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Re: Legislative responses to recommendations of the Lockhart Review

In light of the fact that Southern Cross Bioethics Institute (SCBI) has made a submission to the Lockhart Review, and the Draft Bills strongly reflect the recommendations of the Lockhart review, this submission will be brief. However, the Director of the Institute would appreciate the opportunity to appear before the committee to address the matters in greater detail.

The short time frame provided to consider the Exposure Draft Bill by Senator Stott Despoja (*Somatic Cell Nuclear Transfer (SCNT) and Related Research Amendment Bill 2006*) and the Bill by Senator Patterson (*Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Bill 2006*) limits careful consideration of their complex scientific, ethical, legal and social implications.

Just as the Lockhart Review recommendations were expansive, so these Bills are expansive. They represent such a quantum leap in permissive exploitation of nascent human life that it is hard to know where to start.

In its submission to the Lockhart Review Committee, SCBI made the following statement.

> We believe that sanctioning the destruction of human life at its earliest stages will have a damaging effect in the long run. The protection of human life is fundamental to liberal democracies and when some members of the human family are subject to expedient utility at the hands of others, the effect is corrosive and will impact upon the ability to protect all other members of the human family, particularly the weak, frail and disabled. We also consider it crucial that at this early stage in the growth of biotechnology the ethical underpinnings be sound.

With the cavalier disregard for human life displayed in the Lockhart recommendations and the uptake of many of those recommendations in these Draft Bills, this statement is even more relevant now.

We are witnessing a slippery slope in action.

Regarding the Draft Bills, there are several key points to make.

1. The basic ethical principles underlying the need to protect human life do not change with time. This accords with the fact that these principles have been set down in international Human Rights instruments such as the *Universal Declaration of Human Rights 1948* and many others. It is of considerable concern that the arguments pertaining to using cloned embryonic human life for destructive experimentation are utilitarian in nature. The fact that they are means two things:

First, there is little reason why attempts will not be made to argue for more and more extreme practices to be justified on the grounds of possible benefit. That is precisely what is happening here, even though the potential benefit is as yet unproven.

Second, what grounds does the community have for believing those who previously firmly stated their opposition to both therapeutic and reproductive cloning on ethical grounds, but who now state that one form, that is, therapeutic cloning, has become acceptable to them? If those same proponents now claim to be opposed to reproductive cloning on ethical grounds, the community could be forgiven for being skeptical. That is the nature of utilitarian ethics.

At the time of the 2002 debate about stem cells and cloning, the opposition to any form of cloning was unanimous and held on ethical grounds. The reasons for any change would need to be extremely compelling. Yet neither scientific advance nor change in community standards have been anywhere near compelling.

2. There has been much said in the media about public surveys on therapeutic cloning. In brief, a survey conducted by Morgan concluded that 80% of Australians support therapeutic cloning. This has been quoted in many places, including parliament. However, the survey questions are flawed for the reasons outlined in Appendix 1. The fact that the Morgan Poll has been used to argue that the public is in favour of therapeutic cloning is problematic. A survey conducted by Sexton Marketing and commissioned by Southern Cross Bioethics Institute shows that the public are not in favour of therapeutic cloning (55% opposed). The questions and findings are outlined in Appendix 2. Likewise the findings by a research team at Swinburne University

support the findings of the SCBI research (63% opposed).[1] In short, the public does not support therapeutic cloning.

3. Both Bills support redefinition of the term "embryo". We believe that this is being done to degrade the moral significance of what is proposed to be done to early human life. That is, to permit experimentation on embryos less than 24 hours of age that would not be permitted on older embryos. By permitting these things the Bills are making a clear statement about the moral value of embryos less than 24 hours of age. The international journal *Nature* recently strongly criticised definitional sleight of hand regarding use of the term 'embryo'.[2] Regardless of the terminology used, the new entity created by union of sperm and egg or by any other means is developmentally continuous in time and should not be treated differently because of an arbitrary selection of a time at which greater moral significance is said to arise.

