Extract from *Hansard*
[ASSEMBLY - Tuesday, 28 August 2007]
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Dr Kim Hames; Acting Speaker; Mr Jim McGinty; Mr John D'Orazio; Mr Tom Stephens; Mr Paul Omodei; Dr Graham Jacobs; Mr Peter Watson; Mr Paul Papalia; Mr Terry Waldron; Mrs Judy Hughes; Ms Katie Hodson-Thomas; Dr Janet Woollard; Mr Trevor Sprigg; Dr Steve Thomas; Ms Margaret Quirk; Mr Colin Barnett; Mr Ben Wyatt; Mr Terry Redman; Mr Max Trenorden

HUMAN REPRODUCTIVE TECHNOLOGY AMENDMENT BILL 2007

Second Reading

Resumed from 28 March.

DR K.D. HAMES (Dawesville) [4.29 pm]: I point out for the purpose of this debate that although I guess will be taking the role of lead speaker, I will use a component of my time to briefly outline the details of the bill to remind members of its contents. I am not in fact the lead speaker, as opposition members will have a free vote on the bill.

The ACTING SPEAKER (Mrs J. Hughes): Order! I am having a little trouble hearing the member for Dawesville. I ask members to keep their conversation levels down.

Dr K.D. HAMES: I was having trouble hearing myself because of all the gossiping in the back corner! Some members are still doing that oblivious of Madam Acting Speaker's instructions.

The ACTING SPEAKER: Order, members!

Dr K.D. HAMES: As I pointed out, I will initially briefly summarise the second reading speech given by the minister to remind members in this house of what this bill contains. The Liberal Party will have a free vote on this legislation. I will quote the minister's second reading speech -

> In April 2002, the Council of Australian Governments agreed to develop nationally consistent legislation to regulate human embryo research and ban human cloning. The commonwealth passed the Prohibition of Human Cloning Act 2002 and the Research Involving Human Embryos Act 2002 - the commonwealth acts - and all jurisdictions except the Northern Territory have since enacted complementary legislation. In WA this was done by amending the HRT act in 2004.

In 2005 the federal government appointed a committee, which was chaired by John Lockhart, QC. He was a former judge of the Federal Court. The report was obviously called the Lockhart report. He reviewed the commonwealth acts and the corresponding state and territory legislation, which included our own Human Reproductive Technology Act. The Legislation Review Committee was appointed by the commonwealth minister with the agreement of all states and territories. It included our own Nobel laureate, Professor Barry Marshall.

The committee consulted extensively and brought down a report that recommended changes to the legislation. As a result of the review, the committee presented 54 recommendations, which were tabled on 29 March 2006. In December 2006 the commonwealth acts were amended by a private member's bill, and not by Minister Abbott who opposed the content of the review. The private member's bill was introduced by Senator Kay Patterson to give effect to most of the recommendations. They were passed and came into effect on 12 June of this year. The bill we have before us - the Human Reproductive Technology Amendment Bill 2007 - amends the HRT act to maintain consistency with the commonwealth act. I will summarise the points made in the second reading speech that details what is in the legislation. There are five dot points.

Mr T.G. Stephens: May I ask a question? Are you the lead speaker for the opposition on this?

Dr K.D. HAMES: I explained at the start. I am taking the lead speaker's hour to give me the opportunity to review this legislation. I am not taking the hour in effect because I am just doing this. I will then give my version because we have a free vote. I anticipate taking in the order of 40 minutes: 10 minutes to do this and 30 minutes of my time, as I see it, to make myself equal with every other member in this house who has a free vote.

Point of Order

Mr J.B. D'ORAZIO: I am sure that the member will support this legislation. The purpose of the time for the lead opposition speaker is to put a case in opposition to what is being put as legislation. He will support this legislation and therefore he is not in opposition to it. That is contrary to standing orders.

The ACTING SPEAKER: Before the member continues, that is not a point of order. The member for Dawesville has the right to stand and express his views.

Debate Resumed

Dr K.D. HAMES: Just for the record, that is blatantly not true. When we support legislation from the government, as a lead speaker and opposition spokesperson I have an hour to speak. I do not have to oppose legislation to get an hour; I get an hour as lead speaker.

Mr J.B. D'Orazio interjected.

The ACTING SPEAKER: Order, member for Ballajura!

Dr K.D. HAMES: What I am doing here is trying to be fair to all the other members of this house who have a free vote by, in effect, giving myself half an hour, which is the same time that the member for Ballajura will get if he lets me continue.

The first part of my speech is just to bring to members' attention a reminder of what was in the minister's second reading speech. It is worth recording it again in *Hansard.* I quote -

> In summary, the amendments: firstly, retain the existing framework in relation to embryos created by fertilisation of human eggs by human sperm. Such embryos can only be created for the purpose of achieving pregnancy in a woman. If at the end of assisted reproductive technology - ART - treatment the embryos are excess to the needs of the people for whom they were created, they can be donated for research. Any use of the excess ART embryos for research will continue to be subject to the strict licensing requirements that are provided in the HRT act.
>
> Secondly, the amendments retain the ban on human cloning for reproductive purposes. Thirdly, they allow for the creation of embryos by means other than fertilisation and the use of those embryos for research. Both the creation and the use of the embryo are subject to the same strict licensing that applies to excess ART embryos. Embryos created by means other than fertilisation cannot be developed by any means for more than 14 days and must not be used for reproductive purposes. Fourthly, the amendments require the tabling of reports prepared by the relevant commonwealth minister regarding the establishment of a national stem cell bank, the establishment of a national register of excess ART embryos that have been donated for research and the feasibility of a national approach to non-blood human tissue based therapies. Fifthly, the amendments require the WA minister to cause a further independent review of the legislation in three years, which may be undertaken as part of the required review of the commonwealth acts.

Just to conclude this component of my presentation I will quote the following words later in the speech -

> Allowing the creation of embryos by methods other than fertilisation would allow the creation of embryos under licence using somatic cell nuclear transfer - SCNT - whereby a cell from a patient, such as a skin cell, is placed into a human egg that has had its nucleus removed. This is sometimes called therapeutic cloning. Embryos created using SCNT can be used as a source of embryonic stem cells that have a specific genetic disease. The stem cells can be used to undertake research about the progression of the disease and also research about the effect of treatment options. This could be helpful in gaining a better understanding of complex diseases such as type I diabetes, motor neurone disease, Huntington's and Parkinson's diseases and genetic disorders such as familial breast cancer.

That concludes the reminder to members of what is in the bill. I will now proceed for the usual half-hour with my own presentation. I will start by going through some of the articles that have been in newspapers relating to this issue. The first is one by Debbie Guest from *The West Australian* titled "Brave new world offers hope but raises fears". I will quote a component of the article -

> Therapeutic cloning is touted by supporters as the answer to finding therapies to treat conditions such as motor neuron disease, breast cancer and Alzheimer's because of the unique adaptability of cloned stemcells.
>
> . . .
>
> Therapeutic cloning, or somatic cell nuclear transfer as it is also known, sees the DNA removed from an unfertilised human egg.

An ova -

> A nucleus is added to the egg from an adult and the resulting cell is allowed to develop and form an embryo. The stemcells in the embryo are then removed to be cultivated.
>
> The potential to cure a range of diseases is due to the ability of the resulting cloned stemcells to grow into any type of the 220 cells in the body, from brain to bone, and will be not be rejected from the patient's body.

The next article I will quote from is again written by Debbie Guest and it refers to her view of what would happen in Western Australia if the Parliament did not support this legislation. I have had that confirmed in a briefing today from the Nobel laureate, Mr Marshall, and Dr Peter Klinken, who is involved in stem cell research in Western Australia. The article states -

> West Australia will lag behind the world if therapeutic cloning laws are not passed, according to IVF expert Anne Jequier.
>
> "All of this work is very important, in my view," she said.
>
> "The world will carry on and we will be left behind and our patients will not be able to be treated should any treatment arise from this research."
>
> She said that the possibilities of therapeutic cloning, including potential cures for diseases such as motor neurone disease and type 1 diabetes were not known and would only be found after laws were passed to allow the research.
>
> "I don't think we've proved that yet (cures for diseases such as MND), but the longer we can't disprove it, the longer we will not know," she said.

Mr J.B. D'Orazio: Member -

Dr K.D. HAMES: The member for Ballajura can interject later. I will finish this first. The last article I quoted from Debbie Guest was written after Archbishop Hickey presented his view that members of Parliament would be in breach of the Catholic faith and stood the risk of being excommunicated if they supported this legislation. I thought that the media was fairly harsh on his comments. I am not a Catholic but my wife and family are. After I listened to what he said, I did not believe that he said what the media accused him of saying. I think that he said he strongly opposed this legislation. I disagree with his view on it. He was then asked by the media what he would do if Catholics supported the legislation and what options were available to him if that were the case. I understood him to say in response that the final option available to the church would be excommunication. I do not think that he meant that he would either initiate or be involved in someone's excommunication if a member of Parliament from the Catholic Church supported the bill. I think that the media did him a disservice on that matter. On the other hand, I do not believe that members of the clergy, without necessarily knowing whether they represent all the views of their constituency, should be putting undue pressure on members of Parliament by making determinations about the way members should vote in this house. Nevertheless, I respect the archbishop's right to say it as he sees it.

The final article from which I will quote is a response by a Catholic to the antagonism Archbishop Hickey has to this legislation. It is headed "Dying Catholic asks MPs to ignore archbishops" and states -

> For motor neurone disease victim Frank Maiolo who in his own words is "waiting to die", being a Catholic had no bearing on his decision to support new therapeutic cloning laws.
>
> Instead, Mr Maiolo's support is based on hopes that the research will lead to a cure for MND, not for him because it is too late but for those who are yet to be diagnosed with the debilitating nerve disease.
>
> His message to the Catholic Church, which this week sought to sway the vote of MPs on the issue, is simple: "This country should be run by the people we're electing, not the Church. We elect the Government to run the country, they shouldn't go along with the Church."

I do not intend to go along with the church on this matter. I support this legislation but I understand the concerns of those who are strongly opposed to it. The concern is not so much that a cell is taken to create an embryo that is then destroyed. It does that to a degree, but we must remember that there are currently many naturally created embryos that are being used for research. Much of the concern is about the issue of cloning. There seems to be a fear not about what is in the legislation but about what people might do to break the law. I am anticipating an argument that I have a feeling may be put after I have made mine. If people want to break the law, they can break the law now. The technology already exists for people to create a cloned person. It is currently banned and is against the law, but there is nothing to stop someone from breaking the law other than the consequences of breaking the law. That will be no different under the legislation that we have before us today whereby cloning will continue to remain against the law, just as it is at present. This legislation does not change the fact that there will always be an opportunity for someone from anywhere in the world, indeed from Western Australia, to clone someone if he chooses to break the law.

We are one of the last states in Australia to support this legislation. The other states have passed it. It certainly could be done in Melbourne. What makes Western Australia any different? What makes it much more likely

that someone in Western Australia will break the law who would otherwise not break the law in another state or another part of the world? Now I am ready for an interjection from the member for Ballajura.

Mr J.B. D'Orazio: Tell me why this has been banned everywhere else in most of Europe except England? Why are we so special?

Dr K.D. HAMES: They are banning the legislation. Why is it allowed to occur all through America and the rest of Australia?

Mr J.B. D'Orazio: It is only occurring in England and Australia. It is banned in most of Europe.

Dr K.D. HAMES: What happens in America?

Mr J.B. D'Orazio: They have different rules in different states.

Dr K.D. HAMES: Are they not allowed to do what is in this legislation?

Mr J.B. D'Orazio: No.

Dr K.D. HAMES: That is not true.

Mr J.B. D'Orazio: Not in all the states.

Dr K.D. HAMES: How many states in America?

Mr J.B. D'Orazio: Tell me why Europe and the United Nations have banned this?

Dr K.D. HAMES: How many states in America have banned it and how many have not?

Mr J.B. D'Orazio: Do the research and tell me.

Dr K.D. HAMES: The member for Ballajura can do the research.

Point of Order

Mr J.A. McGINTY: This is an issue about which members have passionate points of view. If the debate is allowed to proceed on the basis it is currently proceeding, it will degenerate and we will not be able to show sufficient respect to the different points of view possessed by members.

Mr P.D. Omodei: What is the point of order?

Mr J.A. McGINTY: Interjections are disorderly.

The ACTING SPEAKER (Mrs J. Hughes): There is no point of order, but I take the minister's point. We will try to have some orderly conduct in the house and to conduct a proper debate.

Debate Resumed

Dr K.D. HAMES: As the Acting Speaker is aware, I have been trying to direct my attention to the Chair. To some extent the creation of an embryo is an argument about words. Let us go through the technology of how an embryo is created to be used for research. An unfertilised ova is an egg that contains the genetic material of the female half of the equation. The nucleus that contains the genetic material is removed. That leaves a cell wall and fluids floating within that cell. The full complement of DNA can be taken from a skin cell, for example. What is taken out? Suppose it is a male cell. Half of the material would be from the father and the other half would be from the mother. That component is taken out and stuck in a cell. In effect, it is creating a new skin cell because the DNA of a skin cell has been taken and put into another container. Why is it different from the skin cell? Because there are substances within the fluid of that cell that causes that cell to divide and divide and divide and, in effect, act like an embryo. Scientists still do not understand how that occurs. It is true that we can take that dividing cell and implant it in a uterus where it will continue to divide and become a person. The law forbids that to happen. A skin cell is able to mimic the actions of an embryo in dividing itself and creating multiple cells, the difference being that the fluid in that cell allows that cell not just to become a skin cell but to become a cell of any other type. There is a hierarchy of cells. The most primitive cell is an embryo. That embryo can be used to create any other tissue, such as brain cells or skin cells. That cell can be taken further down the line. For example, taking core blood is further down the line. People have spoken about adult stem cells. Adult stem cells can be taken further down the line. I am not talking about adults in the sense that we are adults but about adult stem cells in the sense that they are more mature stem cells that do not have the ability to divide into all those areas about which we have spoken. That is very clearly indicated in the article by Debbie Guest, which refers to the two types of cells. Option A states -

Adult stemcells

Advantage:

Avoid the ethical debate -

That we are having here today -

over the use of IVF embryos for research or the creation of embryos for therapeutic cloning. Found in the skin, brain and bone marrow.

Disadvantage:

Limited in their ability to turn into different cell types other than their tissue of origin and do not replicate as easily as embryonic stemcells.

Option B states -

Embryonic stemcells

Advantage:

Can be turned into any type of the 220 cells in the body, from blood to organ tissue.

Disadvantage:

Scientific research on embryos is opposed on the grounds that embryos are human or at least potentially human.

Embryos are destroyed in the process of therapeutic cloning.

There is the dilemma. There is the view of some members of Parliament who are opposed to this legislation. I think there is an enormous opportunity and a need for us and the scientists of this world, particularly the scientists of Western Australia, to take the lead in world technology. Professor Barry Marshall, a Nobel laureate, was in Parliament House. He won his award for discovering a bacterium in the human gut called *Helicobacter pilori*, the major contributor to ulcers in humans. In discovering that bacterium, he found a treatment and therefore a cure for people with ulcers. He did some amazing work. We were talking to him in a briefing this morning about why he felt we should support the legislation. He gave a few reasons. He said that he worked in America initially, where a huge amount of research of this nature was being undertaken and is continuing, and where there is a big focus on trying to cure diseases using stem cell technology. When he was on the Lockhart committee, he had not received his Nobel prize. He does not do work in this area. He was on this committee as a representative of the community. He is a well-respected doctor with considerable experience. He said that he came to that committee, as did many of the others on that committee, with no expectations or views. He said that as they listened to more and more information in the debate, they became more and more convinced that this was the way to go. He is not a radical by any means. He said that in the abortion debate - he is a Catholic - he probably would have voted against abortion. He said that this legislation is nowhere near as radical as, as he described it, the killing of babies through abortion. He said that this is at the far end of that spectrum. He said also that the amount of money that is currently available for researchers in Singapore, particularly for someone like him who is a Nobel laureate, is huge. Singapore is spending huge amounts of money on research. He stays in Western Australia because he loves it but also because he is able to continue his research at the leading edges of technology. Many of our other scientists are also regarded as world leaders in different areas of technology. I think Dr Klinken is in that same position. Professor Marshall said that if they were suddenly hamstrung and could not do the same sort of research that is undertaken anywhere else in the world, he is not so sure that the scientists who are in WA now would leave, because they have families, children and a life here. He said, though, that he was extremely worried about the new generation of scientists who are coming through, the ones who will discover the cures of the future, finding themselves so restricted in this state that they would seek to conduct their work elsewhere. He said that they strongly believe that there are cures for many of the illnesses that I have mentioned, such as familial breast cancer, motor neurone disease and cystic fibrosis, for which there is no cure. They talked about some of the experimental work that has been done with mice, particularly with diabetes. They found that injecting stem cells into mice allowed the creation of the cells that create insulin, allowing the production of insulin in those mice.

