

## Biotechnology — A Challenge for Hippocrates

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### INTRODUCTION

What rights do patients have to control the fate of cells removed from their body during surgery?

This question was recently considered in *Moore v Regents of the University of California*.<sup>1</sup> Moore's cancerous spleen was removed as part of his treatment for leukaemia. Instead of disposing of the spleen the surgeon gave it to hospital researchers. Moore survived the operation, and regularly travelled long distances at the hospital's request to give blood samples in the belief that it was part of his ongoing treatment. During one such visit he was asked to "correct" his consent form as he had "mistakenly" completed the "do not consent to research" box. Moore consulted his solicitor whose enquiries revealed that researchers had developed and patented a unique cell-line<sup>2</sup> from the spleen. This cell-line was used to create a range of medically valuable products and was estimated to be worth \$US 3 billion. Moore sued the hospital alleging 13 causes of action,<sup>3</sup> including conversion of his spleen, in an attempt to recover these proceeds.

This case reflects the arrival of the era of biotechnology, where human body parts

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<sup>1</sup> *Moore v Regents of the University of California* 793 P 2d 479 (1990 Calif SC) appealed from 271 Cal Rptr 214 (1989 Calif CA).

<sup>2</sup> A cell-line is created by isolating a single cell and modifying it so it can be cultured continuously in the laboratory in controlled conditions.

<sup>3</sup> These were: conversion, lack of informed consent, breach of fiduciary duty, fraud and deceit, unjust enrichment, quasi-contract, breach of implied covenant of good faith and fair dealing, intentional infliction of emotional distress, negligent misrepresentation, interference with prospective advantageous economic relationship, slander of title, accounting and declaratory relief.

are in demand for commercial activities.<sup>4</sup> It called for decisions on how the interests of patients in the fate of their body tissues should be balanced against the public interest of ensuring that unique tissues are available for medical research, and how the law should evolve to protect those interests.

Both the Californian Court of Appeal<sup>5</sup> and the Supreme Court<sup>6</sup> recognised that patients should have some rights over the fate of their body tissues.<sup>7</sup> The majority of the Court of Appeal protected that interest by finding property rights in body parts, so any use of those parts by researchers without the consent of the patient was conversion. The majority of the Supreme Court rejected that analysis, concluding that there was no precedent for finding property rights in the human body and that policy did not support the extension of property law to recognise the human body. Instead the majority found that patients' rights are best protected by imposing fiduciary obligations on surgeons towards patients. The result is that surgically removed tissues cannot be used without the patient's consent.

This article considers the various causes of action potentially available to a patient, to determine whether the approach taken by the Supreme Court adequately protects patients' interests.

## HUMAN BODY PARTS AS PROPERTY

The finding of the majority of the Supreme Court of California<sup>8</sup> can be challenged by examining the history of the "no property" rule and the recognised qualifications to that position. After identifying precedents supporting property in the human body, the potential of a property regime to protect a patient in Moore's position will be evaluated.

### The History of the "No Property" Rule

The rule that there is no property in body parts has three sources. The first is *Haynes*' case<sup>9</sup> which is widely cited to support the proposition that "[t]here can be no property in a dead corpse."<sup>10</sup> Haynes was indicted for larceny of "four winding-sheets"<sup>11</sup> taken from buried corpses. The issue was "in whose name should the property be laid", as there could be no conviction if the charge was made in the name

<sup>4</sup> *Moore* is not the only example of a property dispute arising from the development of a cell-line from the human body. In *Hagawira*, a cell-line was developed and patented from the cancerous tissue of the mother of a research student. The case was eventually settled out of court by the grant of an exclusive licence to the Hagawira family to distribute the product in Asia. See (1983) 220 Science 393. See also *Hayflick* (1982) 215 Science 271.

<sup>5</sup> 249 Cal Rptr 494.

<sup>6</sup> 793 P 2d 479 (1990).

<sup>7</sup> Cf The Superior Ct, Los Angeles County decision no 3006987 which held there was no property in human body parts and this precluded Moore from recovering under any of the other causes of action.

<sup>8</sup> *Supra* at note 1.

<sup>9</sup> *Haynes case* (1614) 12 Co Rep 113; 77 ER 1389.

<sup>10</sup> See, for example, Stephen, *Digest of Criminal Law* (5th ed) 252, cited in *Mattews*, *infra* at note 12, at 197.

<sup>11</sup> Winding-sheets are the sheets used for enwrapping a corpse.

of the wrong person. The judges concluded that “the property in the sheets remain in the owners, that is, in him who had property therein when the dead body was wrapped . . . for the dead body is not capable of it”. The phrase “the dead body is not capable of it” was therefore used in the sense that a body could not own property, so does not support the proposition that there is no property in body parts.<sup>12</sup>

The second case frequently cited is *Dr Handysides*<sup>13</sup> where trover was alleged against a doctor who claimed the body of stillborn Siamese twins contrary to the wishes of the father. This case was never officially reported, and in the words of Matthews is:<sup>14</sup>

[A] case remarkable for its influence being quite disproportionate to the information available about it.

The value of this case is further reduced by suggestions found by Matthews in a journal article written at the time, that the case was settled and the corpse returned to the father.<sup>15</sup>

The third source of the “no property” rule was in the writings of Sir Edward Coke who claimed the word “cadaver” was an acronym for “*caro data vermibus*”, Latin for “flesh given to the worms”. From this he concluded that it was self evident that a corpse could not be property.<sup>16</sup> Even if this was the true source of the word,<sup>17</sup> it is merely a label attached by people in times when there were no competing uses or methods of disposal for a body.

It is concluded that the foundations for the “no property” rule are weak, resting on misinterpretation of decisions, poor records, and semantics. Even if these sources are accepted they extend only to corpses and are not necessarily applicable to body parts removed from a living person.

