FAMILY FIRST

Additional Comments

Inquiry into the Legislative responses to Recommendations of the Lockhart Review

We all want cures to debilitating diseases	FAMILY FIRST wants cures as much as anyone else. FAMILY FIRST wants scientists to find cures to all manner of debilitating diseases. However, the evidence presented to the Committee has reinforced FAMILY FIRST's concerns about the Lockhart Committee's report and reinforced our view that cloning human embryos will not produce the cures we all desire. Promising cures from such research is simply peddling false hope to some of the most vulnerable members of our community.
Embryonic stem cells from cloned embryos cannot be used for cures	The scientific facts must be considered. A number of scientists gave credible evidence that embryonic stem cells from cloned embryos will not be able to be used for cell therapies. Why then would we pursue this path, which is also fraught with ethical problems? Only adult stem cells can repair adult tissue.
Parliament should set ethical boundaries	Focussing on the ethics, it is appropriate that the Parliament set ethical boundaries around science to reflect medical ethics and community concern about cloning human embryos for research. FAMILY FIRST's comments focus on the Lockhart recommendations about cloning human embryos.
Three reasons to oppose cloning human embryos	While FAMILY FIRST wants cures, we strongly oppose cloning human embryos for research for three reasons: 1. The science tells us this will not produce cures; 2. Concerns about sourcing human eggs from women for cloning; and, 3. We would be crossing a major ethical line, because for the first time we would be deliberately creating a human being with the intention of then destroying it.

The Science

Evidence to the Committee challenges the prevailing view that cloning embryos is necessary to find cures to diseases.

Emeritus Professor John Martin from the University of Melbourne submitted that

> There is no evidence from animal experimentation, in Australia or elsewhere, that animal ES cells can be used as treatment for any disease in a manner that is effective, and is safe in the long term. Of course there have been no trials of human ES cells in man. Animal models of several of the relevant diseases exist, which provide this as an open and obvious way to search for evidence to support the credibility of therapeutic cloning. There could be no possible purpose in therapeutic cloning unless it is established that ES cell therapy can be applied effectively and with long term safety.[1]

Professor Martin argued that

> We need to do a lot more work in animals and a lot more work on the properties of human embryonic stem cells, which is already permitted under the legislation. Until we have all that information, what could be the specific reason for trying to make an embryonic stem cell line that is specific to an individual? If this legislation were to go through, what would be the first question to be asked? It would be difficult to justify anything.[2]

Professor James Sherley from the Massachusetts Institute of Technology testified that

> … embryonic stem cells cannot be used to develop new adult therapies … based on the fact that the only way it is possible to do it is to take the embryonic stem cells and turn them into adult stem cells. If we were to go to that path, then all of these problems that are being presented to us in adult stem cells would also exist on that path as well, and in addition to those problems would be all the problems that embryonic stem cells bring along with them, and that is the tumour information and the problems with gene expression.[3]

Professor Sherley explained that

> … embryonic stem cells cannot fulfil the job of adult stem cells and mature tissues because they were designed by Mother Nature to work in the embryo and not in the adult. Effective repair and regeneration of mature tissues can only be done by adult stem cells … The corollary to this failing of embryonic stem cells is that continued advances in research on adult stem cells, which are the natural cells for repair and regeneration of mature adult tissues, hold promise for continuing advances in medicine for currently incurable diseases in children and adults.[4]

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1 Professor T John Martin, submission 35

2 Professor T John Martin, Committee Hansard, 24 October 2006, page CA35

3 Professor Sherley, Committee Hansard, 24 October 2006, page CA54

4 Professor Sherley, Committee Hansard, 24 October 2006, page CA44

Professor Peter Silburn from Griffith University asked the rhetorical question: "do we need to clone to get adult cells to try and treat disease? No, we do not."[5] "From my point of view as a scientist, I do not think that we need to go and use somatic cell nuclear transfer to generate cells to study disease or treat patients."[6]

Dr Renate Klein, former associate professor at Deakin University, explained how cloning damages the embryo and the embryonic stem cells extracted from the cloned embryo:

> The difference with embryonic stem cells derived from a clone is that they are even less useful than embryonic stem cells from an IVF embryo. When you clone, the process of cloning so damages the software in that embryo that you get epigenetic damage to the point that cloned embryonic stem cells can be rejected as foreign even by the animal that was cloned because of the genetic damage that accumulates.[7]

There is also dispute over whether conditions like Alzheimer's can be treated by embryonic stem cells from cloned embryos.