Mr J.B. D'Orazio: That is adult stem cells, not embryonic stem cells.

The ACTING SPEAKER (Mrs J. Hughes): The member on his feet is not taking interjections.

Dr K.D. HAMES: Scientists have used stem cells in experimental work with people with spinal cord injuries, for example. While it is not expected to suddenly cause someone with paraplegia or quadriplegia to be able to

walk, Dr Marshall said that for a quadriplegic to be able to move a hand to move the little mobile operator can be everything to that person's quality of life and lifestyle. By injecting stem cells into those gaps where paraplegia or quadriplegia has been artificially created, some of those nerve cells have been recreated and there has been some movement. The member for Ballajura said that we are talking about adult stem cells. That may well be true, but we are talking about the ability to develop technology for the future that may greatly assist the unborn children of any one of us or our families or our descendents.

I go to most functions of groups such as the Multiple Sclerosis Society of Western Australia and the Muscular Dystrophy Association of Western Australia. If I were to come into this house and not support legislation that all those groups passionately believe is their hope or the hope of subsequent sufferers in the future, I would not be able to face those groups again. Madam Acting Speaker, I know you were at the motor neurone disease function at the Hilton. Was it the Hilton?

The ACTING SPEAKER: Yes.

Dr K.D. HAMES: I do not think you are allowed to interject.

The ACTING SPEAKER: I am just trying to think where it was.

Dr K.D. HAMES: I think it was at the Hilton. At the motor neurone disease function we heard stories of people with motor neurone disease. I am fairly certain that they said - I ask the minister to correct me if I am wrong -

The ACTING SPEAKER: It was at the Hyatt.

Dr K.D. HAMES: Yes, that is right. I am fairly certain that we heard that about 20 per cent of sufferers of motor neurone disease die each year, which is a huge number of people dying and a huge burden on families. When we see people who have been the pillars of our society reduced to the state that they are with motor neurone disease, it is a tragedy. One of the former great friends of the City of Bayswater - someone I know and someone that the member for Ballajura knows well also - died from that condition. In fact, his brother also passed away from the same condition. I believe that this technology provides hope for the future to people with those sorts of diseases. It has to be asked whether hope is worth everything. Should moral values and ethics be thrown away for the sake of hope for the future? No, they should not. The group that is opposed to this bill will argue that those ethical values should not be thrown away.

Mr J.B. D'Orazio: That is not true.

Dr K.D. HAMES: I do not believe that this bill throws away ethical values. We are not talking about a God-created embryo produced from an egg fertilised as a result of natural cohabitation between male and female; it is a cell from an egg alone. It has had the nuclear material of the future baby removed from it. Most women - provided they are not taking contraceptive pills - produce a minimum of one egg and sometimes more in any one cycle. Those eggs do not proceed - I am trying to find a delicate way of putting it; those eggs flow out - is that a sensitive way to put it? - and are lost. Most ethical groups do not regard the unfertilised egg as a future baby for the purposes of the protection of foetuses; it is just an ovum. The same applies to sperm; no-one worries about poor old male sperm that bites the dust, so to speak! The process involves removing from a single unfertilised egg the material required for it to become a person, and taking a cell from the skin of a fully developed person and using it to put in a cell. A clone could be made, but that is unethical in my view and should be banned. It will be banned under this legislation. It involves the creation of an artificial skin cell with the potential - through the intervention of devious minds - to become a human being, which should never happen. However, taking such a cell gives scientists an opportunity to potentially reduce the use of fertilised eggs for research, which is what they are allowed to do now. When another source of stem cells becomes available, the use of naturally fertilised embryos will significantly decrease.

I think it is totally reasonable for Western Australian scientists to be given the ability to keep up with the rest of Australia and the world at the very leading edges of technology and to be able to create a cell from an existing human and use it in experimental work, providing the cell is then discarded, as it should be, because it is not a person at the end of that period of experimentation. I have presented my argument as well as I am able, and I reiterate that I will support this bill.

MR J.B. D'ORAZIO (Ballajura) [5.04 pm]: This is a very sad day for this Parliament. I do not take this matter lightly. I respect the views of the member for Dawesville, because he has been a long-time friend and he is a general practitioner.

An opposition member: Are you the lead speaker for the opposition or a guest speaker?

Mr J.B. D'ORAZIO: I am not the lead speaker. I do not care what I am; I will put my view. It is a very sad day when this Parliament debates a piece of legislation that refers to creating hybrid embryos - taking human cells, sticking them into animal eggs and creating a new hybrid embryo.

Mr P.D. Omodei: That's illegal under this legislation.

Mr J.B. D'ORAZIO: It is not.

Several members interjected.

Mr J.B. D'ORAZIO: I will in a minute. I think this is one of the most important bills to have come before Parliament. I want to thank my wife; although this issue is important, I have not put as much time into this as she has. She spent four months researching this issue. I point out to members that there are a lot of people out there who are absolutely appalled at this legislation, and I am one of them. I thank the Acting Speaker for the opportunity to speak to this bill. I want to make sure that I list all the facts. I state from the outset that I am totally against the use of embryonic stem cells, but not adult stem cells. I will outline the reasons for this.

Every member wants the development of cures for various diseases. Supporters of this bill will try to advance the argument that using embryonic stem cells is the best way to achieve these cures. I will highlight some of the problems involved in supporting this legislation. Embryonic stem cells are difficult to control. I had hoped that the member for Dawesville would talk about some of the more technical aspects of this process. They have a tendency to explosive growth. This is one of the reasons that the use of embryonic stem cells leads to the development of aggressive tumours, including cancerous tumours. In an article that appeared in the MIT *Technology Review* in 2001, Glenn McGee, a bioethicist at the University of Pennsylvania, stated -

> The emerging truth in the lab is that pluripotent -

That is, able to duplicate, replicate or transform continuously into other cells and form colonies -

> stem cells are hard to rein in. The potential that they would explode into a cancerous mass after a stem cell transplant might turn out to be the Pandora's Box of stem cell research . . .

In an article that appeared in the *Tulane University Magazine* in 2004, Professor Brian Butcher from the Tulane University Health Sciences Center stated -

> We're not against stem-cell research of any kind . . . But we think there are advantages to using adult stem cells. For example, with embryonic stem cells, a significant number become cancer cells, so the cure could be worse than the disease.

Embryonic stem cell research has yet to produce a treatment or cure for any disease. Indeed, from everything I have read, embryonic stem cells have not yet been used in any clinical trials because they are not safe or effective. The first cloned human blastocyst - a solid ball of compacted cells that appears in the early stages of human pregnancy - was produced at Newcastle University in the United Kingdom. Lyle Armstrong, who is a scientist involved in stem cell research at the university, says that we are many decades away from finding cures. Embryonic stem cell technology has been surpassed. I will return to that point later.

Experimentation using embryonic stem cells involves the destruction of embryos, which are potential humans. These embryos are destroyed after 14 days, but if they were to be implanted into a womb or left to develop using some future technology involving a culture vessel or an artificial uterus, they could grow into human beings. That is a distinct possibility. They are created to be cannibalised; they are just a group of cells. Is that not what all members were at the age of 10 or 14 days? In other words, they are what they should be for that stage of development. They still have the potential for human life. Embryonic stem cell research uses harvested eggs, produced by stimulation of the ovaries. This can cause ovarian hyperstimulation syndrome - excessive stimulation of the ovaries - which in minor cases may cause nausea, diarrhoea, and weight gain, and in the worst cases, vomiting, chest pains and severe abdominal pain. In the absolute worst cases, women have died. We have heard reports from poor countries of people selling their kidneys and other organs for transplants. They are in such dire straits that they have to resort to selling their organs, as they have no other means of feeding their families. This legislation leaves the road open for such pressure to be applied to women for their eggs. South Korean scientists failed to clone human embryos, but used more than 2 000 eggs from more than 100 women, who were paid for their eggs. A lot of eggs are needed in this process. This point may explain why scientists want to develop hybrid embryos; that is, using animal eggs instead of human eggs in the production of embryos for harvesting stem cells. That leads to other ethical issues, and that is what I have the greatest problem with - the thought of using animal eggs to create hybrid embryos. This was something the minister promised two years

ago would never happen, and now this legislation is before the Parliament. In debate on the legislation two years ago, I commented that it would happen, but I did not think it would be only two years away. A hybrid embryo is defined in clause 7 of this bill as -

(a) an embryo created by the fertilisation of a human egg by animal sperm; or

(b) an embryo created by the fertilisation of an animal egg by human sperm; or

(c) a human egg into which the nucleus of an animal cell has been introduced; or

(d) an animal egg into which the nucleus of a human cell has been introduced; or

(e) a thing declared by regulations under the *Prohibition of Human Cloning for Reproduction Act 2002* of the Commonwealth to be a hybrid embryo;

I wonder what that means. This bill proposes to introduce hybrid embryos. Members will remember that when this issue was debated in October 2003, I stated that I would like somebody to put on the record that taking the nucleus out of an animal's egg and replacing it with the nucleus of a human cell was covered in the legislation and would be illegal. Nothing has changed since then, ethically or morally. An animal-human hybrid is like something out of a science fiction movie of the 1960s, but it is now reality. I was promised by the minister and others in this place that this could not and would not happen, and I was told I was scaremongering. I remind the minister that he even suggested that it was a misprint, and was not possible under that legislation. I further stated at the time that we should add a paragraph to the legislation to make it illegal to put a human nucleus into an animal egg. Would the result be human or animal? This should not be allowed under any circumstances. I did not want that legislation to go through if that was the intention. At the time, I was told by some members that I was dreaming and that this would never happen, but it is precisely what is happening today. What I feared could happen is now being introduced in proposed definition (d), referred to earlier.

In voting for this bill we will be voting on whether to give ourselves the technology for reproductive human cloning. The technology is the same for both therapeutic and reproductive cloning. There is no difference between an embryo designed for harvesting stem cells and an embryo designed to become a baby. The bill sanctions the cloning of human embryos for research - so-called therapeutic cloning - while it prohibits implantation of cloned embryos into a woman's uterus - so-called reproductive cloning. All cloning is reproductive, because all cloning produces another animal or person, albeit at the very beginning of development.

This bill would make cloning human babies more likely, not less. The temptation to implant cloned embryos into a woman could occur in the privacy of the doctor-patient relationship. Once a mother has a clonal pregnancy, what will law enforcement do? Terminate the pregnancy, or kill the baby when it is born? We should understand what we are dealing with here before it is too late. Can members imagine the result of an animal egg inserted with a human nucleus being allowed to go to full term? What would it be? What would we do as members of Parliament enacting laws? Would we kill it or allow it to live? What would it be? We are talking about scary stuff here, and I hope that every member of this Parliament pays great attention to the detail in this bill. Regulation is not infallible. Since when has a potential jail term stopped crime? Can anyone imagine the temptation for a woman unable to obtain an egg through the donation process, given the opportunity of using an animal egg cell with a nucleus from her own cells or the husband's sperm? The temptation would be very great.

The only way to prevent baby cloning is to stop the process at the creation of cloned embryos. This is precisely what Canada, France, Italy, Austria and Germany have done. In 2005 the General Assembly of the United Nations urged all countries to ban cloning inasmuch as it is incompatible with human dignity and the protection of human life. However, England, Australia and some parts of the United States seem to have a different view of life.

As a pharmacist, I support stem cell research. I understand that people with diseases want cures. Adult stem cell research is treating people now; it is saving and changing lives without destroying life. An analogy for the difference between adult and embryonic stem cells is to regard the cells as a piece of paper. Embryonic stem cells are a blank sheet, and we have a lot of research ahead before we know how to write something useful. Adult stem cells are paper that is already written on. The paper already written on is like a map or instructions, making it more useful and easier to use. That is why successful therapies have used adult stem cells. They are already programmed for what we need. In June this year the *New York Times*, *Nature* and *Science* reported that Shinya Yamanaka of Kyoto University had managed to reprogram normal skin cells to an embryonic state. The

cells become pluripotent, meaning they are able to continuously duplicate, replicate, transform into other cells and form colonies. This process also has its problems. One of the proteins introduced into the mouse skin cells seems to contribute to cancers in 20 per cent of the mice. However, if that problem can be overcome, this process could be an alternative to using embryonic stem cells, with its inherent ethical problems.

If we want to read about examples of the successful use of adult stem cells, we need look no further than our own esteemed newspaper, *The West Australian*.

Mr P. Papalia interjected.

Mr J.B. D'ORAZIO: The member for Peel should not look at me like that!

The West Australian reported on 19 June 2007 that baby teeth containing stem cells can be stored and potentially used to treat a whole range of conditions. An American company called BioEden has a system in the United States and Europe by which parents send their children's baby teeth to a laboratory within 48 hours of the teeth falling out, and the pulp is frozen and stored for later use. This is a non-controversial alternative to using embryonic stem cells. Other forms of adult stem cells have also been used. Nasal hair cells have been used in the treatment of spinal injury, and bone marrow cells can be used for other purposes.

I come now to the alternative that I consider to be most feasible - umbilical cord blood cells. BioCell Pty Ltd is a Perth cord blood bank where parents can store the cord blood of newborn babies. Alongside cord blood cells, placental and amniotic stem cells have also been used in the treatment of diseases. Earlier this year *The West Australian* published an article headed "Cord blood offers hope for diabetics". The journalist reported an American study that showed that a novel treatment for type 1 diabetes using stored blood from a patient's umbilical cords is effective and safe, with benefits continuing for six months. She went on to explain that the research was a key step towards easing the burden for people with type 1 diabetes - about 140 000 people throughout Australia. On Saturday, 18 August 2007 - just a couple of weeks ago - *The West Australian* published an article headed "Adult stem cells aid cartilage repair". The article reported that researchers at Murdoch University believed that they had unlocked the key to treating early onset osteoarthritis using adult stem cells. The Australian stem cell company Mesoblast Ltd and the university worked together, and the trials showed that the therapy could protect cartilage against damage in osteoarthritis of the knee in sheep. These results are paving the way for human trials to treat inflammatory and degenerative diseases of joint cartilage, which, as I am aware from my experience as a pharmacist, are very painful and affect a great number of people. In December 2005, scientists at the University of Bristol took stem cells from the bone marrow of pensioners undergoing National Health Service joint replacement operations because they had arthritis. The scientists took just over a month to grow the cells into a centimetre length of cartilage, giving hope for future cartilage transplant operations.

I make it abundantly clear that I am not opposed to scientific experimentation designed to find cures for the many diseases that beset people in our society. Do I want a cure for diabetes? Yes, of course I want a cure. Do I wish there were a cure for heart disease? Of course I do. Would I like a cure for back injuries, blindness and cystic fibrosis to be found? Absolutely. My point is that these cures are being researched and the treatments have already been found by using sources other than embryonic stem cells. Cloning is not necessary in order to find cures for diseases.

Mr P. Papalia interjected.

Mr J.B. D'ORAZIO: As I just indicated, research has already been done. The fact that adult stem cells can, in many cases, be taken from the same patient who needs the repair, obviates immune rejection issues; that is, the body is more likely to accept its own cells.

I believe that adult stem cells are already being used to treat more than 73 conditions and diseases. These include diabetes, heart disease, spinal cord injury, Parkinson's disease, leukaemia, sickle cell anaemia and stroke damage. Adult cells have been successfully used to grow new corneas, and that has enabled people to once again see. In March this year, bone marrow adult stem cells were given intravenously to patients who had had a heart attack within the previous 10 days. The trial was successful. One of the scientists involved said that they went into this trial looking to see whether they had a cardiac drug. He said that they confirmed that and also found that they might have a drug for respiratory disorders such as chronic asthma or emphysema.

