Speech by

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MEMBER FOR GLADSTONE

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PROHIBITION OF HUMAN CLONING BILL
REGULATION OF RESEARCH INVOLVING HUMAN EMBRYOS AND ASSISTED REPRODUCTIVE TECHNOLOGY BILL

Mrs LIZ CUNNINGHAM (Gladstone—Ind) (9.40 p.m.): In rising to speak to these two pieces of legislation, I would also like to commend the government for its preparedness to separate the two bills to allow the debate to be carried on, although in effect in a cognate fashion, to allow us to address these two issues about which there are such strong feelings. I believe all honourable members have supported the Prohibition of Human Cloning Bill. At international, national and state levels the creation of human clones is widely regarded as unacceptable and contrary to human dignity and, on that basis, I will be supporting the legislation for the prohibition of human cloning. Such a blanket prohibition of research involving human embryos and assisted reproductive technology, however, does not have the same support.

In Senate committee hearings some years ago the Tate committee established what it felt the human embryo was. It stated—

The human embryo is: a genetically new human life, organised as a distinct entity, oriented towards further development.

Contrary to public perception, there is no meaningful medical dispute over the fact of a new individual life beginning at conception. A range of authoritative texts confirms as much.

In *Clinical Embryology*, 1998, Brookes and Zietman state—

Individual life begins with conception by the union of gametes or sex cells ... Growth and development continue thereafter ...

In *Molecular Biology of the Cell*, Alberts states—

An egg is programmed to form a new individual organism when activated by a sperm ...

In *Patten's Foundations of Embryology*, 1996, Carlson states—

The time of fertilization represents the starting point in the life of history, or ontogeny, of the individual.

From the point of view of people who hold very strong spiritual values, a child begins at conception. Indeed, in the hearts and minds of prospective parents, their child begins his or her life well before intercourse and possible fertilisation. Their child is a concept clearly founded in their love.

In drawing together my contribution to this bill I have to thank publicly Dr David van Gend for the material he made available. I will be drawing heavily from the submission that he made to the Senate Community Affairs Legislation Committee in 2002. There is no scientific consensus about the need for human embryo experimentation. In a remarkable letter titled 'No scientific imperative for destructive research on human embryos' sent last year to senators involved in this hearing by some of Australia's leading medical researchers in fields relevant to stem cell science they outlined the following—

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

They outlined eight specific reasons why they do not believe there is a scientific imperative—

1. ... 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 stems, 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.

Another four issues were raised. This document was signed by Emeritus Professor of Medicine John Martin, an endocrinologist; Professor Michael Good, an immunologist; Professor Peter Silburn, a neurologist; Associate Professor Joanne Shaw, an endocrinologist; Professor Peter Rowe, Children's Medical Research Institute; Professor Bryan Mowry, a geneticist and psychiatrist; Professor Colin Masters, a neurobiologist; Dr Peter McCullach, a developmental immunologist; Professor Michael Pender, a neuroimmunologist, who are all wonderfully experienced and qualified in their fields.

The *Journal of Cell Science* questioned the motives of those who distort the true shape of the science. Despite such irrefutable evidence, a veritable chorus of detractors of adult stem cell plasticity has emerged, motivated perhaps by more than a little self-interest. For it is the drug companies above all that want access to human embryos to test drugs on perfect young human tissues. Leading embryo researchers made clear to the Senate committee that drug testing is a practical and profitable application of embryonic stem cells, with Professor Alan Trounson enthusing—

These cells will be highly useful for screening drugs for both toxicology and effectiveness.

The central goal of drug testing is confirmed in Trounson's successful application for $46.5 million taxpayer dollars granted to his stem cell centre. He said—

The centre will be developing pure populations of cells and plans to be primarily a supplier to screening companies for drug screening.

There is no moral consensus about the permissibility of human embryo experimentation. We have all been written to by Australian spiritual leaders urging us to have regard for the sacredness of all human beings of whatever level of maturity, dependency or ability—

We ask them to support adult stem cell research and to reject a policy of destroying some to treat others.

Together they speak for a large number of our fellow Australians when they ask us, the law makers, to affirm the ethically innocent and medically superior alternative of adult stem cell science. They say—

We urge our political leaders to support the alternative, safer and longer established medical technology of using a patient's own tissues as a source of stem cells for developing therapies, especially as they have much greater direct therapeutic potential in terms of tissue compatibility. We ask them to fund and encourage ethical stem cell research on placental and adult tissue.

Much of the support amongst MPs and their constituents for human embryo experimentation is based on false scientific premises after a public relations campaign for embryonic stem cells involving a distortion of the science and manipulation of vulnerable patient lobby groups. Although other members have possibly quoted from this, I wish to place in the context of my contribution an article in part written by James Kelly to the *Detroit News* on 28 April 2002 in which he stated—

'For the last seven years, I have not been able to eat, wash, go to the bathroom or get dressed by myself. Some people are able to accept living with a severe disability. I am not one of them.'

Thus spoke actor Christopher Reeve at a recent Senate hearing. I couldn't agree more. I also have a cervical spinal cord injury and share some of Reeve's symptoms. I also want to find a cure for spinal cord injuries, as do many of the 300,000 Americans who have this condition.