> Professor Colin Masters, Australia's leading authority on degenerative diseases of the brain, dismissed as "beyond our imagination" any proposal for stem cell therapy in Alzheimer's. Adelaide embryo researcher, Professor Peter Rathjen, put it more bluntly in the Australian newspaper as "bloody nonsense". No serious medical expert, here or overseas, will dispute that judgment.[8]

In contrast to the difficulties of using embryonic stem cells from cloned embryos, "adult stem cells are the only type of stem cells for which there are current clinical treatments. Transplantation of bone marrow, which contains adult blood stem cells, to restore blood cell production is a well-known adult stem cell therapy."[9]

Professor Silburn explained the usefulness of adult stem cells:

> … adult stem cells exist and from a single person can be turned into multiple different cell types in animals as well as humans (Murrell et al 2005). Importantly disease specific and patient specific adult stem cells have already been generated in Australia from patients with different diseases. Each disease type attempted has resulted in stem cells being obtained and cells have been generated which involve the disease cell type as well as others.[10]

Professor Alan Mackay-Sim from Griffith University spoke about the advantages of adult stem cells:

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5 Professor Peter Silburn, Committee Hansard, 20 October 2006, page CA27

6 Professor Peter Silburn, Committee Hansard, 20 October 2006, page CA30

7 Dr Renate Klein, Committee Hansard, 24 October 2006, page CA109

8 Do No Harm, submission 105

9 Professor James Sherley, submission 181

10 Professor Peter Silburn, submission 180

> I can tell you now that we have over 50 cell lines from people with disease, and they are much easier to make than somatic cell nuclear transfer therapeutically cloned cells, which cannot be made currently in humans. You could take them from people with a range of diseases, for some of whom you know the genetic cause and for some of whom you do not, but they have the same clinical symptoms, and you could compare the cell biology of tho se and find out what is commonly going wrong. That is unlikely to happen with somatic cell nuclear transfer or therapeutically cloned cells because of the difficulty.[11]

There was also evidence that the Lockhart Committee's proposal that animal eggs be used to clone human/animal hybrid embryos for research be rejected:

> Both the Stem Cell Sciences submission and mine quite independently make the point that in relation to research [use of animal eggs] would be uninterpretable, in relation to training it is unnecessary and in relation to therapy it would be totally unacceptable by any regulatory body.[12]

Professor Sherley questioned the logic of funding research into embryonic stem cells from cloned embryos which would not produce cures.

> Opportunity costs are often overlooked. The cost of taking money that is available now for conventional disease research and money that could be dedicated to increasing the amount of support for adult stem cell research and shifting it to embryonic stem cell research would be okay if there were going to be the benefits from embryonic stem cell research that have been promised. My main message both before and now is that the money that goes into cloned embryos and the stem cells derived from that may very well give information about the science of human embryos, but it will not lead us to new therapies for adults and children. If the goal is to improve the health and the welfare of the Australian people, this is not the way to do it.[13]

Professor Martin stressed that Australia would not lose if Parliament did not approve cloning human embryos:

> We have waited over the last four years and nothing of any substance has happened to advance the case towards a compelling argument for the very specific step of SCNT, or therapeutic cloning. When you say that Australia will suffer from this, I cannot actually see how Australian science will suffer from it. The first step that would need to be taken is a major effort to successfully undertake human SCNT. No-one in the world has ever done it.[14]

This was backed by the report of mpconsulting, which told Cabinet there had been no scientific developments to justify lifting the ban on cloning embryos:

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11 Professor Mackay-Sim, Committee Hansard, 23 October 2006, page CA84

12 Dr Peter McCullagh, Committee Hansard, 20 October 2006, page CA23

13 Professor Sherley, Committee Hansard, 24 October 2006, page CA55

14 Professor T John Martin, Committee Hansard, 24 October 2006, page CA36

> On the basis of advice from the NHMRC it would not appear that there have been any other scientific developments relevant to the question of whether the ban on the creation of embryos by SCNT should be lifted.[15]

Several submissions noted that the Lockhart Committee had been unable to point to scientific advances to justify changing the law:

> The only peer-reviewed papers reporting successful human cloning to blastocyst stage in the Lockhart Report were those by Hwang et al. This work has since been discredited. … In view of the original brief to the Committee, since there has been no scientific progress to justify a change in the law, we suggest that all forms of human cloning should continue to be prohibited.[16]

> The failure [of the Lockhart Committee] to address whether there was an established necessity to create human embryos for research purposes was an instance of a failure to address the facts. In fact the animal studies so far have not established proof of concept for stem cell therapies derived from SCNT embryos.[17]

> … the Lockhart Report was unable to report any clinical advances to justify a change in the law. Even if human embryonic stem cells were produced from human clones tomorrow, it would not be possible to use them on human subjects and we are concerned that this problem is not sufficiently addressed in the report.[18]

FAMILY FIRST concludes there are no strong scientific reasons to change the law to allow cloning of human embryos.

