



## Stem cell research breaks new ground

*Listen to the recording and reconstruct the text by adding the missing paragraphs.*

ELEANOR HALL: The announcement by researchers in South Korea that they've made a world first breakthrough in stem cell research has sparked accusations about the unethical use of cloning technology.

The South Korean scientists, who say they've now created customised human cells, are the same researchers who last year created human stem cells through cloning.

The scientists say their research could benefit people with spinal damage, Parkinson's disease and diabetes.

But critics warn the technique is an abuse of human rights because embryos will be created and later discarded.

*This report from Karen Barlow.*

KAREN BARLOW: The cloning technique used to create Dolly the sheep has been thrust back into the spotlight today, with two major stem cell announcements.

In the South Korean work, donated fertilised human eggs were implanted with the cells of people with conditions such as spinal cord damage and diabetes.

Eleven separate embryonic stem cell lines were created with identical DNA to the original patients.

Team leader Professor Woo Suk Hwang says such transplants wouldn't be rejected by the immune systems of patients.

A member of the British team, Dr Miodrag Stojkovic.

MIODRAG STOJKOVIC: I'm really happy but I know that this is just the beginning of a long, long journey. So we are really at the beginning and we have to continue and to, of course, try to derive stem cells which will help us one day, definitely help us to cure diseases.

KAREN BARLOW: Australian stem cell researchers have praised both advancements, but offered caution.

Dr Megan Munsie is the development manager at Stem Cell Sciences in Melbourne.

MEGAN MUNSIE: It's the first step and we really need to make sure that the cells are safe and can be tolerated and delivered effectively to a patient, so we're still a long way from getting, using this technology to deliver cell therapy.

KAREN BARLOW: But there are also ethical and cultural concerns.

MARGARET TIGHE: Because it's a form of cloning. What they have done, they have cloned an embryo which is compatible with the recipient, and then having used the stem cells that embryo would be discarded. So it is really an abuse of human rights.

KAREN BARLOW: Stem Cell researchers say there are strict controls in the countries which regulate the research.

The Prime Minister has been a high-profile opponent of the research, while several Premiers back the use of embryos.

Stem cell expert Associate Professor Richard Boyd from Monash University says Australia must be involved in the science.

RICHARD BOYD: This research is progressing at enormous rate that it requires the world to be part of it, not just isolated pockets, because if we're involved, as well as the UK, the US, the major Western countries are involved, it actually acts as a handbrake to preventing other countries getting out of control, if you know what I mean. If we work together as a team rather than competing that will actually serve as a major control mechanism.

ELEANOR HALL: Associate Professor Richard Boyd from Monash University, ending that report from Karen Barlow.

# Authentic Listening

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1. It's hoped the stem cells can be grown into tissues and organs to treat diseases and injuries and help in the creation of new drug therapies.

2. A British team has officially become the second in the world to clone a human embryo, and a South Korean team - who were the first to clone a human embryo - have gone a step further and tailored embryonic stem cells for a particular individual.

3. The President of Right to Life Australia, Margaret Tighe, says human eggs and embryos are not scientific toys.

4. There is a ban in Australia on the scientific use of human embryos, but it's under review.

5. **KAREN BARLOW:** The scientists at Newcastle University in the United Kingdom are also talking up the possibility of creating treatments for diseases such as Parkinson's, Alzheimer's and Diabetes.

6. **WOO SUK HWANG:** This report brings science a giant step forward toward the day when some of humankind's most devastating diseases and injuries can be effectively treated through the

7. The other thing I have to say about so-called therapeutic cloning is that they need to have access to thousands and thousands of donor eggs in order to be able to carry this out. Now, so we get into a situation where women will be encouraged to donate their eggs or sell their eggs.