

Three parents, one baby? The future of Assisted Reproductive Techniques.

- The Human Fertilisation and Embryology (Mitochondrial Donation) Regulations will come into force in October 2015.
- The regulations will amend the Human Fertilisation and Embryology Act 2008 and permit defective mitochondrial in the mother's cell to be removed and replaced with healthy mitochondrial from a donor cell.
- Mitochondrial donation will prevent the transmission of serious mitochondrial disease from mother to child. There is currently no other ART able to achieve the same goal.
- Will affect about 150 children born each year.
- Mitochondrial disease can only be passed from mother to child and if transmitted, results in pain and suffering and an early death for the child born.
- The new technology will permit the removal of the defective mitochondrial which will be replaced by a healthy cell from a donor egg.
- Opponents argue donated mitochondrial will permanently alter the germline which will be passed down to successive generations and allows the fear of the slippery slope in genetic engineering and eugenics.
- But, the donated healthy mitochondrial (only 37 out of approximately 22,000) does not relate to any personal characteristics and are described as DNA required to power the mitochondrial.
- Opponents argue that harm will be caused to a child born as a result. Although unknown it is unlikely that will such a tiny amount of DNA will lead a child to question its identity.
- We should embrace technology that will avoid the transmission of serious mitochondrial diseases.