THE USE OF EMBRYONIC STEM CELLS

Pádraig Corkery

Over the past year there has been great interest, optimism and anxiety in many societies about developments in the use of embryonic stem cells (ES cells). Within the scientific community there has been debate for some time on the merits and ethical implications of using ES cells. The discussion entered the public domain in a decisive way during the past year when there were significant changes in legislation governing the use of such cells in Britain and the United States. These changes contributed to the ongoing debate on the ethical and public policy issues involved in this specific area of research and to the broader question on the limits, if any, to be placed on scientific research. Stem cells are versatile cells often described as master cells. They have the ability to be directed or manipulated into a whole range of other cells or tissues. These cells are said to be both immortal and pluripotent, i.e. they can renew themselves indefinitely and are capable of being the precursors to a variety of human cell types. They are found in adult bone marrow, umbilical cord, human placenta and the human embryo. This last source – the human embryo – is seen as a particularly potent and readily available source.

It is hoped that stem cell research will enable scientists to develop blood, tissue and indeed whole organs for people afflicted with a range of deadly illnesses including Parkinson’s disease, Alzheimer’s, spinal cord injuries and many more. In the debates in England and America the scientific community have presented stem cells as holding great promise for the future relief of human suffering. This was very evident in the debate in the House of Commons where several members suffering from serious disor-

ders spoke in favour of the potential benefits to the human family of embryonic stem cell research. The most radical development was in London where, in December 2001, the Human Fertilization and Embryology Act 1990 was amended to allow for the creation of embryos through nuclear cell displacement (cloning) and their subsequent destruction in order to secure ES cells. To facilitate research into the general area of fertility the original Act had allowed both for the use of ‘surplus’ embryos from IVF programmes (up until 14 days) and for the creation of embryos for the specific and sole purpose of research. The justification for this policy is based on the acceptance by the British authorities of the ‘primitive streak’ (c. 14 days after fertilization) as the decisive indicator of the presence of individual human life. The recent amendments broadened the area of permitted research to include new research on serious disease and on the development of the embryo. The cloning of human embryos and their subsequent destruction were deemed necessary for such research.

Nuclear cell displacement (cloning) involves the taking of the nucleus from an unfertilized ovum and its replacement by the nucleus of a donor adult cell. The ovum with its new nucleus is then stimulated and an embryo begins to grow. The resulting embryo will have the genetic makeup of the donor of the body cell. The embryo is then allowed to develop for several days before its stem cells are extracted thereby causing its destruction. These cells can be cultured and manipulated to become the cells needed for specific therapeutic purposes. It is envisaged that in the future scientists will be able to develop bloodlines, tissue, etc. from an embryonic clone of the donor who can of course become a recipient of those same tissues. This process it is hoped will reduce or eliminate the possibility of rejection due to genetic incompatibility. This type of cloning is called ‘therapeutic’ and is distinguished from ‘reproductive cloning’ where the cloned embryo is placed in a human womb and brought to full term. Currently both EU and American policy prohibit human cloning for any and all purposes.


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of its vision can be summarized as: science should serve the good of humankind and especially promote and protect the dignity of the person and the common good of society; what is technically possible is not for that reason alone morally acceptable; a good end does not justify bad means; human life in all its stages of development should not be treated as a means to an end.

ES cell research depends on embryo destruction. The question of the status of the embryo is consequently of central importance. Our response to that question will also have a decisive impact on how we look at other issues. This was the primary perspective of the Church in its response to these policy changes. A supporting argument loosely utilized the principle of material co-operation. I will deal with the former briefly since the stance of the Church is unambiguous and well documented. The implications of the latter principle I will tease out at greater length.

RESPECT FOR THE EMBRYO
Through the process of IVF we can now see life at its earliest stage and this inevitably and dramatically raises the question of the status of such life. Catholic teaching argues that human life is a continuum from fertilization to death and should be respected at each stage. In recent years the language of a ‘consistent life-ethic’ has become part of the Catholic contribution to public debate; we should be respectful of life at all stages of its journey. At fertilization a new reality comes into existence that is different from the ovum and sperm that created it. At this stage the genetic package that will develop into an individual person or persons is already present. Recent Church teaching is very clear on the implication of these scientific facts, ‘the human being is to be respected and treated as a person from the moment of conception, and therefore from that same moment her/his rights as a person must be recognized ...’ 9 Embryo destruction and non-therapeutic interventions on embryos are clearly an assault on the dignity of the embryo and in violation of its rights. 10 Predictably, Catholic bishops in the US and Britain in their public contributions argued that the deliberate destruction of embryos is gravely immoral irrespective of the good such destruction hopes to achieve. 11 They further argued that such destruction helped to create an ethos in society where human