### Qualifications to the “No Property” Rule

The second challenge to the “no property” rule is that it is not absolute. Exceptions include recognition of full property rights in certain body products,<sup>18</sup> in parts that have received skill and labour, and limited rights even over corpses.<sup>19</sup>

### BODY PARTS THAT ARE SUBJECT TO PROPERTY RIGHTS

Property rights have been recognised in some body parts including teeth, hair, urine and blood.

<sup>12</sup> Matthews, “Whose Body? People as Property” [1983] *Current Legal Problems* 193.

<sup>13</sup> *Ibid.*, 208.

<sup>14</sup> *Ibid.*

<sup>15</sup> *Ibid.*

<sup>16</sup> Scott, *The Body as Property* (1981) 186.

<sup>17</sup> Coke’s interpretation is disputed by some. Another suggested source is “*cadere*” meaning “to fall”, see Scott, *supra* at note 16, at 186.

<sup>18</sup> For example, hair, teeth and blood.

<sup>19</sup> See below at page 538.

One of the earliest lessons in property many children have is that the “Tooth Fairy” pays for teeth left under the pillow at night.<sup>20</sup> Hair may be protected both for its sentimental value<sup>21</sup> and its commercial value for wig making. In *Herbert*’s case a property right in hair sufficient to support the conviction of a wrongful taker for “theft” was found.<sup>22</sup>

Property in urine was recognised in *Welsh*’s case. *Welsh* was convicted of theft after he poured a urine sample down the sink in an attempt to avoid a conviction for drunken driving.<sup>23</sup>

Although the sale of blood is prohibited in England and New Zealand<sup>24</sup> payment has long been made for blood in the United States. In the early cases payment was justified by deeming it to be for the service of providing blood, rather than a sale of the blood itself.<sup>25</sup> However in *Cunningham*’s case<sup>26</sup> blood was deemed to be a product to which product liability applied, and in *Garber* the Court recognised that payment was for the product rather than the service.<sup>27</sup>

On occasions the American courts have gone even further, recognising that “custody [of a child] is somewhat in the nature of a property right”.<sup>28</sup> The Court refused to extend the line further in the *Baby M* surrogacy case, striking down a contract for delivery of a child on the grounds that it was contrary to public policy.<sup>29</sup> One concern raised following the Court of Appeal’s decision that Moore had a property right in his cells was that this would result in a property right being found in fertilised eggs, adding to the legal dilemmas of new birth technologies. It is submitted that a fertilised egg (unlike an unfertilised egg) should not be considered the property of the mother, because after fertilisation the egg takes on a new character, so the unfertilised egg ceases to exist.

## CREATING PROPERTY BY THE INPUT OF SKILL AND LABOUR

Another challenge to the “no property” rule is the Australian case of *Doodeward v Spense*.<sup>30</sup> In this case the possessor of a preserved foetus, kept for scientific interest, successfully argued that the input of skill and labour had changed the nature of the corpse so that it had become “property”. This case supports the recognition of property rights in other museum and medical specimens. Jeremy Bentham’s preserved corpse, kept at University College London, may also be property under

<sup>20</sup> Although this is not a “legal” right, it is relevant as it reflects society’s willingness to recognise a tooth as something capable of being sold.

<sup>21</sup> A lock of Lord Byron’s hair was allegedly sold at Sotheby’s Auction for £320, see *Scott*, supra at note 16, at 180.

<sup>22</sup> *R v Herbert* (1960) 25 J Cr Law 163, cited in *Matthews*, supra at note 12, at 224.

<sup>23</sup> *R v Welsh* (1974) RTR 478, cited in *Brahams*, infra at note 73.

<sup>24</sup> Health Act 1956, Part IIIA.

<sup>25</sup> *Perlmutter v Beth David Hospital* 123 NE 2d 792 (1954).

<sup>26</sup> *Cunningham v MacNeal Memorial Hospital* 266 NE 2d 897 (1970).

<sup>27</sup> *US v Garber* 607 F 2d 92 (1979).

<sup>28</sup> *Turner v Turner* 334 P 2d 1011 (1959).

<sup>29</sup> *In re Baby M* 537 A 2d 1227 (NJ 1988).

<sup>30</sup> (1908) 15 Argus LR 105.

this head.<sup>31</sup> Similarly in *Moore* it was not disputed that the cell lines created from Moore's tissues were capable of being the subject matter of patents.

## RECOGNITION OF LIMITED RIGHTS IN CORPSES

All common-law jurisdictions recognise that the executor has at least some rights over a corpse prior to its burial. These may include the right to possession of the corpse, the right to decide its place of burial,<sup>32</sup> and the right to decide whether parts can be taken for transplants.<sup>33</sup> These rights have traditionally been described as quasi-property rights.

The learning that there is no property in body parts can therefore be challenged not only through the uncertain origins of the rule, but also through the qualifications to the "no property" rule, including recognition of rights over certain body parts and rights over parts that have received skill and labour, and by recognition that next of kin have legally protected rights to a corpse. Precedent therefore supports finding at least some protectable rights in body parts.

### What is the Property Status of Human Body Parts?

There are three possibilities for the property status of detached human body parts. The first is that body parts are *sui generis* and can never be considered as property. The second is that although detached parts are *res nullius*, they may become property through the input of skill and labour. The third possibility is that body parts become property the moment they are detached from their source.

Although the first possibility is treated as the orthodox view<sup>34</sup> it is inconsistent with other areas of law and with the decided cases. US statutes and superior court decisions recognise that the input of skill and labour can convert body parts not only into property but also into the subject of patent rights. The debate must therefore focus on whether body parts are automatically property or whether they become property only on the receipt of skill and labour.

Possible justifications for treating body parts as *res nullius* include economic, moral and policy arguments.

The economic argument recognises that property rights protect possessors of valuable objects. If there is no demand for something, or if supply greatly exceeds demand, it is not necessary to protect the possessor of a thing. For example, air is not considered as "property" because everybody already has an ample supply so there is no market. The difficulties of attaching property rights in such a case would outweigh the benefits.<sup>35</sup>

<sup>31</sup> See Matthews, *supra* at note 12, at 193.

