

# Discussion Paper – Stem Cell Research

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# Summary Position

Christian Super will exclude any company involved in stem cell research that involves the destruction of embryos. Where possible, Christian Super will encourage investment in research using adult stem cells.

## 1. Introduction

Recently, both Victorian and NSW Parliaments ratified the Federal Parliament's late 2006 legislation to allow embryonic stem cell or somatic cell nuclear transfer research for therapeutic cloning as well as material from other members. Other states are expected to follow. This paper will examine the reasons given for supporting the legislation allowing therapeutic cloning while arguing that there are biblical and moral reasons that trump them, disallowing therapeutic cloning.

### What is Therapeutic Cloning or Somatic Cell Nuclear Transfer (SCNT)?

1. A woman's egg has the nucleus removed.
2. The egg is implanted with the nucleus of a cell from another person (who has an illness).
3. This creates an embryo which is grown for approximately five days in a laboratory.
4. The embryonic stem cells are then extracted. These are exact copies of the patient's DNA.

## 2. Arguments for SCNT

Law Professor Loane Skene is spokesperson for the Federal Government's Lockhart Committee and a Melbourne Anglican who like the committee supports the creation and use of human embryos for therapeutic cloning. With fellow Lockhart Committee members Ian Kerridge and Peter Schofield she gives her reasons:<sup>1</sup>

There is no disputing that embryonic stem-cell research and therapeutic cloning has been insufficiently tested and has not, as yet, led to cures. But it is an irrational representation to suggest it has no proof and no potential and should be banned. There have been great advances since 2002 [the date of the Federal Government ban on therapeutic cloning] and *good evidence exists in animal models to warrant the pursuit of both embryonic and adult stem-cell research to better understand reproduction, normal development and disease, and to examine the possibility of human therapies.* The House of Lords, the majority of the US Senate, the American and Canadian medical associations, 80 Nobel laureates, the Australian Academy of Science and past and present Australians of the year have all supported the potential of embryonic stem-cell research and therapeutic cloning.<sup>2</sup>

“There is no disputing that embryonic stem-cell research and therapeutic cloning has been insufficiently tested and has not, as yet, led to cures.”

Critics of the Lockhart Report said:

- Human embryos have a special moral status.
- It is therefore morally abhorrent to create and destroy them for research.

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<sup>1</sup> The material in this section comes from a range of articles, including:

- Ian Kerridge, Peter Schofield & Loane Skene – Five Myths of Therapeutic Cloning, *The Sydney Morning Herald*, 27/11/06, available at: <http://www.smh.com.au/news/opinion/five-myths-of-therapeutic-cloning/2006/11/26/1164476070715.html>
- Lockhart Committee – Greater morality at stake in decision on stem cell research, *The Sydney Morning Herald*, 14/08/06, available at: <http://www.smh.com.au/news/opinion/five-myths-of-therapeutic-cloning/2006/11/26/1164476070715.html>
- Loane Skene – Australia's physical infrastructure to 2050, *ATSE Focus*, available at: <http://www.atse.org.au/index.php?sectionid=937>

<sup>2</sup> Five myths of Therapeutic Cloning

- Allowing SCNT will inevitably lead to reproductive cloning (the creation of a duplicate person).
- Embryonic stem cell research is unnecessary or ill-founded as it has produced no new insights or therapies and can be done using adult stem cells.<sup>3</sup>

*The Lockhart Committee concluded after careful deliberation that none of these arguments justified prohibiting embryo donation or SCNT.* The Committee was acutely aware of the special moral status attached to embryos and the concerns that many groups, particularly Christian churches, have regarding their destruction. But the Committee also recognised that not all communities in Australia attach the same significance to the embryo. Other concerns, such as the need to care for the sick and vulnerable and respect the wishes of individuals are also morally important, and the community, legal system and government already allow donated embryos to be used in research. Indeed legislation mandates that stored IVF embryos must eventually be destroyed.<sup>4</sup>

