



HUMAN GENETICS SOCIETY OF AUSTRALASIA

ARBN. 076 130 937 (Incorporated Under The Associations Incorporation Act)
The liability of members is limited

RACP, 145 Macquarie Street, Sydney NSW 2000, Australia
Telephone: 03 5772 2779 Fax: 03 5772 2778
Email: humangenetics@virtual.net.au

All correspondence to:
PO Box 362, Alexandra, VIC 3714
ABN No. 17 076 130 937

TN

Position Statement

Title	Human Cloning
Document Number	1999 PS01
Publication Date	Oct 99
Replaces	HGSA Human Cloning Policy
Review Date	Currently under review

October 1999

The Human Genetics Society of Australasia (HGSA) represents the views of clinicians, counsellors, scientists and others who are professionally qualified in areas of human medical genetics. It includes most of those working in this field in Australia and New Zealand.

Since cloning of mammals has been shown to be possible, the HGSA notes that "human cloning" has received a great deal of publicity in the media, much of it negative. This is understandable in view of doubts about the ethics of human reproductive cloning, that is, cloning to produce a liveborn individual who shares a full genetic complement with a pre-existing child or adult donor of a somatic cell nuclear genome. Many people who support other forms of assisted reproduction such as IVF have ethical objections to reproductive cloning.

The HGSA has agreed on the following policy with respect to reproductive cloning and associated technologies as they apply to humans.

1. There are no medical circumstances that would justify the use of reproductive cloning as defined above. This includes the risk of mitochondrial diseases, for which other reproductive strategies are possible and ethically preferable. The avoidance of serious inherited or sporadic disease, and the treatment of infertility, are legitimate objectives which would be better achieved using existing techniques that are acceptable to the profession and community and are already chosen by thousands of persons in Australia and New Zealand each year.
2. Reproductive cloning technology is ethically unacceptable because the scientific and medical consequences are currently unknown. It may be unsafe due to the accumulation of mutations in somatic cells during the life of the donor, which may pose serious health risks to the person cloned. The use of cloning technology in animal husbandry will allow this issue to be monitored during the coming decade.

3. Reproductive cloning technology is ethically unacceptable because it would reduce the autonomy of the child who has been cloned, particularly if the genome of the person cloned replicates that of an existing adult or child (intergenerational cloning), or if multiple clones are generated.
4. The HGSA favours a ban on human reproductive cloning in Australia and New Zealand because of the possibility of medical harm, and the desirability of maximising individual autonomy.
5. The HGSA recognises that the technology used for human reproductive cloning will lead to the development of technologies that have important medical uses. In particular, the creation of totipotent or pluripotent stem cells from somatic cells would markedly simplify transplantation procedures. As transplantation is presently limited both by immune rejection and by availability of tissue, this is an important clinical outcome that could bring great benefit.
6. The HGSA notes that at present the transformation of a somatic cell to a stem cell or totipotent cell may involve passage through a human embryo, which some think is unethical because it involves embryo destruction. There is a diversity of opinion within the HGSA, as within the community, on this issue. The HGSA believes that all embryo research should be carried out in accordance with National or State legal regulations in force, or in the absence of legislation, in accordance with NHMRC (Australia) or HRC (New Zealand) guidelines.
7. The HGSA strongly supports the development of technologies that allow the culture of human stem cells from somatic cells, and the isolation of growth factors that facilitate specific tissue development. We anticipate that in future, techniques will be developed which achieve totipotency without passage of somatic cells through human embryonic cells. Techniques may also be developed which permit the study or culture of a blastomere or blastocyst that is genetically incapable of implantation or development. We believe that research to achieve these aims should be encouraged provided that reproductive cloning does not occur.
8. The HGSA does not accept that cultured human cells can be the equivalent of human embryos, far less human persons, even if the application of further complex technology might permit them to develop in such a way. Where existing Australian or New Zealand legislation could be so interpreted, it requires review.
9. There are important scientific questions that are relevant to research into human cancers, reproduction and ageing that can be answered using these technologies. None of these experiments involve human reproductive cloning as defined above.
10. The HGSA supports the creation of national statutory bodies in Australia and New Zealand to review all proposals and policies relating to the use of new reproductive technologies for human cell or tissue cloning in any context. These bodies should attempt to provide a mechanism to ensure that there is a uniform national and regional regulatory environment for research in this field across all States and Territories of Australia, and New Zealand, and to ensure that this policy applies both to the public and private sectors.