<sup>32</sup> *Hunter v Hunter* (1930) 65 OLR 586, *Williams v Williams* (1882) 20 ChD 659, 664.

<sup>33</sup> See for example, *Larson v Chase* (1891) 50 NW 238.

<sup>34</sup> Scott, *supra* at note 16, at 188.

<sup>35</sup> George J used an argument of this type in *Moore* when he refused to give "refuse" the status of "property", *supra* at note 5.

While the economic approach may have initially justified the absence of property rights in corpses,<sup>36</sup> it is no longer appropriate in the era of biotechnology where demand exceeds supply.<sup>37</sup>

The moral argument for treating body parts as outside the scope of “property” is that labelling the human body as mere property somehow downplays its unique characteristics.<sup>38</sup> This argument is often supported by claims that finding property in body parts is but a small step to finding property in others, and is a return to the days of slavery.<sup>39</sup> However there is a clear distinction between finding property rights in detached body parts, and finding property rights in a living person.

Finding a property right in detached body parts is consistent with protecting the integrity of individuals and extends rather than reduces individual rights. The law already gives individuals powerful rights to determine what is done to their bodies while they are intact<sup>40</sup> and supports this by sanctioning the killing of another to protect oneself.<sup>41</sup> It is anomalous to give this level of protection to the intact body and yet give the source of a detached part no rights whatsoever.<sup>42</sup>

Accepting that a body part can become property through the input of skill and labour undermines any moral justifications for distinguishing the human body from other things — if human tissue is already too “special” to be property, why should the input of skill and labour convert it to property?

A final possible justification for refusing to recognise body parts as property is the policy consideration that allowing patients property rights over surgically removed parts could hinder medical research by restricting access to raw materials. This consideration weighed heavily on the Supreme Court in its refusal to recognise body parts as property.<sup>43</sup> It is submitted that the Supreme Court’s concern for medical research contradicts its earlier finding that the rights of patients to veto the use of their bodies should be paramount. A clear distinction can be made between tissue freshly removed from a person, and a cell-line that has been developed in the laboratory. This distinction is recognised by law, as cell-lines are deemed to be “inventions” capable of being patented.

It is submitted that a patient should have rights against a researcher who uses freshly removed tissue without first confirming the consent of the source. In the absence of a special relationship between researcher and patient the patient’s interest can only be protected by recognising the tissue as property.

<sup>36</sup> Although corpses may have no “value”, they are unique so the ease of replacement argument is not valid.

<sup>37</sup> (1974) 72 Mich LR 1182, 1202.

<sup>38</sup> See for example George J’s argument in *Moore* where he refused to treat the human spleen in the same way as poultry gizzards, *supra* at note 5.

<sup>39</sup> Slavery is prohibited by the International Covenant on Civil and Political Rights, 1966, Article 8. Treaty opened for signature 16 December 1966, entered into force 23 March 1976.

<sup>40</sup> For example, the right to consent or refuse to consent to medical treatment, see *Schloendorff v Soc of New York Hospital* 105 NE 92, 93 (1914).

<sup>41</sup> See Crimes Act 1961, s 48.

<sup>42</sup> Dickens, “The Control of Living Body Materials” (1967) 27 U of Toronto LJ 142.

<sup>43</sup> *Supra* at note 1, at 493.

Contrary to the concerns of the Supreme Court, recognising human tissue as property would not give the patient a claim against researchers who used cell-lines developed from the tissues of non-consenting patients. Because the cell-line is a new product, the title of the patient over the fresh tissue would not give a proprietary interest in the cell-line.<sup>44</sup> The patient's claims would therefore be limited to the surgeon and researchers who used the fresh tissue.

In contrast there are good reasons for treating body parts as property immediately they become detached from their source. The primary reason is to protect the expectations of the patient that he has "first option" on the part.<sup>45</sup> Although there is a public interest in cells of medical importance being available for research, even the Supreme Court in *Moore* recognised that an individual should have the right to veto the use of his cells. While the Supreme Court preferred to protect the patient's interests through fiduciary obligations,<sup>46</sup> such a relationship will not always exist between the source of the cells and the researcher in possession.

A final difficulty in recognising property rights only in body parts that have received skill and labour is in deciding the degree of skill and labour necessary before the cells become property. Should this be dependant on the appearance of the cells, the amount of skill and labour involved, or some other criteria? Unlike the distinction between property in self and property in others there is no logical solution to this dilemma.

In conclusion the most logical solution is to recognise that all detached human body parts are property, so that the owner — the source of the part — is entitled to control the fate of his or her own tissue.

### **The Extent of Property Rights That Should Be Recognised in Body Parts**

While principle and decided cases support the right of the source of a body part to have possession of that part protected by property law, through the tort of conversion, it need not follow that the entire bundle of "property rights" should attach to detached body parts.<sup>47</sup> The most controversial of these rights is the right to sell body parts for financial reward. The right to sell can be considered at three levels:

- (i) sale of "raw" body parts;
- (ii) sale of the products of body parts; and
- (iii) patenting of the products of body parts.

<sup>44</sup> See *Clough Mill Ltd v Martin* [1985] 1 WLR 111; [1984] 3 All ER 982 and *Re Peachdart Ltd* [1984] Ch 131.

<sup>45</sup> Halton in "The Blood Donor", see Matthews, *supra* at note 12.

<sup>46</sup> *Supra* at note 1.

<sup>47</sup> Rose-Ackerman, "Inalienability and the Theory of Property Rights" (1985) 85 *Colombia LR* 931.