*There are also important differences between embryos created by fertilisation of a human egg by human sperm and the creation of an embryo by SCNT.* A ‘sperm-egg’ embryo is a potential child because the purpose of fertilisation is to form an embryo that will be implanted into a woman’s body. An SCNT embryo is not a potential child because it cannot be implanted. Attempting to do that is a criminal offence punishable by up to 15 years in prison. Also, a ‘sperm-egg’ embryo carries the genetic material (DNA) from both the parents. An SCNT embryo carries almost solely the DNA from the person whose body cell was used to create it (there is a very small amount of mitochondrial DNA from the egg used to create the embryo, but that is also the case with an embryo created by fertilisation).<sup>5</sup>

*Different viewpoints must of course be respected but, in the face of moral diversity, it is unjustifiable to ban embryo research or SCNT.* History shows that medical advances like small pox vaccination, oral medicines and analgesics for the relief of pain, once stirred religious and moral objections that were overcome as the benefits became obvious and they created their own moral force.<sup>6</sup>

It is true that embryonic stem cell research has not yet led to new therapies or cures. Major practical outcomes from embryonic stem cell research will take time and considerable pre-clinical and clinical research. Adult somatic stem cell research (like transplantation for leukaemia and lymphoma) is promising but should be regarded as complementary. SCNT has the potential to create new disease models for research and mechanisms for drug and toxin screening (in the short term) and novel therapies or regenerative process (in the long term). *If these provide benefits for patients with spinal injury or Parkinson’s disease, it is inconceivable that moral objections to SCNT would not be overridden.*<sup>7</sup>

*Allowing SCNT under licence will not inevitably lead to reproductive cloning.* The Australian community almost unanimously opposes it and it should remain prohibited. However, the best safeguard against reproductive cloning is restricting the degree to which embryos can be matured and prohibiting them being implanted into women. It is reassuring that there have been no instances of non-compliance with legislative and regulatory requirements in Australia (where embryo research is allowed under licence) or in the UK (where SCNT is allowed).<sup>8</sup>

That Australians support assisted reproductive technology and donation of excess embryos from it for research; the law mandates destruction of excess embryos from it; we do not mourn miscarriages in the same way we do the death of children; we tolerate abortion (legally and sociopolitically) without prosecution in certain situations; *and the churches’ positions on the moral status of the embryo, assisted reproductive technology and destructive embryo research*

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<sup>3</sup> Greater morality at stake

<sup>4</sup> Greater morality at stake

<sup>5</sup> UNKNOWN

<sup>6</sup> Greater morality at stake

<sup>7</sup> Greater morality at stake

<sup>8</sup> Greater morality at stake

*is neither historically static nor homogeneous suggests a ban on embryo research and cloning cannot be justified.*<sup>9</sup>

### 3. Arguments against SCNT

#### 3.1 Scientific reasons

An open letter by a group of eminent Australian scientists in Sept. 2002 stated that:

1. From a purely scientific point of view, arguments claiming the urgent need for ES cell research are not compelling. In the four and a half years since the passing of the original Federal legislation allowing research upon spare or leftover embryos from IVF and the overwhelming rejection of the creation of embryos for experimentation (including the proposer of the 2006 Bill, Sen. Kay Patterson, another Melbourne Anglican) no further compelling scientific reasons have been proposed.
2. 'Undue expectations' *or hype* have been created in the community and especially to the disadvantage of those afflicted with Parkinsons, MS etc about the immanence and likely scope of ES cell therapy.
3. The community has not been fully informed about the scientific difficulties of developing embryonic stem cell therapies e.g. 'major obstacles of immune rejection and cancer formation'.
4. Adult or mature stem cell research avoids these obstacles through the major advantage of using the patient's own stem cells for repairs.
5. Therapeutic adult stem cell research has advanced greatly, much more so than Embryonic Stem (ES) Cell therapy, and has compelling clinical promise and a solid therapeutic track record across a range of diseases, including Parkinsons and blindness, without destroying embryonic human life. Leading researcher Bob Williamson of the Murdoch Institute exhorted Australian researchers to make non-destructive research our unique contribution. [19/9/99 to the Australian academy of Science. Science's editor in chief agreed that destructive research was unnecessary (17/12/99)].
6. The principle of avoidance of harm, especially to humans, in medical research, requires that 'proof of concept' must be first established in animal models before moving to human subjects. This has not been established in any of the diseases most commonly raised publicly as possibilities for cure through ES cell therapy. Some are highly unlikely and others only potentially viable in the long-term.

