the most comfortable legal and bioethical position in our society, since there are still no acceptable legal, bioethical or biopolitical solutions to permit donors of biological material to research biobanks' benefit sharing. Legislators, judges and bioethics committees prefer to adopt a precautionary position defending the non-use of property rights in this field because they are afraid that the commercialisation of the human body will be in the end of this pathway, with all the dangers that it implies, especially in some areas, e.g. selling of foetal tissue, embryos, etc.

The principle of non-financial gains from human body products has its roots in the so-called *transplantation model* (Annas 2004), i.e. the legal framework for the donation of organs and tissues for transplantation purposes and not for research purposes, in which the main concern is to protect potential donors from monetary coercive actions. Ownership regulations have to be considerate of the interests and values presented in research biobanking and its characteristics; it can transform biological material into a pitfall for scientists or into a tool to construct a fair and friendly research environment. Each kind of human biological material needs to have a legal regulation that adapts to the particular characteristics of its collection, conservation and purposes. Although the property rights framework is the only legal background in contemporary law that makes it possible to protect individual interests over one's biological material, classical property rights undermine a sound legal environment in research biobanking. Hence, a new kind of property right seems to be needed in contemporary legal systems, one which will be able to conciliate two apparently opposite legal interests (individual and public) being integrated by the legal framework of the international principles of biolaw. This new form of ownership right should have an international legal framework based on the idea that research biobanking is a universal need and interest. It is premature to predict that this chapter will in itself contribute to the universal creation of a new type of 'biological property' with its very specific characteristics. I have, nevertheless, tried to point out a pathway toward finding a solution to the ongoing quarrel over the issue of dispositional rights of human biological material.

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