## SALE OF “RAW” BODY PARTS

Although the right to sell property is normally recognised as part of the bundle of rights held by an “owner”, it is not essential, and can be removed by statute and possibly by judges.<sup>48</sup>

There is little precedent supporting a right to sell body parts. Most of the cases claiming a right to possession of parts have resulted in return of the parts, rather than damages.<sup>49</sup> The only clear exception is the American practice of paying for blood.<sup>50</sup>

The development of biotechnology and transplants will lead to increasing demand for various parts. This sets the scene for a “market” in body parts.<sup>51</sup> It is submitted that although it is good policy to allow a right to possession of body parts, it does not necessarily follow that it is good policy to allow parts to be sold. As with the other unresolved controversies of property law, this is a value decision based on moral and practical considerations.

The key moral reason for prohibiting the sale of body parts is that they are in some way “above” being bought and sold. The auction of a heart to the highest bidder would undermine a health system where all persons (theoretically) have an equal right to treatment, irrespective of their wealth. The idea is that there are “some things money can’t buy”.<sup>52</sup>

Another concern is that if body parts have value, people in need of money may sell their bodies piece by piece. Even worse, in places where medical treatment is expensive, a hospital may remove blood or organs in lieu of payment.<sup>53</sup> Having valuable organs might be equivalent to having gold in a bank vault.<sup>54</sup>

One solution is to prohibit the sale of organs for transplant but allow the sale of parts for medical research in recognition that research is today a commercial activity. This could be feasible if different body parts were suitable for only one of these activities. In practice, products such as blood are valuable for both. If a person could sell their blood for research but only donate it to the blood bank it is likely the blood bank would be undersupplied.

A practical consideration against allowing the sale of body parts is that the chance of a valuable product being made from any individual specimen is very small.<sup>55</sup> A typical diseased organ would therefore have only a low value, making the cost of paperwork more expensive than the value of the organ. This could be avoided by supplying organs under licensing agreements, so that if a valuable product was made the source would become entitled to a percentage of the proceeds. However, besides

<sup>48</sup> Ibid, see also Cohen, “Dialogue on Private Property” (1954) 9 Rutgers LR 357.

<sup>49</sup> In *Moore* the majority declined to pass judgment on the right to sell parts, supra at note 1.

<sup>50</sup> See discussion supra at pp 536-537.

<sup>51</sup> See Dillon, “Source Compensation for Tissues and Cells Used in Biotechnical Research” (1989) 64 Notre Dame LR 628.

<sup>52</sup> See Titmuss, “Medical Resources as Commodities — Why Give to Strangers” in Gorovitz, *Moral Problems in Medicine* (1976).

<sup>53</sup> Supra at note 51.

<sup>54</sup> Perhaps this is not a good analogy since the Goldcorp days.

<sup>55</sup> See Dickens, supra at note 42.

the high legal costs of arranging such contracts, a licensing system has other difficulties.

Valuable products of research are often developed from a combination of sources over many years. Despite the advances in techniques such as DNA fingerprinting it is still difficult to determine with certainty the source of a product cultured in the laboratory. The only alternative would be for scientists to keep full records of the source of all tissues used in their research.<sup>56</sup>

Another disadvantage of a licensing regime is that it could open medical research to negligence claims from persons who supplied tissues that were not made into valuable products.<sup>57</sup> As with any new technology, the likelihood of creating a valuable product is small. Exposing researchers to negligence claims could be counter-productive and discourage investment.

Allowing the source a set percentage of profits may not be appropriate as some research involves considerably more skill and labour than other experiments. At one extreme is *Moore's case*<sup>58</sup> where the valuable cells were already present and little modification of them was required. In contrast other research involves complex techniques such as gene manipulation and creation of new life forms.<sup>59</sup> Research of this type may involve hundreds of different scientists employed for many years. A product of such research is therefore due more to the skill of the research team than to any inherent value of the tissue.

Some argue that if researchers have to pay for tissue they are less likely to share the cells with other laboratories who have more expertise in the area, possibly resulting in a missed opportunity to utilise a unique cell.<sup>60</sup> But even where cells are supplied for free there is still no guarantee of maximum distribution.

Arguments in favour of allowing payments for body parts are that the supply of parts will be likely to increase<sup>61</sup> allowing research to proceed more rapidly,<sup>62</sup> that irrespective of the law, payment may occur through a black market, so that it is better to let the open market set its own price,<sup>63</sup> and that because biotechnology already requires expensive materials, such as enzymes, the additional cost of paying for the "raw material" is insignificant.<sup>64</sup>

## SALE OF THE PRODUCTS OF BODY PARTS

Historically some products of the human body have been considered as saleable items, presumably under the theory that the input of skill and labour converts them

<sup>56</sup> Research involves attention to detail so this may not be insurmountable.

<sup>57</sup> This would depend on whether the courts were prepared to impose a duty of care on researchers.

<sup>58</sup> *Supra* at note 1.

<sup>59</sup> For example the creation of a "factory" for manufacturing insulin by inserting the gene for human insulin into bacteria.

<sup>60</sup> Titmuss, *supra* at note 52.

<sup>61</sup> But see Titmuss, *supra* at note 52.

<sup>62</sup> This assumes that the limiting factor in biotechnology is the supply of human tissue. In its current state more significant limits are funding and the availability of qualified staff.

<sup>63</sup> Titmuss, *supra* at note 52.

<sup>64</sup> Dickens, *supra* at note 42.

into something capable of having value.<sup>65</sup> For example wigs made from human hair have long been sold for profit, and more recently insulin harvested from bacterial cell lines into which the human insulin gene has been inserted has been sold by pharmaceutical companies.

Prohibiting the sale of the products of body parts would be detrimental to the public good, since it would inhibit medical research by removing the incentive for companies to invest in this area. If the sale of body parts is prohibited but the sale of products is allowed, a clear dividing line is needed to enable the status of various items to be ascertained.<sup>66</sup>

### PATENTING THE PRODUCTS OF BODY PARTS

A patent is the grant of a monopoly right in respect of an "invention".<sup>67</sup> By allowing the owner of the patent exclusive rights to make and distribute the invention, a patent gives a far greater right than a mere property right in a thing.

