

Embryology and Related Topics: Church of England Statements

Use of Embryos in Research

36. The Church of England's essential stance on embryology was established at the July 2003. General Synod. Synod unanimously carried the following motion:

'That this Synod:

- 1. affirm the sanctity of the human embryo and therefore the need to treat it with profound respect;*
- 2. recognise that there are different but principled and sincerely held views among Christians on the morality of embryo research;*
- 3. welcome the paper 'Embryo Research: some Christian Perspectives' (GS 1511) as a helpful contribution to Christian reflection and debate on issues relating to the status of the embryo and its therapeutic potential;*
- 4. call upon members of the Church of England to continue to engage with the scientific community, the Human Fertilisation and Embryology Authority, and Her Majesty's Government so as to ensure the ethical imperatives in embryo research are never forgotten*

In effect, this has meant that in subsequent submissions, MPA has accepted that, under certain circumstances, embryo research may be permissible as long as the intention is to alleviate human suffering, no viable alternative method is available, that all embryos are treated with respect and not permitted to develop beyond the UK legal limit of 14 days.

Stem Cells

37. The predecessor of MPA, The Board of Social Responsibility, responded to the 2001 House of Lords Select Committee on Stem Cell Research. The Board advised against over-expectation with regard to actual benefits of stem cell research while acknowledging that potential benefits could be '*phenomenal*'. It also warned against the risks of commercialisation: '*increasing commercial involvement creates the ethical difficulty of a research agenda that is dictated by corporate interests, rather than the patients for whom the new treatments are intended*'. It welcomed the advent of adult stem cell research stating that '*few would disagree that it would be a great advantage to be able to use adult cells, rather than routinely using embryos*'. At the same time, it did not rule out research utilising embryonic stem cells.

Gene Therapy

38. Recent MPA attention has focused on genome-editing. In its submission to the Nuffield Council on Bioethics' consultation on Genome Editing (2016), gene editing, and by implication other forms of gene therapy, were given a cautious welcome on the understanding that issues of safety and efficacy are satisfactorily resolved before techniques are used therapeutically.

39. A further note of caution was sounded, particularly with regard to modification of the human germline: *‘Even if all safety, efficacy and ethical issues were resolved the question would still remain: is it wise to proceed? Human nature and human societies have a way of producing unexpected outcomes from innocuous or well-intentioned innovations. Measures undertaken for apparently good immediate benefits can, over time, cause a shift in social attitudes which is deleterious and may even undermine the altruism which gave the initial motive for the development. Clinical innovation and changes in legislation, if any, ought to be introduced through the democratic process with ultimate decisions being made by parliament, following widespread, detailed and informed public debate. Human genome editing is, arguably, the bioethical equivalent of splitting the atom; we ought to proceed with very great care to maximise the benefits for society and guard against its misuse’.*

Mitochondrial Donation

40. In its response to the Department of Health’s consultation on mitochondrial donation (2015), MPA stated that, *‘Mitochondrial donation is identical neither to gamete or organ donation but falls into a separate category. While there is scientific consensus that mitochondria are unlikely to play a role in the transmission of hereditary characteristics this consensus falls short of certainty; the precise nature of the relationship between mtDNA and nDNA is not yet fully understood. Even if mtDNA does not have an impact on hereditary characteristics it still represents germ-line modification and will have an effect on subsequent generations in a way that organ donation does not. We believe that mitochondrial donation (and consequently mitochondrial donors) ought to be treated as a third form of donation, rather than approximated to either of the existing forms of donation. If future research indicates that mtDNA does affect hereditary characteristics then it ought to be viewed in the same manner as gamete donation’.*

41. While accepting mitochondrial in principle, MPA counselled against the procedure being implemented therapeutically until all issues of safety and efficacy had been satisfactorily addressed. It also noted that maternal spindle transfer does not raise the same ethical issues as pronuclear transfer since the former does not require the creation and subsequent destruction of embryos.