CHURCH RESPONSE
The Catholic community has reflected over the past several decades on developments in science in general and bioethics in particular. In documents like Donum vitae the stance of the Church is clearly articulated. The general principles and insights

7. Ibid., p. 214.
9. Donum vitae, Chapter 1, Question 1. See also submission to House of Lords by an ad hoc group of Christian theologians, David Jones, et al., ‘On the Place of the Human Embryo within the Christian Tradition and the Theological Principles for Evaluating its Moral Status’ in Ethics & Medicine 17 (Fall, 2001), pp. 143-153.
10. Evangelium vitae, no. 63.
life was being progressively devalued. In the language of *Evangelium vitae* such destruction both reflects and contributes to a ‘culture of death’.

It should be noted, however, that the question of personhood is one that is not fixed in the Catholic tradition. As indicated above, *Donum vitae* did not take a position on the complex scientific and philosophical debate regarding the nature of human personhood but rather asserted that the human being should be treated as a person from the beginning of its existence. Rhetorically it asks, how could one be a human being without being a person? Catholic theologian Norman Ford in a scholarly and oft-quoted work questioned whether full individual personal life is present as early as fertilization. He speculates that the appearance of the primitive streak - when the possibility of twinning no longer exists - could be a more reliable starting point. However, Ford also argues that since a doubt exists we are morally obliged to err on the side of caution; treat the embryo as a person - and therefore a bearer of rights including the right to life - from fertilization.  

ASSOCIATING WITH THE WRONGDOING OF OTHERS
Given that we live in an imperfect and sinful world the issue of our coming into contact with the wrongdoing of others is as old as life itself. Everyday life generates a host of ready examples: working in a clinic that provides abortion; having diplomatic/sporting links with an evil system like apartheid; the amalgamation of Catholic healthcare facilities with other facilities that provide services contrary to Catholic teaching: handing stolen goods etc. Moral theology has reflected on this reality using the principle of co-operation and the duty to avoid scandal. Recently this form of moral analysis has been applied to the contemporary struggle against HIV infection.

Some authors highlighted different levels of co-operation by drawing upon three examples: the accomplice, the hostage and the taxpayer. Each of these scenarios reveals in an instructive way different dimensions of this moral problem: intention, freedom and distance from the immoral act. The accomplice shares the inten-

12. *Donum vitae*, Chapter 1, Question 1; *Evangelium vitae*, pp. 60.
16. For the statements of a range of American bishops see *Origins* 31 (30 August 2001), pp. 205-12.
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argument the source of the stem cells is morally significant and

can't be ignored; it is a morally tainted source that should be

avoided. Providing funding will encourage the further destruction

of embryonic life by scientists and contribute to the continued

erosion of respect for life. Furthermore they predicted that the

limits President Bush attempted to set with regard to the further

destruction of human embryos would be impossible to maintain.

This could be described as a 'common sense' approach; if we

believe that embryo destruction is an abuse of life then any

involvement that could be seen to deny that moral claim should be

avoided. The provision of federal funding legitimizes and gives

credibility to the practice of destroying embryos for research pur-

poses. It helps remove the ethical taboo that surrounded such

research in the past. The linking of the deliberate destruction of

embryos to what could be life-affirming research could also make

an objective debate on embryo destruction per se more difficult to

secure. Finally, it could be argued that the American administra-

tion's commitment to promoting respect for life loses credibility

and lacks consistency through the provision of this funding.

THE CO-OPERATION OF SCIENTISTS RESEARCHERS

This is not the first time that this type of co-operation has been

reflected on by the believing community. Over the past decade

there has been a prolonged debate on the use of fetal tissue from

abortion for research purposes. It has been argued that abortions

happen without the help or approval of the researchers; that the

fetal tissue is going to be discarded anyway; and that research on

such tissue will bring great good to the human community. Such

a use, it is argued, is a sensible and creative response to the

tragedy of elective abortions.