Therefore it is scientifically premature and improper to move to human experimentation at this early stage of research. Animal studies should still have priority and a moratorium on human research should be maintained until they demonstrate 'proof of concept' and that human safety issues have been adequately addressed.<sup>10</sup>

"An embryo is a human embryo whether by natural conception, IVF or by cloning. The issue is what kind of being not how they came into being."

#### 3.2. Ethical/Theological Reasons

1. As Labor MP Christine Campbell rightly says:

*The early embryo is human life because human eggs are fertilized . An embryo is a human embryo whether by natural conception, IVF, or by cloning. The issue is what kind of being, not how they came into being. Even though the cloned embryo is created asexually (SCNT) it is still an embryo and, like cloned animals, could be brought to birth. In primary industry, veterinary science recognises that from conception, a sheep embryo is a sheep and a cow embryo is a cow. What else but human is a human embryo? Given a pre-embryo or an*

<sup>9</sup> Five myths of Therapeutic Cloning

<sup>10</sup> Open Letter by a group of Australian scientists, September 2002

embryo or a child comes from human sperm and eggs, it cannot be anything but human life. But recognising this logic would mean MPs were knowingly voting for medical research that allows human hands to actively destroy human life.<sup>11</sup>

2. 18<sup>th</sup> Century philosopher Immanuel Kant's secularised Christian axiom that *the intrinsic worth and dignity of human beings should never be used as a means to an end, no matter how good*, is violated by the utilitarian or consequentialist tone of Australian bioethical debate, especially that justifying therapeutic cloning. Even if the alleged or potential consequences of cures and scientific knowledge were achieved that would not justify denying the dignity of other humans by treating them as mere means not ends.

Destructive embryonic stem cell research places the species or collective above the individual, which has shades of Nazism and Marxism.

We reject other forms of biomedical research on human life where the death of the subject is required in order to assist another life to continue.<sup>12</sup>

A good example is our community's repugnance of the organ harvesting that is occurring upon some countries' death row prisoners. Such approaches do not only affect the invisible and voiceless stem cells whose history is atomised or frozen at one point in time but also other groups in our society such as Aboriginals, refugees, terrorist suspects and those who are tortured as a means to an end.

3. The 2002 allowing of research on excess embryos from IVF was the utilitarian/consequentialist Trojan Horse. This led to such a rapid change 4 years later to allow treatment of human beings as means to the end of exaggerated (*potential*) research not (*potential*) rational and relational ends in themselves with intrinsic human dignity as human beings or images of God. *In the current debate two sets of argument from potential were opposed but one stressed the inherent nature, dignity, personhood and destiny of embryonic human beings not as vehicles of other values*, no matter how good, heart-wrenching or worthy. The exaggerated estimation of good ends, necessary to gain government and corporate backing is behind the Lockhart Committee's poor argument that people will simply accede to the killing of innocent human life once they see the benefits. They may be right, but this is a political argument, not a moral one. But the hoped for direct benefits in terms of curing illness are secondary sellers to the real reasons for SCNT – research, not therapy.

The assumption that SCNT will be like other technologies such as ether to ease the pain of childbirth which some in the churches opposed only to be overthrown does no justice to technologies that should have been opposed in terms of their dangers such as nuclear energy. Each case must be assessed on its merits, not on some basis of inevitable technological progress.

ANU Law Professor Frank Brennan recently noted<sup>13</sup> that the Lockhart report's key recommendation adopted by the Patterson Bill followed the democratic, popular view against experimentation on an embryo from the union of an egg and sperm. But they drew a strong distinction between that and an embryo created in the laboratory by nuclear transfer. But this is inconsistent - it's really a technical and pragmatic distinction of convenience. *The key*

“The key recommendation of the Lockhart Report is that some humans are not socially or politically significant enough not to be extinguished.”

*recommendation of the Lockhart Report is that some humans are not socially or politically significant enough not to be extinguished. But this raises the fundamental question of where we draw the line regarding human life?*

We don't have to adopt an absolutist right to life or a specifically Roman Catholic position re ensoulment (the moment a soul enters the embryo) to oppose research

cloning. Genetically, fertilisation is the biological starting point of a unique human being, but we are in process of becoming sensate, personal, rational and relational as our potential is unpacked.