Unfortunately, my agreement ends there. Reeve claims embryonic stem cells taken from cloned human embryos are needed to cure spinal cord injuries and other illnesses. He made misleading claims to support this contention:

'In my own case, I require remyelination of nerves (their recoating with insulation) ... At the moment, only embryonic stem cells have the potential to do that, and experiments are being done now in larger animals demonstrating that.'

But the research clearly shows otherwise. For example, 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 in the University of Wisconsin. Adult cells found in the nose have been widely reported to cause nervous system recoating upon transplantation.

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.

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 during our lifetimes. If that happens, Reeve will have more to answer for than the destruction of some embryos.

Have there been examples of the different results between embryonic stem cell and adult stem cell technology? In diabetes, research has reported the conversion of mouse embryonic stem cells into insulin producing pancreatic islet cells. The mouse embryonic stem cells secreted only one-fiftieth of the normal amount of insulin and diabetic mice implanted with the cells still died. Liver or pancreatic adult stem cells grown in culture formed insulin-secreting islets. When injected into diabetic mice, the mice survived without the further need of insulin injections. That research can be found in an article titled *In vitro trans-differentiation of adult hepatic stem cells into pancreatic endocrine hormone-producing cells*. In terms of Parkinson's disease, researchers used gene engineering to enrich mouse embryonic stem cells for dopamine neurons. When injected into rats with Parkinson's disease, they gave some benefits up to eight weeks after the injection. By using a patient's own adult neural stem cells, a group at the

Los Angeles Cedars-Sinai Medical Centre reported a total reversal of symptoms in the first patient with Parkinson's disease who was treated—a 59-year-old ex-fighter pilot.

Because of the time, I will not be able to go through a number of examples that I have that indicate clearly the different success rates between using embryonic stem cells and adult stem cells. But that information has never been readily available to us as we have been bombarded by the need for embryonic stem cell research.

The Premier's ministerial media statement of 25 February 2002 states in part—

New stem cell law will give scientists freedom to save lives.

Premier Peter Beattie said today strict controls on human embryonic stem cell research will set clear limits for Queensland scientists seeking breakthroughs that could save and enhance lives.

Mr Beattie will today introduce into Queensland Parliament an integrated bill that bans human cloning and regulates research involving human embryos.

Mr Beattie said the Research Involving Human Embryos and Prohibition of Human Cloning ... "strikes a sensible balance in regulating research involving human embryos".

"One of humanity's defining characteristics is our continuing quest to overcome diseases and injuries that diminish quality of life.

...

"I do not want to shut down inquiry into this potential medical application in Australia.

"To do so would shut down humane possibilities for the thousands of Australians whose lives are shortened and made painful by diseases and injuries.

The argument is that we use these embryonic stem cells that are being called excess to need—and I dislike that word so much; to call a young human excess to need—because 'they are going to die, anyway. Why not use them for something good.' The Prime Minister said that when he introduced the Human Cloning and Embryo Research Bill into the federal parliament. He established as his moral foundation that only surplus embryos will ever be used and that no embryo will ever be specifically created for research.

However, the head of Sydney IVF research for the past 20 years, Dr Robert Jansen, has told anyone who cares to listen that such a distinction is a fallacy. He has indicated that embryo supply will be guaranteed in ways that cannot be policed. In his submission to a Senate inquiry into human embryo experimentation in 1986, he stated with clarity and frankness—

It is a fallacy to distinguish between surplus embryos and specially created embryos in terms of embryo research—any intelligent administrator of an IVF program can, by minor changes in his ordinary clinical way of going about things, change the number of embryos that are fertilised.

So in practice there would be no purpose at all in enshrining in legislation a difference between surplus and specially created embryos.

So what do we do with the current frozen generation? We accept with shame that there is no good way out for these 'surplus embryos'. The primary offence is that they have been stockpiled in the first place. But the lesser of the evils is to let them die, accepting that we have done wrong, and ensure that the stockpile never builds up again. It is a greater evil to set up a permanent market for human embryos by making them available on an ongoing basis as expired meat for the consumption of science, acquiescing to the principle that an embryonic human can be destroyed as a means to someone else's ends. The adoption of a condition on the way in which embryos are created and held is necessary to ensure that that stockpiling does not occur. That would be the most innocent use of IVF and should be adopted as a condition of licence in Australia. The issue of the creation of ongoing frozen generations of human embryos is too serious to ignore as a fait accompli.

As a Christian, a wife, a mother, a daughter and a sister, I would love to see an end to suffering. We all have members of our family, both close and extended, who in some way are suffering illness, whether it is terminal or whether it is chronic. To see an answer for those whose experience removes from them normal mobility and function is concerning, it is distracting, it is very difficult to accommodate on a day-to-day basis. However, in all of my capacities, I also cannot support the proactive sacrifice of one life to benefit another. The anguish that a family endures after losing a loved one, even in the decision of organ donation, is intense. The spectre of a nation valuing human life at a commercial level rather than in the context of human dignity, human potential and spiritual dynamic is not a legacy that I wish to leave for my children or theirs to come. I will not be supporting that legislation.