SUBMISSION

TO THE

SENATE COMMUNITY AFFAIRS COMMITTEE

Re: Legislative responses to recommendations of the reports

of the Legislation Review Committee

on the

Prohibition of Human Cloning Act 2002

and the

Research Involving Human Embryos Act 2002
(the Lockhart Review)

Submitted by:
Peter & Marianne Murray

1) Preamble

In keeping with the terms of reference of the Committee we wish to comment (in part) on the Legislative Review Committee's recommendations in regard to the Prohibition of Human Cloning Act 2002 and the Research Involving Human Embryos Act 2002, known as the Lockhart Committee. Our comments have special regard to legislative responses that have been made, or may be made to follow the Lockhart Committee's review of the legislation.

2) Senator Patterson - her Bill and associated "backflip".

If Parliament pass legislation such as that proposed by Senator Patterson, practices that grossly violate human dignity will become legal. Taking its cue from the radical proposals of the Lockhart Committee the Bill would allow the unethical cloning of human embryos with their destruction in mind. Primarily, it would allow scientists to create **animal-human hybrid embryos**, allow scientists to create **human embryos with more than two genetic parents**, and allow scientists to create **human embryos where one of the parents is an aborted human foetus.**

Senator Patterson is asking her colleagues to follow her lead in abandoning their united ethical position adopted in 2002, just 4 years ago when Federal Parliamentarian voted to ban human cloning and restrict access to human embryos for scientific research (a position also agreed to by the States). The vote in 2002 allowed research on 'spare' IVF embryos who were '*going to die anyway*', but it unanimously declared it was wrong to create new human embryos solely for research, whether by cloning or any other means. Patterson was amongst the most outspoken opponents of such an abuse. In 2002 she *stated "I believe strongly that it is wrong to create human embryos solely for research"*, but now tables a Bill that would permit the creation of human embryos, by a range of extreme even degrading methods, solely for research.

Thus despite her statement to Parliament in 2002 *"It is not morally permissible to develop an embryo with the intent of truncating it at an early stage for the benefit of another human being"* she has provided no credible explanation for her extreme ethical "backflip".

Hansard also shows that amongst those on both sides of the house speaking in favor of the Prohibition of Human Cloning Act 2002 and the Research Involving Human Embryos Act 2002, similar strong statements were expressed, rejecting cloning in any form.

It is our hope that in the light of the persuasive arguments against cloning, the sentiments expressed by these parliamentarians in 2002, when cloning was unanimously rejected, will be repeated and reinforced in any current debate.

3) There are no science-based advances that would warrant such an extreme "backflip"

The Analysis of advice on Developments in assisted Reproductive Technology and related Medical and Scientific Research prepared by mpconsulting for the Department of the Prime Minister and Cabinet, (June 2006) provides a strong testament to the failure of the Lockhart Committee to justify its conclusions. A common thread in this analysis can be summed up by the quote from *(the Executive Summary Page 5). "the Report of the Committee (Lockhart) does not provide any information regarding scientific developments since 2002 that would justify, in their own right changes to the legislation. The Committee's recommendations appear to be based on the Committee's assessment of the potential benefits of the suggested changes rather than the state of the science at a particular point in time"*

Embryonic stem cells

Senator Paterson cites eight (8) scientific papers in support of her Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Bill 2006.

An analysis of these papers by Do No Harm[i] (in consultation with their scientific and medical advisers) demonstrates that not one of these provides scientific material that justifies the need to lift the existing prohibition on human cloning. No paper contains any peer-reviewed evidence of SCNT ("therapeutic cloning"). Indeed a number have scant relevance to "therapeutic cloning" and deal with other issues including gene therapy. Overall the problems (the tumour tendency of ESCs

and genetic damage accumulated in the cloning process) of ES cells are made evident, whilst the benefits and promise of adult stem cells (ASC) to effect worthwhile therapies are seen.

Contrary to the hype of lobbyists, cloning is *not* proposed by serious scientists as a means to obtain embryonic stem cells (ESCs) for direct treatment of diseases like diabetes, Parkinson's and spinal injury.

