

Hybrid Embryo Research Approved by Government 16 October 2007

Abstract

Amendments to the law affecting the creation of human/animal embryos is gathering pace, following an extensive public consultation by the Human Fertilisation and Embryology Authority.

Hybrid embryo research approved by government

The government has published its response to the report of the Joint Committee on the Human Tissue and Embryos (Draft) Bill. Besides accepting the Committee's recommendation that the Human Tissue Authority and the Human Fertilisation and Embryology Authority should not merge, - as had been proposed in the draft Bill, the government has also agreed to extend the powers of the Human Fertilisation and Embryology Authority (HFEA) to include the power to grant licences for the creation of "true" hybrid embryos. Subject to the requirement that the research is necessary or desirable for the purposes described in the legislation, the Bill proposes to bring the following inter-species embryos within the regulator's power:

- embryos created by mixing human and animal gametes ("true hybrid" embryos);
- embryos created by inserting a human nucleus into an enucleated animal egg ("cytoplasmic hybrid" or "cybrid" embryos);
- human embryos modified by the addition of animal DNA ("human transgenic" embryos); and
- embryos created by the addition of animal cells to a human embryo ("human/animal chimera" embryos)

In each case, the embryo may be sustained for no longer than 14 days in a thawed state.

The amended draft, the Committee's report and the Draft Bill itself follow hot on the heels of the HFEA's own announcement that it considered itself as having jurisdiction to grant licences for the creation of cytoplasmic hybrids. This had been the subject matter of applications, made earlier in the year, by Stephen Minger's team at King's College London and Lyle Armstrong's at the University of Newcastle-upon-Tyne.

It is not surprising that the creation of inter-species embryos was not contemplated in the Human Embryology and Fertilisation Act 1990, which envisaged that embryos were the product of fertilisation of a human egg by a human sperm and was drafted, following the

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Warnock Report, in the light of the work of Professor Robert Edwards and Patrick Steptoe in the development of human in vitro fertilisation. The notion of synthesising human embryos by replacing the nucleus of an animal egg with that of an adult human cell had not been envisaged. However, after Ian Wilmut's team succeeded in cloning Dolly the sheep in 1996, the Donaldson Committee recommended in 2000 that the remit of the HFEA be extended to include key new research purposes; purposes which were added to the Act the following year. The amendments proposed by the Bill (which cover a range of related matters such as sperm-sorting kits and saviour siblings) follow the same statutory trajectory.

Although the Bill has yet to be read in Parliament, the process of debate will undoubtedly be assisted by the diligence of the HFEA's public consultation, which was very much more exhaustive than the government's own attempt. The consultation showed that when members of the public were informed of the true technical nature of human/animal research involved, and of the serious clinical benefits it offered, they were more likely to support the research.

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