Ethical limits to science

There was concern about ensuring appropriate ethical limits to science. Dr Megan Best argued "there are some things which we have to accept we will never know because the method by which we can discover them is unacceptable on ethical grounds."[19]

There were particular concerns about the Lockhart Report's approach to ethics:

> … a basic concern of the SIE is that the notion of 'what can be done must be done' pervades the Lockhart review, with the accompanying ethos that if any scientific advantage can be had, however theoretical, then any ethical concerns are immediately outweighed. Yet ethical boundaries in medical

15 mpconsulting, *Analysis of Advice on Developments in Assisted Reproductive Technology and Related Medical and Scientific Research*. Prepared for the Department of the Prime Minister and Cabinet, June 2006. Page 22.

16 Social Issues Executive, Anglican Church, submission 41

17 Dr Nicholas Tonti-Filippini, submission 15, page 8

18 Social Issues Executive, Anglican Church, submission 41

19 Dr Megan Best, Social Issues Executive, Anglican Church, Committee Hansard, 23 October 2006, page CA15

> research have not caused medical research to stop progressing, but instead have moved it forward by promoting creative solutions …[20]

There was also a warning that, should Parliament allow the cloning of human embryos for research, we would be looking next to reproductive cloning, or cloning to produce a live baby.

> My concern is that there is no way once technology is developed that we can restrain its applications. I know that we have safeguards in the bill and I think, as I said in my submission, it is very touching that we have such faith in human nature, but our history as human beings has shown that once technology is developed we cannot restrain its application for bad purposes as well as good. I think we all accept that our community is opposed to reproductive cloning and the only way we can ensure that it will not go ahead is to stop the development of cloning technology.[21]

Professor Mackay-Sim said technology had not always been used in ways originally intended:

> But I do not see a distinction in the technology between making a blastocyst one way going to therapeutic cloning and one way going to cloning human beings. I think that process is the same, and I think that is the ethical decision that is being made. If you go by the history of technology, that technology will be used for purposes for which it was not intended in the particular jurisdiction—that is, to do therapeutic cloning.[22]

Professor Mackay-Sim pointed to a practical example:

> I remember hearing Professor Wilmut being interviewed on the radio when Dolly the sheep was cloned—and he, of course, led that group. He was asked about human cloning and he said, 'Why would anybody want to clone human beings?' He is now the second person in the UK who has applied for a licence to do therapeutic cloning. Views change; science changes. Once one can see the potential, people will change their views.[23]

In fact, Professor Wilmut has gone even further and now advocates reproductive cloning as the GeneEthics Network documents:

> In 1997, when Ian Wilmut announced Dolly the sheep had been cloned, the almost universal response from all section of society was that this technology must never be used on human beings. But within a short time advocates began to propose a variety of possible justifications for cloning in human research and for human reproduction. Wilmut has shifted from his 2002 position that, "nobody should be attempting to clone a child" to now advocating cloning and germline gene manipulation, to produce children.[24]

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20 Social Issues Executive, Anglican Church, submission 41

21 Dr Megan Best, Social Issues Executive, Anglican Church, Committee Hansard, 23 October 2006, page CA16

22 Professor Mackay-Sim, Committee Hansard, 23 October 2006, page CA75

23 Professor Mackay-Sim, Committee Hansard, 23 October 2006, page CA91

24 GeneEthics, submission 106

FAMILY FIRST believes there must be appropriate limits on science and the Lockhart Report goes too far by advocating embryo cloning.

Definition of an embryo

Definitions of human embryos have become central to the debate because: (1) the two embryo cloning bills have adopted a new definition, (2) it has been claimed that an embryo cloned by somatic cell nuclear transfer is not really an embryo or not if it is not implanted in a uterus, and (3) it is also claimed that cloned embryos do not have the same moral status as conventionally produced embryos.