The following are representative of this view:

Professor Alan Trounson of the Australian Stem Cell Centre and a leading advocate of cloning and embryo experimentation stated Age, June 5, 2005 " "I don't call it therapeutic cloning because it's not about cells for therapy. "This is about cells that give us an opportunity to discover what causes a disease and whether we can interfere with that."

Professor Bob Williamson of the Australian Academy of Science, a supporter of research cloning, January 3, 2006 (SMH) wrote "Nuclear transfer ('therapeutic cloning') is *not of importance to give cells to treat patients;* these are far more likely to come from so-called 'adult stem cells'."

The Chief Executive of the Australian Stem Cell Centre, Stephen Livesey (Fin Review 10/9/06), advised *"The reason why scientists want to create a nuclear transfer embryo, is for the tiny mass of inner cells that are stem cells (which) could then provide a safe and sustainable way of testing, in the laboratory, new drugs and theories on cells that carry the human disease trait."*
The contention is not unreasonable that very large numbers of scientists involved in stem cell and cloning research have connections to strong business interests in promoting their particular technologies and scientific developments. The outcome of the current debate will have a major effect on the royalties and profits biotech companies reap from their patents. Biotech business is big business, which is the likely explanation of the enthusiastic support given to human embryo experimentation (therapeutic cloning) by Premiers Bracks and Beattie.

Adult stem cells (ASC)
On the other hand adult stem cells (or non-embryonic stem cells) offer great promise of benefiting mankind in an ethical way. They are medically safe, naturally occurring and produce new tissues for treating various diseases. Their use does not involve the destruction of human embryos being derived from the patients themselves, or the cord blood of the newborn. **To date over 70 benefits of adult stem cells to human patients have been peer reviewed[ii]. These involve treatments and positive research in areas as diverse as cancers and wound and injuries.**

The following are testaments to the promise shown by ASC therapies and include quotes from two of Australia's leading ASC researchers:

- *"It is probable that such (adult) stem cell lines as these will render therapeutic cloning irrelevant and impractical* **" Prof Alan Mackay- Sim of Griffith University** working in the area of neural regeneration for over 20 years in his, Lockhart review submission. He reiterates this view in an article in the Courier Mail August 23, 2006. *" Adult stem cells have made considerable advances and there are numerous clinical trials throughout the world using adult stem cell therapies. Most, but not all, are experimental at this stage but the lack of use of embryonic stem cells in clinical trials illustrates the continuing problems associated with embryonic stem cells, including immune rejection and uncontrolled growth".*

- **Prof Jean Pedduzi -Nelson an associate professor in the department of anatomy and cell biology Wayne State University School of Medicine in Detroit**. From the Sept. 3, 2006 editions of the Milwaukee Journal Sentinel **writes on the true shape of stem cell science:** *"If one looks at the human clinical trials or research using experimental animals, the record for adult stem cells compared to embryonic stem cells is extremely impressive. In examining only the scientific evidence, one wonders why the controversy even exists."*

- *"There are no cell-based therapies for any disease that would warrant the preparation of human embryonic stem cells by SCNT ('therapeutic cloning')."* **Emeritus Prof TJ Martin FRS, Melbourne University.** the Age, July 25, 2006

- **Monique Baldwin, neuroscientist,** writes in the Australian 29 July *2006 "In contrast to the lack of proof of the benefits of cloning, there is ample evidence that alternatives such as adult stem cell research, which does not involve the same ethical problems, holds more promise."*

The two important goals of stem cell science are

(1) to use 'patient-specific' stem cells as direct cell therapy to repair damaged tissue,

(2) to use 'disease-specific' stem cells as tools for exploring a disease process and testing drugs against that disease.

In both of these goals, cloning for embryonic stem cells (ESCs) is unnecessary, since adult stem cells (ASCs) are doing the job.

Contrary to the claims of certain science journalists, adult stem cells have been shown beyond any doubt to be fully ' pluripotent ' – that is, able to turn into many other cell types, just like embryonic stem cells, only in a more controlled and useful fashion.