While the right to own living organisms (other than people) is undisputed, the patenting of living things was traditionally refused.<sup>68</sup> This changed with the leading case of *Diamond v Chakrabarty*,<sup>69</sup> where a genetically engineered bacterium capable of breaking down oil spills was found to meet the criteria for patent protection. The US Supreme Court expressly ruled that an invention is not precluded from patent protection merely because it consists of living matter. Since *Chakrabarty*<sup>70</sup> other living organisms have been patented including the "Oncomouse", a genetically manipulated mouse which is highly susceptible to cancer, making it valuable for cancer research.<sup>71</sup>

The effect of allowing patenting of living organisms has been to change the face of biotechnology. Traditional small university research laboratories are now supplemented by huge privately funded research centres capable of rapid development of new products.<sup>72</sup>

Some writers argue that the increasing commercialisation of the body and its tissues should be discouraged by amending the Patents Act to prohibit patenting of human derived tissue.<sup>73</sup> The opposing view is that, as medical research is for the public good, it should be encouraged in whatever ways are necessary. Biotechnology is still a high risk investment so large potential profits are needed in order to attract funding.

<sup>65</sup> Locke's "Labour Theory"; see Merino, *Natural Justice and Private Property* (1922) 27-33.

<sup>66</sup> It is submitted there is no natural demarcation line.

<sup>67</sup> See Brown and Grant, *The Law of Intellectual Property* (1989).

<sup>68</sup> For example, *Rank Hovis McDougal* (1977) 8 IIC 453.

<sup>69</sup> 447 US 303 (1980).

<sup>70</sup> Dickson, "Europe Tries to Untangle Laws on Patenting Life" (1989) 243 Science 1002.

<sup>71</sup> See Clark, "Philosophers Paradise: Should a Micro-organism the Product of a Microbiologist be Patentable?" (1981) 4 AULR 129.

<sup>72</sup> In New Zealand biotechnology is already carried out at the universities as well as a number of government funded laboratories.

<sup>73</sup> Brahams, "Bailment and Donation of Parts of the Human Body" [1989] New LJ 803.

## Other Issues

### WHO OWNS BODY PARTS?

If it is accepted that body parts are “property”, the question of ownership is raised. The obvious response is that the part belongs to its human source.<sup>74</sup> While most would agree that people are the natural owners of their “flesh and blood”, should this extend to ownership of a cancerous growth,<sup>75</sup> a pacemaker, or a diamond ring that was deliberately swallowed by a thief?

One model for determining ownership of body parts is by analogy with the products of land. Just as the owner of an estate in land *prima facie* owns the products of its soil, the source of a body part could *prima facie* be deemed the owner of that part. Similarly, just as the right to detach something from the soil can be granted to another,<sup>76</sup> so could the right to take part of the body.<sup>77</sup>

Using this model, cancerous tissue, even when not recognised by the body as “self” would still be deemed to be owned by the source.<sup>78</sup> A pacemaker could be supplied under a contract retaining to the supplier the right to recover it on death. The closest land analogy to this would be the supply of a chattel under a retention of ownership clause and its subsequent affixation to the land. The difficulties of land law in resolving the rights of the supplier of the chattel<sup>79</sup> should pose no problem for the supplier of the pacemaker because of the absence of competing claims over a body.<sup>80</sup> The diamond ring example could be resolved by comparing the digestive tract to a stream flowing through land.<sup>81</sup> While an individual would own the tissue that forms the digestive tract, this would not give them rights over the contents flowing through it.

### REMEDIES FOR THE SOURCE UNDER A PROPERTY REGIME

If it is accepted that human cells are property and therefore capable of being converted, to what remedy should the source of a wrongfully taken cell be entitled?

The owner’s primary remedy for conversion is recovery of the property. This is unlikely to be the chosen solution of a patient whose surgically removed cells have been used without consent. An alternative is for the patient to receive damages. However, this would be of little value to patients and would be unlikely to deter

<sup>74</sup> Supra at note 45.

<sup>75</sup> Cancer is the result of mutations to the DNA normal cells. These cells do not have an identical DNA to their source.

<sup>76</sup> *A profit á prendre*.

<sup>77</sup> Annas, “Whose Waste is it Anyway? The Case of John Moore” [1988 (Oct)] *Hastings Centre Report* 37.

<sup>78</sup> Supra at note 51.

<sup>79</sup> Cooper, “Retaining Title to Fixtures” (1991) 6 *AULR* 477.

<sup>80</sup> Even if the next of kin were recognised as having a right to possession of the corpse, they would be volunteers, so a claimant under a valid contract would get priority.

<sup>81</sup> The digestive system is a pathway through the body. While digestion may affect the state of the contents of materials in the system, that material never becomes an integral part of the body, as it is never incorporated into a cell.

surgeons. The normal measure of tort damages is the value of the property at the time it was taken,<sup>82</sup> and this is likely to be only nominal.

A preferred remedy for a patient is one that reflects the value of the cells at the time the case is brought.<sup>83</sup> One possible remedy is an account of profits. Although traditionally this was only available where the parties were in a fiduciary relationship<sup>84</sup> the courts have recently taken a more flexible approach.<sup>85</sup> The developing principle is that an account of profits should be available where the profit could not have been made but for the wrong and where damages are not adequate.<sup>86</sup> As account is an equitable remedy, the courts have taken a flexible approach to the measure, being prepared to compensate the defendant for time, skill and expenses as appropriate.<sup>87</sup>

Assuming that cell-lines are based on unique products in cancerous cells, a patient in Moore's position could show that the profit could not have been made without those particular cells, so he or she is *prima facie* entitled to an account of profits. This would allow the courts to strip researchers of profits while still compensating them for their skill and expenses.

