



## Issues in Procurement of Embryonic Stem Cells: Informed Consent and Conflicts of Interest

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The baseline for ethical and legal procurement of human biological material including gametes (ova and sperm) and embryos is voluntary and informed consent. When the tissue involved is reproductive tissue, particularly human embryos and gametes, the standards for procurement should be very high. When couples create embryos by IVF for infertility treatment they are asked up front to make decisions about disposition of those embryos in the future. Couples are asked to decide what will happen to the embryos if they conceive a child, should they divorce or should one or both partners die. They are presented with choices that include donation to another infertile couple, finite or indefinite storage, destruction, and donation to medical research. For use in medical research specific consent is needed, and this includes a disclosure of the nature of that research. Donors should give specific, written consent to stem cell research. Securing such consent respects personal wishes about disposition, or attachments to the embryo that may be deeply held<sup>1</sup>

Where consent for research on embryos or gametes was given prior to reasonable knowledge of stem cell research, new consent should be obtained. In addition, when donors give initial consent for research use they should be asked about whether they would like to be recontacted if new research uses arise. Where cell lines are being created from reproductive or non-reproductive tissue, another issue is raised. As cell lines are often “immortal” or can exist for a very long time, they may

provide detailed information about the tissue donor’s genetic makeup. For this reason, specific consent may also be appropriate.

As in other types of research on human biological material, donors should be permitted to withdraw consent to use an embryo or gametes only up to a certain point, perhaps until they have been used in research. With stem cell lines that point might come before a cell line has been created. Some have argued that a stem cell line may hold personal health information of the donor(s) in which case the right to withdraw might need to be longer in the interests of protecting patient confidentiality.

When consent is being sought or given for hES research it is particularly important that the donors of the embryo be informed that donated embryos will be destroyed in the process of the research. Additionally, donors need to know that the research may not lead to human therapies and that it may have commercial potential in which the donors will not share. Donors must also be told that the stem cells extracted from the embryo may live indefinitely in culture. Finally, where information about the embryo donors will be kept and/or shared, this must be communicated to the donors in order to respect their concerns about privacy. Keeping personal medical information and accurate records of the consents attached to donated tissue is a vital part of ensuring that the provenance of a stem cell line is traceable. Traceability ensures that future researchers know under what conditions it may be shared; what may and may not be done with a stem cell line; and the uses for which it is suited, including clinical use and/or research use.

1 For a feminist critique on the place of emotional attachments to reproductive tissue, see McLeod, C., Baylis, F., “Feminists on the Inalienability of Human Embryos.” *Hypatia* (2006); 21(1): 1-14.

## Consent to Future Research

One difficulty that arises in research on any human tissue, including stem cells, is what to do about tissue that has been donated without specifying the type of research under consideration. This happens when donors give blanket consent to “future research” purposes. It is especially problematic when the tissue was donated before it was possible to envisage the research in question. The difficulty is that blanket consents are not truly informed since the nature of the research may not even be imaginable. So, for example, where embryos were donated for research prior to 1998 it was not likely in the contemplation of donors that their tissue might live indefinitely in stem cell lines. An analogous situation has been litigated in the context of blood donated to the Red Cross in Canada prior to the development of HIV/AIDS testing. The court concluded it was improper to assume informed consent was given to use a donor sample for a purpose that could not have reasonably been in the contemplation of the donor. The case is informative with respect to limits on prior consents and unforeseeable future research. That case went on, however, to balance an individual’s right to privacy with public health interests, holding that public health could prevail over individual rights in some circumstances.<sup>2</sup>

Requiring specific consent for each type of research can often impair a researcher’s ability to use samples where the research subject is either unknown (as in when the samples are anonymous), cannot be found, or has indicated that he or she does not want to be recontacted. For this reason, there is an argument that requiring specific informed consent is too restrictive. Some authors believe that a lesser standard of consent should be adopted that would be more oriented to the public good, rather than to individual autonomy. One option is to adopt a presumed consent model. In such a model an individual is able to consent to future research and consent is presumed unless there is evidence that the donor would have refused. Another option is to categorize situations in which a waiver of the requirement of specific informed consent is available. For example, where the risk of harm is minimal, as is often the case with social science research, such a waiver might be warranted.

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<sup>2</sup> *Canadian AIDS Society v. Ontario* (1995), 25 O.R. (3d) 388 (Gen. Div.)

## Conflicts of Interest

A guiding principle in donation of human tissue for research, including donation for stem cell research, is the need for donor consent to be free and informed. Consent can only be freely given if it is not given under pressure or subject to undue inducement (see the section on compensation). Procedures have been developed to ensure that information about the research and the option to donate tissue is given free from pressure or coercion. In particular, clinicians or researchers who have a conflict of interest which might cause them to exert an influence over a potential donor’s decision must not be involved in the informed consent process. A patient’s care must not be affected by his or her decision about donating tissue. There will be rare situations in which the treating clinician must be part of the informed consent process. If this is the case, the clinician’s conflict of interest must be declared openly to the patient. In addition there may need to be independent oversight processes to mitigate the possibility of manipulation.