Many moralists and Church documents have argued against

such co-operation. It is explicitly dealt with in the recently pub-
lished Directives for Catholic Healthcare Institutions: 'Catholic

health care institutions should not make use of human tissue

obtained by direct abortions even for research and therapeutic

purposes.' The arguments presented are similar to those mar-

shalled against the provision of funding. Abortion is an ongoing

reality in society and one's co-operation with the practice would

bestow on it a credibility and respectability. It could reasonably be

interpreted to indicate one's approval of or indifference to the act

of abortion. At the very least it compromises one's witness in

the public domain on the issue of abortion and the respect due to

embryonic life. This could be the source of scandal leading others

to view abortion as morally acceptable. Finally, it has been argued

that the euphoria surrounding hoped-for benefits from fetal

research could contribute to an increase in abortions.

These arguments can also be applied to the role of the scientist

working on stem cells obtained through the deliberate destruction

of the embryo. An additional argument is that unlike fetal tissue

abortion some embryos are created solely for research pur-

poses. They are created as a means to an end. The role of the sci-

entist/researcher is indispensable and their refusal to co-operate

could focus creativity and energy on utilizing alternative sources

of stem cells.

BENEFITING FROM EMBRYONIC STEM CELL RESEARCH

In the near future it is possible that the stem cell lines developed

using ES cells will provide substantial benefits to people suffering

from a range of serious disorders.

This future probability raises questions for those who see

embryo destruction as immoral. Would it be consistent with their

moral stance to benefit as a recipient of blood etc.? This dilemma

has been discussed in the past in relation to the use of fetal tissue

from procured abortion to treat Parkinson's disease and the use

of a vaccine developed from an aborted fetus. Do these cases

imply our complicity in or approval of the original act? Or are

they a sensible and creative use of tissue that would otherwise be

discarded. In a more general way it has been noted that we all

have benefited from the evil acts of others. Two examples are

cited; the knowledge gained in the fields of hypothermia, from the

Nazi experiments on prisoners; and radiation treatment, from the

use of nuclear bombs against Japan. Surely, it is argued, our

benefit from such knowledge does not imply our approval of the

original acts? Nor could we be seen to be encouraging similar

horrors in the future. How then should we view benefiting from ES

cell research?

The vaccine case is instructive and helps to identify differences

and key distinctions between the examples given above. In 1994

the Department of Health in Britain decided to vaccinate five to

18. E.g. Peter Cataldo, 'The debate on fetal tissue research' in Communicating

the Catholic Vision of Life, Russell Smith (ed.) (Pope John Center, 1993), pp. 81-

90.

19. United States Conference of Catholic Bishops, Ethical and Religious


also, no. 45.

20. Pontifical Academy for Life, Declaration on the Production and the


10. Here the language of 'proximate material co-operation' is used.

21. Julie Clague, 'Abortion and the Use of Fetal Tissue in Research and

Treatment: What is the Connection?' in Ethics in Crisis?, John Scally (ed.)

(Veritas, 1997), pp. 33-42.
Controversy arose when it was revealed that the rubella vaccine had been developed using the lung tissue of a fetus aborted in the 1970s. Many parents worried about the moral implications of consenting to the vaccination of their children in such circumstances. Would agreeing to vaccination imply their approval or indifference to abortion? Would it contribute to an ethos that saw fetal tissue as disposable or as a means to an end?22

In their statement on the issue Church leaders argued that though the source of the vaccine was morally problematic there was "no general obligation to refuse permission for the vaccination to be given." They suggested that consenting to the vaccine did not condone abortion nor amount to encouraging further abortions. Consequently, parents were free to give the vaccine to their children. How did the Catholic leaders arrive at this conclusion? In the first place they argued that the fetus was not aborted in order to develop the vaccine. Rather, the decision to have an abortion was taken for independent reasons. Secondly they argued that it was a one-off occurrence; the ongoing production of the vaccine did not require any further abortions since the cultured cells reproduce themselves. Thirdly the taking of the vaccine had substantial benefits for the individual and for society as a whole. Finally, the vaccine was the only one available. On this basis they argued that parents could (rather than should) have their children inoculated. Church leaders did encourage the Government to develop a vaccine from another source so as to avoid future controversy. The Church also recognized that refusal of the vaccine could provide a prophetic voice in a society that did not see abortion as a significant moral issue. Catholic parents and schools exhibited a variety of responses.23