#### CAUSES OF ACTION BASED ON THE NATURE OF THE SURGEON - PATIENT RELATIONSHIP

An alternative to the property approach is to recognise that a patient has rights arising from the surgeon's abuse of the special relationship between the parties. A claim based on the relationship between the parties avoids the difficulties of finding a property right in body parts and exists irrespective of their "value".<sup>88</sup> One type of "special relationship" that may exist between source and doctor or researcher is the "fiduciary relationship".<sup>89</sup>

Originally fiduciary relationships were found only in certain recognised cases such as director-company, solicitor-client and agent-principal. Recently the boundaries of the recognised categories have been extended<sup>90</sup> and general tests have been proposed to identify when a fiduciary duty should arise, allowing the concept to

<sup>82</sup> *Mercer v Jones* (1813) 3 Camp 477. See also discussion in *McGregor on Damages* (15th ed 1988) para 1306 et seq.

<sup>83</sup> See discussion in Birks, *An Introduction to the Law of Restitution* (1985).

<sup>84</sup> *Hospital Products Ltd v US Surgical Corporation* (1984) 55 ALR 417, 454 per Mason J.

<sup>85</sup> For example, *Day v Mead* [1987] 2 NZLR 443, *Aquaculture Corporation v New Zealand Green Mussel Co Ltd* [1990] 3 NZLR 299.

<sup>86</sup> *Kos & Watts, Unjust Enrichment – The New Cause of Action* (NZLS Seminar 1990).

<sup>87</sup> *Coleman v Myers* [1977] 2 NZLR 225 (CA).

<sup>88</sup> For example, the law does not protect ideas as property but will give the creator of the idea a remedy for breach of confidence if the idea was passed "in confidence": *Green v BCNZ* (1984) 2 IPR 191.

<sup>89</sup> The fiduciary concept was originally developed by the Courts of Equity to protect beneficiaries under a trust. Because of the imbalance of power between these parties, the law imposed special duties on trustees. These typically included a duty to act in good faith, to act in the best interests of the beneficiary and to avoid situations where duties to the beneficiary and the interests of the trustee conflicted.

<sup>90</sup> *Canadian Aero Service Ltd v O'Malley* (1973) 40 DLR (3d) 371, where senior management were found to owe fiduciary duties to their employer by analogy to the duties owed by directors.

extend to additional situations.<sup>91</sup> It is now accepted that the categories of fiduciaries are not closed.<sup>92</sup>

The difficulty is in identifying the necessary elements for a fiduciary duty to be found in a novel situation. Most attempts at defining this include recognition of the need for trust and confidence by one party, and an undertaking by the other to act on that person's behalf.<sup>93</sup> The most comprehensive test is that laid down by the High Court of Australia in the *Hospital Products* case:<sup>94</sup>

The critical feature . . . is that the fiduciary undertakes or agrees to act for or on behalf of or in the interests of another person in the exercise of a power or discretion which will affect the interests of that other person in a legal or practical sense. The relationship between the parties is therefore one which gives the fiduciary a special opportunity to exercise the power or discretion to the detriment of that other person who is accordingly vulnerable to abuse by the fiduciary of his position.

### Is There a Fiduciary Relationship between Doctor and Patient?

The traditional duty of a doctor is to act in the best interests of his or her patient.<sup>95</sup> In standard medical practice this duty coincides with the interests of the patient — the object of both is for the patient to be cured. The development of biotechnology, however, has led to potential conflict between the interests of doctor and patient. Biotechnology may result in the use of a patient's tissues in the search for a new medical remedy. Patenting laws and the structure of the pharmaceutical industry promise significant profits to a person who creates such a product. Research may be in the public interest, but it is often of no direct benefit to the individual patient.<sup>96</sup> Doctors therefore may suffer a conflict of interest between doing their best for the patient, and obtaining "interesting" tissue for research.

It is submitted that the key element of the *Hospital Products* test,<sup>97</sup> namely an undertaking to act in the best interests of another in the exercise of a discretion which will affect the interests of the "beneficiary", exists in the doctor-patient relationship. The undertaking can be presumed from the Hippocratic oath and the acceptance of that person as a patient. The discretion is the decision on how best to treat the patient; the interests of the beneficiary lie finding a cure.

Although decided cases focus more on negligence than on fiduciary duties, it is submitted that this is due to the limited opportunities for conflict in the past. Despite this, the courts have recognised the imbalance of power between doctors and their patients and have imposed special obligations on doctors to balance this.<sup>98</sup> Fiduciary duties have already been imposed on doctors in confidential information cases.<sup>99</sup>

<sup>91</sup> For example, *International Corona Resources Ltd v Lac Minerals Ltd* (1987) 44 DLR (4th) 593, where a fiduciary duty was imposed on companies negotiating in a joint mining venture.

<sup>92</sup> *Guerin v R* [1984] 2 SCR 335, 383.

<sup>93</sup> For example, *Lloyds Bank Ltd v Bundy* [1975] QB 326, 341 per Sir Eric Sachs (CA).

<sup>94</sup> *Hospital Products Ltd v US Surgical Corporation* (1984) 55 ALR 417, 454, per Mason J.

<sup>95</sup> The Hippocratic Oath. See also The Code of Ethics of Medical Association (1964).

<sup>96</sup> Gillian, "Medical Treatment, Medical Research and Informed Consent" [1989] J Med Ethics 3.

<sup>97</sup> *Supra* at note 94.

<sup>98</sup> See for example the cases where doctors have been presumed to have undue influence over their patients, eg, *Williams v Johnson* [1937] 4 All ER 34, *Dent v Bennett* (1839) 4 My & CR 269; 41 ER 105.

<sup>99</sup> See *Emmett v Eastern Dispensary and Casualty Hospital* 396 F 2d 931, 933 (1967).

Once a fiduciary relationship is recognised, it is a small step to extend the duties imposed by that relationship to reflect changed circumstances.

