

Human cloning: human clones can be made but not born. That's the naïve verdict of President Clinton, and also of advisors to the British government this week (9/12/98). Make clones for medical research, to grow human tissues from embryonic stem cells, but don't implant them into the womb. (Archive Feature by Dr Patrick Dixon, Los Angeles Times December 1998)

Take a cell from your body, place it against a human egg from which genes have been removed, add a spark of electricity and the two become one. The egg thinks it's been fertilised and begins to grow rapidly as a clone. Success rates will soon be 75% judging by latest Japanese work in cows also published this week.

Some American scientists want to clone babies and the only thing stopping them is knowing how to make that first embryo. And 6% of the public want it too. Dianne tells me she wants to clone her dad and have "him" as a baby. The latest British "yes" to human cloning research is a massive Christmas present to them all.

People like Dr Richard Seed, with \$15m for his new Japanese cloning lab will sit back while British and American experts crack this final step - and they soon will, backed by multinationals. When Dolly the sheep was cloned the stock value of PPL Therapeutics rose by over \$60 million. Once the "therapeutic" frontier has been crossed the baby cloners will start.

Clones will be made in America or with American technology but be born elsewhere

Making cloned babies has real dangers. Terrible mutations could result as well as huge emotional risks to the child. What will it do to a cloned son to look at his dad and see his twin brother, his mum and see his sister in law? The cloned daughter knows she'll have impacted wisdom teeth on her fifteenth birthday, she'll be grey at 40 and suspects mum is giving her music lessons to prove how talented her own genes are. And there are serious [risks](#) of abuse by wierdos and the powerful.

Scientists are usually secretive about human cloning. In the 1980s, a British embryologist told me of his own cloning attempts, aiming to insert a clone into a surrogate mum and cull it for spares at - say - twenty two weeks. To this day he has never dared talk openly.

In 1993, Dr Jerry Hall in Washington DC stunned the world having already cloned human embryos by artificial twinning - separating each ball of cells into several. All were destroyed.

Three weeks ago, Jose Cibelli from Advanced Cell Technology made headlines across America after telling us that he had cloned himself three years ago using a cows egg (the embryo was destroyed). That's before Dolly was even born in Britain.

And Dolly herself was seven months old before her creators admitted her existence, conceived many months before that and the work began earlier still.

The big question is what has been going on over the last two or three years? If human clones have already been made, how would you know?

People imagine you can clone tissues for treatment without making whole embryos but you can't. The technology is identical - whether you implant a clone to be born, cull it for spares or cannibalise it before implantation to make a human tissue factory out of embryonic stem cells.

You can't grow organs from cells. If you want organs you have to take them from a late pregnancy foetus. You will only grow, perhaps, bone marrow or nerve tissue.

But is it always absolutely right to pursue every possible treatment option? In 1993, a British doctor suggested taking two million eggs from the ovaries of an aborted female foetus. There was outrage and it was banned - a step too far even if it denied some people treatment.

Many people in America are deeply uneasy about deliberately creating an identical twin embryo of an existing person with the express purpose of destroying it to make human tissues. We have seen the same angst this week over 100,000 embryos in freezers after IVF treatments.

Unwanted, but no one knows what to do. Human embryos are more than bags of biodata, wherever you stand on pro-choice or pro-life. They have all the promise of a beautiful baby son

or daughter. There is a profound mystery here: human life developing from a single cell.

As a doctor I know we need gene technology to feed the world and cure disease but we don't need human cloning. We need a biotech summit, a global ban to strongly discourage cloners from making babies and a halt on further research until debate is concluded and laws are in place. Over 170 nations have no gene laws. Regulation in America is almost useless when you can hop on a plane and implant a clone in an hour elsewhere.