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<sup>11</sup> Christine Campbell – Biotech leaders can still honour ethics, *Melbourne The Age*, 13/04/07. Available at: <http://www.theage.com.au/news/business/biotech-leaders-can-still-honour-ethics/2007/04/02/1175366159476.html>

<sup>12</sup> See G.R. Preece, 'Humanity Uprooted: Stem Cells, Refugees and Reconciliation', *Zadok Paper* Autumn, 2005.

<sup>13</sup> See [www.abcradionational/religion/easter](http://www.abcradionational/religion/easter)

In this sense we are ‘human becomings’ (Finlay, 2004). *There is an historical and personal continuity of human beings from womb to tomb that warrants an onus of human care and protection at all stages just as God cares and protects (Psalm 139). If conception and embryonic development is a process surely the onus of protection is still from the beginning of that process.* Any cut-off point such as 14 days after conception that allows research is arbitrary and ad hoc against this background of biological, autobiographical and spiritual continuity. This continuity is related to a sense of human solidarity. We were all fellow-foetuses and embryos once. For Christians, our Creator was once too (Luke 1:41).

4. *Therapeutic cloning is a misnomer as it is not therapeutic for the one cloned. It is killed or destroyed.* It would be better named research cloning. It fundamentally confuses medicine in the interest of a patient and research using the non-consenting patient in the interests of others. Further, it is misleading to appeal to precedents such as abortion or allowing excess embryos to die as legitimating the deliberate creation and destruction of embryos. The very point of arguments justifying abortion (even if we don’t agree with them) is that the pregnancy was accidental, unintended, not-chosen etc. That is not the case with research cloning. Nor is the *allowing* of excess embryos to die after five years if unable to be used for the purpose of reproduction (although I believe Christians using IVF should use all their eggs over time) the same as the deliberate creation and *destruction* of embryos as Tobin shows.<sup>14</sup>
5. The Abrahamic monotheistic religions and also Richard Heinberg, the author of *Cloning the Buddha*, believe we live and science operates within a tension between on the one hand human dominion (Gen 1:26-8) with its development of creation, or ‘playing’ God and on the other the fallen delusion that we’re not *playing*, we are God, we know all, good and evil (Gen 3:5, 22), which leads to the technologically induced divisiveness of Babel (Gen 11). This is not to say science and technology is neutral between these two, between the Boom view of dominion and development and the Gloom view of Babel, it means we always have to ask For Whom? Who designed this, why, who stands to benefit, who’ll suffer? Especially when the whole biotechnology industry and the status of States (nations and smaller entities) is involved and as JD Watson, the discoverer of DNA said, can get the best ethical (and legal) advice money can buy.

### 3.3 Political Reasons

#### A Broader ‘Conservative’ and Pro-life Perspective for a Pluralist Society

These arguments above may be wrongly stereotyped as conservative though the description is accurate if connected to conservation of our created ecology as seen in the best aspects of the environmental movement. We can talk about conservation ecologically (for example, Global Warming) or artistically in the sense of seeking to preserve and restore the Maker’s original masterpiece or nature to ecological wholeness. Such conservatives use not specifically religious arguments but accessible, universal arguments based on natural law and human dignity and an appropriate but not unlimited respect for science.

Similarly, these arguments can be stereotyped as absolutely pro-life or Catholic. While the Catholic Church is probably the leading light against embryonic stem-cell research there are many from other Christian denominations and other religions and secular political, feminist and ecological perspectives deeply concerned about the commodification of human life, both infant and female, that this bill represents. Further, a broadly pro-life, non-Catholic, moderately feminist and progressive alliance of co-belligerents (fellow fighters not necessarily agreeing on religious presuppositions) could form a majority in a democratically pluralist society. The Lockhart Committee’s lists of ‘experts’ and Nobel scientists do not obviate the need for democratic debate or Christian discernment.

“The Lockhart Committee’s list of experts and Nobel scientists do not obviate the need for democratic debate or Christian discernment.”