Does this case and the response to it by the Catholic Church in Britain cast any light on the one under discussion? It would seem to me that there are two morally significant differences between these cases that could have a bearing on one's analysis. Firstly, embryos are deliberately destroyed for the specific purpose of taking their stem cells. In Britain they will also be specifically cloned for that purpose. This was not so in the vaccine case. Second, embryo destruction for research purposes is an ongoing practice in both Britain and the USA. The practice is supported by a philosophy that sees the pre-implanted embryo as disposable tissue to be used to bring benefit to others. For these reasons benefiting from such work could credibly be seen as condoning and encouraging the practice. Successfully treating people from this source could also bestow on embryo destruction a lifesaving aura and further contribute to a culture where the embryo is seen as a means to an end and deserving of little respect. Benefiting in this way could also morally damage the recipient? while physically healing her/him, by duling his/her sensitivity to the moral claims of the embryo.

Finally in both countries the bishops and others strongly argued that recent findings make embryo cloning and destruction unnecessary. Adult stem cells and those in placenta/umbilical cord now appear to be as versatile as ES cells.24 Critics appeal to an impressive collection of new scientific literature that views the harvesting of stem cells from these sources as carrying great potential.25 President Bush in pledging 250 million dollars for further research using these sources acknowledged both their potential and that their use does not "involve the same moral dilemma."26 This availability of alternative sources is also morally significant if not morally decisive.

It seems to me that these are very powerful arguments against benefiting from ES cell therapies. The ongoing nature of embryo destruction and the availability of other sources of stem cells are morally decisive facts. The past two decades have witnessed a progressive erosion of respect for the embryo. We have gone rapidly from embryo freezing to experimentation to cloning. Cooperating with such destructive procedures can only encourage the viewing of the embryo as devoid of intrinsic value. It acquires significance through being 'wanted' or 'useful'. This surely has to be contrary to the stance of someone who views the embryo as possessing an inalienable dignity. On the other hand a refusal to avail of the benefits could help challenge and renew contemporary culture by raising its awareness of the issues involved. Such actions could be truly prophetic.

society about how we view human life in the early stage of its development. At another level – ultimately maybe more significant – it raises questions about our attitude to scientific ‘progress’. How do we evaluate such progress? Ought we to identify progress with good ends without reflecting on the means used? Has the good end of relieving human suffering been elevated to a ‘supreme imperative’ that justifies every means? Here the wisdom of the Christian tradition has a lot to contribute. It cautions us against simplistically identifying ‘progress’ in the domain of science with human flourishing. It urges us to evaluate scientific proposals by their impact on individual and communal well-being. It encourages us to have a sense of awe, respect and wonder for human life at all stages. It proposes that actions in pursuit of good ends may not be in harmony with human dignity and the moral law. It invites us to embrace a model of responsible stewardship with regard to the use of our knowledge and creativity. These insights should act as a brake to an uncritical acceptance of all scientific proposals as both inevitable and for our good.


Once Again the Liturgy

Liam M. Tracey

Liturgy seems to be in the air again. After a certain tiredness of the last number of years, parish groups seem want to take up the challenge again of how they might go about preparing the liturgy in their communities and how they might improve the celebration of the liturgy in their parishes. It is not clear whether the desire to take up the challenge of liturgy again, comes from a sense of its importance, a desperation of how bad things are in our parishes, or because of our ever-emptying churches? I have no magic answers to any of these questions. I have no fail-safe programme that will automatically improve the quality of our liturgy, bring the people who have gone, or even a way to convince them about the importance of liturgy in our lives as believers. What I would like to do is to offer some pointers for reflection on the liturgy and the conversation parishes might engage in as they seek to strengthen the place of the liturgy in their faith communities.

WHERE ARE WE NOW?

All kinds of reasons have been offered why the liturgy has not lived up to the hopes of those who worked so hard to renew it. Some say that people today have no sense of ritual in their lives, others claim that consumerism and individualism have increased the sense of isolation in communities and have destroyed our very sense of community. Some among us claim that the renewal of the liturgy has destroyed or weakened the sense of the presence of God in the liturgy. Others wonder whether our new religious programmes have done enough in educating our children to appreciate the symbols and metaphors of our faith. All of these reasons may be valid. I could add some others: perhaps we renewed and changed the liturgy too quickly, the changes introduced into familiar patterns of prayer causing people to flounder and give up; perhaps we became too preoccupied with the outward trappings of worship. Music, instead of uniting us as a community, has some-

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