In the United States, two types of stem cells have been isolated: fibroblasts, which make connective tissue, and myoblasts, which form muscle and are used to treat incontinence. Given this huge weight of evidence, why are we in this Parliament even considering legalising therapeutic cloning of embryonic stem cells? I hope we are not moving into cost-benefit ethics. I would not like to think that because using adult cells leads to personalised

cures - using my DNA to cure me - there is not as much money in it as patenting so-called cures using embryonic stem cells.

I ask members: why are we looking at wasting tax dollars on something that does not work when we already have something that does work? The Hippocratic oath regarding diseases, requires that physicians make a habit of two things - to help, or at least do no harm. This is what I am asking from this Parliament: find cures for diseases in ways that do no harm. Do not let future generations live to regret the decisions that we make here today.

As I said, I want to thank my wife, who is very passionate about this issue and has done a huge amount of research. The scary part about this whole process is that we will create embryonic cells that can be kept for 14 days. If the process of replication is stopped, they can be stored for far longer than that. The scary part about that is that the law says they can be kept for only 14 days if they are developed to that period; however, if they are frozen at five days they can be kept for two, three, four, five or 10 years. We do not know what the laws will be like in 10 or 15 years. However, the possibility exists, for example, for a clone of me to be stored as an egg until the legislation changes.

Mr B.S. Wyatt interjected.

Mr J.B. D'ORAZIO: Exactly. That is the exact reaction I expected from everyone. We do not want that to happen; but more important, it is unethical. It should not be allowed to happen. The possibility of creating an embryo out of an animal egg and inserting it into human tissue is an outrage. It is something that I never believed we as a Parliament would even be considering, let alone licensing it, as this legislation will allow. I will go into more detail during the consideration in detail stage. The scary part of this bill is that part of the law in relation to that item leaves it open, even for greater than 14 days, to store hybrid embryos. That is something that we as a community should not tolerate. We all want research, but we will be crossing the line if we allow animal eggs to be combined with human material. It is something that we will all live to regret. For God's sake, members of this Parliament, let us not support this legislation.

MR T.G. STEPHENS (Central Kimberley-Pilbara) [5.23 pm]: I find these types of debates to be the more difficult debates in the Parliament. We have held quite a lot of them over the years since I have been in this place. They do not get any easier. They are made difficult in light of the long memory I have about these various bioethical issues. I have the clearest memories of the passage of the Human Reproductive Technology Bill through this Parliament in 1992. As the minister responsible in the Lawrence government, I helped its passage through the upper house on behalf of the then Minister for Health, Keith Wilson. At that time we put in place safeguards specifically in response to the concerns and fears that it would be ever imaginable that we would agree to cloning. With the universal support of the Parliament cloning was, therefore, specifically and directly banned.

The 2002 bill allowed for research on embryos created through in-vitro fertilisation - human reproductive technology - and the excess embryos that were otherwise going to succumb. It is very recently that this Parliament and the other Parliaments of the commonwealth articulated a universally held view of abhorrence, expressed again and again by parliamentarians, the advocates of that bill and the community in the clearest unequivocal terms, that anyone would entertain cloning. Cloning was universally opposed and provisions were included in the bill to prevent cloning.

The challenge for me in a Parliament such as this is how to find allies for my argument. People have taken positions in the past, some of which I have agreed with and some of which I have disagreed with. On this occasion, how do we win over those with whom I have disagreed to support the argument that they supported last time; that is, to win them over to the argument that they were previously persuaded was right. What is the full range of arguments we need? These conscience votes are difficult. Oftentimes debates take place with very few people listening to one another. That is not unusual in this place, but in conscience votes it becomes more critical that people try to listen to one another, otherwise we come through the chamber doors, look in the chamber and see whose face we like on the side of the chamber on which we sit.

Ms J.A. Radisich: That is easy!

Mr T.G. STEPHENS: If it is my face members like and therefore they vote in favour of my argument, that will be well and good. I would like to put up some arguments that people might listen to. Since that time, some people in this place might have noticed the trampling by the federal government on states' rights and the intervention of the national Parliament into the role of state jurisdictions. I know that there are members on the other side of the house who are quite passionate about that. I think the member for Cottesloe is one of those who

is deeply offended by the way the federal government is trampling on states' rights. Others in this place will think it is time to draw a line in the sand and say to the Prime Minister and to people who form the Council of Australian Governments of the day, "So what, if that is what you have decided? This is the sovereign right of a state Parliament. It does not matter that the federal government has passed a national piece of legislation; we are Western Australians and we will create legislation for Western Australia to reflect the values of our community in response to the needs of our state." I would have thought, for those members who are motivated by a states' rights argument, that this was a good opportunity to draw a line in the sand.

As an aside, and in response to the comments of the member for Dawesville who said something about keeping up with the scientific community around the globe, I hope that members will see the futility of such an ambition. Singapore has already moved well beyond allowing research on human embryos at 14 days with this type of science. It has moved well and truly beyond 14 days in conducting experiments on human embryos that are created for destructive research on human cloning. If the scientists of Western Australia want to keep up with the world, it will not be a question of their giving up on this line at 14 days. The next argument we will hear is that in order to keep up with the scientific community of the globe, they have to keep up with the standards of places such as Singapore, China and other places with communities that do not share our values about human life. I have told members opposite and any member of this Parliament who will listen that one of my proudest days in this Parliament was the passage of legislation that banned capital punishment. It was a huge delight to be in this place when capital punishment was finally proscribed by statute. That bill passed the upper house by just one vote. Any member can claim credit for that vote, but I believe Phil Pendal has good reason to say that he was the main individual who secured the passage of that legislation. He was a waverer, but he had his views shaken with the passage of that legislation and other legislation around bioethical issues. That led to a consistent position ever after in the handling of his response to bioethical issues. However, for me it has become a call to try to respond to these bioethical issues and to try to get some level of consistency as to where is the Rubicon across which I shall not pass.

Here is a Rubicon where members might like to draw a line in the sand for themselves; when members provide for the creation of the cloning of a human embryo, they should not try to fool themselves by redefining the embryo as simply skin tissue. I do not believe the Lockhart committee allowed a human embryo to be defined as just skin tissue. A human embryo is human tissue that, if allowed, will go on to be a person born. Let us not try to redefine what we are dealing with here. We are not dealing with an embryo that has reached the age of 14 days or at a point at which research must cease. This is an opportunity to draw a line in the sand. How can members not be attracted to the argument that previously was found so compelling in this place; that is, we should allow to be utilised the almost endless number of embryos that have been created in the human reproductive technology process for in-vitro fertilisation that will otherwise succumb? No argument has been presented that there is a shortage of human embryos upon which the scientific research that is being sought can be pursued. I believe there is simply the argument of convenience; that is, it is considered somehow easier to conduct research in this area by cloning.

All members of this place, and in fact the whole of humanity, want an end to terrible diseases. The thought that the end to those terrible diseases will simply come by the passage of legislation such as this is a very distracted thought. If Parliaments, governments, health ministers and health portfolios were serious about wanting an end to awful diseases they would allocate proportionate amounts in their budgets for the research necessary to respond to the challenges that these awful diseases represent. However, we do not see a quantum jump in matching the claims that they support the eradication of these awful diseases.

Simultaneously, there is no evidence currently available of any great breakthrough emerging from the science on embryonic research. An endless amount of research is being done but we have not yet been alerted to any great breakthrough in experimentation on human embryos. My belief is that until such an argument is given to legislators who are not otherwise disposed to leave the ban on cloning in place, then that argument by itself should be compelling. Why not say to scientists, "When you have some evidence of a compelling indication of progress in this area, come back to us." However, scientists do not have that yet. If anything has come as a result of the effort going on into adult stem cell research, there are some indications of prospects from that research to which huge resources are being allocated, particularly in New South Wales.

Mr J.H.D. Day: They'll never know unless they do the research.

Mr T.G. STEPHENS: The research is happening. It will happen inevitably on those human embryos that have been created by the IVF process. There are therefore countless numbers of embryos on which research is currently allowed. Why remove the ban on cloning and allow the creation of a human life to destroy it until there is some evidence from all the research activity that something auspicious, prospective or of value will

come from it? Why remove the ban until the scientific community, with all the human life through the IVF process that it has at its disposal for destructive research, can say, "Look at this; this is looking good."

What is happening in Singapore? It is not stopping at 14 days; it is well beyond 14 days. Singapore has nothing to show for its research. Some companies involved in embryonic research have already cancelled their investments in it. They have realised the research is not looking too good for their shareholders, and they have withdrawn from it and moved on.

Mr J.B. D'Orazio: Adult stem cells are far more suitable.

Mr T.G. STEPHENS: Some prospective evidence has emerged out of it.

The members of this chamber will be alert to the intervention of church leaders in the discussions over these questions. I have said, and I am on record as saying, that I found the nature of the intervention of Cardinal Pell, the Archbishop of Sydney and the Archbishop of Perth to be unhelpful contributions to the public debate on these issues. I am still of that view. The concept of church leaders allowing themselves to be portrayed as menacing Catholic members of Parliament with the concept of excommunication shows ineptitude at handling the media, which is not unsurprising. We are dealing with ecclesiastical figures who are not necessarily trained in the whys and wherefores of the media. I had the opportunity of participating in debate in this chamber on a similar issue - I was again at loggerheads with the health minister - when I chose words that were the subject of a report. I was not exactly delighted by the media coverage I earned for myself.

Mr J.A. McGinty: It was pretty accurate though!

Mr T.G. STEPHENS: I am not going to back away from what I said. I said it to the house. I believe that it probably was not a wise thing to say. I think that the contributions of the Cardinal and the Archbishop of Sydney - and the Archbishop of Perth to a lesser extent - have not been particularly helpful.

Mr J.A. McGinty: What are you saying; that I won't be excommunicated?

Mr J.B. D'Orazio: Don't even go there!

Mr T.G. STEPHENS: I am happy to have that discussion. However, my view of the issue is that what I as an MP do ultimately will be for the good order of Western Australia. That is my obligation. I do not regard this issue as a matter that should be dictated by anyone. It will be ultimately dictated by my conscience. I happily take as input the advice and suggestions of others. I believe that one contribution to the 2002 debate in the national Parliament on this very question was a great contribution. It came from former Deputy Prime Minister Anderson. He referred to the debate in 1840 in New South Wales about the massacres that occurred at Myall Creek, which is in the northern end of Anderson's federal electorate. In 1840 the killing of a very large group of Aboriginal people was widely thought to be a reasonable proposition by the community of New South Wales other than for the fact that the Catholic Church leadership of the day kicked up a pretty big song and dance when it learnt that there were to be no prosecutions of the people who had perpetrated the massacres. In turn, when eventually prosecutions occurred and the people involved were let off by the processes of the day, the Catholic Church kicked up a huge song and dance until, finally, the Aboriginal life of Myall Creek in 1840 got respect in the judicial processes of the time. The Catholic Church stood up for human - Aboriginal - life. That was not popular; Aboriginal life had no social or relational meaning to the dominant society. The Catholic Church involved itself in that debate and Anderson welcomed its contribution in 1840. I welcome the debate generally. The unfortunate element is the view that, somehow or other, there is an opportunity for anybody to dictate to a Catholic MP or any other MP. People cannot dictate to anyone.

Dr K.D. Hames: As you said, I think he has been misunderstood.

Mr T.G. STEPHENS: Archbishop Hickey's views are a little bit different from Cardinal Pell's. I think Cardinal Pell has the challenge of getting back inside the Catholic tradition and rediscovering the Catholic tradition, which is the primacy of the conscience of everybody. Ultimately, that is championed by that tradition, and Cardinal Pell, in my view, needs to -

Mr P.D. Omodei: What has this got to do with the bill?

Mr T.G. STEPHENS: It is important background to the fact that I will be voting for this legislation, not because of the Archbishop of Perth or the church leadership or the views of the church, but because I think this legislation represents bad law for the good order of our community.

Mr B.S. Wyatt: What did you say; that you are going to vote for it?

Mr T.G. STEPHENS: That is the second time I have made a slip. I am opposing the bill. I am sorry; it happens when one is around here long enough! I am opposing the bill because I believe it is legislation that does not help the good order of our community.

Mr P.D. Omodei interjected.

Mr T.G. STEPHENS: That was my point. I thank the member for making it so eloquently.

Mr P.D. Omodei: Why didn't you say that in the beginning?

Mr T.G. STEPHENS: I meant to. It is a point. In this debate I could be sitting on the other side of the house. Members come in like Brown's cows and see where Stephens is sitting and will sit on the opposite side no matter what I say. That is the problem with this debate. For those members who are not persuaded to vote with me on these issues, I actually consider this a left-wing issue. I am voting this way because I believe in the protection of rights. Believing in the rights of embryonic life is a left-wing view. It is a consistent left-wing view and that is why I know, for instance, that in the national Parliament -

Mr P.B. Watson: Everybody has just moved over to the right!

Mr T.G. STEPHENS: Members can do what they like in the end and use whatever illogical argument that drives them. At the moment, unfortunately, this Parliament is not well positioned to handle good arguments on these questions, I am sorry to say. That is my view. I have watched a few of these arguments over time. There is a chance that members could step up to the plate by lifting the argument. For those members who think that it is just right-wing fascists who oppose legislation like this, why would someone like Peter Garrett join in the opposition to the passage of legislation like this in the national Parliament? He is no right-wing fascist. If members write me off as a right-wing fascist who happens to be some sort of Catholic churchie, is it not interesting for members to see the coalition that emerges around the opposition to legislation like this? What about the feminists who oppose legislation like this? They see a disrespect in human reproductive technology because of the way human life is being created for destruction. I would like an extension of time, if that is permitted these days.

[Member's time extended.]

Mr T.G. STEPHENS: For those who are persuaded to consider the place from which their companions might come, I think it is illuminating in this debate that there are people like Peter Garrett. He is no academic slouch. I was at university with him in Canberra; we were undergraduates together. He was in the next-door college at the Australian National University. He is the bright man who will go on to be a great environment minister in the incoming Rudd government later in the year. For those people who want to be aligned with the thinking man's politician, I would have thought that he had some credentials, if people are not otherwise persuaded to join with the likes of me - despite my pretty face, member for Swan Hills!

Dr K.D. Hames: The leader of our party may well support you.

Mr T.G. STEPHENS: He has the opportunity of distancing himself from the member for Dawesville. It will be a good opportunity.

We have so recently been persuaded, as a Parliament, against this legislation. There has not been a big argument put to us. What about the Lockhart committee? It was a fascinating committee. How extraordinary to have the experience of a committee that has a couple of lawyers and four medico-scientific researchers whose scientific areas of research are in this area looking at this and, suddenly, the Federal Court judge - Judge Lockhart - dies. If he had not died, can we imagine a judicial chairman of a committee going out and doing what this committee has done? It would not have happened. The committee took advantage of the fact that the judge, who would not have been an interventionist or a radical campaigner - as the other committee members became - was no longer there. He was a Federal Court judge and he understood his role, which was to deliver an objective report and let the report speak for itself. Instead of that, he died and, suddenly, the committee members, as though in his memory, take on an activist role to get into the national Parliament and stir up this issue as campaigners on behalf of the research that they want to conduct. They have not thoroughly convinced me that there is any great -

Dr K.D. Hames: I made the point that Professor Barry Marshall is not involved in this.

Mr T.G. STEPHENS: Four medico-scientific researchers and two lawyers -

Dr K.D. Hames: There were exceptional circumstances.

Mr T.G. STEPHENS: In the end, the prospects of passing legislation like this are what? I watched the chamber in 1992 when the side of the debate opposed to the Human Reproductive Technology Bill positioned its argument. I was putting the bill through the chamber on behalf of Keith Wilson. Members opposite told me that it was the start of a slippery slide and the opportunity for people to eventually start moving into areas of research that we would not normally ever countenance. We put in place a whole range of bans and I assured the Parliament, on behalf of the government and the minister of the day, that the bans were in place and that we would never go down the paths of cloning, hybrids or surrogacy, and that we would have a restrictive set of arrangements for IVF.