The Private Members Bills of Senators Patterson and Stott Despoja both use a definition contained in a *discussion paper* by a National Health and Medical Research Council (NHMRC) Working Party. The NHMRC actually confirmed in the hearings that "this does not represent council's definition of an embryo."[25]

A number of submissions and witnesses expressed concern at this definition, as it omits stages of embryonic development covered by the current definition and could be used by scientists to escape regulation.

> The new definition enables destructive research on whole classes of embryos either presently protected, or whose generation is prohibited by the 2002 legislation. [26]

There was discussion about the failures of the new definition:

> Part (a) arbitrarily makes the beginning [of the human embryo] not when the first cell is formed, but at a point sixteen hours later when the first cell begins to divide to form two cells. The new entity exists when the first cell is formed by the fusion of the two cells … The effect would thus be to remove the embryo for the first sixteen hours of development from the scope of regulation, either ethical or legal.[27]
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> … the second part of the definition would allow an interpretation that a cloned embryo was only an embryo if it is to be implanted. Thus it would be permissible, using this definition, to form embryos by cloning, as long as they were not to be transferred into an environment where it would be possible for implantation to occur and development to the stage of the formation of a primitive streak. Those unimplanted, cloned embryos would then be completely outside the regulatory framework established by the guidelines and by the proposed legislation.[28]

It is inappropriate to use a draft definition in such a technical area in important legislation.

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25 Professor Anderson, NHMRC, Committee Hansard, 20 October 2006, page CA19.

26 Australian Federation of Right to Life Associations, submission 37

27 Dr Nicholas Tonti-Filippini, submission 15, page 3.

28 Dr Nicholas Tonti-Filippini, submission 15, page 3.

Some people have also claimed that human embryos cloned by somatic cell nuclear transfer are not really embryos, because they are not created in the usual way by the union of ova and sperm.[29]

This position was refuted by the current legislation banning cloning, by the Lockhart Committee and by numerous witnesses.

The Lockhart Committee found:

> … human embryo clones are human embryos and that, given the right environment for development, could develop into a human being. Furthermore, if such an embryo were implanted into the body of a woman to achieve a pregnancy, this entity would certainly have the same status as any other human embryo, and were this pregnancy to result in a live birth, that child would enjoy the same rights and protection as any other child.[30]

But the Lockhart Committee did regard cloned embryos "as having a different moral status from the embryos that are created in fertility programs."[31]

The Social Issues Executive of the Anglican Church explained:

> The Lockhart Committee denied the moral significance of a cloned human embryo on the grounds that it was indeed created for destruction; but the nature of a human embryo does not alter because of others' plans for it. It remains a human being and dismissing it as 'a cellular extension of the original subject' (p.xvii) is a mere semantic claim that changes neither the biology of this kind of embryo nor the moral concerns inherent in its use.[32]

Professor James Sherley stated that "It is the cellular make-up of an embryo that makes it an embryo. Not its location."[33]

> … the embryo is defined by its cellular properties. It is a fact that we have a complete human genome – that is in the cytoplasm of the milieu of an egg, which has been reprogrammed by that egg to start the developmental process. It does not really matter whether you have it in a dish or in the uterus of a woman; it is an embryo.[34]

Do No Harm said claiming a cloned embryo was not a real embryo was "biological nonsense".

> An embryo is an embryo no matter how it is made. Cloning is simply one way of making an embryo; uniting egg and sperm is another. Dolly the

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29 For example, Committee Hansard, 23 October 2006, page CA81 or Committee Hansard, 24 October 2006, page CA104.

30 Legislation Review Committee (Lockhart Committee), Legislation Review: Prohibition of Human Cloning Act 2002 and Research Involving Human Embryos Act 2002. December 2005. Page 170

31 Professor Loane Skene, Committee Hansard, 20 October 2006, page CA9

32 Social Issues Executive, Anglican Church, submission 41

33 Professor James Sherley, submission 181

34 Professor Sherley, Committee Hansard, 24 October 2006, page CA53

> sheep, formerly Dolly the embryo, did not result from the union of egg and sperm, but was clearly no different to any other embryo in that she was able to be born as a lamb. In the *Prohibition of Human Cloning Act 2002* the definition of embryo clearly includes those made "by any means other than by the fertilisation of a human egg by human sperm", specifying cloning techniques (SCNT) as one such means. [35]