Canadian Institutes for Health Research guidelines go even further. They indicate that a clinician treating patients for infertility should not be involved in the informed consent process to donate ova or embryos for stem cell research even if they are not involved in the stem cell protocol. In other words, even if there is no conflict of interest, the clinician should be removed from the informed consent process. Most countries remove the clinician from the informed consent process only if he or she is also a stem cell researcher and therefore, potentially in a conflict of interest. Critics of the Canadian guideline have suggested requiring the clinician to step out of the informed consent process in all circumstances may remove the person who knows the donor/patient best and what information would be most relevant to that patient in making a decision to donate.

In light of the tremendous interest in hES research, there is little doubt that demand for embryos and ova for research has increased. Increased demand puts pressure on fertility clinics and researchers to ensure a supply of ova is available. This is particularly true where clinicians and clinics are conducting embryo research themselves and if ova and embryos can be transferred between clinics and research institutions. Only the number of embryos that are needed for present and future therapy should be created. This can be ensured by instituting policies which cap or remove any financial benefit to infertility clinics for providing surplus embryos and ova to other researchers.

## Compensation

Additional information to be communicated as part of the informed consent process concerns whether or not the donor of tissue, gametes or embryos for research will be compensated. The issue of compensation for embryos and gametes is controversial. Internationally, the principle of non-commercialization is widely endorsed when it comes to the area of human reproduction and human reproductive material. This principle is enshrined in legislation in continental Europe and in Canada. In Canada, no payment may be made for sperm, eggs or embryos. In the United States, however, non-commercialization of human reproduction is not a universally accepted principle.

As a general principle, monetary inducements are not permitted to influence a person's decision to donate tissue. In some cases commercial benefit may act to distort the voluntary nature of a person's consent, acting as an undue inducement to donate. The issue remains however, whether reimbursement of reasonable expenditures is permitted. If so, then what constitutes reasonable expenditures and what constitute and undue inducement? Are reasonable expenses limited to out-of-pocket expenses or to a *per diem* rate for missing work? Does compensation include situations of "rewarded gifting"?

In the United States and the United Kingdom a woman may be offered free or discounted cycles of IVF treatment if she donates ova or spare embryos for stem cell research. It is not clear that this is different in any relevant way from a monetary inducement. In countries where IVF is not covered by health insurance a cycle of IVF may cost many thousands of dollars. In most countries such rewarded gifting is not permitted. For example, in the Canadian legislation, there is a prohibition against offering valuable consideration for the donation of reproductive tissue. Payments are limited strictly to expenditures detailed under the sections of the Act. Offering free cycles of IVF would, in many circumstances act as an inducement to donate to research. It is easy to see such inducements as morally wrong and even exploitative given the desperation many women feel in the face of infertility. However, many women who are struggling with infertility and cannot afford the expense of IVF would welcome an additional opportunity to try and conceive. How to balance this tension is not an easy question.

## Confidentiality

Issues of confidentiality and information management systems go hand in hand with donation of human biological materials. Where tissue donations involve written consent, some of which may be quite detailed, it is imperative to have information management systems in place. Not only does this help ensure that a patient's wishes are followed with regard to disposition, but it will be necessary to share documentation with collaborators in order to verify the conditions under which procurement was accomplished.

It will be especially important to keep certain medical and genetic information about donors of tissue that may end up in immortal cell lines. For one reason, cell lines that are created will likely be widely shared with research partners both domestically and internationally. Secondly, where the possibility exists that stem cell research will lead to clinical uses in the future, it will be crucial to have access to information about the donors. Therefore, an important part of the informed consent process will be a discussion about the types of information that will be kept, the safeguards to keep that information confidential, and the situations in which it may be necessary or desirable to share that information with others.

Canadian Institutes of Health Research guidelines provide for the anonymization of all human stem cell lines (except for those involved in autologous donation).<sup>3</sup> Although anonymity protects the confidentiality and privacy of the donors it must be weighed against the need to recontact such donors. When cell lines or tissue samples are anonymized the ability to search back and discover pertinent information about the donor that may aid the research is lost. In addition, the ability to recontact the donor can be critical if more information is needed or if information about his or her health or those of his or her family comes to light. If identifiable information is to be stored, policies must be created to determine which situations will trigger the recontact. Additionally, donors must be informed of recontact options and make their wishes known at the time of initial informed consent.

<sup>3</sup> For a contrasting recommendation see the Stem Cell Network, Stem Cell Network Policy Development Committee, *Use of Human Embryos for Stem Cell Research, Part II Informed Consent*, [http://www.stemcellnetwork.ca/uploads/document-library/policy-papers/policy\\_humanembryo.pdf](http://www.stemcellnetwork.ca/uploads/document-library/policy-papers/policy_humanembryo.pdf)

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