Dr K.D. Hames: It was advanced for its day.

Mr T.G. STEPHENS: The legislation that was passed in 1992 was very, very good. However, where I was wrong was that, in the end, researchers in the scientific community simply saw a light in front of them, which was presented to them for the community by the Parliament, as a challenge to push past it. Here we are today drawing a line for those who want to support this legislation at 14 days. Those are the arguments put by the member for Dawesville. I tell members that they will be back, and they will be back with even flimsier arguments than they have now and with even less research than they have in order to say that we have to keep up with Singapore, Beijing and all the other great centres of respect for human life. Have members ever been to Beijing and talked to people there about the fact that we do not have capital punishment? They think we are nuts; how can we have a society in which there is no capital punishment? They will ask us how we could possibly have scientific research in which we stop at 14 days. They will ask why we should do that because we have already taken the point and allowed research at 14 days. Why should we stop there? They will ask what is wrong with 15, 16 or 17 days; why stop at 14? Members recently drew a line in the sand when they prohibited the cloning of human embryos for scientific research. That prohibition is about to be removed, but it will not be removed because of scientific research or because of any great breakthroughs that have occurred. Unfortunately, the members against whom I argued in 1992 have proven to be correct. The scientific community has just simply seen the chink in the armour and has kept using that gap in the argument, and it wants to take the community with it.

We are worse off as a society when we do not lock ourselves behind basic core principles. I would have thought that it was reasonable to argue that the creation of human life for the purposes of destroying it is not a good principle. It does not lead to the creation of good legal ethics, nor does it provide a good foundation upon which to build our society. It treats human life as a commodity. This legislation is not matched by a real commitment by the Western Australian community to fund research that would eradicate diseases. If we were fundamentally committed to getting rid of some of these diseases, we would demand from government the necessary budget allocations to promote scientific research into those areas. We would give the health portfolio and scientific researchers a quantum of money. We would not want to provide the Parliament with fresh carpet or new chairs and put TVs all over the place; we would direct all the resources that we use on this place to eradicating the human diseases that we care so passionately about. Instead, we will suddenly pass a bill and absolve ourselves of the obligation to fight the evils that human disease represents. I do not think we will fight the evils that human disease represents by passing this legislation. Instead, we will go down what I believe will be a dead end in many senses. The legislation will create an opportunity for science that is already proving futile. It is not proving to be fertile ground for research. In the jurisdictions that have an opportunity to conduct this type of research, the frontiers of science are moving well beyond the 14-day barrier. They have gone past it galore. The scientific research community of Western Australia, which wants to keep up with the world, will argue that 14 days is not enough. It will argue that we might as well give up because the rest of the world has moved well beyond 14 days. Other jurisdictions that do not respect human life and do not have our values are creating human life, but they are not making the breakthroughs that they claimed they would by conducting research into this area.

The corporations that have now pulled out of investing in the destructive research on human embryos have made good decisions for their shareholders. They have made sound commercial decisions by abandoning that area of research. They can see that it does not make sense and does not have good prospects. A much more compelling argument is the argument about what we as legislators can do not only for our shareholders, but also for the society for which we have responsibility by giving good order and trying to draw a line somewhere in the sand. Members must ask themselves where they will finally be prepared to draw a line in the sand once we get rid of the existing line. What will members say to the people who told them, "I let you create human life so long as it hung around for only 14 days before you killed it", when they ask for that time to be extended to 15, 16 or 17 days before the embryo is killed? What will be the basis for members' opposition? I would have thought that it was a reasonable argument to ask members how they would finally justify that. Should members give in to the

national government on the intervention in our affairs on every level? I know that the member for Cottesloe hates the intervention of the national Parliament into jurisdictions that are entirely the states' responsibility. He is a states'-righter.

Mr C.J. Barnett: No, I am not.

Mr T.G. STEPHENS: I have misread the member. If there are any states'-righters left -

Mr C.J. Barnett: I am a modern federalist.

Mr T.G. STEPHENS: If there is a states'-righter opposite, I want to persuade him.

Dr K.D. Hames: I'm a states'-righter.

Mr T.G. STEPHENS: We have one states'-righter in the house. I hope he opposes the legislation.

MR P.D. OMODEI (Warren-Blackwood - Leader of the Opposition) [5.54 pm]: I rise to indicate that I oppose the Human Reproductive Technology Amendment Bill 2007. I do not profess to be a scientist. This issue is very emotive and complex and involves a great deal of science. If I can agree with one thing that the member for Central Kimberley-Pilbara said, it is that it might be time to draw a line in the sand regarding commonwealth and state relations, or federalism. This is an issue on which the states should have a right to make their own legislation and to send a clear message that we have our own views about these types of issues.

I will refer briefly to the comments made by Cardinal Pell and Archbishop Hickey. I found it interesting that the majority of the criticism of Archbishop Hickey in particular came from non-Catholics. To be honest, I certainly was not intimidated by the archbishop's comments whatsoever - not at all. I believe that as the pastoral leader of the Catholic Church in Western Australia, it is his right to say whatever he likes about the church and how he wants to influence his congregation. I do not have a problem with that at all. The only question I had for the archbishop - this certainly was not disrespectful or blasphemous - was whether he had to put his hand into the wound before he believed. As a member of Parliament for a number of years, I understand my rights as a member to debate matters and to not be influenced by other people. I had no problem with the archbishop's comments. I found it interesting that most of the criticism of his comments came from people who were non-Roman Catholics. They were very worried about excommunication, but I do not think that anyone suggested that non-Roman Catholics were to be excommunicated! The play between the media, Archbishop Hickey and this Parliament went over the top.

This is a very serious issue. I certainly am not a scientist, but we tend to listen to scientists about their research. I support science and the development of science in this state. I listened to the debate about whether we should use embryonic stem cells to further science in Western Australia. The world is going ahead and is doing a lot of things with regard to the matters in this legislation. I have no doubt that the people who do not share the same ethics as we do will continue to conduct research on embryonic stem cells beyond 14 days. There will be countries around the world that will try to clone human beings. We have already seen the cloning of Dolly the sheep.

I indicate very clearly that I believe in the sanctity of human life and the protection of children, right down to the stage of embryos. I made a very strong statement to the Parliament during the abortion debate about whether there should be pro-choice. I believe very strongly that embryos are human beings and that they should be protected. What have I done? I have listened to the debate very intently, I support the science and I have also read a great deal about it. There are embryonic stem cells and embryonic germ stem cells, which exist after about six or nine weeks of gestation. There are also cord blood stem cells, which are taken from umbilical cords. I would support the use of umbilical cord blood cells and adult stem cells. Some members opposite have mentioned adult stem cells. That is the area in which science can make great advances. I do not believe that scientific advances have been made using embryonic stem cells. I make it very clear that I oppose the use of embryos as a means of furthering science.

I defend the right of members of Parliament to say what they want to on this issue in this place. We are great defenders of the Parliament. I believe in the democratic right of people to say whatever they want to about these issues. In the end, it is up to each member to decide whether we should support this legislation.

Sitting suspended from 6.00 to 7.00 pm

Mr P.D. OMODEI: Prior to the dinner break, I was exploring some of the issues concerning this very important bill. I made it very clear that I have always valued the sanctity of human life and believe that research on adult embryo stem cells is ethically wrong. Obviously, doctors are very keen on research and medical

advancement, but not all doctors support this legislation. I received a letter from Medicine with Morality, a group of Australian doctors concerned with the drift of ethics away from moral absolutes. The letter is signed by more than 100 doctors who are very concerned about this legislation and the possibility of devaluing life as a result of the passage of this bill. The first part of the letter states -

> *Creation of human life for destruction is a boundary we must not cross. Medicine With Morality urges you not to support human cloning*.

It goes on to talk about the chromosomal cell transfer and the SCNT clone. It states -

> To deny that the SCNT clone is actually an embryo is to deny Dolly the sheep. It is to deny the reality of the years of scientific research that has gone into this technique. The reason why we call embryonic stem cells *embryonic* is because they are from embryos.

The letter gives a lot of reasons that we should not support this legislation. It states -

> **NO confusion! We must not devalue human life!**
>
> **We, the doctors of *Medicine With Morality*, want to clearly state that there should be no confusion. An SCNT embryo with human chromosomes is human life and all human life matters.**

It finishes by saying -

> **We cannot afford to devalue human life at any point and we plead with you not to give legal approval for such devaluation.**

The letter is signed by over 100 doctors. I have also received further information on research into cloning in the form of a letter from Women's Forum Australia and signed by Katrina George. She is concerned about the impact of cloning on women and states -

> Cloning depends on a continuous supply of ova which can only be achieved with high doses of ovulation stimulating agents. The mass harvesting of eggs raises serious issues about women's health, status and well being.

The letter refers to an article entitled "What about the women? Ethical and policy aspects of egg supply for cloning research" that was published in the academic journal *Reproductive BioMedicine Online*, volume 15, No 2, August 2007. The letter continues -

> Women's Forum Australia is an independent think tank that conducts research, education and public policy development about social, economic, health and cultural issues affecting women.

The study paper is headed "Research Cloning: Where Will All the Eggs Come From?" and states -

> **How many eggs?** Research cloning is unfeasible without a continuous supply of women's eggs. Cloning has been described as 'a wildly inefficient process' -

The previous speaker mentioned that there was insignificant progress on embryonic stem cell research, so why the great haste? It continues -

> often requiring hundreds of eggs to attempt to produce a single viable clone. In South Korea, the now discredited Dr Hwang used 2061 eggs harvested from 169 women and failed to produce a single cloned embryo.
>
> **Short term health risks -** The mass harvesting of eggs is achieved by an invasive procedure of hormone injections to induce chemical menopause and then stimulate egg growth. This poses serious health risks for women. Up to 10% of women will experience ovarian hyperstimulation syndrome. The more serious symptoms include renal failure, intrauterine polyps, ovarian cysts, thromboembolism, respiratory distress, haemorrhage from ovarian rupture and infertility. Some women have died.
>
> The **long term health risks** of ovarian hyperstimulation could be very serious. Some studies suggest that over time there is an increase in ovarian, breast, uterine and endometrial cancers. Until adequate longitudinal studies are completed, the meaningfulness of 'informed consent' must be questioned.
>
> **Real risks, but who benefits?** There are no health benefits personally to the women egg suppliers, and the benefits to patients are at best theoretical. Women suppliers are being asked to assume definite health risks with no demonstrated clinical benefits. This is a radical departure from standard practice in clinical trials which require proof of concept of efficacy and safety in animal models, before proceeding

> to humans. Egg supply for cloning research thus offends against basic principles of clinical ethics, expressed, for example, by paragraphs 16 and 17 of the Declaration of Helsinki.
>
> **Eggs for sale?** There are serious ethical and social policy implications for the status and treatment of women raised by supply proposals such as altruistic donation, animal eggs, surplus frozen IVF eggs and fresh donation by IVF patients. Research clearly demonstrates that these are not viable sources. If research cloning goes ahead, experience overseas shows that egg supply must be augmented by exploitative commercial incentives such as cut price IVF.

A lot of evidence has been presented to me. Father Joseph Parkinson from the L.J. Goody Bioethics Centre also sent me a large amount of information about this same issue. I am not convinced that we need embryonic stem cell research. I believe that it does pose a risk to women. It also ethically means that we are destroying one life to possibly save or improve another. I am not prepared to make that judgement at this point. I think it is far too soon to jump to any conclusions about embryonic stem cell research. There is enough evidence to show that cord blood stem cells, which are obtained from the umbilical cord, can generate red blood cells and cells of the immune system and be used to treat immune system conditions such as leukaemia, anaemia and autoimmune diseases by using a donor and compatible siblings or other tissue-matched individuals.

The other issue of adult stem cells has already been expounded in the house tonight as being probably the safest way to go as far as research is concerned. There is enough evidence to show that adult stem cells can be used in a number of ways. Haematopoietic stem cells, for example, that are found in blood marrow give rise to the many types of cells that are found in blood, including red and white blood cells and platelets. The existence of these types of stem cells has been known for a long time. Bone marrow transplants containing such cells have been used for over 30 years to treat people with a variety of life-threatening disorders such as lymphomas, leukaemia and thalassemia. Thalassemia is an interesting blood disorder and is to do with the blood platelet size. It is something that exists in my body. I do not think it is very serious; at least I hope it is not. It is thalassemia minor.

Dr G.G. Jacobs: It is very minor.

Mr P.D. OMODEI: It is a very minor issue, and thank God for that.

Dr G.G. Jacobs: If a woman with it became pregnant, she would be prone to anaemia.

Mr P.D. OMODEI: I thank the member for Roe. I do not intend to undertake a sex change to get into that condition. I do not think it would be possible anyway.

I have received a lot of information on this issue by email and hard copy and from people lobbying members of Parliament. As I said, I am a strong believer in the protection of human life. I am not convinced that this legislation is absolutely imperative. There is not yet enough evidence that embryonic stem cell research is fundamentally important for future research. I am certainly happy to listen to argument on that, but I think there are enough other options through cord blood cells and adult stem cells to allow for continued research into a whole range of diseases in Western Australia. I intend to listen very closely to the debate. I will not be here for all of this evening, but I will certainly follow the debate and take part in the consideration in detail stage. That is my position, and I am going to stick to it.

DR G.G. JACOBS (Roe) [7.12 pm]: This could be one of the most difficult pieces of legislation to come before this house in a very long time. Attempting to clone a human embryo, and even the process of therapeutic cloning, has been banned in Western Australia since 1991. In 2003 the Legislative Assembly voted unanimously to reaffirm and extend this ban by making sure it covered all forms of human cloning. I suggest that includes therapeutic cloning, which I will go on to explain a little later. The legislation went on to impose a maximum 15-year term of imprisonment for anyone committing this serious offence. In 2004 the Legislative Assembly endorsed this change without a single dissenting vote. How times have changed. The bill retains the existing arrangements for assisted reproductive technology. We allow research on embryos, which scientists say would normally be wasted in any case because they are excess to requirements and can be handed over to research with consent from an involved couple. It is said that this bill retains the ban on cloning. Therein lies the problem and dilemma for many members, I would suggest, on both sides of the house. We are now faced with seeking to overturn the ban and permit scientists to conduct experiments, such as therapeutic cloning, to produce stem cells.

The Human Reproductive Technology Amendment Bill 2007 almost allows for the creation of a human embryo, admittedly not by fertilisation but by laboratory manipulation, in order for that embryo to proceed in certain division stages over 14 days and for the cells within that replicating embryo to be harvested. The scientists say that those cells are the most primitive cells and the most undifferentiated cells and have a potential in the body to

differentiate into any tissue in the body. The Minister for Health, who is not in the chamber it appears, is going to allow scientists to practise therapeutic cloning, which, it is said, may lead to breakthroughs in the medical treatment of a dazzling range of diseases, including Parkinson's disease, insulin-dependent diabetes, motor neurone disease, and transacted spinal cords in quadriplegia and paraplegia, and the list goes on. Having spoken to scientists just this morning, there is no real evidence that anything has yet been achieved in other parts of the world where the therapeutic cloning process is happening. That is not to say, of course, that it will not be, but there is no gilt-edged guarantee that this harvesting of stem cells from therapeutic cloning will produce any breakthroughs. There is nowhere in the world at this stage that has yet succeeded in curing such conditions.

It is important to say what this bill does and does not do, in all fairness. It says that it does retain the ban on human cloning. If I may just explain a little about the science of cloning: cloning is the production of a cell, a cell product or an organism that is genetically identical to the individual from whom it was derived. Admittedly, this bill retains the ban on cloning an individual. However, it does not ban, and it lifts the ban on, therapeutic cloning to produce stem cells. How does cloning of a human individual occur? In a couple-created embryo, if we wanted to clone the Minister for Health, we would remove the nucleus from that embryo and we would take an adult cell nucleus from the minister. At least, this could be potentially possible.

Dr K.D. Hames: They are not taken from an embryo; they are taken from an egg.

