

Mitochondrial replacement technique safe finds new report

June 4 2014

The Human Fertilisation and Embryology Authority (HFEA) has found that mitochondrial techniques developed at Newcastle University are safe.

In its report on the third review into the safety and efficacy of techniques for mitochondrial replacement, the HFEA recommended that they be considered 'not unsafe' for use on a 'specific and defined group of patients'.

The pioneering work, first announced in 2010, is aimed at helping an estimated 1 in 200 children born every year in the UK who have some form of mitochondrial DNA disorder. These disorders, including heart disease, [liver disease](#), loss of muscle co-ordination and other serious conditions that can have a devastating impact on the people who inherit it and can be fatal. However, at present, mitochondrial donation techniques to prevent the transmission of serious [mitochondrial disease](#) are prohibited.

In February 2014, the Government launched a consultation on draft regulations for the use techniques to prevent mothers passing on serious mitochondrial diseases. Such treatments have not been carried out anywhere in the world and are currently illegal in the UK.

As part of the consultation, the Department of Health requested that the HFEA reconvene its Expert Panel to examine the safety and effectiveness of these techniques. This was the third review, with similar

undertakings being carried out by panels in 2011 and 2013. The review was commissioned by the Government to contribute towards a decision on whether such techniques should be made legal.

Sally Cheshire, Chair of the HFEA, praised the open-minded process undertaken by the Panel, concluding that it is now for Government to decide the next step.

"The science is complex, but the aim is simple: to enable mothers to not pass on to their children a range of serious, and sometimes fatal, inherited conditions. In all of our discussions we should not lose sight of this.

"Now it is a question for others. If the Government decides to seek to change the law they will need the approval of both Houses of Parliament, and it is only right that they consider all the ramifications, social as well as medical, before they make up their minds."

Reacting to the report, Professor Doug Turnbull, who has led the research at Newcastle University, said: "It is very encouraging that this respected and independent group of scientists have concluded that the techniques would be useful to prevent serious mitochondrial DNA disease and the evidence shows that they are not unsafe. Further work is needed and it is even more important that Parliament is able to decide whether these techniques should be allowed in the UK."

More information: The report is available online:
www.hfea.gov.uk/8807.html

Provided by Newcastle University

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