<sup>14</sup> See Bibliography; 2003, p. 211

## **Women's Health and Research Subject Rights**

Women's Forum Australia rightly argues (from an international women-centered approach) that cloning requires thousands of women's eggs, which can only be obtained through hyper-ovulation procedures, involving dangerous drugs or bribery. Overseas experience shows that the only way large numbers of eggs can be acquired is through offering payment to women – and it is primarily poor and marginalized women who take up the 'offer'. The UK Government's passing of legislation allowing payment for eggs in order to overcome the lack of sufficient numbers of eggs objectifies the women involved as 'egg bearers' in a battery-hen kind of way. Pressure is building in the US for similar practices.<sup>15</sup>

The Lockhart committee and Melbourne University ethics lecturer Lesley Cannold's argument from a liberal-individualist perspective that it's a matter of a woman's informed choice over paternalistic arguments used in relation to other reproductive issues. However this underestimates the socio-economic and medical pressures brought to bear upon women. Proposing that processes be developed ensuring informed decisions, and research to be engaged in to minimize the number of eggs required, rely on possible future solutions to manifestly present problems. One need only look at the so-called counseling before abortion decisions. *The invasive surgery and anesthesia needed to harvest the eggs for SCNT already goes against National Health and Medical Research Council guidelines for use of human research subjects* as its member Dr Nicholas Tonti-Filippini noted.

## **Just War Grounds**

*In relation to the issue of creating and then killing embryos we can argue not from a parallel on absolutist pacifist grounds against all killing but on parallel Just War grounds. This is similar to the grounds on which we justified not investing in weapons.*

1. *A war or killing cannot be justified if it is not the last resort.* This is shown by the scientific comments above about animal experimentation and especially the remarkable success of adult or mature stem cell therapies and their now being able to use mature cells (e.g. amniotic fluid) to produce totipotent or potential stem-cells totally adaptable to all 3 main bodily categories. This may well have already made embryonic stem cell experimentation redundant.
2. *Innocent, non-combatant human life should never be taken.* In SCNT it is. In the abortion debate most would hold that a fetus could be an unconscious aggressor against its mother's life and that the mother's life has priority. But this is vastly different to deliberately creating innocent human lives, however good the ends, to be killed. It's more like a pre-emptive strike. It certainly can't be described using the military euphemism collateral damage, when embryos were created to be destroyed.
3. *There has to be a very strong probability that the positive consequences will outweigh the negative.* Given the current and likely future therapeutic fruitfulness of adult stem cell research compared with the vested interests, hype, remoteness and relative fruitlessness of embryonic ESC research, the present and certain destruction of embryonic stem cells cannot be justified.

## **Slippery Slope Grounds**

The argument against slippage from therapeutic to reproductive cloning is usually based on four reasons:

1. Australian people are unanimously against reproductive cloning — but so were parliamentarians only 4 years ago unanimously against therapeutic cloning on embryos created for the purpose. Several philosophers argue for reproductive cloning despite grave concerns that this would compromise the uniqueness of human individuals.
2. It's illegal — but so was therapeutic or research cloning only 4 years ago. Laws change very quickly, especially when we have a positivist (i.e. there is no higher law than a nation's law) or relativist view of law rather than one based on the law of human nature as at the Nuremberg War trials.
3. It's impossible. But Dolly the cloned sheep was thought impossible before 1998.

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<sup>15</sup> See Professor Debora Spar's editorial in *New England Journal of Medicine*, 29/03/07.

4. It's unsafe — but many people are willing to undergo enormous risk in order to have a child.<sup>16</sup>

## 4. Conclusion

Christian Super's standing rejection of investment in any form of abortion or anti-human life activity carries over into our position against embryonic stem cell research. The respect for human life as an end in itself (under God) over the whole process from conception to cremation, from womb to tomb applies to both abortion and embryonic stem cells. However, in line with our desire to encourage positive research according to Christian values we should be very open to investing in adult stem-cell therapeutic research.

“Christian Super's standing rejection of investment in any form of abortion or anti-human life activity carries over into our position against embryonic stem cell research.”

### ***Bibliography***

This article draws on material from Melbourne Anglican Archbishop Philip Freier's Conversation with fellow Melbourne Anglicans Professor Loane Skene and Dr Gordon Preece entitled *Send in the Clones?* on Tuesday April 17, 2007 at BMW Edge Theatre, Federation Square, Melbourne.

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<sup>16</sup> See Bibliography –*Send in the Clones*, 17/04/2007

### ***Document History***

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