Speech by

Hon. Stephen Robertson

MEMBER FOR STRETTON

Hansard Tuesday, 7 August 2007

RESEARCH INVOLVING HUMAN EMBRYOS AND PROHIBITION OF HUMAN CLONING AMENDMENT BILL

Second Reading

Hon. S ROBERTSON (Stretton—ALP) (Minister for Health) (3.47 pm): I move—

That the bill be now read a second time.

This bill amends the Research Involving Human Embryos and Prohibition of Human Cloning Act 2003 to mirror recent amendments to the Commonwealth Research Involving Human Embryos Act 2002 and Prohibition of Human Cloning Act for Reproduction Act 2002.

The bill gives effect to the undertaking made by all the states and the Australian Capital Territory at the Council of Australian Governments' meeting on 13 April 2007 to introduce corresponding legislation into their respective parliaments to maintain a national approach to regulating human embryo research and cloning.

The amendments arise from recommendations of the Legislation Review Committee chaired by the late Honourable John Lockhart, former justice of the Federal Court. The committee comprised highly qualified and experienced individuals from the fields of law, science, medicine and ethics and all state and territory governments were consulted on the composition of the committee.

The review committee undertook an extensive review of the Commonwealth acts, consulting widely with the community and with state and territory governments. Ethicists, scientists, IVF specialists, religious leaders and the community were all invited to make submissions and the committee met individually with many leading experts. The committee carefully weighed the ethical and moral concerns raised during consultation with the strong community support for research that has the potential to help people with debilitating or currently incurable conditions.

The amendments in this bill raise important moral and ethical questions upon which members should be able to vote according to their conscience. Accordingly, the Hon. Premier has approved a conscience vote by government members. The honourable Leader of the Opposition has also allowed a conscience vote by members opposite.

To inform debate on the difficult scientific concepts involved, Queensland Health recently hosted an information session by experts in the field for all members of parliament. I understand that the presentation was well attended and I thank members for their interest. Presentation materials have been circulated on disk to all members of parliament. I will also be circulating an additional guide to the bill to assist and inform members.

The bill will amend the Research Involving Human Embryos and Prohibition of Human Cloning Act to expand the range of research activities which may be carried out under licences issued by the National Health and Medical Research Council's Embryo Research Licensing Committee. This is a rapidly developing area of technology and it is important that Queensland keep pace with the potential therapeutic applications of research, as well as changes in community attitudes and standards. Specifically,

the amendments will allow, under licence, the creation of embryos for research purposes by means other than fertilisation of a human egg by human sperm.

The NHMRC Embryo Research Licensing Committee will be able to issue a licence, for example, for the creation of an embryo using techniques such as somatic cell nuclear transfer. The amendments will also permit the fertilisation of animal eggs with human sperm under licence, but only for the purpose of testing sperm quality for assisted reproductive technology, or ART, purposes.

I stress that the bill retains important safeguards. Universally unacceptable activities remain prohibited, with maximum penalties of up to 15 years imprisonment for noncompliance. Prohibited activities include: cloning a human for reproductive purposes; making heritable alternations to a human embryo; and creating or developing a chimeric embryo, which is a human embryo into which the cell of an animal has been introduced.

To further ensure cloning techniques are used for research purposes only, it will be an offence to allow an embryo to develop for more than 14 days. This is when the rudimentary nervous system—the 'primitive streak'—first appears. It will also be an offence to permit an embryo created for research to be implanted into the body of a human or an animal under any circumstances. These offences will carry maximum penalties of up to 15 years imprisonment for noncompliance.

I take this opportunity to seek leave to incorporate the remainder of my second reading speech in *Hansard*.

Leave granted.

As is currently the case, the NHMRC Embryo Research Licensing Committee will be able to issue licenses only for research approved by a Human Research Ethics Committee. Research must also be conducted in accordance with the NHMRC's Ethical Guidelines.

Mr Speaker, perhaps the most controversial aspect of the Bill is that it will allow for the creation of embryos using somatic cell nuclear transfer, or SCNT.

The purpose of SCNT is to create an embryo clone from which embryonic stem cells may be derived for research.

Members may recall that SCNT was used to create 'Dolly' the sheep.

However, attempts to use this technique to clone a human will be prevented by the prohibitions I've just mentioned.

SCNT involves removing the nucleus from an unfertilised egg cell and replacing it with the nucleus from another cell, usually a somatic cell.

Somatic cells are tissue cells, other than reproductive cells, such as skin or muscle cells. The egg cell with the inserted nucleus is then stimulated by either an electric or chemical stimulant, to induce the cell to fuse with the new nucleus and develop into an embryo.

