

Belgian regulation of gene editing

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Gene editing in Belgium

Distinction between research on human persons (born) and research on embryos:

- research on human persons: law of 7 May 2004 concerning experiments on the human person. Proportionality rule: balance between benefits and risks. Approval by a competent Ethics Committee.

- research on human embryos: law of 11 May 2003 on research on embryos in vitro. Subsidiarity principle:

cells  unused existing embryos  created embryos

General principles and attitudes underlying the law: trust in doctors (ART applications) and belief in scientific progress.

Belgium has neither signed nor ratified the 'European convention on human rights and biomedicine' because of these principles.

Embryo research in Belgium

- Research on embryos donated for science is allowed
- Creation of embryos for research is allowed if necessary to obtain knowledge

Prohibitions on

- Experiments and research for the selection or improvement of non-pathological genetic features of the human species, i.e. eugenic features or enhancement
- Reproductive cloning
- Social sexing
- Creation of chimaeras and hybrids

All projects have to be approved by a local Ethics Committee and by the Federal Commission on Research on Embryos in vitro.

Gene editing in embryos in Belgium

Embryos on which research has been performed may not be replaced unless the research had a therapeutic goal for the embryo itself (mixed activity)

- Gene editing in embryos is allowed if therapeutic goal
- Germline genetic modifications are allowed (since not forbidden) if directed at diseases (enhancement of human immunological system?)

Which standard will be used for the evaluation?

What will be the reference point?

At the moment, no project on gene editing in embryos has been submitted to the Federal Commission.