

Cloning will be beneficial

by JUNE YU

PROFESSOR Ian Wilmut, a pioneer in cloning technology, was modest when asked whether he ever felt he was playing God.

"No more than anybody else, man's been altering our environment for thousands of years and we're going on doing that, the question that's important is why you're doing it and whether it's useful," he said.

Professor Wilmut, in Monash last week for a conference on cloning, was responsible for cloning Dolly the sheep in 1997 but

seemed unflustered by the furore it caused with ethicists concerned about the possible cloning of humans.

Instead, he appears to be focusing on the benefits the technique will have for medicine and agriculture.

"The idea of being able to get cells to treat disease isn't the same as cloning a person," he said.

Applications included producing neural tissue for sufferers of Parkinson's Disease, skin tissue for those suffering from burn injuries and muscle tissue for

those with heart damage. Repairing spinal columns would be possible for paraplegics and quadruplegics.

Another possibility was increasing production of human proteins in milk to treat blood clotting disorders such as haemophilia.

Professor Wilmut disputed whether the cloning technology could contribute to a longer life span, saying it would more likely improve the quality of life.

"If you've got somebody who is limited because of Parkinson's Disease or a heart condition, I

don't think we are going to have a longer life span but have a chance of a fuller life," he said.

Producing organs for transplant could also cut down the 100,000 people who died each year waiting for a human organs to become available.

Genetically-improved livestock was also in the pipeline.

Frozen semen had existed in the cattle industry for 30 years and in the next few years animals would be produced using cloning techniques on dairy farms.

A peep into what's ahead

CLONING people may be possible in future but it does not mean we will become robots, according to the man who cloned Dolly the sheep.

Professor Ian Wilmut last week attended a conference on cloning at Monash Medical Centre called The Cloning Symposium: Reprogramming Cell Fate — Transgenesis and Cloning.

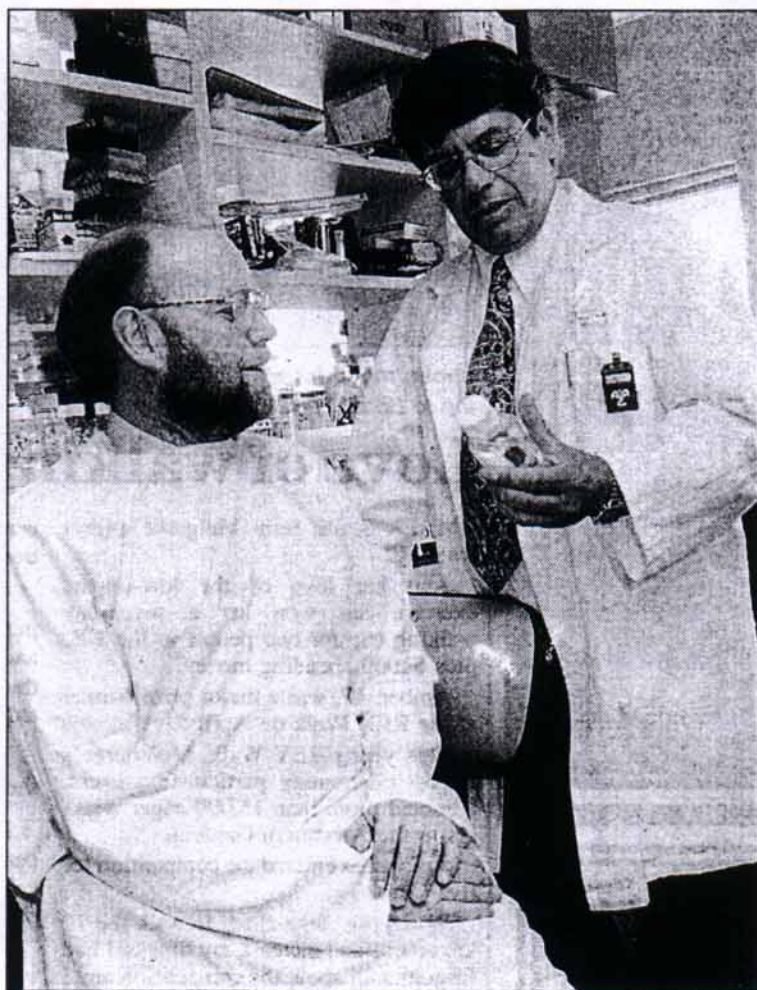
Professor Wilmut said making a genetically identical copy of a person did not mean he or she was the same person.

"The important part of us is the personality and that's not contained in the nucleus," he said.

Other factors affecting a person were upbringing and environment, he said.

For example, if cloning a middle-aged scientist such as himself, he would be born to a different mother and grow up in a different environment to his own upbringing during World War II.

He said Dolly the sheep herself was an individual although she was copied from another animal. Dolly was now pregnant — through natural means — and was expecting her lamb in several weeks.



Two of a kind: Professor Ian Wilmut and Professor Alan Trounson share a common interest in cloning.

But he played down the possibility of cloning humans saying there were few good reasons to do so.

"I have not heard of a reason to copy a human that is attractive," he said.

"If you were to make a copy of somebody I don't think you are treating that child as an individual, it's a sort of child abuse."

Professor Alan Trounson, deputy

director of the Institute for Reproduction and Development, said a possible reason for cloning a human was in the case of a child's imminent death.

He said fertile people sometimes had another child in the hope that organs or blood were compatible with those of another family member with a debilitating disease.

"If you did face that situation would it be so bad?"

Story of the baa

DOLLY the sheep was the result of a famous cloning experiment which cost an estimated \$250,000.

The scientist responsible, Professor Ian Wilmut, used a nuclear replacement technique, where the nucleus of a cell was fused with an unfertilised cell from which the nucleus had been removed.

This involved taking cells from the udder of a six-year-old finn dorset ewe and culturing them in a laboratory.

These cells were fused with unfertilised eggs which had their nuclei removed to create reconstructed eggs.

The eggs were implanted in surrogate blackface ewes and one gave birth to Dolly.

And finally, why the name Dolly?

"As my colleagues said, Dolly was produced from mammary cells and who had better mammarys than Dolly Parton?" Professor Wilmut said.

"The woman herself is reputed to have said there's no such thing as baa-ad publicity."