

British Andrology Society

The logo features a blue oval on the left, from which a blue, wavy line extends across the page, ending under the 'y' of 'Society'.

14 June 2007

A response from the British Andrology Society to the Human Tissue and Embryos (draft) bill

Background

The British Andrology Society is a learned society, with over 100 members, that focuses on current issues of particular relevance to the reproductive biology and health of the male. Its members include research scientists with active research programmes in aspects of male reproduction in humans and other species, as well as clinical andrologists and embryologists working both within the UK health sector itself and at the interface between research and clinical practice. The society disseminates scientific information through its conferences, but also takes an active role in setting national standards for clinical andrology practice. It is also concerned about the translation of research into benefits for society, and about the impact of legislation and regulations on the ability of those working in research to deliver effectively.

The draft Human Tissue and Embryos bill potentially impacts on several groups of our members as some work with human sperm, oocytes and embryos in the clinical setting while others are engaged in fundamental research on the basic biology of human and animal embryonic development.

Response

Our members have expressed general disquiet about the imposition of additional licensing requirements for some of their research and diagnostic procedures, especially where those involve the mixing of human and animal gametes. The specific point to note is:

Paragraph 3(2) of the new Schedule 2 will make it necessary to have a licence to conduct a zona free hamster oocyte penetration test. This is a diagnostic test aimed at evaluating potential infertility problems in men. In essence, hamster oocytes are denuded of their zonae pellucidae (the outer coating of the egg) and mixed with patients' spermatozoa. This is a functional test that provides more information than routine evaluations such as sperm concentration and sperm motility or morphology. Semen samples that fail to penetrate these hamster oocytes are more confidently regarded as infertile.

Our concern is that in response to the need for an additional licence to perform this test, most practitioners would simply see it as no longer worth the effort. Cheaper alternatives to the use of hamster oocytes are also currently under investigation. These include the use of porcine oocytes which are readily available from local abattoirs. Research groups that have investigated this system as a functional assay for human sperm quality feel that it could provide a practical functional test. However, the need for a licence might dissuade them from pursuing this line of research which could ultimately benefit society.

It is worth stressing that neither the penetration of hamster nor porcine eggs by human spermatozoa would result in a viable embryo. Chromosomal incompatibilities between the species mean that the penetrating spermatozoa may form pronuclei, but that no further development is possible. It is also the case that when hamster eggs are penetrated by human spermatozoa, multiple spermatozoa enter the egg cytoplasm thus creating a polyspermic zygote. Such a zygote produced from homologous sperm entry would be unable to develop, thus providing a further level of reassurance that the inter-specific zygote would not develop beyond this stage.

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