

Singapore considering genetic modification to treat mitochondrial genetic disorders

The Bioethics Advisory Committee (BAC) is reviewing its current stand against genetic modification with regards to genetic disorders passed on to children by their mothers.

The committee, set up by the Government to deal with issues arising from biomedical sciences research in Singapore, said on Thursday (Apr 19) that it is seeking public feedback and views on whether emerging technology should be allowed to be used to prevent mitochondrial disorders.

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[A public consultation paper] looks at the ethical, legal and social issues arising from Mitochondrial Genome Replacement Technology (MGRT).

MGRT, which involves germline modification, a type of genetic modification, has so far not been permitted in Singapore. The BAC recommended against it in 2005 due to the lack of sufficient scientific evidence of its feasibility and safety.

However, “in light of recent scientific developments and international debates” the committee is reviewing its position, it said in its paper.

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The three techniques the committee is looking at involve replacing the abnormal mitochondria in the egg or early embryo with healthy mitochondria from the egg or early embryo of a separate healthy donor. Fathers are not able to pass on such disorders.

BAC chairman Mr Magnus said: “MGRT may help enable women who suffer from mitochondrial disorders to have healthy genetically related children of their own.”

Read full, original post: Bioethics committee reviewing stand on genetic modification for mitochondrial disorders