

Doctors grow eggs from

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two-year-old cancer girl

By **Laura Donnelly** HEALTH EDITOR

A TWO-YEAR-OLD girl has become the youngest cancer patient to have eggs grown in the hope of one day becoming a mother.

British experts said the world first at Oxford University could help patients whose fertility is compromised by chemotherapy.

A report to be presented at the European Society of Human Reproduction and Embryology annual meeting in Helsinki, will give details of a trial involving young cancer patients. Scientists were able to retrieve ovarian tissue

from toddlers and children – and then, crucially, to identify immature eggs, which were incubated and matured overnight, allowing them viably to be frozen. Fertility doctors last night hailed the advance as an “extremely exciting” step towards the “holy grail of fertility preservation”.

The trial included girls as young as two years old. Scientists were able to first harvest ovarian tissue, which itself could be transplanted decades later, to assist fertility.

But they were also able to retrieve, grow and freeze immature eggs from the tissue in most of the cases involving

children. Researchers said this finding was “extremely exciting” because it meant patients could have fertility treatment with their own eggs, decades later.

Ovarian transplants have also been a recent source of hope for such patients, experts said, but there had been some caution as to whether cancer cells could survive such processes.

Prof Tim Child, the lead researcher, said: “Cancer treatment can be very successful but the drugs can completely damage the ovaries. This gives hope to young girls who could otherwise be sterilised by chemotherapy or radio-

therapy.” The process was able to identify the most mature of the immature eggs, which were then incubated overnight, to assist their survival.

But he said he was hopeful that in future, scientists would be able to expand the technique to retrieve thousands more specimens.

“That would be the holy grail of fertility preservation, because the possibilities are limitless,” he said.

Scientists cautioned that the success of the technique would not be known until the children became adults, and began to plan a family. But they said they were “extremely hopeful”. Prof

Stuart Lavery, consultant gynaecologist at Hammersmith Hospital in London described the findings as “quite extraordinary”.

“It is really amazing what the Oxford team have done,” he said.

He said he believed the breakthrough offered even greater promise than ovarian transplants.

Last year Belgian doctors announced the first baby born after a woman underwent an ovarian transplant as a teenager. Earlier this year, a British woman became the first to be implanted with an ovary frozen when she was a child. That case involved a woman of 23

who had her ovary removed and frozen at the age of eight.

Prof Lavery said that growing eggs from tissue might offer greater advantages in such cases.

“In the future the idea is to put those little pieces of ovary back into the person themselves but the worry has always been, ‘could there be some cancer cells,’” he said.

“What this study shows is that they were able to actually grow and isolate some eggs from that tissue – so the idea is could you use those eggs in future without having to transplant the ovary back.”