Dr David van Gend referred to an editorial in the journal *Nature* which

> …condemned the International Society for Stem Cell Research in a very short editorial called 'Playing the name game'. It said:
>
> > 'Stem-cell biologists should not try to change the definition of the word 'embryo'.'
>
> In this very powerful, brief editorial—I am sorry it is not in your current collection, but I have tabled it—it said:
>
> > 'Whether taken from a fertility clinic or made through cloning, a blastocyst embryo has the potential to become a fully functional organism, and appearing to deny that fact will not fool diehard opponents of the research. If anything, it will simply open up scientists to the accusation that they are trying to distance themselves from difficult moral issues by changing the terms of the debate.'[36]

The same *Nature* article details the work of the International Society for Stem Cell Research in deciding to use the term 'somatic cell nuclear transfer' instead of 'therapeutic cloning' because "… the work 'cloning' was generating public concern".[37]

Some people have tried to portray cloning embryos for research as a different technique to cloning embryos for reproduction. Professor Mackay-Sim explained:

> The development of stem cells—the development of the technology to make blastocysts to make therapeutically cloned cells—is, to my interpretation of the science, no different. You do the somatic cell nuclear transfer—you make your blastocyst—and, on the one hand, under some jurisdictions, you put those into a dish and make embryonic stem cells; however, in other jurisdictions, and in an international context, you could clone human beings with that technology.[38]

FAMILY FIRST believes it is important that people in the embryo cloning debate do not use language designed to confuse people or hide the truth.

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35 Do No Harm, submission 105

36 Dr David van Gend, Committee Hansard, 24 October 2006, page CA112

37 Playing the Name Game, *Nature*, Vol 436, 7 July 2005

38 Professor Mackay-Sim, Committee Hansard, 23 October 2006, page CA71

Source of eggs for cloning

Cloning embryos requires a supply of eggs and the only source of human eggs is the ovaries of women. Given the discredited Korean cloning research team used more than 2000 eggs for no result, this is a real cause for concern. [39]

Professor Silburn explained that "as cloning is extremely inefficient it has long been recognised that there will not be enough eggs to permit the achievement of the goal of obtaining disease specific or patient specific stem cells from human cloning by Somatic Cell Nuclear Transfer (SCNT) and use of human eggs."[40]

Some groups fear the implications of a demand for eggs if embryo cloning is permitted.

Women's Forum Australia detailed dangers for women in their submission:

> Cloning depends on a continuous supply of ova which can only be achieved with high doses of ovulation stimulating agents. There is increasing evidence that the super-ovulation process is associated with serious health risks, including death. The long-term health impacts might include reproductive cancers.[41]

FINRRAGE pointed out that:

> These serious health risks are not surprising considering that superovulation drugs can stimulate women's ovaries to produce up to 30 eggs a month instead of the usual one in a natural cycle.[42]

Dr Sheryl de Lacy said cloning should be banned until such issues are resolved.

> It is my view that we should not proceed further by expanding regulatory policy to include SCNT research until we have fully considered the implications to the community in sourcing material for this work. Specifically we need to consider where the genetic material required for progress will be sourced and under what conditions we are comfortable with it being obtained.[43]

WFA questioned the usefulness of informed consent regimes when the full risks of the procedure for taking eggs are not understood:

> It is not meaningful to speak of 'informed consent' when there is a lack of independent assessments about the long term health risks of egg harvesting. … consent must be viewed against the background of powerful social and economic influences that can encourage researchers to downplay the risks of egg harvesting. As Beeson and Lippman have noted, some physicians who extract eggs are also involved in cloning research. 'Seeking consent from

39 Dr Monique Baldwin, submission 57

40 Professor Peter Silburn, submission 180

41 Women's Forum Australia, submission 80

42 FINRRAGE, submission 32

43 Dr Sheryl de Lacy, submission 27

> women in these circumstances is problematic when clinicians have an interest in obtaining their eggs'.[44]

When questioned about whether donating eggs for cloning was the same as extracting eggs for IVF, Katrina George explained that:

> … every medical procedure, as you know, has risks and benefits. It is always a matter of weighing the benefits against the risks. A woman who undergoes egg extraction for IVF assumes same health risks, but the potential benefits are entirely different. She has up to a 40 per cent chance of producing a baby for herself. Where women undergo egg extraction for research, there is absolutely no benefit to them and, indeed, no certain benefit to anybody.[45]

The proposed legislation would make selling eggs illegal, but expenses could be reimbursed. FINRRAGE argued:

> Reimbursement of women's 'expenses' or 'inconvenience' for 'donating' ova may not seem profitable to the people considering this legislation, but it can represent a substantial sum of money to poorer women, particularly students and unskilled or unemployed women.[46]

Inducements did not have to be money.