Dr G.G. JACOBS: This is cloning. I will get onto therapeutic cloning in a minute. We would replace that material and, therefore, under replication of that embryo, produce identical genetic traits because the genetic material from the minister had been transplanted into the embryo via the nucleus. That is how the 500 attempts at producing Dolly the sheep through cloning an individual occurred. However, therapeutic cloning, as the member for Dawesville has alluded to, is different. This is where this bill introduces embryos not created by fertilisation. They are created by removing the nucleus from an egg and replacing it with the nucleus from an adult cell, which could be a skin cell, a pancreatic cell or a cell from any other organ in the human body. In this case, I will consider an adult pancreatic cell. Herein lies a dilemma for me, because I have a son who is an insulin-dependent diabetic. Every day of his life he injects himself with insulin, because his own pancreas has stopped making insulin, which is important for the metabolising of sugar. Insulin opens up the gateway to the cell and lets the sugar into the cell so that the cell can use the glucose for energy. Almost every week my son asks me what the medical profession has provided in the nearly 80 years since Banting and Best discovered that diabetes mellitus was caused by a deficiency of insulin. Is there any cure on the horizon? Does this process provide some sort of hope?

The science goes something like this: the nucleus is removed from an egg. Being a sex cell, an egg has half the number of chromosomes of an adult cell. An adult cell has 46 chromosomes - 23 provided by each parent. They unite to bring the total number of chromosomes to 46. Having removed the nucleus from the egg, we obtain an adult cell - perhaps from my son's pancreas - that has 46 chromosomes, and implant the nucleus from that cell into the egg. Then, by the application of chemical and/or electrical stimuli, which the scientist talked to me about today, the embryo created by this artificial means is made to divide.

Mr A.D. McRae: Can I just hear the science of that again? You've planted the 46-chromosome pancreatic cell nucleus into the cytoplasm of the ovum. You've still got only a single cell in front of you.

Dr G.G. JACOBS: Yes, there is a single cell, and by certain chemical and electrical processes this cell starts to divide. It divides into two, and then those two divide into four, and then the four into eight and so on. This division process goes on until there are 16 cells, which is about four days down the track. We call that growing from a cleavage stage, in the first few divisions, to a blastocyst stage, which happens in between four and seven days. In that blastocyst stage, the embryo has developed with a ring of cells around the outside and a cluster we call an inner cell mass. That inner cell mass is a cluster of undifferentiated cells that, with time, can differentiate into all the different parts of our body. In therapeutic cloning, those cells are harvested from the inner cell mass. With encouragement - this is work that has still to be done - those cells can be used to substitute for, in this case, my son's non-functioning pancreatic cells. Cells can be made to differentiate into beta cells, which are the particular cells in the pancreas that produce insulin. The scientist this morning told us that, once harvested and injected back into the patient, those cells can find their way to, for instance, the liver, and they can then start to differentiate into a nest of pancreatic cells, growing in liver tissue and producing insulin. There is no guarantee of any of this, because a lot of this work is yet to be done, but those cells could also be implanted in the pancreatic tissue to grow and mature into pancreatic cells producing insulin without rejection problems.

Mr A.D. McRae: Is it the injection or implantation of those cells into host material that then triggers their development as a specific cell?

Dr G.G. JACOBS: Absolutely; the scientist explained today that there is a host cell reaction with the stem cell that causes the development of this very undifferentiated cell into a mature adult cell, whether it be a pancreatic cell, a brain cell, a liver cell or a spinal cord cell. This is all potentially very exciting, but there is no guarantee in this work. That is theoretically the science behind therapeutic cloning. Will this produce islet beta cells that will produce insulin for my son so that he will never need to inject himself again? I do not know; the scientists cannot answer that yet.

The moral and ethical issue is that after the stem cell has been harvested, the blastocyst is discarded. However, once the blastocyst has divided and developed over 14 days, there is potential for that replication to continue, and for the embryo to develop into a cloned human being. The moral and ethical issue is that by the time 14 days have passed, we have harvested the stem cells and discarded an embryo. That is not an embryo that was created by traditional fertilisation, but it is still an embryo. Yes, it has been stimulated to divide, so presumably if we stopped stimulating it, it would not develop into a human being. However, therein lies a lot of the questions about therapeutic cloning by somatic cell nuclear transfer. To continue with the example, we have taken a somatic cell - an organ cell - from my son's adult pancreas, and we have put it into an egg. That is the somatic cell nuclear transfer process. The ethical and moral issue is that we have created an embryo, albeit artificially, and when we get to day 14, we can say that we have harvested the stem cells, and we have been able to get what we want to perhaps cure a dazzling array of medical conditions. However, many questions remain unanswered about those conditions. The scientists cannot answer all those questions. Also, there are no guarantees. We then discard those cells at day 14, because at day 15, the primitive streak has appeared, and the embryo has started to develop - depending on one's definition of when life begins - into a baby. That is why this debate is so difficult. One of the many arguments that can be put is that this may become a trade in eggs, and a manipulation of those eggs, so that we transfer all the nuclei, and, when we get to day 14, we discard all those embryos that have the potential for human life in that process of replication past the blastocyst stage.

[Member's time extended.]

Dr G.G. JACOBS: I have no problem with other issues in the bill, such as the establishment of a stem cell bank, and a review after three years. However, one issue that does scare me is hybrid cloning. The member for Ballajura mentioned the issue of hybrid cloning. I have read some of the debate that took place in the federal Parliament when this issue was dealt with. I think every member would have major concerns about hybrid cloning. The definitions clause in the bill refers to "chimeric embryos" and "hybrid embryos". A chimeric organism is defined in the *Macquarie Dictionary* as an organism composed of two or more genetically distinct tissues; an organism which is partly male and partly female; or an artificially produced creature having tissues of several species. Mr Acting Speaker (Dr S.C. Thomas), as a vet, perhaps you would also have some concerns about how the issue of hybrid cloning will be managed within this bill. The *Macquarie Dictionary* defines "hybrid" as the offspring of two animals or plants of different breeds, varieties, species or genera. In this instance, the hybrid embryo will be produced by human manipulation of specific genetic characteristics. I do not know about you, Mr Acting Speaker, but I do not want to go there. The definition of "chimeric embryo" in the bill states in part -

> (a) a human embryo into which a cell, or any component part of a cell, of an animal has been introduced; or

The definition of "hybrid embryo" states in part -

> (a) an embryo created by the fertilisation of a human egg by animal sperm; or

The bill states in proposed section 53ZA(1) that a person may apply to the National Health and Medical Research Council Licensing Committee for a licence authorising one or more of the following. The clause then lists certain things that will be authorised. The first one is -

> (a) use of excess ART embryos;

The last one is -

> (f) creation of hybrid embryos by the fertilisation of an animal egg by a human sperm, -

Members, I do not want to go there -

> and use of such embryos up to, but not including, the first mitotic division, if -

Why would we want to do that? It goes on to say -

> (i) the creation or use is for the purposes of testing sperm quality; and

(ii) the creation or use will occur in a licensed ART centre.

It appears that although the creation of a chimeric embryo is forbidden, the creation of a hybrid embryo is allowed! A fair bit of work needs to be done on that part of the bill. This matter has been mentioned by the member for Ballajura. I was quite surprised that it is included in the bill. The Minister for Health needs to do some work on that issue, because major concerns have been raised about that matter.

We do not want to indulge in meddlesome eugenics. I am ambivalent on this matter, because I am grappling with these issues. The main questions for me are as follows. Do we need to create totally undifferentiated cells from that inner cell mass to advance medical science? Are embryonic stem cells absolutely essential to make advances in medical science? Do we need those embryonic stem cells above and beyond what adult stem cells can provide? The scientists said to us today that adult stem cells can provide many potential cures. However, because they have already been differentiated, the potential for those adult stem cells to form any cell in the body is limited. Will we put medical advances back hundreds of years if we do not pass this bill? Do we need to create myriad eggs in order for the somatic cell nuclear transfer process to work, and will we be discarding the excess embryos hand over fist? If we let that process run past the 14-day blastocyst stage, will those embryos then have the potential to become human beings? If we take the process of therapeutic cloning to its end result and create an embryo by somatic cell nuclear transfer, will we then realistically be able to prevent human cloning; that is, re-creating an individual? Will we actually be setting in train a process that we then may not be able to stop? Will we be creating an embryo and then meddling with it? I have raised some significant ethical and moral concerns. I believe every member of this place shares those concerns. This is not an easy bill to form an opinion on. I believe that if we get into hybrid cloning, we will be getting into the very dangerous territory of meddlesome eugenics, where we will be discouraging undesirable traits and encouraging desirable ones, and manipulating genetics in order to do laboratory selective breeding.

Mr Acting Speaker, there are concerns for me in this bill. I have those overriding concerns about my son and his diabetes. I have overriding concerns about this type of research and the potential it may have to provide for the treatment and cure of many of today's incurable diseases. However, moral and ethical questions surround the issue of manipulating human embryos. Do we create myriad eggs to support a therapeutic cloning trade? Do we create an embryo and then meddle with it and discard it? We must also get down to considering hybrid cloning and all the other issues that are to be found towards the end of the bill. I believe that these are very dangerous paths to go down.

As it stands, I oppose this bill for those misgivings that I have elucidated tonight. During the consideration in detail stage of the bill it will be very important to amend some of the clauses relating to hybrid cloning. They are potentially dangerous and need some further work. At this stage, because of the ethical issues raised by this bill, I will not support the bill.

MR P.B. WATSON (Albany - Parliamentary Secretary) [7.42 pm]: I rise to speak on the Human Reproductive Technology Amendment Bill 2007. I have listened to everyone who has so far contributed to the debate. I have heard some members talk for 25 minutes and I have heard some talk for only four or five minutes.

This is a very simple issue for me. I am not at all comfortable with the bill. When it first came before the house, I did not have a strong view about it either way. I was quite relaxed just to read through the bill. However, the more I have looked into it, the more I have become concerned about it. I am just not comfortable with this bill. I have heard the arguments put forward about how the research could help people with diabetes and other problems. I have a niece who is brain damaged but I do not know whether stem cell research could have helped her in any way. I have spoken to my sister about that, and she does not know. There is nothing out there to prove to me that stem cell research would in any way have affected my niece's life. As things stand at the moment, I would prefer to see more help provided for people with diabetes and similar problems. I know that research is going on. The member for Peel has spoken to me about his son's diabetes. I am a type 2 diabetic. My diabetes is a little bit different; it is age-related diabetes.

I can understand people talking from their own experiences about these types of issues. In my electorate of Albany I have spoken to people whose children have disabilities and other illnesses that stem cell research may be able to help. I am not against adult stem cell research, but I am particularly concerned about using embryos to further scientific research. As I have said, I have spoken to various groups of people in my community. I do not believe in the six and half years I have represented my electorate in the Parliament that an issue has created such a personal response in my electorate - except perhaps the waterfront development in Albany. I have spoken to people from all walks of life. There are people from various church groups who admittedly have issues with this research, and I have taken on board what they have had to say about it. I have spoken to the people in the street

in Albany who have contacted me and who are concerned about the use of embryos for research. Not one person has spoken to me in support of this legislation. I know we have to consider the silent majority, as we do on other issues, but I have not had one person ring me, or email me, or fax me in support of the legislation. I think that speaks volumes. Perhaps we have a conservative community in Albany and their contribution is not always heard. However, the fact is that I have not had one person in my electorate - there are 14 400 people in the country town of Albany - support this legislation. Not one person has contacted me to say that he or she is happy with the bill.

I respect everyone's point of view. It is interesting to speak tonight after the member for Roe has spoken. As a medical doctor he has highlighted the technical aspects of the bill and has looked at the issue from a medical and ethical point of view. It was interesting to hear those ideas. This issue comes down to a conscience vote, and in good conscience I cannot support this bill. It is not very often that I go against the flow on issues like this, but I just do not feel comfortable with this bill. I have thought this matter over and have discussed it at home. I just cannot see this as a bill I can vote for. I will not be voting for this bill.

Mr P. PAPALIA (Peel) [7.47 pm]: I support the Human Reproductive Technology Amendment Bill 2007. I am only going to speak for a short time as I am aware of the time constraints faced by the house. I just want to place on the record why I support the bill. As already indicated, one of my sons is a type 1 diabetic. Unfortunately, I did not have the opportunity to discuss the pros and cons of scientific research with him and perhaps explain why advances that otherwise might have been made have not been made, because he was diagnosed when he was only six years old. My first experience of type 1 diabetes was holding my screaming son down for his first insulin injection, which in effect saved his life. I am not going to debate the ethical issues, or any of the facts that have been laid out this evening about the potential, or otherwise, represented by stem cell research. What I will say is that I understand that type 1 diabetes is probably the most likely of all diseases that could in some way be assisted by this type of research. Somatic cell nuclear transfer utilises an adult cell to replace the nucleus of the egg. This means that the cell is less likely to be rejected by the body when subsequently injected. This overcomes problems associated with having to suppress the immune system to stop it fighting against whatever is injected into the body to help solve the problem that we are trying to deal with. That is the main reason that, of all the types of diseases being considered, type 1 diabetes probably stands to benefit the most from this research.

The incidence of type 1 diabetes in Western Australia exceeds that in the rest of the nation, which is already high in proportion to the rest of the world. The incidence of diabetes in Australian children aged from 0 to14 years is 18.9 per 100 000 children and this rate has been increasing at 3.2 per cent each year. That is an increase of 37 per cent in the past decade. In Western Australia the rate went from 11.3 per 100 000 children in 1985 to 23.3 per 100 000 children in 2002. In my electorate alone, Singleton Primary School has 600 kids in attendance and four of them are type 1 diabetics. More and more parents are having to face the issue of their young children contracting this disease for no apparent reason and there is not much hope of curing it in the short term.

In supporting this bill I am not arguing that the research available will provide a solution in the short term or the long term. Many people who find themselves in the same situation as my wife and I - that is, parents of a child with this disease - see it as their major and only hope. I do not necessarily feel that way. However, I have not yet met the parent of a type 1 diabetic child under the age of 14 who has said that they oppose this type of research. Similarly, I have attended associations that assist people who are suffering from other major diseases and they see this legislation as their major and only hope. I have been approached by churches and other lobby groups in the community that are making their feelings known on this bill, but I have not received approaches from the parents of children suffering from type 1 diabetes. The only suggestion I have had from them is that I stand and be counted on this bill because I, too, face the same situation as they do.

I support the bill. I have a lot of concerns about potential outcomes, but I will pay attention to the consideration in detail stage. Nevertheless, to take away the hope from the people who have approached me would be as wrong as denying them that hope on the grounds of fear that something might occur.

MR T.K. WALDRON (Wagin - Deputy Leader of the National Party) [7.52 pm]: I support the Human Reproductive Technology Amendment Bill 2007. Obviously I am not an expert in this very complex area. I will not go into the details that other members who are more qualified than I have gone into, particularly those members who are medical practitioners. However, I recognise the importance of this bill to the overall community and I acknowledge the differing views on this bill.

I have known that this bill was coming up for debate for some time and I have read up on it to the best of my ability. I have done as much research and reading on this subject as I have been able to do. In addition, I have

talked to people about it and tried to get a balanced view. I have asked a lot of questions to help me understand what this bill is about and how it will operate and how people on both sides of the debate feel. I have done that to the best of my ability. I have reached the decision that the positives of this legislation far outweigh the negatives. However, I recognise, acknowledge and understand the reason that people oppose this legislation. Trying to understand their view has helped me reach my decision; that is, to support this legislation.

Having read this bill and undertaken research on it, the ultimate factor is that it will give the opportunity for further research that will possibly save or greatly improve life now and probably will save or greatly improve life in the future. In considering these possibilities and the history of medical research and what it has achieved, to which I will refer shortly, I realise that medical science is assisting many people today to live better and longer lives. As a member of Parliament, I have a responsibility to ensure that people, now and in the future, have the best medical science available to them. I look for safeguards in this kind of legislation. I have cautiously considered this bill.

I have listed a few points from the minister's second reading speech that are pertinent. He said -

> The amendments will allow for further improvements in fertility treatments and important medical breakthroughs in the treatment of complex diseases such as motor neurone disease, type 1 diabetes, Huntington's disease and Parkinson's disease.

Further on he said -

> This could be helpful in gaining a better understanding of complex diseases such a type I diabetes, motor neurone disease, Huntington's and Parkinson's diseases and genetic disorders such as familial breast cancer.