4) There is no ethical justification for Senator Patterson's "backflip"

The Lockhart report claims that "in the face of moral diversity, it is unjustifiable to ban embryo research and therapeutic cloning ". It might equally be concluded that in this situation extra caution is required before proceeding as the alternative possibilities using adult stem cells offer great promise. The use of embryos for experimentation being an issue of social policy can never be just the subject of private opinion. Proposals to make this moral issue, a question of private morality, are as untenable as the claim that slavery could be a private matter.

The embryonic stem cell debate is primarily an ethical debate, whether federal taxpayers should pay for the destruction of and research upon embryos. That isn't a controversy science can answer scientifically. Science's contribution should be to describe honestly and candidly what is involved, what they hope to achieve, and the problems they face. Scientists are of course free to assert that destroying an embryo for research isn't unethical, and to lobby for funding. But those activities do not lie in the realm of science and thus, should be given precisely as much and as little weight as anyone else's opinions about ethics and morality.

The ethical issues provide the major grounds for our strong objections to the amended definition of 'human embryo' and "human embryo clone" proposed in the Somatic Cell Nuclear Transfer (SCNT) and Related Research Amendment Bill 2006. Amendments that are seen to be critical to achieving the aims of proponents of human embryo experimentation (cloning).

The definitions adopted have patently been influenced by advocates of cloning in the Biotech and IVF/ART industries. They have their basis in a definition coming from the NHMRC Working Party incorporated in the Lockhart reports. The amended definitions proposed undoubtedly serve the interest of scientists dissatisfied with the current legislative provisions which prohibit the deliberate creation of human embryos by fertilisation or any other method for destructive experimentation. This is clearly evident in the report by mpconsulting for the Department of the Prime Minister and Cabinet, (June 2006)).

For example Chapter 2 Page 15 - Definition of an embryo *"the concerns raised by ART researchers in the context of the Committee's review also existed at the time that the definition of human embryo was originally considered. This is not to understate these concerns – they were expressed very strongly in the context of the debate on the Bill and are expressed very strongly again in the context of the Committee's review. It is clear that there are significant limitations on ART research as a result of the definition of human embryo. However, it is difficult to argue that these restrictions are "unintended" given the significant debate on the issues during the debate on the Bills;"*

The move to redefine "human embryo" and "human clone" is hardly surprising considering the highly weighted composition of the National Health and Medical Research Council (NHMRC) Working Party favoring the IVF industry. Despite the popular description of the Lockhart Committee as independent and expert, it cannot be seen to be impartial in approaching its review, given the public statements and allegiances of members of the Committee Associate Professor Ian Kerridge[iii], Professor Peter Schofield[iv] and Professor Loane Skene)[v].

Furthermore the amendments to the existing legislation are presented in a manner which obscures the radical nature of the changes proposed by designating each of these practices as an offence and then allowing that very practice by licence, for example:

Clause 17) Offence—*creating a human embryo clone*

A person commits an offence if:

(a) the person intentionally creates a human embryo clone; and

(b) the creation of the human embryo clone by the person is not *authorised by a licence*, and the person knows or is reckless as to that fact.

The narrowly based interests of scientists must not be permitted to drive such a watershed ethical issue. No science justifies the establishment of a situation where the licensing regime contained in the RIHE Act would almost certainly be powerless to control foreseeable and increasingly significant areas of human embryo research. Moreover, the implications of personhood theory which is nascent in redefining the human embryo, are truly horrific since it would open the door to odious practices such as fetal farming and the strip mining of people diagnosed as permanently unconscious for their organs.

"Therapeutic cloning" and "Reproductive Cloning"

"Therapeutic cloning" for medical research is widely seen as being acceptable as it does not involve the birth of a child with scientists strongly promoting this view. ***In reality, to produce a human embryo is always "reproductive"; and to destroy an embryo is never "therapeutic****". The European Parliament has declared this spurious distinction to be a "linguistic sleight of hand." (*Life Issues Inc, Sept/Oct, 2001) So-called "therapeutic cloning" involves the manufacture of a new subclass of laboratory humans with the intention, right from the beginning, to exploit and destroy them as if they were laboratory animals. This would be the most extreme use of cloning technology.

