

## **Towards clinical application of pronuclear transfer to prevent mitochondrial DNA disease**

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UK became the first country in the world to legalise and permit cautious use of mitochondrial replacement therapies such as pronuclear transfer to prevent inheritance of mitochondrial DNA (mtDNA) diseases. Newcastle, at the forefront of this ground breaking research, is the only centre licensed by the regulator, HFEA to offer this novel clinical treatment aimed at helping women suffering with mtDNA diseases have healthy children free of this dreadful condition. This talk will provide a brief synopsis of the 'bench to bedside' journey of the development of the pronuclear transfer technique and give insights into the technological, ethical, regulatory and donor challenges overcome to bring it to fruition.