The embryo may then be cultured to the blastocyst stage, that is, a 5 to 7 day old embryo, from which embryonic stem cells can then be removed and used for research. It is hoped this will aid the development of cellular therapies, which is why this process is often referred to as 'therapeutic cloning'.

SCNT leaves the embryo in a state from which it can no longer develop; that is, the embryo is effectively destroyed.

This raises important ethical issues about the status of an embryo created in this way.

The Lockhart Review Committee viewed embryos created through SCNT as being different from those created through fertility treatment, for two reasons.

First, the aim of SCNT is to derive embryonic stem cells for research and in the future, therapeutic treatments. In contrast, embryos created by fertilisation of a human egg by human sperm are created by couples for the purposes of having a baby.

Second, embryos created through SCNT are made up almost entirely of DNA from the donor of the somatic cell. Consequently, the Committee viewed embryos created through SCNT as akin to an extension of the person from whom the body cell was taken. In contrast, embryos created by fertilisation of a human egg by human sperm using ART have a mixture of DNA from the mother and the father.

To reflect the Committee's view, the Bill prohibits the creation of embryos by fertilisation of human egg by human sperm for research purposes.

Excess ART embryos may continue to be donated by couples to researchers licensed by the NHMRC Embryo Research Licensing Committee.

Using SCNT will enable the creation of embryonic stem cell lines to generate patient-matched stem cells for research and the possible development of specific cellular therapies to overcome problems such as tissue rejection.

In addition, SCNT will allow the creation of embryonic stem cells with specific targeted diseases, which will assist scientists to obtain a better understanding of diseased cells and may also lead to the identification of drugs and treatments for diseases.

Excess ART embryos are not suitable for this type of research. They are created for the sole purpose of having a healthy baby and are unlikely to have the diseases being studied.

Also, while pre-implantation genetic diagnosis of ART embryos can detect some conditions that result from changes in a single gene, for example cystic fibrosis, such testing cannot detect more complex diseases such as Alzheimer's disease and multiple sclerosis.

In addition, the stem cells derived from these excess ART embryos would not be a genetic 'match' to the patients for whom potential cellular therapies are being developed.

Importantly, the use of SCNT techniques to create embryos will also assist in developing a better understanding of how embryos develop and how cells differentiate.

By better understanding how primitive cells behave, scientists may one day be able to stimulate adult stem cells into reverting to more primitive states and thus circumvent the need to create or destroy an embryo.

Mr Speaker, an important practical consideration in this debate is what status the Queensland legislation will have in relation to the Commonwealth Acts.

The Government's legal advice indicates that the Commonwealth has constitutional authority to legislate comprehensively in this area under the external affairs power, due to international concern about embryo stem cell research and human cloning.

Accordingly, due to the operation of section 109 of the Commonwealth Constitution, Queensland legislation in this area which is inconsistent with the Commonwealth legislation will be inoperative to the extent of the inconsistency.

The practical effect of this advice is that those activities currently banned in Queensland will still be able to be carried out in Queensland by persons issued with a licence by the NHRMC Embryo Research Licensing Committee under the Commonwealth legislation.

Further, the offence provisions of the Queensland Act would not apply to any research activity licensed under the Commonwealth Acts but prohibited in Queensland.

However, both the existing Queensland Act and the Commonwealth Acts would continue to operate to prohibit unlicensed research using human embryos, cloning of human embryos, including unlicensed cloning for therapeutic purposes, and other prohibited practices for which a Commonwealth licence has not been issued.

Mr Speaker, wherever possible, governments have a responsibility to promote high quality and ethically sound scientific research and medical practice.

This Bill will do this by allowing important and potentially beneficial research to be conducted in order to obtain a better understanding of disease and how cells differentiate.

This may ultimately have a profound and positive effect on the ability to treat a range of human conditions and diseases such as spinal injuries, heart failure, Parkinson's disease, motor neuron disease and multiple sclerosis.

The Bill will ensure that further advances in this field of science are made within a responsible regulatory framework.

Finally, Mr Speaker, the Queensland Act requires the Minister to review the Act as soon as possible after December 2005, and stipulates the review may be undertaken as part of the review of the Commonwealth Acts.

Queensland participated in the Lockhart Review, which undertook extensive community and stakeholder consultation. Consequently, the Government considers the Lockhart Review is adequate for the review of the Queensland Act.

The Bill inserts a similar provision, requiring a review of the Act within three years of the amendments commencing, and providing that this review may be undertaken as part of the review of the Commonwealth legislation.

I commend the bill to the House.