Members have already spoken about other possibilities. I think of my own children and future generations and believe that we have a duty of care to give them this opportunity, as well as provide safeguards. The fact that the bill requires the minister to cause an independent review of the legislation in three years is very important. It is a sensible way to go.

Ongoing research is important not only now, but also for future generations. I recall reading two years ago about the history of blood transfusion. As I understand it, when blood transfusions started, they were rugged and caused a lot of problems. The medical profession virtually gave up on blood transfusions because it was believed to be morally and ethically wrong. I understand there are people in the community today who still hold those beliefs. I try to do my best to respect people's beliefs. The reality is that after the first blood transfusions, there were none for probably 100 years. Now blood transfusions are part of life. However, for approximately 100 years blood transfusions were not pursued. I often wonder how many people in those 100 years lost their lives because they did not have a blood transfusion. I could not find the article I had read in time for this debate, but I think it occurred in the 1800s. That article had an effect on me and when I look back, I think what a silly decision it was. It was in a different time. We often look back on decisions we have made and ask why we made them. At the time we probably thought we were doing the right thing. Irrespective of how members will vote on this bill, I am sure they will feel strongly that they are doing the right thing. I raise the issue of blood transfusions because I wonder how many people would have had longer and more fulfilling lives over that 100-year period.

This legislation will provide the opportunity for research. It will provide other opportunities such as blood transfusions did back then.

Mr J.B. D'Orazio: Would you consider using pig's blood in humans?

Mr T.K. WALDRON: I do not want to get into that argument. I do not understand the technicalities of this bill as well as other members. I have listened to the debate to the best of my ability. I am saying that we should provide the opportunity for research with safeguards built into it. I have tossed this bill around and considered it to the best of my ability. I have not reached my decision lightly.

At the end of the day this is what caps it for me and to some people it might seem strange. Like members in this place, I love my family. I have four daughters. The first of my four daughters has just got engaged. I look forward to being a granddad, just like other male members. I worry about the future for my kids. My dad used to say, "I worry about your kids for the future", and I would reply, "Dad, don't worry about us, we'll be fine." As I get older things change and I wonder about my kids' kids and how they will survive. I have a duty of care to responsibly and sensibly give them the best medical science available to help them and their families and everyone else.

Maybe in 50 years the research that is done today and in the future will help people who will suffer from diseases from which people are dying today. I do not mean that all these diseases will be cured - I am not being stupid about it. However, if we can change the situation to give people better lives, it is a responsibility I want to meet. That is the reason that I am supporting this legislation. I really enjoyed listening to the debate and I will continue to listen to the debate. I certainly feel that this legislation is in the best interests of the community now and in the future and that is the reason that I support this legislation.

MRS J. HUGHES (Kingsley) [7.59 pm]: I will make just a small contribution to the debate. I have had the great pleasure of having a bit to do with the Motor Neurone Disease Association of Western Australia and the Multiple Sclerosis Society of Western Australia, which deal with two diseases that will benefit greatly from this type of technology. One point that I want to stress from the outset is that although I support this legislation, it does not mean that I do not believe in the sanctity of life. As the member for Wagin said, there is a responsibility to respect and understand that sometimes people suffer under the weight of diseases and conditions that none of us would wish upon our worst enemies. Some conditions are devastatingly rapid and have an extremely high mortality rate.

One issue that has been referred to is the process. I do not have a problem with the process in the slightest. My view is that it is not a cell that has actually been given life by the normal process of fertilisation. As for the cloning aspect, this legislation covers that aspect quite well. I do not think that it is our place in this house to be concerned about what legislators may do in the future. It will be their job to create legislation for cloning, if it comes before this or any other house in the future. For us to stand in this place and fear future legislation is a waste of our time and creates lots of impediments to creating legislation that we know will be able to help people in the near future, not in the far future.

There was a lot of discussion about animal products and so forth, and I will just touch on animal products. Let us go back to the 1890s when the first vaccines were developed. Animal cells and animal serums were used. I have some information about cell cultures. Cell cultures are required for viral vaccines because viruses can exist only in a cell. The prerequisites are often obtained from animals: from monkey kidneys for the polio vaccine; from hamster ovaries for the hepatitis B vaccine; from rabbit brains for the rabies vaccine; from chicken embryos for the mumps vaccine; and from foetuses for the rubella vaccine. Not one of us baulks at having our children vaccinated or at being vaccinated ourselves, or at having those in Third World countries vaccinated. We are talking about human cells, not animal cells. There needs to be a clear distinction about what the research is about. It would be very interesting to see how sick the world would be today if we did not have vaccinations for whooping cough, tuberculosis and so on. Standing in the way of scientific knowledge and research will hamper the wellbeing of humans in the future. It is very important for us to think about our past before we make any decisions that are related to our future.

Although members might support this legislation, it does not mean that they condone cloning human beings. That is a very important aspect. We all know that the technology exists today. Legislation already exists for in-vitro fertilisation and freezing embryos. There is a lot of technology in society today that we think provides wonderful opportunities for childless couples and so forth. We should think about the fact that we are taking away the suffering of people, not just people's pain or their mental suffering because they are unable to have children. We are taking away the suffering of not only people who are experiencing sickness and disease, but also the people who live with them, who also suffer a great deal of anguish. I support this bill thoroughly. I hope that the bill and its implementation will bring about some wonderful scientific outcomes for the people who need them the most.

MS K. HODSON-THOMAS (Carine) [8.05 pm]: I, too, rise to speak to the Human Reproductive Technology Amendment Bill 2007. I place on the record that I certainly do not have the scientific experience of other members in this place who have spoken before me. I cannot talk about the perceived benefits that many may claim. However, in keeping with my previous deliberations and the positions that I have held on legislation such as this that has touched on moral and ethical issues, I indicate to the house that I will oppose the bill. The member for Albany said that he had not had a single constituent contact him in support of the legislation, which speaks volumes. I must admit that I found myself in the same situation. I do not think I have had a single constituent contact me in support of this legislation. The contrary has happened.

With the indulgence of the house, I would like to share an email I received from Dr Andrew Hodge. I will try to paraphrase what I can. I know that we are not allowed to use large quotes, but I will do my best. He wrote to me to express his deep concern over the introduction of this bill. He told me that he is a doctor with some 22 years specialist medical experience, that his background is cardiothoracic surgery, from which he retired three and a half years ago, and that he still does some clinical and basic research in the cardiac field. His email states -

> I am . . . not an expert in reproduction, but one does not have to be a rocket scientist to see the glaring difficulties with this Bill.
>
> You may certainly quote me if you wish (not as an expert), but the logic of the argument basically stands by itself.

His first email to me expressed his concern about the bill. He said that in 1991 a ban on human cloning was passed in Western Australia and was unanimously reaffirmed by the Western Australian Parliament in 2003-04, imposing a heavy penalty for breaking the law. They are important points to make. Although we are dealing with this legislation today and are saying that this is what is going to happen, in two or three years when scientists tell us that they need to be able to do more, we will again start to water down legislation to make those opportunities possible. That concerns me, so I express that. The email goes on to state -

> The present introduction of the Human Reproductive Technology Bill 2007 not only makes the Parliamentarians who may support this new Bill hypocritical, but also dilutes the encouragement the State should be giving for proven technology which is already producing the kinds of results expected from cloning.
>
> . . . this Bill is not a welcome addition to the scientific armamentarium because it comes with the baggage of moral and ethical issues which complicate, rather than simplify, the research needed to produce cures for difficult diseases. This is clearly of importance to the scientific community in that no scientist, nationally, has yet availed themselves of the **legal** opportunity to use embryonic "left overs" from IVF.
>
> The ethical issue which comes with this Bill is that the *in vitro* creation of an ovum with the full complement of human DNA is designed to be farmed for its stem cells and then disposed of. There is no scientific proof that such an ovum is entirely human, on a similar basis that all IVF programmes expect to produce human beings, and not any other species. The inevitable logic then indicates that the Bill allows the production of humans for intentional killing . . .
>
> The potentially harmful issue of where the ova will come from is also not satisfactorily addressed by this Bill. Hyperstimulation of ovaries in (presumably volunteer) women carries risks, of varying severity, up to and including death.

Today, I was fortunate to receive an article that I have not had the opportunity to read fully - it is many hundreds of pages. However, it refers to "Ethics, legal, social, counselling: What about the women? Ethical and policy aspects of egg supply for cloning research". Again, with the indulgence of the house, I will quote part of the abstract and speak to some of the introductory remarks of the writer, Katrina George. In her abstract, she states -

> As more and more countries open their doors to human cloning and embryonic stem cell research, scientists will be confronted with one fundamental problem: where will all the eggs come from? The mass harvesting of eggs raises serious issues about women's health, status and well-being. This paper critically examines proposals for ova supply such as altruistic donation, surplus IVF eggs and commercial sale. It questions the meaningfulness of informed consent and the risk-benefit ratio in a climate where powerful economic and social forces increasingly view the risks to women as the necessary trade-off for scientific advance.

That really concerns me. In her introduction, Katrina George goes on to state -

> Cloning and stem cell research have been at the forefront of public debate worldwide. . . . In December 2006 the Australian parliament voted to allow research cloning under licence. But what about the women? Although cloning is unfeasible without a continuous supply of women's ova, the ethical and policy implications of egg harvesting have been treated largely as a side issue, the hope of therapies versus the moral status of the embryo dominating the debate.
>
> . . .
>
> Since women and their bodies are central to cloning, I contend that advocates of this research bear the onus of demonstrating that sufficient ova can be sourced without harm to women.

That is very important to me, and I put that on record.

I will go back to Dr Andrew Hodge, who wrote to me. He goes on to deal with adult stem cells, and states -

> Adult stem cells from various sources (mostly from the patient themselves) have proven successful in many conditions including leukaemia, heart attack and spinal cord injury. Adult stem cells from the

> patient have no risk of rejection or tumour formation, are freely available (compared with cloning), are relatively inexpensive and are easier to use. As yet, international scientific interest in cloning has produced no cells usable for therapy in spite of substantial effort in some countries.

We were fortunate to be provided with a briefing by staff from the minister's department. I had some concerns when I read the sheet headed "Overview of the Licensable Activities Under the Amended *Research Involving Human Embryos Act 2002*". It was part (f) that really concerned me. This is where the discussion about animals has come in. It states -

> (f) creation of hybrid embryos by the fertilisation of an animal egg by a human sperm, and use of such embryos up to, but not including, the first mitotic division, if:
>
> (i) the creation or use is for the purposes of testing sperm quality; and
>
> (ii) the creation or use will occur in an accredited ART centre.

The legislation does concern me. As I said, I am not a scientist. I do not have the experience or knowledge that others do. That always makes it very difficult when we are dealing with legislation that requires us to think about what the implications of the legislation will be. Often we do not think about what the implications will be. Although this legislation will no doubt pass through this place and go to the other house, my concern is: what will happen in two or three years? Where will we go then? With those few comments, I indicate to the house that I will oppose the legislation.

DR J.M. WOOLLARD (Alfred Cove) [8.13 pm]: I will support the Human Reproductive Technology Amendment Bill 2007. In speaking tonight, I am speaking as a member of Parliament, a mother, a nurse and also the patron of the Parkinson's Association of WA. In each of those roles, I can see the value that this legislation may have. Having listened to members tonight, I accept that there is a big moral issue in relation to this bill and this area of research. Many members of the Parkinson's Association put a lot of hope into future research, not for themselves, but for other people who may develop diseases such as diabetes, Huntington's disease or Parkinson's disease, in the hope that they may not have to suffer in the way that people are suffering from those diseases at the moment. I know that if it were someone in my family who had diabetes, Huntington's disease or Parkinson's disease, my view would be similar to that of those members of the Parkinson's Association.

The bill will allow for improvements in fertility treatments, as well as the treatment of chronic diseases such as those I mentioned; namely, Parkinson's disease and Huntington's disease. The bill will retain the existing framework for embryos created by fertilisation, when the embryos are created only for the purpose of achieving pregnancy. If at the end of the assisted reproductive technology treatment the embryos are excess to the needs of the people for whom they were created, they can be donated for research. That is new. That could not be done before. Any use of the excess ART embryos will continue to be subject to the strict licensing requirements. The licensing requirements are those set out by the National Health and Medical Research Council. As members, we have all been provided with a copy of the prohibited practices under the Prohibition of Human Cloning Act, and also of the licensable activities under the Research Involving Human Embryos Act. All of those areas have been scrutinised by medical research committees comprising scientists of the highest calibre.

The amendments in the bill retain the ban on human cloning. They allow for the creation of embryos by means other than fertilisation, and for the use of those embryos for research. It is this research that is giving a lot of hope to people who have these chronic illnesses at the moment. They hope that as a result of this research, something will be able to be done for them or for others in the future.

Some members who have spoken said that they had been contacted by people who oppose the bill. I have been contacted by people who support the bill, as well as by people who oppose the bill. I have explained to those people who oppose the bill the reasons that I will support this legislation. Amendments to this legislation may be put forward, and I may support some of those amendments. However, in general, I believe that the objective of this bill is to assist medical research and to assist people in the community; that is, women who are having problems with fertility and people who have chronic diseases. Although I do not see a possible breakthrough from the use of this technology in the next few years, I hope that our support of this bill may at some point in the future allow some cure to be found for some of the diseases that are very debilitating in our community at the moment.

MR T.R. SPRIGG (Murdoch) [8.19 pm]: I rise to make a few comments. I will support the Human Reproductive Technology Amendment Bill 2007. I am very grateful to my party for giving members a free vote; that was certainly the right thing to do. I respect people's opinions, whether they are based on religious beliefs

or whatever, but in common with most members who have spoken to this bill, by far the strongest influence upon making up one's mind about whether to support a bill such as this is one's own personal experiences. I mention a couple of experiences that I have had with people who are fairly close to me. An East Fremantle Football Club team mate of mine, Kerry Coates - a 1974 premiership player - is dying from motor neurone disease as we speak. In fact, he was probably not expected to live as long as he has. To see a once-healthy former athlete in his mid-50s suffer from this disease is absolutely soul-destroying. I have witnessed it at first-hand. I see Kerry most weeks. He is still able to come out to various places and watch his beloved football from time to time, and also his beloved racehorse, which has been winning some races for him. People think that that is probably keeping him going. Kerry is now at the stage of being PEG fed and has to be moved around in a wheelchair. He is not able to speak and communicates by writing on a little whiteboard. I have had quite a few conversations with him in that way. However, to see a strong fellow like that - a bloke who has played cricket and football all his life, and who loves life - go down in such a way is really disappointing. It is my understanding that some of the research that this bill will allow to happen could provide the key to finding a cure for motor neurone disease. As far as I am concerned, that cannot come quickly enough.

I am involved, as is the member for Moore, with a group called the McCusker Foundation for Alzheimer's Disease Research. I know that the government has put some money towards the McCusker Foundation. Alzheimer's disease is one of the biggest health problems in Australia and is getting worse all the time. Dr Ralph Martins heads the research team that is trying to find and isolate the gene that causes Alzheimer's disease. Again, I understand from scientists whom I have spoken to about this bill that there is a fairly good possibility that a cure for Alzheimer's disease can be found through stem cell research. If that is the case, I do not think there is anything we can do but support this bill. As I mentioned, one examines one's own ethics, as I have. I have heard some of the arguments and I respect people's arguments, but one reaches a stage at which one actually has to trust our scientists to do the right thing. There are checks and balances in the bill about cloning and so on, to prevent people from doing the wrong thing. For that reason, and because of my personal experiences - particularly the two cases I have mentioned - I will support the bill.

