Speech by

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PROHIBITION OF HUMAN CLONING BILL

REGULATION OF RESEARCH INVOLVING HUMAN EMBRYOS AND

ASSISTED REPRODUCTIVE TECHNOLOGY BILL

Miss SIMPSON (Maroochydore—NPA) (11.55 p.m.): Despite the diverse viewpoints in this parliament, I do not believe that there are different levels of commitment to seeing new treatments or cures for debilitating diseases. To claim otherwise is dishonest and manipulative. The contentious issue that divides this parliament is whether it is necessary or right to destroy one form of human life in the pursuit of new treatments for other human beings, particularly if other viable and ethical sources of stem cells exist, such as from adult stem cells.

There are some strongly held views in this parliament about when human life has value. I personally believe that all human life, including embryos, as our littlest members of the human species, have intrinsic value and a need for respect, regardless of whether they look like you or me or have the ability to speak for themselves. Human beings are not the same as animals. They have a body, a soul and a spirit, which significantly separates us from the animal kingdom. It is true that science does not do well to grasp the concept of the human spirit. But science is not divided about the facts of when human life begins, as a human embryo is undoubtedly part of the human species. What is subject to public debate is when in the life cycle we value human life.

I may not persuade those who disagree with these value statements. However, I will state that the polarity of opinions concerning the intrinsic, rather than the utilitarian, value of embryonic humans has overshadowed other extremely important ethical issues. I urge those members who hold a contrary view to me to still seriously consider these other issues that have not been dealt with adequately by state or federal legislation or the preceding COAG agreement. For example, under this bill there is no export ban on the so-called excess human embryos that have been created. We are deluding ourselves if we believe that the legislation to ban human cloning will achieve that aim. It may stop the deed occurring on our shores for a few years, but this parliament is about to sanction an export industry of Australian embryos to be manipulated and potentially cloned overseas.

Although provisions in the Prohibition of Human Cloning Bill refer to offences of selling embryos, sperm or eggs, it does not prohibit the export of embryos or their cell lines overseas. It is quite well documented that some of the companies that are operating in Australia are international companies. In other words, there is no legislative ban to prevent those companies taking that material overseas. I am concerned that, neither at the state level nor at the federal level when the state premiers got together with their federal counterparts, this issue was addressed. I think that it would be wrong for us not to talk about some of those critical issues that are missing from the legislation. Tonight the government is saying that it is banning cloning, but in reality that is not what is occurring.

Most people in this parliament have said that they are opposed to human cloning, although I did hear at least one member say that she was in favour of it. I would suggest to them that this is really a bandaid approach to an issue that has not been addressed at its core and that the outstanding issue of an export overseas remains. We know that in a few years time the lobby will be on again to extend the areas of research to also include human cloning. There are also other ethical issues that need to be addressed such as the commercial interests driving where public research dollars go or in fact the attentions of government with legislative changes. That has not been adequately addressed at either

the federal or the state level, as we have seen, because it has been quite evident with the debate to date. I acknowledge that some of the material that has been previously tabled by members has suggested that there are other ethical and far more advanced lines of research which in fact have not been able to get traction with those who have been promoting embryonic stem cell research as the miracle cure-all. There are significant issues to do with people's personal shareholdings, and we have already seen this with regard to Professor Alan Trounson.

I want to quote from a letter of pre-eminent scientists. It was an open letter to the Queensland parliament regarding stem cell science. I will be cross-referencing to it with points within my speech. It was significant because it showed that there is not a consensus amongst scientists. Once again, we need to listen to the voices of those who do not necessarily have a vested interest in the industry of embryonic stem cell research. Regardless of one's personal viewpoint in promoting and legitimising it, we have to listen to some of the other voices that are out there, particularly in the scientific community. The letter states—

We the undersigned medical researchers submit the following points for the consideration of our elected representatives:

I. While accepting that the debate about destruction of human embryos for research purposes is primarily an ethical one, it is relevant to note that from a purely scientific point of view, arguments claiming the urgent need for embryonic stem cell (ES cell) research are not compelling.

2. Undue expectations have been created in the community, particularly in those with various medical afflictions, as to the imminence and likely scope of ES cell therapy.

3. The community has not been properly informed of the scientific difficulties involved in developing ES cell therapies, which include major obstacles of immune rejection and cancer formation.

