

Dear members of the senate committee,

I attended the Melbourne hearing and would like to offer you my responses to the testimonies of three witnesses: James Sherley, Jack Martin and Katrina George.

My understanding of the issues comes from the three years spent researching my book*, and the ten years I spent as a research scientist, specializing in the early development of fruit fly embryos.

Professor James Sherley

Professor Sherley's key assertion is that the therapeutic value of SCNT in particular and embryonic stem cells research in general is based on a flawed premise. Namely that only adult stem cells can provide a therapeutic product because only these cells are equipped to repair tissue and provide a reservoir of stem cells for ongoing repair.

Sherley's views (as he acknowledges) are highly disputed within the scientific community. They will be resolved by the scientific process of experimentation, not by argument.

Sherley questions the motives of his scientific colleagues who believe SCNT is a viable therapy. He offers that they are either naïve about the science or motivated by self aggrandisement or profits. He contends these "interests" cloud their appraisal of the science.

Likewise one is entitled to question Sherley's motivations. Religious belief can also cloud the appraisal of SCNT science. The senate committee members should consider whether Sherley's appraisal of the science is influenced by religious beliefs. His claim that a five day SCNT embryo is a human being is a statement of belief, not science. Many people would say that an SCNT embryo is no more a "being" or "person" than the skin cell from which it was cloned.

Professor Jack Martin

Professor Martin submitted his belief that the present state of research on SCNT and embryonic stem cells in animals does not show "proof of concept" and therefore no further research is warranted. It is odd logic coming from a scientist: proof *before* research?

It is also a view at odds with the majority of Australia's scientists. The include : Chief scientist Jim Peacock, our Nobel prize winners, Peter Doherty and Barry Marshall, Victoria's chief scientists: Gus Nossal and Graham Mitchell and Australian of the year, Ian Frazer... (I can submit documents on the views of these researchers to the committee).

Martin's arguments that animal research is unconvincing would be relevant to an NH &MRC committee deliberating whether to allow human trials. It is not relevant to a legislative committee deciding on a bill to make basic research legal.

Martin also argues that there is no need to carry out research on human SCNT because the research can be done in animals. However the characteristics of human cells differ from animal cells, especially in the area of stem cells and tissue differentiation. It is not enough to know how the mouse forms its tissues and organs; it is necessary to know how human cells form these tissues.

Most compellingly, while mouse SCNT is now routine, the technique has not been mastered for human cells. To master human SCNT, researchers must attempt the technique with human cells.

Katrina George

George argued that the bill should not be passed because it will result in the exploitation of women for their eggs.

There are a number of potential sources of eggs for SCNT: eggs rejected by IVF clinics, animal eggs, cadaver eggs, embryonic stem cell derived eggs and freshly donated eggs.

George claims that of all these sources, only freshly donated eggs will be useful, and that they will be required in the thousands.

This is all surmise on her part. Global experience is far too rudimentary to make any definitive claims about what sources of eggs will be useful. It is for instance conceivable that research with animal eggs would allow enough to be discovered about “reprogramming factors” to make the use of human eggs unnecessary. The key issue is that too little is yet known to encase research in iron-clad legislation.

George also argues that informed consent regarding egg donation is not possible because the risks of super ovulation are not known precisely. But informed consent for egg donation is a standard part of IVF. Clearly the law recognizes it is possible to give informed consent even based on an estimate of the risks of the procedure.

George also suggests that donation without coercion, even in the absence of commercial rewards, is not possible because women will feel coerced, perhaps by family members.

George is undermining the whole tradition of medical altruism. All clinical trials rely on people willing to incur some small risk for the benefit of others. George’s argument that women are unable to give informed consent, without being coerced, would apply just as well to any person taking part in a clinical trial. Does she suggest that clinical trials be outlawed?

In summary George’s position is not a coherent demonstration of the harms of therapeutic cloning to women. It is a patchwork of hypothetical claims thrown together to support an a priori position: it relies on her predictions of what the science will find; her personal belief that women are incapable of exercising free choice about whether to donate eggs and an extremist claim that informed consent is only possible if the exact risks of a procedure are known.

Who do these speakers represent?

Finally, I would like to express my concerns that these speakers took up so much of the senate committees' time. While it may be useful for the committee to hear dissenting opinions, the question should be asked who do these speakers represent?

Sherley insults the members of the Lockhart committee chosen by Australia's governments for their eminence in law and medicine as well as their ability to offer an impartial assessment. Who does Sherley represent? Not the opinions of the majority of US scientists. I believe MIT professor Rudolf Jaenisch, a doyen of the field of stem cell research, will be writing his own letter to the committee on where Sherley stands in the eyes of US scientists.

Who does Professor Martin represent? Not Australia's scientific community.

Who does Katrina George represent? She claims to represent Australian women. She admitted to the committee that her newly convened group Womens' Forum Australia have 60 members

* "Stem cells: controversy at the frontiers of science published by ABC books (winner of 2005 QLD Premier's literary award; shortlisted for Victorian Premier's award and Federal Government Eureka award)

Dr. Elizabeth Finkel