Fiduciary obligations were successfully argued in *Halushka's* case<sup>100</sup> where a volunteer for medical research recovered from a researcher who failed to give full information about the possible side effects of the test drug. The Court accepted that a volunteer relies on the skill and knowledge of the researcher to protect his or her interests, and found that the researcher owed a fiduciary duty to Halushka to make full disclosure about all possible hazards of the experiment.

Research creates a potential conflict of interest between the doctor's duties to the patient, and his or her personal gain. At worst a doctor may remove blood or tissues for his or her own purposes contrary to the interests and knowledge of the patient. For example, in *Moore's* case,<sup>101</sup> the patient gave blood samples after his operation in the belief that it was part of his ongoing treatment, whereas the blood was used purely for research. In other cases the researcher may use legitimately removed tissues for his or her own benefit.<sup>102</sup> Although this causes no additional physical harm to the patient, there is still a potential conflict of interest, as the treatment is not done solely to benefit the patient.

### The Consequences of Finding a Fiduciary Relationship

In many fiduciary cases the mere possibility of a conflict of interests has been sufficient for the law to impose a sanction.<sup>103</sup> The closest analogy is the "fair dealing rule" which historically prohibited a trustee from benefiting from trust property no matter how fair the deal was to the beneficiary. In *Holder v Holder*<sup>104</sup> the absolute rule was relaxed, but the fiduciary was still required to show that he took no advantage of his position, that he made full disclosure and that he paid a fair price.

By equating a body part to "trust property" the same criteria could be applied to a doctor who uses patients' tissue for his or her own research.<sup>105</sup> The advantage of the *Holder* test is that it is consistent with the public interest of allowing medical research whilst protecting the private interests of the patient.<sup>106</sup> This approach has been developed further by Lavoie<sup>107</sup> who proposes an "Informed Consent Model". Under this model, patients would be given the choice to decide the extent to which they would permit their body parts to be used. To allow the patient to make an informed decision, Lavoie proposes regulations requiring mandatory disclosure of all actual or potential research to be conducted with the tissue, including information on how long the tissue will be kept and any plans to use genetic technology.<sup>108</sup> Her

<sup>100</sup> *Halushka v University of Saskatchewan* (1965) 53 DLR (2d) 436, 444, see also *Mink v University of Chicago* 727 F 2d 1112 (1984).

<sup>101</sup> *Supra* at note 1.

<sup>102</sup> For example, *Moore's* spleen, *supra* at note 1.

<sup>103</sup> *Boardman v Phipps* [1967] 2 AC 46, 123 per Lord Upjohn. [1968] Ch 353.

<sup>105</sup> Again this is dependant on body parts being recognised as property.

<sup>106</sup> *Supra* at note 37.

<sup>107</sup> Lavoie, "Ownership of Human Tissue, Life After Moore" (1989) 75 Virginia LR 1363, 1383.

<sup>108</sup> This is in recognition of the ethical concerns that some people have about biotechnology.

second proposal is to require independent approval of every research project with commercial potential. Finally Lavoie suggests that an independent party be required to go through the consent form with the patient, reducing the potential for the doctor to abuse his or her position of authority.<sup>109</sup>

A similar but even stricter approach was suggested at a recent meeting of leading medical ethicists, lawyers and researchers who agreed that patients have a “legitimate and protectable right” to determine what happens to “their” tissue, that a patient who has a unique and potentially important cell-line should be told “up-front” and that a physician should not be involved in simultaneous research and therapy with the same patient.<sup>110</sup>

Although a fiduciary analysis has the advantages of avoiding a decision about whether human body parts are property and allowing the source generous remedies where the surgeon breaches his obligations,<sup>111</sup> it is not a perfect solution.

Fiduciary obligations focus on the relationship between the parties, so have limited scope in protecting the interests of patients whose body parts come into the possession of third parties.<sup>112</sup> While there is a remedy if third parties knowingly receive property from a fiduciary who has breached his obligations,<sup>113</sup> this is not available if body parts are not recognised as property.

In *Moore*, the majority of the Supreme Court considered that claims against third parties could inhibit medical research so should be discouraged.<sup>114</sup> It is submitted that this approach fails to adequately protect the source of body parts, as it would afford no remedy to a patient against a researcher who used the cells despite knowing that no consent had been given.<sup>115</sup>

## OTHER POSSIBLE CAUSES OF ACTION

### Unjust Enrichment

An alternative cause of action that is receiving increasing judicial acceptance is unjust enrichment.<sup>116</sup> For a plaintiff to have a successful cause of action under this head three elements are required:

1. an enrichment of the defendant,
2. received at the plaintiff's expense,
3. without just cause.<sup>117</sup>

<sup>109</sup> Independent advice prevents the doctor having undue influence on the decision of the patient.

<sup>110</sup> (1986) 231 Science 543.

<sup>111</sup> The patient would be entitled to an account of the fiduciary's profits, see discussion *supra* at note 84.

<sup>112</sup> There is no precedent for imposing fiduciary obligations on researchers who have no relationship with the patient.

<sup>113</sup> See for example *Westpac Banking Corp v Savin* [1985] 2 NZLR 41, 52, also 48 Halsburys Laws of England (4th) para 591.

<sup>114</sup> *Supra* at note 1.

<sup>115</sup> See discussion *supra* at note 46.

<sup>116</sup> See *Pasi v Kamana* [1986] 1 NZLR 603, 607 per McMullin J and the discussion in *Kos & Watts*, *supra* at note 86. Cf *Avondale Printers & Stationers Ltd v Haggie* [1979] 2 NZLR 124, 155.

<sup>117</sup> *Birks*, *supra* at note 83.

