

# IMP POSITION PAPER

February 2017

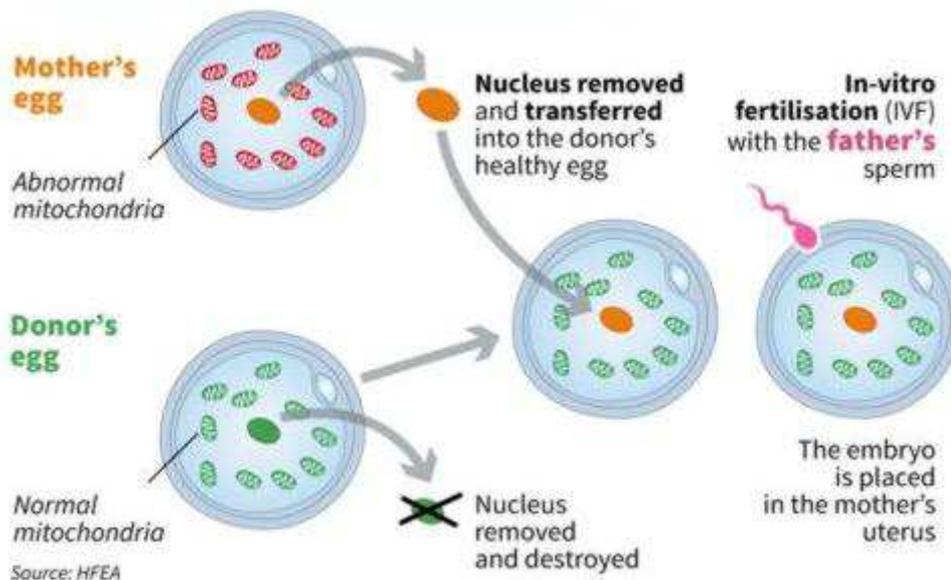
## MITOCHONDRIAL DONATION/REPLACEMENT THERAPY

Mitochondrial donation is an IVF technique (also known as *mitochondrial replacement IVF technique*, *mitochondrial transplant* or *mitochondrial replacement*) that could prevent transmission of mitochondrial disease (mito) from mother to child.

MRT is a technological innovation of *in vitro* fertilization (a clinically-approved technique used for four decades) that prevents the transmission of incurable maternally inherited diseases, such as some types of mitochondrial disease, from mother to child.

In its simplest terms, the technique involves replacing the unhealthy mitochondria in a woman who carries the disease, with the healthy mitochondria from a donor woman, during the process of IVF. The resulting baby would have all the genetic traits of the mother and father but would also have healthy mitochondria from a donor woman so would be free from disease. Kind of like replacing the batteries in a toy - the toy remains exactly the same, it just has the power to work properly.

MRT is a groundbreaking technology developed by researchers from Newcastle-upon-Tyne NHS Foundation Trust & Newcastle University.



International Mito Patients is closely following the developments in this area. The scientific developments as well as the ethical and political ones. And even more important to patients, the developments concerning clinical approval of the MRT in different parts of the world. National patient organizations and patient groups have been and still are playing an essential role in a constructive debate with all stakeholders.

IMP recognizes the right of every human being to make use of any available health care technique, while at the same time IMP recognizes that individuals may have objections to this same technique. **Therefore, the IMP position in this issue is a neutral one, acknowledging the individual right to make one's own choices in health care issues.**

IMP will look forward to the results of further scientific research of MRT as well as to a constructive debate regarding clinical approval of this therapy in women with mtDNA-related diseases. If demonstrated to be safe and efficacious, this technique should be made available as an option to families who carry mtDNA point mutations.

If you want to read more about MRT and be informed about the latest developments you can go to the websites of some of IMP's member organisations:

<http://www.thelilyfoundation.org.uk/mitochondrial-research-issues/mitochondrial-donation>

<http://www.amdf.org.au/mitochondrial-donation>

<http://www.umdf.org/mitochondrial-replacement-therapy>

*This text has been written with special thanks to The Lily Foundation, the Australian Mitochondrial Disease Foundation and the United Mitochondrial Disease Foundation.*