You are going to see a 3 minute video from Five News on June 16<sup>th</sup> 2004, discussing an application by a team of scientists at Newcastle University for permission to carry out "therapeutic cloning". Read through these questions before you see the clip, so you know what to look out for.

## From the video

Explain how therapeutic cloning would work

What is the source of the eggs to be used in this research?

What is the stated aim of the research?

## **Thinking deeper**

In the clip, Professor Murdoch says: "Imagine a child, say a ten year old child, now who is diabetic who's cells that normally produce insulin are not working properly, so that child will have to take insulin injections for the rest of their life. Possibly, in five or ten years time, we could be in a situation where we could take a tiny piece of skin from that child, do some work within the laboratory to tell that skin cell to forget that it was ever a skin cell, to learn to become a stem cell, which means that it has no background



information about what it is going to be, and then teach that stem cell to become an insulin secreting cell so that cell can be planted back into the child and then the diabetes theoretically would be cured."

Compare this with the explanation of how therapeutic cloning would work; - in what ways was it different, and

- in what ways was it the same?

What objections to stem cell research are mentioned in the video?

What other reasons (not mentioned) may cause people to object to therapeutic cloning?

What technical difficulties might make this work difficult to achieve?