Cloning

42. While not having the force of Church policy, the Board of Social Responsibility produced a briefing paper on cloning in 2000. It has been summarised on the Church of England website: *‘Human reproductive cloning was made unlawful by the Human Fertilisation and Embryology Act 1990. Few members of the Church of England would dissent from such a position. However, therapeutic cloning may be thought of as ethical, as it does not result in another human being.’* Gene cloning has not been specifically commented on, but may be viewed in the same light as gene therapy.

Hybrids and Chimeras

43. In its submission to the Academy of Medical Sciences consultation on ‘*Animals Containing Human Material* (2010)’, MPA recommended:

‘(i) Research involving animals containing human material ought to continue to be permitted, under regulation, subject to the following conditions:

(ii) Cytoplasmic hybrid embryos and true hybrid embryos ought not to be permitted to develop beyond the 14 day stage

(iii) Research ought not to be permitted if it may result in an animal with significantly enhanced cognitive functions characteristic of human persons.

(iv) Research ought not to be permitted if it may result in a live creature that, regardless of cognitive function, contains such a mixture of animal and human material that it is difficult to determine its status.

(v) Research ought not to be permitted if it is likely to lead to the formation of human germ-lines in animals and if such an animal were to be created it must not be permitted to breed

(vi) Research ought not to be permitted if it may give rise to an animal whose cognitive functions have been enhanced to the level where borderline personhood may be attributed to it, thus making it an unacceptable subject for experimentation

(vii) Genetically modified animals ought not to be allowed to breed with one another or with non-modified animals other than in closed systems.

(viii) Research ought not to be permitted that involves animal embryos or fetuses containing human material being implanted in a human womb.

(ix) Research ought, no longer, to be permitted on live primates that may cause them pain, distress or significant loss of social interaction.

(x) All research applications ought to be assessed by an independent regulatory body which will determine both the scientific merits of the proposal and its ethical acceptability before issuing a licence for research, outlining any conditions that may be imposed. If a research licence is granted, the project ought to be subject to ongoing safety and compliance monitoring by an independent regulator.’

Pre-implantation Genetic Diagnosis and Genetic Screening

44. In the Church of England's response to the Human Genetics Commission's consultation: ‘*Choosing the Future*’ (2004), MPA stated, ‘*We would be concerned to see PGD used for anything other than serious genetic disorders, because of the increased commodification of babies. Trivial conditions and non-therapeutic genetic enhancement would not be appropriate reasons for seeking PGD. We also continue to be concerned about purely 'social' justifications of PGD (for example, for family balancing), adding, ‘we are concerned with the possibly excessive burden of choice that early genetic screening may give people. It could medicalise normal and harmless genetic differences so that people feel themselves to be abnormal and seek treatment to become normal, ie genetically 'perfect'.*’

45. MPA also responded to the Nuffield Council on Bioethics' consultation on Non-Invasive Prenatal Testing (2016) in similarly concerned terms: *'The law, correctly, prohibits discrimination on the grounds of disability; it is anomalous that pregnancies can be terminated on this basis. While routine NIPT does not intrinsically suggest that greater numbers of fetuses with Down Syndrome will be aborted, it is highly likely, given the current interpretation of the 1967 Abortion Act, that this will be the outcome. To fail to address this possibility would be negligent; a thorough re-examination of the relationship between Down Syndrome (and other non-life threatening conditions) and abortion is an important corollary to extending NIPT'*.

46. The response concluded that *'while NIPT would provide valuable screening information for prospective mothers, its routine introduction ought to be accompanied by comprehensive, accessible information being made available to clients with counselling being provided for all those who go on to have diagnostic tests. Any extension of NIPT requires further, in-depth discussion on the relationship between Down Syndrome (and other nonlife-threatening disabilities) and abortion. Private providers of NIPT and the sale and use of 'home kits' ought to be subject to strict regulation, ensuring that they meet NHS standards.'*

Brendan McCarthy 3rd November 2017