4. The title of the Bill put forward by Senator Patterson includes the phrase "Prohibition of Human Cloning for Reproduction"; however, the artificial process (SCNT) that produces a new cloned human entity is very much a *reproductive* one. Veterinary scientists who create cloned animal embryos know the process is a reproductive one, whether the cloned animal develops further or not. Likewise assisted reproductive technology, when creating embryos, acknowledges the process is reproductive. The title should reflect the fact that what is being prohibited is in reality the development of a cloned human embryo beyond 14 days.

5. Research on cloning human embryos is inextricably connected to bringing clones to birth. Regardless of the legislative restrictions on 'reproductive cloning', the groundwork will be laid for those in other settings who will implant cloned embryos for development to birth. If this legislation is passed, government funded research that results in the refinement of procedures for producing cloned human embryos will be taken up by others who are intent on producing born human clones. This needs to be acknowledged as a real consequence of such legislative permission.

6. The question of egg supply for the purpose of cloning research is a crucial one. The two options on the table are both replete with ethical difficulties. Harvesting eggs from women not only involves a serious medical procedure, but the risks of coercion and commodification are real, as was seen with the Korean cloning experiments. So far the only alternative to the many thousands of human eggs required for even the most rudimentary cloning experiments is using animal eggs. Creating hybrid embryos is not only an ethical Pandora's box in its own right, but rests on a naïve assumption that inserting the human nuclear genome into an extraordinarily complex structure with very different cytoplasmic machinery to that in the human egg, will produce a comparable result. The level of scientific knowledge about the interaction between genes and their cytoplasmic environment is very preliminary. We can only guess at the possible result of transferring human nuclei and animal oocytes. We also have no idea about the usefulness, if any, of doing so. Whilst the primary concern for SCBI is an ethical one,

[1] The results of the study by Swinburne University of Technology can be accessed at the following address:
http://www.swinburne.edu.au/lss/acets/monitor/2004MonitorFULL.pdf#search=%22Swinburne%20cloning%22

[2] Playing the name game, Editorial, *Nature* 436:2, 7 July 2005.

that is, that these experiments seriously undermine respect for human life, these practical matters must be considered.

7. The creation of hybrid embryos using human sperm and animal eggs is just as problematic. Just because the Bills redefine the term 'embryo' to permit this procedure on embryos less than 24 hours of age does not change the reality that a new human entity is created for the express purpose of destroying it. Moreover, the context in which this would apply is so broad, *viz* ART centres, that the numbers of hybrid zygotes formed and discarded would be huge. This represents a serious commodification of human life at its earliest stages.

8. In one of the Bills, the permission granted to use ART embryos deemed unfit for implantation amounts to the selective destruction of embryos on grounds that it is difficult to imagine would be entirely objective. If that is the case, then an element of subjectivity could be used to enhance the supply of embryos for programmes when the supply is failing.

9. In the Draft Bill put forward by Senator Stott Despoja, at item 5, part 5, the prohibited practice, "placing a non-ART embryo in the body of a woman for any purpose other than achieving pregnancy" seems to *permit* placing a non-ART embryo in the body of a woman for the purposes of achieving pregnancy. It is presumed this is a drafting error.

10. Both Bills permit using precursor cells from human embryos or fetuses to create other human embryos for destructive research. In effect, what is being proposed here is the creation of embryos with no direct relational or legal connection to anyone. One could call them 'ultimate orphans'. Even if consent were to be obtained from the parents of those embryos or fetuses from which the new embryos are created, how valid is that consent, when a new entity is being created one step removed?

Conclusion

Like the Lockhart recommendations, these Bills seek to permit what is effectively open season on early human life. Furthermore, by being grounded in a utilitarian ethic, there can be no confidence that this is the end.

Yours Sincerely
Dr Gregory K Pike
Director
Southern Cross Bioethics Institute

Appendix 1

The Morgan Poll asked two key questions regarding stem cells and cloning.

The question relating to cloning was:

> Scientists can now make embryonic stem cells for medical research by merging an unfertilised egg with a skin cell. In this case, no fertilisation

> takes place and there is no merger of the egg and sperm. Knowing this, do you favour or oppose embryonic stem cell research?