An enrichment of the surgeon at the patient's expense can only be proven if human body parts are recognised as property. Assuming that they are, the unjust enrichment cause of action will duplicate the tort action of conversion as the element of "unjustness" is the taking of the patient's property without the patient's consent. Although it is possible for the two causes of action to co-exist,<sup>118</sup> there are no practical advantages in these circumstances to the patient in claiming unjust enrichment rather than conversion.<sup>119</sup>

### Trespass to the Person

Where body parts are removed without informed consent<sup>120</sup> the source has a claim in battery against the surgeon.<sup>121</sup> In medical cases the patient must have a high level of understanding before consent is found in apparent agreement to surgery induced by insufficient information.<sup>122</sup>

It is submitted that if a surgeon removed only tissue that the patient had consented to have removed, there would be no battery even if the surgeon later decided to use the tissue for his or her own purposes. In contrast, if at the time of the operation the surgeon took additional tissue, this would be outside the consent of the patient, and would amount to battery.<sup>123</sup> Therefore in *Moore* the surgical removal of the spleen was within the legitimate treatment and done with Moore's consent, so was not battery. The later blood samples were not taken with informed consent, because Moore was not aware of the true purpose of the samples.<sup>124</sup>

Even if battery is made out it will not give the plaintiff a direct claim to the proceeds of the research, as the cell-line was created only as an indirect result of the battery. In any event, in New Zealand, compensation for battery is covered by the Accident Compensation Act 1982 which sets the maximum allowable recovery.<sup>125</sup> A patient in the position of Moore might, however, be entitled to exemplary damages, which fall outside the scope of the Act.<sup>126</sup>

### Intentional Infliction of Emotional Distress

Another potential cause of action for a patient whose body parts are used in research without consent is a claim of intentional infliction of emotional distress.

<sup>118</sup> *Howard v Wood* (1679) Freeman 479; 89 ER 354, 358, *Nissan v AG* [1968] 1 QB 286.

<sup>119</sup> Restitutory remedies differ from the tort remedies but a plaintiff who sues in tort is entitled to claim a restitutory remedy, see discussion in *Kos & Watts*, supra at note 86.

<sup>120</sup> In *Moore* the majority of the Supreme Court treated "lack of informed consent" as a cause of action. Irrespective of the US position, in New Zealand consent is not a cause of action but a defence.

<sup>121</sup> See for example *Forde v Skinner* (1830) 4 Car & P 239; 172 ER 687, where it was held that cutting a pauper's hair without consent was a battery.

<sup>122</sup> *Chatterton v Gerson* (1891) C & B 432.

<sup>123</sup> The limit of a patient's right to consent to "self-mutilation" and of a doctor's rights to carry out those wishes is outside the scope of this paper.

<sup>124</sup> Supra at note 1.

<sup>125</sup> \$10,000, see s 79.

<sup>126</sup> *Donselaar v Donselaar* [1982] 1 NZLR 97.

This tort was successfully pleaded in *Mokry's case*<sup>127</sup> after medical staff negligently dropped the plaintiff's eyeball down a drain while it was being prepared for laboratory examination. The Court accepted that Mokry's headaches and nervousness after the incident were caused by the negligence of the medical staff. The path is therefore laid for a successful claim for emotional distress by a person whose body parts are used without consent in research.<sup>128</sup>

This tort has the disadvantage that it gives the source no control over the way his or her parts are used, but merely a remedy if the use was so disturbing as to cause physical distress. Whether use in biotechnology meets this criteria is doubtful. Further disadvantages are that, as with battery, damages cannot be linked to the value of the research products, and recovery in New Zealand is restricted by the Accident Compensation Act 1982.<sup>130</sup>

### Statutory Intervention

The creation of a statutory code setting out the rights of all parties may ultimately be the best protection of the source of valuable cells. Legislation allows a co-ordinated model to be developed, taking account of different tissues and varied uses. Because the extent of rights recognised in body parts is a value decision, legislation may be a better medium for defining the limits of these rights.<sup>131</sup> Although politicians tend to delay passing legislation arousing strong public emotions, some statutory intervention has already occurred in this area.<sup>132</sup>

### CONCLUSION

Biotechnology has exposed a void in the law relating to human body parts. The first dilemma has been setting a just balance between the rights of individuals to determine the fate of the products of their body, as against the public interest in encouraging medical research by allowing an adequate supply of human tissue. How this balance should be set is a value decision that would best be decided by elected politicians. In the absence of statute the burden is on the courts to decide cases such as *Moore*<sup>133</sup> on the basis of principle, precedent and policy.

One possibility is to use the institution of property to recognise that the source has at least some rights to veto the use of his body parts in research. Despite the orthodox view of "no property in human body parts"<sup>134</sup> I submit that the law should evolve to protect limited property rights in the human body.

<sup>127</sup> *Mokry v University of Texas Health Science Centre at Dallas* 529 SW 2d 802 (1975).

<sup>128</sup> *Mokry's case* can be contrasted with *Browning v Norton-Children's Hospital* 504 SW 2d 713 (1974), where a person with a severe fear of fire had his leg amputated. Four weeks after the operation he found out that the leg was cremated. The court refused to allow recovery for his resulting distress because of the time delay.

<sup>129</sup> The court has recognised that a person has an emotional concern about the fate of parts of their body.

<sup>130</sup> *Supra* at note 125.

<sup>131</sup> Brahams, "Kidneys For Sale: Legislation is Needed" (1989) 57 *Medico Legal Journal* 73.

<sup>132</sup> Eg, Health Act 1956 Pt IIIA and Human Tissue Act 1964.

<sup>133</sup> *Supra* at note 1.

<sup>134</sup> *Supra* at note 16.

An alternative approach, chosen by the Supreme Court in *Moore*, was to place fiduciary obligations on surgeons towards their patients. While this requires surgeons to ensure their patients are fully informed before their body parts are used, it has only limited scope to protect patients against third parties who obtain possession of body parts.

It is submitted that the interests of patients are best protected by recognising both fiduciary and limited property actions. This allows patients to control the fate of their body parts by having the right to veto their use, but still protects the public interest in medical research by prohibiting the sale of body parts.