4. Research using adult stem cells, by contrast, avoids issues of rejection and cancer formation, and has the clear advantage of being able to use the patient's own cells to repair any deficits.

5. Such research on stem cells derived from adult and placental tissues, which has seen great advances in the last three years, is quite compelling in its clinical promise, and does not involve the destruction of nascent human life.

6. In proper medical research, 'proof of concept' must first be established in animal models before moving to human subjects. Such proof using ES cells has not been established in any of the conditions such as Alzheimer's, MS, diabetes and Parkinson's which are so often part of public discussion. Some of the proposed cures are highly unlikely, and others are only potentially viable on a very long time-frame. For example, Alzheimer's disease is a global disorder of the brain and is highly unlikely to be amenable to any form of cell therapy at any time in the future.

7. Therefore it is scientifically premature and improper to move to human experimentation at this early stage of research: there is much to be learned from animal models, with no need to use human material.

8. Consistent with proper research principles, we advise that there be a moratorium on the destructive use of human embryos until, if ever, animal models are able adequately to demonstrate 'proof of concept', and human safety issues have been adequately addressed.

That letter was signed by Emeritus Professor of Medicine, John Martin, endocrinologist; Professor Michael Good, immunologist; Professor Peter Silburn, neurologist; Associate Professor Joanne Shaw, endocrinologist; Professor Peter Rowe, Children's Medical Research Institute; Professor Bryan Mowry, geneticist and psychiatrist; Professor Colin Masters, neurobiologist; Dr Peter McCullach, developmental immunologist; and Professor Michael Pender, neuroimmunologist. That was a significant letter that they put out there to provide a counter view.

I want to address the issue of adult stem cells. There has been a damaging and mischievous campaign to downgrade the significance of adult stem cell research in order to elevate the relative significance of embryonic stem cell research. One furphy is that adult stem cells are not multipotent—in other words, able to become anything other than what they were when sourced in the body. There are numerous peer reviewed and published scientific studies which dispute this. The *New Scientist* reported in January 2003 that stem cells and bone marrow can develop into brain cells, not just blood and bone cells as previously thought. The article says—

The discovery suggests new approaches for repairing damaged or diseased brains.

The research team had already shown that bone marrow cells turn into brain cells in rodents, but the new work now shows the same happens in humans—in other words, it has been tested in an animal model and now they are able to proceed to an ethical application in testing it in humans. Another example is that adult blood stem cells have gone to kidney cells as recorded in *Blood* of 15 March 2003 Volume 101 No. 6. There is also another example of adult stem cells having breakthroughs with regard to significant diseases. A Welsh man with bubble boy syndrome, which is a fatal immune deficiency condition, was treated successfully with his own adult stem cells and this success has been replicated in several Australian children.

What about the views of those who are awaiting a treatment? We have heard on both sides of the debate people in this very parliament who suffer from crippling or potentially crippling conditions arguing against the ethics of the embryonic stem cell debate or arguing for it and providing their viewpoints. Christopher Reeve as a quadriplegic was a high-profile advocate of embryonic stem cell research in the US and recently during his visit to Australia. He is to be admired for his tenacity to

overcome his disability. However, I want to quote from an article by another person, James Kelly, who lives with the daily reality of his own spinal cord injury. He says—

The tragedy is that valuable public and private research funds may end up being diverted to basic embryonic stem cell and cloning research with little clinical potential, to the detriment of proven and further developed avenues that could help both of us—

that is, he and Reeve—

during our lifetimes.

I will table James's article. He goes on to refute Reeve's statements about embryonic stem cells being the only potential to recoat his nerves with insulation. James also says—

Japanese researchers have recoated rats' spinal cords using adult bone marrow stem cells. Neural stem cells (from adults) have been successfully used to recoat tissue in the central nervous system in animal models in France, England, Japan, and at the University of Wisconsin.

The article also goes on to state—

After years of successful animal tests, researchers and doctors at Yale are already treating two human patients suffering multiple sclerosis by using coating cells taken from their own peripheral nerves.

I want to also address another significant issue about efficacy that has arisen about the various modes of research. It is a significant one because it is to do with immunology and compatibility with foreign material in our bodies.