The first sentence is incorrect. It may be that the Morgan Poll was done after the Korean researcher Hwang had published his experiments claiming to have cloned human embryos and extracted their stem cells, but before that research was proved fraudulent. Stating that something has actually been achieved, when in fact it hasn't, has the potential to skew the result. But even if such research had been successfully done, the question is still problematic, since saying "merging an unfertilised egg with a skin cell" obfuscates the reality that a human embryo is formed, then destroyed. This is even emphasized by the next sentence that strengthens the idea that this has nothing to do with embryos – "In this case, no fertilisation takes place and there is no merger of the egg and sperm." Moreover, the actual question asked is not properly related to the statement, since "embryonic stem cell research" also encompasses research on existing ES cell lines and on those created from excess IVF embryos.

The question relating to embryonic stem cells was put the following way:

> A very important new avenue for research using human embryos involves taking cells called stem cells from the inside of a five day old embryo. The embryo is no longer capable of further development. Scientists are working on techniques to turn stem cells extracted from an embryo into any type of cells in the body such as nerve cells and muscle cells to treat diseases such as heart disease, Alzheimer's, cancer, spinal injuries and many more. Put simply, stem cells can be extracted from human embryos to be used in the treatment of many diseases and injuries.

A critical aspect of this question is that the statement "The embryo is no longer capable of further development" is ambiguous. It implies that the stem cells are extracted from embryos that are no longer capable of further development, which is untrue. Morgan might argue that what they really meant was that after extraction the embryo is no longer capable of further development. But in that case why not simply state accurately that the embryo is destroyed by the extraction process. Furthermore, the sentence "Put simply, stem cells can be extracted from human embryos to be used in the treatment of many diseases and injuries" implies that the technology is here - despite the previous sentence that says scientists are working on techniques. In reality there are no treatments from embryonic stem cells, no clinical trials, and progress on basic research is modest at best.

Appendix 2

The Adelaide-based Sexton Marketing Group was commissioned by Southern Cross Bioethics Institute (SCBI) in Adelaide, South Australia to carry out a quantitative survey, using a stratified random sample of 1200 Australian adults, who were interviewed by telephone in January, 2006. The sample comprised adults 18 years of age and older. Based on the latest ABS figures, the sample was selected to be proportionately representative of:

- each state and territory's population in Australia;
- capital city and non-capital city populations in each state and territory; and

- the age and gender of the adult population.

With these stratification provisions the sample was randomly selected from the published electronic white pages telephone directory for Australia. A standard questionnaire was used to conduct each interview, using computer aided telephone interviewing (CATI), and in accordance with the code of ethics of the Australian Market and Social Research Society of Australia.

Participation in the survey was voluntary. In order to avoid any selection bias towards adults interested in the topic of abortion, the survey was introduced as a survey on social issues, without specific mention of the topic of abortion. After agreement to participate, respondents were then given the option to decline to participate if they did not want to be interviewed on the specific topic of abortion. Three respondents declined to participate when informed that the survey may include questions on abortion.

In the case of non-response each household selected to participate was called back up to three times before being replaced. Ten percent of all participants were re-contacted upon completion of the survey, to validate responses and check for interview quality - part of the requirements of the market research quality assurance scheme endorsed by the Australian Market and Social Research Society.

A stratified random sample of 1200 respondents yields a maximum statistical error of estimation of ±2.6% at a 95% level of confidence. When examining the percentage of respondents who have answered a question in a particular way, it can be assumed that the sample percentage is within ±3% (conservatively rounded up) of attitudes within the general population, with a 95% level of confidence in making that assumption. This also means that, as a broad rule of thumb, when comparing two percentages from this survey, a difference between them of 6% or greater can be assumed to be a statistically significant difference, at a 95% level of confidence in making that assumption.

It is important to note that the ±3% error of margin applies to percentages reported for the full sample (n=1200). If percentages are reported for sub-samples, the error margin increases, as follows:

Segment size	Margin of error (95% confidence level)
900	±3.3%
625	±4%
400	±5%
300	±6%
200	±7%
100	±10%
50	±14%

Within these parameters, the results of this survey can reasonably be taken to reflect the attitudes to abortion of Australians generally.