DR S.C. THOMAS (Capel) [8.24 pm]: This is an interesting bill. Members find themselves in an interesting ethical quandary. I ask members to imagine a pile of candles in a room. Imagine two million lit candles in the darkness - one for each person in Western Australia. Each one deserves to burn as brightly as it can for as long as it possibly can. Everybody believes that; I do not think that anybody believes it should be any different. I will return to that in a minute. Each candle burns for as long as it possibly can, but some candles do not burn as brightly or for as long as other candles; some candles actually flutter very early. Some candles struggle. Maybe the wick is not quite strong enough, or it is not long enough or there is not enough wax in the candle - whatever it is; we do not really know. Not all those candles burn for the full length of time. Imagine that we could keep all those candles burning for the full length of time, but that in order to do it we had to snuff out one candle to keep the next one burning. That is the quandary that members face. The big question in this process comes from an ethical point of view: at what point is it life? That is talked about frequently at the end of the process. I am always amazed at people - not necessarily people in this house - who approach this debate by saying that at a certain point life is no longer worth living and should be ended. It is not my point of view, but there are people who say that under a certain set of circumstances, life is not worth continuing. The member for Murdoch described the very sad case of a man with motor neurone disease. The guy is probably going to reach a point in his life at which he says, "I do not want to continue that battle; I want the candle snuffed out now. That's it; it's not worth being here." However, we fight that every step of the way. We fight it to the bitter end and extend life if we possibly can. The question we have not faced in any legislation is: where does life begin? Is the candle lit at the point of conception? Where is it? I would love to have been here during the abortion debate to actually hear members of Parliament say, "Here is the point at which the candle is lit. Here is the point at which life begins, and therefore here is the point at which it is no longer acceptable to take one life to extend another."

It is easy to say that from a position of not necessarily having kids who are suffering from an illness. I do not envy the member for Peel's position at all; that must be an extremely difficult position to be in. I think it would be very tough. I will sit here and pontificate, and the member for Peel will say, "You haven't got a kid in that situation, so what do you know?" It is a reasonable position to take. My mother suffers from Parkinson's disease, so I have family members who suffer from incurable neurological diseases. However, it would be far worse if it was a child. To have a sick child would, I suspect, be the toughest situation one could face. The member for Hillarys understands what I am saying about how difficult the impact of a child's illness is for a parent. At what point does a cell become life, and for what reasons are we proposing to do this? Members have been talking about embryonic stem cells. They come, for the most part, from an embryo that is produced from a sperm and an egg and has divided into a certain number of cells, depending on the point at which it was frozen.

The veterinary profession has done a fair bit of work in the freezing of embryos. Again, we have led the way in some of those areas. They can still be frozen after the cells have divided many times. At what point does that become a human life? That is the difficult question in this debate, and it is human nature for members to tiptoe around the question, because it becomes human life when we want it to be human life, and it is not human life when we do not. That is probably the abortion debate in a nutshell. The difficulty, from a moral perspective, is in determining the point at which we say, "This is a human life, which we are about to take in order to extend or provide another human life." Without any strong feeling of religious faith, I can say that there are those who believe that a person has one life, that it is the first and only thing that the person has, and that the person has to cling to it as closely as he or she possibly can; there is no extension beyond that. Every office will be deluged with people who say that this life is just the first step, there is much more beyond it, and why would anyone be scared of that? However, for those who do not hold that kind of belief, it is not a difficult debate, because it is about the sanctity of life at the start, which is easy to put to one side, versus the life of somebody who is in front of us. In the chamber today I heard members recount stories from their experiences. We are only human beings and that is what we do. Members will deal with this matter according to their exposure to the process. We deal with what we see. Tragedies stick in our minds. When we attend funerals, we hear how tragic it is that a person has died. We do not spend a lot of time talking about the glory of the life that was. We spend a lot of time talking about the tragedy of death. That is one of the sad things about human nature. We are doing it again today, which means that everybody in the chamber is human - well, mostly. I suspect that there are no chimeras. The parties have been generous, because they have removed the party political process from this issue.

Mr C.J. Barnett: Certainly none that you would want to climb.

Dr S.C. THOMAS: Let us not go there.

That is the question we do not want to face when considering this bill. We do not want to face it because we are afraid of it. We do not want to face it because we are afraid of our mortality. Those of us who do not have any other answers cling to other possibilities. I consider myself a scientist; indeed, I consider myself a science geek. I do not mind saying that. Classically, when one learns the sciences, one is trained away from humanity and into science. When a person learns science, he learns the world of the sceptic. A scientist disbelieves everything until it is proven; he takes nothing on faith. That is the world of the scientist. I am the biggest sceptic around. They call me doubting Thomas. There is a good reason for that, because I doubt nearly everything that I see. However, in some areas one must develop a bit of faith. One has to make a decision about where to draw the line, which is my problem. This is an expression of where I draw the line. Every member will come into the chamber and do the same thing. My fear is that in the debate we have heard so far, members have not drawn a line in the sand; they have not taken a moral stand. It is difficult to have a sense of faith in politics, because one is ridiculed for it. If a politician has a sense of faith, he or she is held up to ridicule in the press. Of course, a politician is also ridiculed if he does not believe in anything. I think the trick is to stand up and believe in the things that the press wants us to believe in - it is hard to tell. It is a difficult process to work through.

I have already told the Minister for Health that I have fewer problems with the Surrogacy Bill 2007 and the act of surrogacy than I do with the medical technology component that is attached to it. At a personal level, I have a problem with the technology - I admit that I am a techno geek - that will be used in this process, because it devalues human life at one end and values it at the other. The difficulty that I have with this debate is that I will be only one of only a few members who looks at the bill in that way.

Ms S.E. Walker interjected.

Dr S.C. THOMAS: I said that my problem is that the bill devalues life at one end and values it at the other end, which is not appropriate. Members may quite rightly say that in saying that I might sacrifice the life of my mother, for example, who may be suffering from Alzheimer's and whose life could have been extended with the use of stem cells. I have a lot of time for the member for Peel. People with diabetes tend to have a shorter life span than people who walk around without diabetes. That is an awful thing to face as a parent. I understand that a parent would do anything possible to reverse that situation. Most people would probably look at it that way. Very few people will look at this issue and ask: is an embryo a life? When does an embryo become a foetus and a life? That is the question that members should think about. The bill fails to value life at the first stage.

Dr K.D. Hames: We had to address that in the abortion debate, but that related to an embryo much further down the track, so it was much more difficult.

Dr S.C. THOMAS: I would like to have been a member when Parliament held the abortion debate. Unfortunately, that debate preceded my becoming a member of Parliament. It is one of those difficult things. It is true that medical science will advance dramatically and that there is the possibility that stem cell research will

lead to cures for a number of major diseases - I am sure that diabetes is at the top of the list, although there are quite of few - but it may not. It is also possible that adult stem cells will eventually produce the same outcomes as embryonic stem cells. We need to know what protein will be required in a cell to make it tick over to make it generate into any cell. The difference between embryonic stem cells and adult stem cells, apart from the slightly greater movement down the tree of life of cells, is their ease of harvest. For those who do not know about the process, it is quite easy to harvest embryonic stem cells. The process involves fertilising and flushing. The egg is fertilised and it grows, two, four, eight, 16, 32 -

Dr K.D. Hames: In this case they are not using embryos.

Dr S.C. THOMAS: It is part of the process of the frozen embryo that is the next step down the chain. Work will be done on 32-cell embryos that are starting to -

Dr K.D. Hames: They do that now.

Dr S.C. THOMAS: Yes, they are starting to use that process.

Dr K.D. Hames: They are allowed to do that now.

Dr S.C. THOMAS: I have a problem with that. Let us not go there.

It is easy to harvest those embryos because they are sitting in fluid and they can be strained. It is much more difficult to harvest adult stem cells because they are isolated individually around bone marrow and other bits and pieces. More work is involved; it is more difficult. Research into the use of adult stem cells is probably further away. However, in the same way that embryonic stem cells may overcome diabetes, Alzheimer's, Parkinson's and a host of other diseases, those diseases may be cured with adult stem cells. We might be able to regenerate heart muscle after a heart attack. That is certainly being done in rats and there have been some in vivo studies using adult stem cells. Is there any guarantee that embryonic stem cells will be needed because adult stem cells will not be able to do the job? We do not know that. Nobody can say that they are an absolute requirement, except for the scientists who are conducting stem cell research. They will tell us that they are an absolute requirement at every turn. If I were to research the breeding of ducks, I would tell members about the importance of ducks. Scientists have a vested interest in their research. They have a vested interest in telling people how close they are to an outcome even when they are not. Scientists believe in their research and they need us to believe in their research too. The research that provides the quickest results may involve embryonic stem cells. However, the same scientists who are telling us that do not have to deal with the ethical or moral issues that I raised earlier.

My concern is not only with this legislation or with the abortion act, but also with all the other pieces of legislation that provide that at one point a human embryo is a life and at the next point it is not. What saddens me is that often it is not even the number of cells or the age of the embryo that makes it a human being; it is whether it is wanted. If someone is wanted, the embryo is a human being; if one is not wanted, the embryo is not a human being. Much wiser people than I have said that society will be judged on how it deals with the most vulnerable amongst us. This is a very vulnerable group because it is very scientifically and financially valuable. When this Parliament addresses when a life begins, I will look at that. When we determine when a life starts, I will help members draft a bill that values life both before and after a person is born. Until that point, I will struggle to support what is put in front of me today.

MS M.M. QUIRK (Girrawheen - Minister for Corrective Services) [8.41 pm]: A number of issues have been canvassed in the course of the debate on the Human Reproductive Technology Amendment Bill today. I think it is important to note that these views have been sincerely expressed and none should be seen as being paramount over another. All views are legitimate and in some cases they are the result of a real struggle with conscience and personal values. It is my hope that this debate can continue to proceed in a respectful and thoughtful manner. I appreciate the opportunity to have a conscience vote on the issue. I can assure the electorate of Girrawheen that I have reflected long and hard on this complex and dynamic area of scientific endeavour and the ethical challenges that we confront.

I have a minor quibble with the title of the bill. I do not want to necessarily hold it up at the consideration in detail stage, so I will not move a formal amendment. However, I do not believe that the title of the bill accurately reflects the conduct that we are seeking to permit. The Human Reproductive Technology Amendment Bill will permit conduct that is not concerned with fertility or the creation of new life through in-vitro fertilisation; rather, it will permit the use of embryos for the sole purpose of medical and scientific research. Until now, only excess embryos created for the purposes of IVF could be used and destroyed for medical research. Given that the nexus between the use of the embryo and human reproduction is much more tenuous, I

consider that the bill should have been more properly titled the "Human Reproductive Technology and Collateral Medical Research Bill". This is not a crucial issue, but I think it is worth noting that since the bill will allow conduct unconnected with human reproduction, another title would more accurately reflect the nature of the activity sought to be regulated.

I have some more general concerns about the legislation and I will outline them briefly. These issues have influenced how I intend to vote on the bill.

I think it is inaccurate to categorise this debate as an issue that is solely concerned with science, religion and politics. Some other aspects also need to be accommodated. We heard tonight from the member for Carine, for example, that underlying the whole process is the fact that the technology relies on the ready supply of eggs. In all of this discussion of somatic cell nuclear transfer, there is the underlying premise that the eggs needed for this process will miraculously appear, and the actual egg harvesting procedure, with its attendant complications, are glossed over. The process of donating eggs for SCNT is envisaged to be the same as that which many women currently undergo as part of IVF treatment. First, a drug is administered to halt the normal egg cell growth and hormone production. Follicle stimulating hormones are then introduced to encourage hyperstimulation and the production of numerous eggs. Surgery is then required to capture the eggs; this is done by inserting a needle into the ovary while the woman is under an anaesthetic. Although women receiving IVF treatment might be willing to risk side effects when the possible end result is a much-wanted child, questions have been asked about the likelihood of women wanting to go through this procedure for purely altruistic reasons. In my view, the potential for exploitation is very real.

The history of this legislation is also symptomatic of broader issues and problems with our federal system. Although the federal government had planned to enact this legislation, its constitutional capacity was limited to the corporations power in the Constitution and it was necessary to have complementary state legislation. Accordingly, agreement was struck at the Council of Australian Governments after consideration of the Lockhart report, which I will refer to later. Technically, some states could have exercised their sovereignty and their right to not legislate. However, it seems to me that the way our Federation is going, I am not sure that this would not have had consequences down the track. For example, the National Health and Medical Research Council might have issued an edict that it would not finance research in those jurisdictions in which therapeutic cloning was not allowed. This might sound quite fanciful, but we can all think of a multitude of areas in which funding is increasingly tied to certain policy prescriptions.

One claim that we have heard a lot today relates to the potential cures for people with disabilities. The claim is frequently made that this technology will eliminate a range of disabilities. I do not believe this assertion should go unchallenged. The fundamental premise, which is perpetuated by such a statement, is that disability is a burden and a condition that nobody could bear to live with. For some people with disabilities, this argument undermines the already weak social position of people with disabilities in general. Some people with disabilities would say that it is society's attitudes, rather than any medical condition that causes the disability, that marginalise, exclude and create unemployment and poverty for so many people with disabilities. The submission by the Physical Disability Council of Australia to the Lockhart inquiry very admirably expresses these sentiments. The socially disabling factors could be solved tomorrow; the scientific outcomes are much further away. Having been the Minister for Disability Services for a short time, I can appreciate these sentiments. One of the most satisfying and rewarding times in my professional life was when I saw disabled persons being included, employed, acknowledged and allowed to reach their full potential. I consider it disingenuous to play the disability card in the present context.

Much of the debate on stem cell research centres on the hope that it may be able to be translated into useful safe therapies. I think the area of research has been over-hyped to attract funding. The general public needs to realise that encouraging results from laboratory research or early clinical trials do not necessarily translate into new treatments with widespread applications. Before the results of the research can be used in treatment, they must be found to be safe or feasible for routine clinical use. This is not to say that I am not in favour of research; rather, we need to be realistic about time frames, particularly the short to medium-term potential. False hope is the cruellest of all.

The last time the human reproduction technology legislation was debated in this place in 2003, we permitted the use of embryos created from IVF, but surplus to requirements, for research. It was stressed at that time that there was much social utility in using these embryos, which would otherwise be destroyed. It was also stressed that we would not be proceeding down the path of therapeutic cloning. No doubt on this occasion, it will be stressed that we will prohibit the cloning of humans. This notion that what we are permitting is not as bad as something that we are still prohibiting is, to me, the worst form of moral relativism. The rationale expressed for changing

the legislation arose from the recommendations of the 2005 legislation review of Australia's Prohibition of Human Cloning Act 2002 and Research Involving Human Embryos Act 2002, chaired by the late John Lockhart, QC, a former Federal Court of Australia judge. The report was presented to the Council of Australian Governments in December 2005. As part of its terms of reference the committee was required to consider community standards. It did so by the receipt of over 1 000 public submissions and by reference to a public awareness survey conducted by Biotechnology Australia. The public awareness survey consideration of community standards dealt principally with the state of the public's knowledge and canvassed which sources of stem cells were considered more acceptable. Much definitional confusion was disclosed through the survey. What it did illustrate was that people regarded the source of a stem cell as a significant driver of whether they would support research of this kind. What was not considered in Lockhart was the multitude of ethical issues which emerge and which the community can have legitimate concerns about.

In my inaugural speech in this place I stressed the belief that the end can never justify the means. Nowhere is this more apposite than in the present debate. This legislation is about pushing boundaries while the promise of benefits and miracle cures is illusory. While we have heard a range of interpretations of when life begins and the status of somatic stem cells, where this doubt remains I believe I must take a conservative approach, and I use the term "conservative" advisedly. As long as these doubts exist, I consider they should be resolved in favour of the sanctity of life.

MR C.J. BARNETT (Cottesloe) [8.52 pm]: I intend to make just a brief comment. First, I will be supporting this legislation and I will explain why. A number of members in this debate have referred to the previous debate some time ago in this chamber concerning abortion. For those of us who were here, that was probably one of the most historic debates ever held in this Parliament. I did not have the difficulty with it that many members did on moral and ethical grounds. The only reason I mention that is that members essentially poured out their hearts, emotions, religious beliefs and ethics, and voted accordingly. Some voted on the basis of what they felt; some voted according to the view they thought their constituency would broadly hold. The point I make is that it was the Parliament that made the decision. It was the Parliament that wrestled with members' individual consciences and their responsibility to represent an electorate. We were the mirror reflecting a wider community.