> … inducements are widely recognised as coming in many forms other than money (Grady 2001). For example, it has recently been argued that so-called informed decisions in medical care and participation in research can sometimes involve simple deference to medical authority rather than self-determination.[47]

Already international restrictions on paying women for their eggs are under pressure because of the demand for eggs:

> It is irresponsible and premature to allow research cloning without identifying a viable source of ova that is safe for women. … Only a few years after the legalisation of research cloning in the UK, the licensing authority has begun to authorise commercial incentives for supplying ova for research.[48]

Failures of the Lockhart Committee

The Lockhart Committee was set up to review the scientific evidence to see if scientific developments justify overturing the ban on cloning embryos and determine if community attitudes supported a change.

Professor Sherley highlighted some of the scientific weaknesses of the Committee:

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44 Women's Forum Australia, submission 80

45 Ms Katrina George, Women's Forum Australia, Committee Hansard, 24 October 2006, page CA59

46 FINRRAGE, submission 32

47 Dr Sheryl de Lacy, submission 27

48 Women's Forum Australia, submission 80

> The constitution of that [Lockhart] committee did not equip it to consider the science adequately in my view. It could have used all the people who were on it, but it needed a broader participation as well. It especially needed an uninvolved, critical view of the science. It also needed the participation of a few people in cell and molecular developmental biology and somebody with experience and expertise in research in at least one of the main diseases that is being talked about as being a therapeutic possibility. My arguments have been based on the science, and I simply do not think the science was adequately canvassed in the Lockhart committee's report.[49]

The Do No Harm submission states that at least three Committee members, including deputy chair Loane Skene, were on the record as strong supporters of cloning embryos for research before they were appointed to the Committee. [50] They already had a predetermined position.

In addition, the Committee has admitted helping to draft the two cloning bills before the Senate:

> [Lockhart] Committee members have assisted both Senator Patterson and Senator Stott Despoja in the preparation of their respective draft Bill and Exposure Draft.[51]

Several submissions complained about the inadequacy of the Committee's approach to determining community attitudes.

> … when it comes to the most crucial part of the Lockhart committee report—which is assessing where the community is at—the report openly makes it clear that it does not have an evidence based perspective. But given that lack of an evidence based perspective, it makes a profound shift and purports to then represent where the community is at. I find that quite astounding …[52]

Do No Harm asks the very reasonable question:

> … why did the [Lockhart] Committee ignore the one major piece of published research, that of Swinburne University in 2004, which found a substantial majority of us – 63% - did not feel comfortable with scientists cloning embryos for stem cells? The Committee preferred to be guided by a non-academic phone poll conducted by … Biotechnology Australia.[53]

The Lockhart Committee did not refer to opinion poll research by Swinburne University and the Sexton Marketing Group for the Southern Cross Bioethics Institute, both of which showed community opposition to embryo cloning.

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49 Professor T John Martin, Committee Hansard, 24 October 2006, page CA41

50 Do No Harm, submission 105

51 Members of the Lockhart Committee, submission 20, page 3

52 Dr Megan Best, Social Issues Executive, Anglican Church, Committee Hansard, 23 October 2006, page CA14

53 Do No Harm, submission 105

Professor Martin notes the Lockhart Committee referred "… to a 2006 Morgan Poll as though it was the only community survey available." But "the information given to respondents is false" in the Morgan poll. "No scientist has yet made a human embryonic stem cell [from cloning]. It also gives an entirely misleading description of cloning. Most lay people would not understand from this description that this process would still form a living human embryo which is then destroyed by the extraction of stem cells."[54]

FAMILY FIRST condemns the Lockhart Committee for failing to do a proper job in critically assessing the important issue of cloning human embryos for research.

Conclusion

FAMILY FIRST believes the Lockhart Committee and supporters of the embryo cloning bills have not made a convincing case for overturing the ban on embryo cloning.

The Senate Committee heard from a number of scientists that there are no strong scientific reasons to change the law to allow cloning of human embryos.

FAMILY FIRST wants cures as much as anyone else. FAMILY FIRST wants scientists to find cures to all manner of debilitating diseases. However, the evidence presented to the Committee has reinforced FAMILY FIRST's concerns about the Lockhart Committee's report and reinforced our view that cloning human embryos will not produce the cures we all desire.

Senator Steve Fielding
Leader of the FAMILY FIRST Party
FAMILY FIRST Senator for Victoria

54 Professor T John Martin, submission 35