QUESTIONS & ANSWERS

Q28) Our final topic to cover is the topic of stem cell research. Have you heard of stem cell research?

Yes	89%
No	10%
Unsure	1%

On the topic of stem cell research, it would seem that the vast majority of Australians (89%) had heard of stem cell research.

Q29) There are two types of human stem cell research, namely taking stem cells from the patient's own body, and taking stem cells from human embryos which are left over from IVF treatment programs and which are destroyed in the stem cell removal process. Assuming that both types of research offered the same potential results and benefits, from an ethical point of view, do you have a preference for stem cell research using cells from the patient's own body or stem cell research using embryos, or no preference?

Stem cell research using patient's own cells	40%
Embryonic stem cell research	4%
No preference	51%
Can't say	5%

A total of 40% of the sample have a preference for stem cell research using the patient's own cells, with 4% having a preference for embryonic stem cell research, and 56% indicating no preference. This means that, given a preference, 96% of the survey sample accept or prefer stem cell research using the patient's own cells, with 60% accepting or preferring embryonic stem cell research.

Q30)a Do you support or oppose the cloning of human embryos as a source of stem cells?

Support	29%
Neutral	12%
Oppose	51%
Can't say	8%

A majority (51%) oppose the cloning of human embryos as a source of stem cells, compared with 29% support and 20% neutral.

Q30)b Before it was mentioned today, were you aware that extracting stem cells from a human embryo causes the embryo to be destroyed in the process?	
Yes	57%
No	43%

While just over half (57%) of survey respondents were aware that the embryo is destroyed in the process of extracting stem cells, a very substantial minority (43%) were not aware of this fact.

Q30)c [IF NO] Now that you are aware of this, do you support or oppose the cloning of human embryos as a source of stem cells if it means that these embryos are destroyed in the process?	
Support	14%
Neutral	13%
Oppose	61%
Can't say	12%

Following this line of question and information sharing, it is clear that opposition to stem cell research increases when people are made aware that the embryo is destroyed in the process of extracting stem cells. That is opposition to this process increases from 51% to 55% of the whole sample.

Part of the debate on 'therapeutic cloning' involves public reassurance that acceptance of this process will not lead to so-called "reproductive cloning', the bringing to birth of a live human cloned baby. The distinction between 'therapeutic' and 'reproductive' cloning is directed towards giving just such an assurance. Are Australians convinced by these reassurances?

Q30)d Do you believe that research on cloning of human embryos will eventually lead to the cloning of human babies or not?	
Yes	28%
Probably yes	16%
Possibly	24%
Probably no	10%
No	18%
Don't know	5%

This question shows that a total of 28% of the survey sample believe that the cloning of human embryos will eventually lead to the cloning of human babies, with a further 16% believing that this will probably occur, and a further 24% believing that it is a possibility. This means, in total, 68% of the sample believes that the cloning of human babies will definitely, probably or possibly be an outcome of the cloning of human embryos. In short, Australians are not convinced that the 'therapeutic' cloning can be finally quarantined from 'reproductive' cloning. And Australians simply do not approve of 'reproductive' cloning.

Q31) Do you support or oppose the idea of being able to clone or create genetically identical human beings from cloning?

Support	6%
Neutral	6%
Oppose	86%
Can't say	2%

The results for this question clearly show strong opposition in the community to the idea of being able to clone or create genetically identical human beings from cloning (86% oppose compared with only 6% support). But would strong community feeling on this or any of the other issues we examined produce a shift in political commitments at the time of an election? Would people be prepared to consider shifting their vote on the basis of their attitudes to a number of issues we examined?

Q37) Would any of the following issues have the potential to shift your vote at the next Federal election: [READ OUT EACH IN TURN]

	Yes	*No*
a) The level of funding which different parties or candidates commit to pregnancy support services	27%	73%
b) The stance that different parties or candidates take on the abortion pill RU-486 and whether it should be legalized or not	35%	65%
c) The stance that different parties or candidates take on the issue of embryonic stem cell research	41%	59%
d) The stance that different parties or candidates take on the legalization of cloning of human embryos for research	48%	52%