Given that ASC therapies are showing great promise and are competing for scarce public funding the following criticism of Lockhart is particularly pertinent. **Dr Nicholas Tonti-Filipini, medical ethicist,** reported in the Age September 4, 2006. *"The animal studies so far have not established proof of concept for stem cell therapies derived from cloned embryos. Lockhart served only to inflate the hype that so frustrates responsible scientists seeking to develop cellular therapies."*

Supplying Ova (eggs)

Legalised cloning and fertilisation of human embryos for experimentation will require a large volume of reliably available women's eggs. The process involves putting women through very invasive, risky and unpleasant procedures. *Canada has placed a moratorium on all somatic cell nuclear transfer (cloning) research because of serious safety issues about the "hormonal cocktail" of hyperstimulation drugs used for multiple egg extraction procedures on women. The dangers of egg extraction on women's health have been highlighted by feminist writer and* **Professor Emeriti of Sociology at California State University, Diane Beeson**. She is a pro-choice feminist who opposed the 2004 California referendum on state funding of human cloning. Appearing before a US Congressional hearing, she said that Lupron, a powerful hyperstimulate, was commonly used but has not been approved by the US Food and Drug Administration. The FDA currently has on file over 6,000 complaints regarding Lupron, including 25 reported deaths. These complaints are yet to be investigated and analysed. (Congressional Hearings, March 7, 2006, House Government Reform Subcommittee on Criminal Justice, Drugs Policy and Human Resources, Hearings of Stem Cell Research)

According to Professor Beeson, thirty-five women's groups are suing the Korean government on behalf of *women who have been harmed in the process of egg extraction by the South Korean researcher, Dr Hwang Wu-suk, who fraudulently claimed to have cloned a human embryo, using 2,061 human eggs in the process.*

The danger to women's health from the super ovulation required to gain eggs for embryonic research is also highlighted on the website http://handsofourovaries.com/. which has significant input from many pro-choice women.

Recommendation 29 (Lockhart) shows a further disregard for women by (in part) suggesting developing an "appropriate form of consent that could lead to by-passing the process of consent whereby parents or gamete donors consent to experimentation on their embryos. This would add to the lack of transparency and propensity to deceive, whereby the previous (2002) vote of Parliament

defeated attempts to label the products of research, to alert those ethically opposed to using products derived from human embryo research.

5) Conclusion

The Lockhart proposals adopted in Senator Patterson's Bill represent gross violations of human dignity and cry out to be voted down in parliament. Our Parliament is faced with a clear choice: it can declare again, as in 2002, that it is wrong to create human embryos with their destruction in mind, or it can abandon this just and humane ethical position, instead supporting Patterson's barbaric proposal to create and kill human embryos on the altar of speculative science.

Peter & Marianne Murray

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[i] http://www.cloning.org.au/Documents/Analysis%20of%20papers%20tabled%20by%20Senator%20Patterson.pdf

[ii] **Prentice, D. "Adult Stem Cells"** Appendix K in *Monitoring Stem Cell Research: A Report of the President's Council on Bioethics* (Washington, DC: Government Printing Office, 2004), 309-346.

[iii] **Associate Professor Ian Kerridge** (NSW: Universities of Sydney and Newcastle) had been quoted to that effect by Anna Salleh in ABC Science Online on 12 June 2001 [footnote (abc.net.au/science/news/health/HealthRepublish_311098.htm)]: "There are strong moral imperatives to do stem cell and cloning research."

[iv] **Professor Peter Schofields** (University of NSW) [footnote in a letter dated 9 October 2001 to Ms Jillian Skinner (then Shadow Minister for Health, NSW Parliament)] commended proposed NSW legislation allowing research "…including embryonic stem cells and their use in human therapeutic cloning."

[v] **Professor Loane Skene's** (University of Melbourne)[footnote submission dated 1 March 2000 to a Public Forum (in Melbourne) of the House of Representatives Standing Committee on Legal and Constitutional Affairs *Inquiry into the Scientific, Ethical and Regulatory Aspects of Human Cloning* stated]: "Even if one regards reproductive cloning as contravening human dignity surely the same is not true of therapeutic cloning".