In this debate something to a lesser degree is certainly taking place, as it should. Some of the promised benefits may prove to be illusory, as the member for Girrawheen has just stated. I do not know, but from my limited knowledge it seems quite clear to me that genetic research, embryonic stem cell research and perhaps even therapeutic cloning are a broad frontier of medical research. We will not know for many years what the final outcome of it might be. I think that we as a society should use our talents and take the benefits that research can potentially offer, particularly in the areas of health where we are talking about some hope of preventing debilitating disease, perhaps repairing damage and disability, saving the lives of young children or alleviating pain and suffering throughout someone's life. I do not find it difficult to make the decision to lean on the side of research. For those members who quite genuinely find the other weight of factors and debate on human life to be stronger, I think all members respect their views, but it seems to me that if that is a view of a religion and a god, that same god has given us the ability to use science. I think that is a gift that should also be used.

One thing that does concern me, and I hope the minister might address this at some stage during the debate, is that this is such a rapidly moving and diverse area of research that it is inevitable that once this legislation is passed, if it passes and is passed around Australia, it will not be long before there will be new ethical issues, another strand of research and another dilemma arising. From my preliminary glance at the second reading of the bill, it seems that the National Health and Medical Research Council is to be the body charged with assessing where the boundaries may need to be shifted to. I do not have any objection to people with research knowledge, who are perhaps highly qualified in ethics, looking at the issue, perhaps with the competency to assess how it might be regulated and practically administered, but I have a concern if we are delegating the responsibility to be the reflection of society. If the council is only effectively responding to a federal minister, I think we are abrogating our responsibility as a state. I hope it is a little bit more than simply going to the federal minister or consulting with the state minister. If the National Health and Medical Research Council recommends substantial further changes, I hope that we will have some mechanism whereby significant changes or altering of the rules, as it were, at least come back to Western Australia, to the minister and, I hope, to the Parliament in some form of motion or agreement. I believe that we have a responsibility as members of Parliament to our own convictions and views and also to our constituency and this state, to have the debate and form our opinion. I hope that the minister might at some stage, if not now, look at that issue. Yes, have national consistency, and I would be happy with that, but do not abrogate our responsibility. Let future parliamentarians and future communities do

exactly what we are doing tonight, weighing up the ethical, scientific and medical issues as we see fit, as people elected to do that job.

MR B.S. WYATT (Victoria Park) [8.57 pm]: I rise this evening to also speak to the Human Reproductive Technology Amendment Bill 2007. It is certainly one of those pieces of legislation that pits the legal governance issues faced by Parliaments against ethical and moral issues that were so well outlined by the member for Dawesville and the member for Central Kimberley-Pilbara earlier today. I think those two members addressed this issue from a similar perspective but arrived at two different conclusions; one coming down on the legal governance side and the other perhaps coming down on the ethical-moral side. However, the point made by the member for Cottesloe a minute ago indicates the fact that biotechnology and medical technology in this area move at a rapid rate. As parliamentarians in Western Australia and as parliamentarians all over Australia have recognised, obviously particularly in the federal Parliament, it is our responsibility to deal with this emerging technology in a sensible and sustainable way. I note that this bill will cause the issue to be brought back for an independent review in three years. I dare say that three years from now significant advancements will be made, in light of the last time that this issue was debated, in 2003, and how much has changed in such a short period. However, I guess that the flipside of not supporting this bill would be to either ban the practice or simply ignore it. My submission is that either response would be irresponsible for members of Parliament. The member for Central Kimberley-Pilbara made the comment that as we are responsible to society for the delivery of good order and the fact of that matter is that this technology does exist and regardless of entering the ethical or moral debate it is being used, it is therefore our responsibility to address, and in this case regulate, this technology in the sensible and meaningful way to which I referred earlier.

I want to make some comments on the churches that quite rightly have entered this debate. The member for Central Kimberley-Pilbara identified the fact that churches, be they Catholic or whatever, have always been involved in public policy debate on one side or another. I think that is quite rightly their position. It is certainly my view that the correspondence that I received and read from various churches was extremely helpful to me in understanding the technology and the ethical issues that arise and that we are dealing with as parliamentarians, and actually made me more sure of the fact that as a Parliament we should be addressing this issue in the way that we are. I want to make particular mention of two articles. The first article is attached to a letter from the Most Reverend Roger Herft, Archbishop of Perth, Anglican Church of Australia, Diocese of Perth, addressed to Hon Jim McGinty, Attorney General. The article is titled "The Stem Cell Debate". I think a copy of that article was sent to all members of Parliament. The article raises the ethical issues that are relevant to the stem cell debate and that have been identified by most of the members of Parliament who have spoken on this issue. Those issues are the right to life debate, the thin edge of the wedge debate, the risk for the women who provide the ova, and the possible benefits. I commend Archbishop Herft for that document, because it is a very well considered outline of the issues that we are facing in this bill. The article does not express any particular view but rather raises the issues that all members of this Parliament, regardless of whether they have a particular religious persuasion, have had to consider.

The second item I want to mention is a "Vista Special Report" that appeared in *The Record*, the newspaper of the Catholic Church, on 14 June 2007. The report contains a number of articles that discuss this legislation from different perspectives. One thing that came across to me very clearly from that report is that this technology is moving at such an incredibly fast pace that I cannot hope to keep up with all the intricacies of it. That made me even more certain that we need to regulate the system under which this technology will operate. We also need to provide, as the member for Cottesloe mentioned earlier, a process by which all Parliaments in Australia can decide what should and should not be done with this technology. One article in that special report is by Anthony Barich, and it refers to a Professor Alan Trounson, the Australian Stem Cell Centre's global strategic science adviser, who looked at the potential for a variety of therapeutic applications for adult embryonic stem cells. That was a particularly good article. It highlighted to me again the necessity for Parliaments to be involved and not simply offer two alternatives; that is, either ignore this technology, or ban it.

I was interested in the comments by the member for Dawesville about Archbishop Hickey and Cardinal Pell. I think the member is right. I do not think Archbishop Hickey made a threat. It was simply a comment. He was asked a question by the media, and he responded accordingly. In my view, there was certainly no threat or heavy-handedness by Archbishop Hickey.

This legislation has been examined by a number of committees. The review by the federal Legislation Review Committee, known as the Lockhart review, brought us to where we are tonight. The private member's bill that was introduced into the federal Parliament by Senator Kay Patterson in December 2006 gave effect to the majority of the recommendations of the Lockhart review. It is interesting to note that the foreword to the

Lockhart review report identified the very same issues that we are struggling with this evening. Some of those issues are as follows. When does human life begin? How far should society allow research involving human embryos to go? What safeguards should be put in place for that research? Should human embryos be accorded the same rights as human beings after birth? How should a human embryo be defined? These issues are not isolated to the church. These are issues that all members of Parliament, regardless of their religious persuasion, have been struggling with. The abortion bill has been mentioned a number of times by members of this place. I was not a member of this house when the abortion bill was debated in this Parliament, and I did not, therefore, participate in that debate. I assume that the key argument in that debate was: when does a human being come into existence? The primary task of the Lockhart review was to find a system by which this matter could be regulated. In undertaking its community consultation, the committee considered many of the issues that I have raised. It is worth noting that the Lockhart review received a total of 1 035 submissions from a broad range of individuals and organisations in all sorts of categories, including parliamentarians from around the country. It also held a large number of public hearings, private meetings and discussion forums around the country. The Lockhart review did not make its recommendations lightly, or from the perspective of the ivory tower from which most members of Parliament often consider that ethical issues are really debated. A prominent Australian ethicist, Peter Singer, who has certainly raised ire and caused controversy, has identified that ethics is not a matter just for the intellectual elite but is a matter for every person. That is why every member of this place has considered this issue in great detail.

The Minister for Health stated in his second reading speech that the amendments in this bill will achieve five things. Firstly, they will retain the existing framework in relation to embryos created by fertilisation of human eggs by human sperm. Secondly - this is the key to this bill - they will retain the ban on human cloning for reproductive purposes. Thirdly, they will allow for the creation of embryos by means other than fertilisation, and the use of those embryos for research. Those issues form the crux of this bill. It is those issues that the Lockhart review, and subsequently the commonwealth Parliament, deemed appropriate to be enacted in legislation. Fourthly, they will require the tabling of reports represented by the relevant commonwealth minister regarding the establishment of a national stem cell bank. Fifthly, and very importantly, they will require the Western Australian minister to cause a further independent review of the legislation in three years. That review may be undertaken as part of the required commonwealth review that I referred to a moment ago. I endorse the comment by the member for Cottesloe that we need to ensure that that review, and any subsequent amendments, takes place in this chamber, which is the mirror of the people of Western Australia. A bill such as this, which raised ethical and moral issues, cannot be delegated to a government or independent body but needs to be dealt with by the democratically elected Parliament of this state.

I want to thank a number of people who wrote to me, mainly by email. All members of Parliament would have received a letter from Medicine with Morality, a group of Australian doctors concerned at the drift of ethics away from moral absolutes. We can spend the rest of the night discussing ethics and moral absolutes, let alone how they apply to this particular bill. The Coalition for the Defence of Human Life also wrote to me, and no doubt to all members of Parliament. Various constituents also wrote to me. I will not name them, because I have not sought their permission to do so. However, I will mention one particular person who wrote to me, and I assume to all members, by the name of Tim Kennedy, from Churchlands, because his letter was certainly very well thought through and detailed.

I am supporting this bill. I want to come back to where I commenced my speech on this matter. That is, as parliamentarians, we are primarily concerned with the legal and governance requirements of the state of Western Australia. The technology that we are dealing with this evening is real. Regardless of the ethical considerations for members of Parliament, this technology is a fact of life. Therefore, it is our responsibility to ensure that this technology is developed in the way that the majority of the members of this Parliament believe is appropriate.

MR D.T. REDMAN (Stirling) [9.10 pm]: I will not make a large contribution to this debate but, for the benefit of my constituency, I will put my position on the record. I support the Human Reproductive Technology Amendment Bill 2007.

There is no doubt that science has advanced over many years. That advancement has led to significant changes in people's lives that have not always been for the better. As science has moved forward, there have been challenges to convention. Significant debates have occurred throughout history on whether a particular scientific experiment should have been undertaken. In many instances there would have been a significant amount of debate but, in hindsight, that debate has led to outcomes that have helped a large number of people.

As technology progresses, we push the bounds of science and, more often than not, find ourselves testing the ethical limits. I guess that is where we find ourselves today. Put very simply, this debate provides members

with the opportunity to support a bill that will allow the progress of a scientific process involving diseases that could assist the community. However, that view can be put against the ethical debate on stem cell research and, in particular, embryos. I am not an expert in that area. I have listened to the contribution by some members who went into detail about research and how the science works. I found it interesting. I do not have a problem with that and that is one of the main reasons I support this bill.

I will give members another reason that I support this bill. The use of human embryos will, no doubt, lead to a significant debate. People have differing views and, as the member for Murdoch mentioned, their view could be based on their background in science and religion and their own experience. One of the significant factors for my support of this bill is my experience. I may have used this example in the past in reflecting on the health of my son when he was 10 years old. He is now 20 years old; therefore, it was 10 years ago. Over a period of a couple of days he became very lethargic and had a number of tests. The doctor in Denmark referred him to the Albany Regional Hospital, and on assessment at that hospital, he was put on the Royal Flying Doctor Service to Perth. At that stage the doctors believed that he might have leukaemia. I was not told that, but I remember sitting beside him on the flight to Perth thinking that I would have traded everything I had for my son's health. There are times such as that in one's life that change how one thinks about things. It puts in perspective what is important. That was one of those occasions in my life and my family's life. My wife, Marie, felt disillusioned that I was on the plane with our son and she had to drive to Perth to bring up some gear. Again, we shared that issue in our family and it is an issue we do not want to go through again. While I cannot fully appreciate what some families go through with the loss of a family member, I can understand their concerns and issues. I guess that I also understand the steps they might take to support and fix the problem or the disease their children might have. My son had a number of blood transfusions. He was eventually put back on track. He had what is called haemolytic anaemia, which is where the body breaks down the red blood cells.

The member for Wagin spoke about how, over time, blood transfusions have been viewed by society.

Mr T.K. Waldron: A breaking story.

Mr D.T. REDMAN: It was a breaking story by the member for Wagin. It was interesting to note that there has been a cultural shift in our community in accepting blood transfusions. There are still people who do not accept a blood transfusion, but generally it is accepted in our society. It leads us to what sort of research we are prepared to accept to provide positive outcomes in society.

The member for Capel talked about the ethical debate on when an embryo becomes a human life and at what point we say that it is no good using it for research because it is an ethical dilemma. It is a big, wide blurry line and each member in this house has a view on where they stand on that line. I am happy with this legislation and the position it takes on that issue. Therefore, I am happy to accept the potential advances in science and treatment of diseases and the potential betterment that this legislation will bring for society. I will leave it at that. I put on record, for the sake of my constituents, that I support this bill. I will listen closely during consideration in detail. Like the member for Wagin, all members have a responsibility and duty of care to support science and the progress it might have to improve society. In the case of my family, in this case my son, members can get a full appreciation of why that is a benefit.

MR M.W. TRENORDEN (Avon) [9.16 pm]: I am a great lover of history. I recall reading that in the 1930s, during the Depression, President Hoover apparently decided that the United States Patent and Trademark Office should be closed because every invention must have been made. It is a point of view that was shared by many people in their contribution to the Human Reproductive Technology Amendment Bill 2007.

Tonight I have listened to the moral versus science debate. In the time of the Crusades, when the Muslims were fighting for their homeland, the Europeans were the barbarians. The Muslims were the most enlightened people of the time. Their medical science was well above European standards of the time. When we look at where some of the Muslim society is today, we must ask what has gone wrong.

My favourite subject in science is what is known as Y2K - year 2000. Jet planes were going to fall out of the sky and the world was going to come to a grinding halt. At the time, this Parliament was involved in the spending of hundred of millions of dollars to stop this terrible event that did not occur.

Mr C.J. Barnett: Your former leader was enthusiastic about that.

Mr M.W. TRENORDEN: Yes, but I just make that point. If we go back in time, I recall reading that after the success of the Wright brothers a group of American doctors got together and tried to stop people from flying because it was a known scientific fact that when people moved at 60 miles an hour their heart stopped beating. We laugh about that now but the reality is that a group of scientists said that.

We must ask where we stand. In today's paper reference was made to Einstein's theory of relativity. Someone in England -

Mr M. McGowan: Germany.

Mr M.W. TRENORDEN: Was it Germany? Anyway he said he has found something that is faster than the speed of light. Will that be more important than this debate? It might be. The difficulty is that this debate is about the moral versus science.

How did a church become involved in the Inquisition that occurred hundreds of years ago? How did a church do that? What went wrong? I cannot sit in this place and decide those matters. I listened to the member for Capel. I was here during the abortion debate and I was called a murderer on more than one occasion by people I know extremely well. It is not easy to be called a murderer by someone who really believes it. That was not a pleasant time in this house.

In recent times a company that is involved in biomedicine has pointed out to me that Australia is in a unique position, and the outbreak of horse flu just rams it home a little more. Because Australia is an island, scientists can come to this nation and find bovine and, in particular, kangaroo flesh that has not been damaged by some exotic disease, as is the case in most of the rest of the world. Scientists are looking to Australia to be able to progress medical science, particularly with kangaroos. Kangaroos are approximately the same size as us and I am told that their arteries, hearts, veins and tendons can all be used in humans. Some people would say that that should not be done, but my argument is that we most definitely should do it.

Having participated in the abortion debate, I do not have to argue with myself about whether this is the beginning or the end of the debate, as did the member for Capel. All I am trying to put to members now is that there has always been a conflict between the moral responsibilities to society and the scientific responsibilities to society. I think science scares the living daylights out of a lot of people. One example is genetically modified food. I find it remarkable that some of my constituents are very opposed to the production of GM food and will not eat GM food, but they have no difficulty taking GM medicines. I wonder how they can equate those two issues.

In my view, this is a normal process of mankind. We need to give these people the opportunity to look to science to develop this process, but we also must be very sceptical of what they are doing. We have to watch them closely, because, as we know and as I tried to outline earlier in my address, people will do what people always do. Some scientists will make extravagant claims just to get research funding, and some scientists will get involved in the cloning world, as we have already seen. However, it is the responsibility of society to balance those issues. It is the responsibility of members in this chamber to make decisions about how we progress. The passage of this bill is progressing; therefore, I support it.

Debate adjourned, on motion by **Mr J.C. Kobelke (Leader of the House)**.