One of the significant criticisms of using embryonic stem cells in potential treatments is their lack of compatibility with the patient. Unless the embryo consists of someone's own DNA, the patient would suffer an adverse immune response. I am advised by immunologists that suppressing someone's immune system is not necessarily an optimal treatment. This is a significant concern that has arisen with embryonic stem cells. Some people suggest that we can create a bank of embryos big enough to overcome this incompatibility issue by matching people with compatible embryonic stem cell lines. Professor Michael Good, whose main speciality is immunology, said that this was not a viable option because for it to work there would need to be a 1,000-fold increase in the number of available embryos to create a feasible bank and even then this would not address the subpopulations of different race groups such as Asians or indigenous people.

The 70,000 embryos on ice in Australia is the size of Mackay, and that seems excessive enough. But I doubt there would be that number of women who would tolerate the torturous and potentially hazardous process of superovulation to achieve a 1,000-fold increase—the number of surplus embryos for such a bank over their initial desire obviously to conceive a child. We know that it is absurd to consider a 1,000-fold increase in that bank, yet this has been put forward as one potential way of justifying the bank of embryonic stem cell lines.

I have heard some genuinely held views from members here about leaving the door open to destructive human embryonic stem cell research if there is any hope of a breakthrough. That argument would hold greater weight if there was far more substantive proof to justify such destruction, such as significant and published research from animal trials. I have already quoted from a letter from scientists who hold far more qualifications than anybody in this parliament. They raise the concern that it is scientifically premature and improper to move to human experimentation at this early stage of research. There is much to be learnt from animal models with no need to use human material. They have already raised concerns about the need for more substantive outcomes in the area of animal research. They say—

Consistent with proper research principles, we advise that there be a moratorium on the destructive use of human embryos until, if ever, animal models are able adequately to demonstrate 'proof of concept', and human safety issues have been adequately addressed.

Clearly, they are saying that that has not occurred to date. The issue that concerns many people is that of the diversion of the research dollar. It is incredible to think that a man who has been proven to have lied to federal parliamentarians about the stage of so-called animal research with embryonic stem cells was able to secure a $46.5 million grant towards that research. Professor Alan Trounson has done much to damage the cause for embryonic stem cell research. He has highlighted one of the problems of people just saying, 'If science can do it, why ask questions? Just let them do it.' It has proven that more than just lip-service needs to be given to adequate regulations and controls. Unfortunately, this legislation does not go far enough in controlling those matters.

I have heard it said that ethics committees will be the solution. Alan Trounson has said that he has no problem with ethics committees. This sent a shiver down the spine of many people, because he has been proven to be totally unethical by claiming that a rat walked after the use of embryonic stem cell lines to achieve that outcome when it was proven that, one, it was not a published and peer reviewed article claiming that and, two, embryonic stem cells had not been used in that case. Yet he has been very influential in many people getting on the bandwagon of this particular issue without considering all of the facts.

When people are desperate for answers to the diseases which cripple and debilitate, any glimmer of hope, no matter how small or how far off, is a beam of light in the darkness. Politics is the business of hope—selling promises of what can be done—but one of the criticisms that brings politics into disrepute is making promises that cannot be delivered or are overstated. Science is also in the business of hope. The challenge faced by the scientific community is speaking with the same integrity and accuracy in its pursuit of research dollars and legislative changes as we would expect of them in the pursuit of breakthroughs in the laboratory; otherwise they run the risk of the same public cynicism faced by politicians that comes from the expediency of selling hype, not valid hope.

There is a huge and glaring ethical issue about some of the outlandish claims about what some research is going to achieve. Some of the promises are more political than they are scientific, as we have seen with Professor Alan Trounson, as supposedly one of the most pre-eminent Australian advocates of embryonic stem cell research. When he was challenged about whether he had divested himself of 400,000 shares in the company which stood to benefit from the government grant it received he claimed that he had. It was later proven that he had not. This same man is the one who used the now infamous rat video to persuade people about this particular issue.

The push to promote destructive human embryonic research at the expense of funding for other proven and further developed avenues of research is perverse. I accept that there are different views, and that is why I said at the outset that we need to respect that. Unfortunately, I note that that same spirit was not evident in the Health Minister's address. We as a parliament must never abrogate our responsibility to seek to have ethical brakes and controls. We do want to see cures and treatments, but we as legislators should not just accept that because people are standing in white coats we should accept everything they say without some means of ethical scrutiny or control.