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COMMITTEE ON BIOETHICS (DH-BIO)

8th meeting 1-4 December 2015 Strasbourg

Statement on genome editing technologies

adopted by the DH-BIO

- The development of new genome editing technologies, such as CRISPR-Cas9, has given rise to important reaction in particular within the scientific community. Gene modification methods are not new and have been used for several decades playing an essential role in biomedical research. The new genome editing technologies have made possible simple and precise modifications in a wide variety of species.
- There is strong support for the better understanding of the causes of diseases and for future treatment and these technologies have considerable potential for research in this field and to improve human health. However, the application of genome editing technologies to human gametes or embryos raises many ethical, social and safety issues particularly from any modification of the human genome which could be passed on to future generations.
- These developments have led eminent experts and institutions within and outside the biomedical field worldwide to call for an in-depth analysis of potential risks of genome editing and for international and regional debate on its implications for the human being.
- In this context, the Committee on Bioethics (DH-BIO), representing 47 European states, wishes to recall the work carried out at the level of the Council of Europe on developments in the biomedical field and its implications for human being, and to underline the relevance of the framework provided by the Convention on Human Rights and Biomedicine (ETS N° 164, 1997), hereinafter referred to as "the Oviedo Convention" - the only international legally binding instrument addressing human rights in the biomedical field.
- The Convention represents the outcome of an in-depth discussion at European level, on developments in the biomedical field, in particular in the field of genetics. This work was guided by the acknowledgement of the positive perspectives of genetic modification with the development of knowledge of the human genome; but also by the greater possibility to intervene on and control genetic characteristics of human beings, raising concern about possible misuse and abuses, in particular the intentional modification of human genome so as to produce individuals or groups endowed with particular characteristics and required qualities.
- Article 13¹ of the Oviedo Convention addresses these concerns about genetic enhancement or germline genetic engineering by limiting the purposes of any intervention on the human genome, including in the field of research, to prevention, diagnosis or therapy. Furthermore, it prohibits any intervention with the aim of introducing a modification in the genome of any descendants.
- These expectations and concerns remain both very relevant today with regard to those new genome editing technologies.

The Committee on Bioethics (DH-BIO):

- is convinced that the Oviedo Convention provides principles that could be used as reference for the debate called for at international level on the fundamental questions raised by these recent technological developments; and recalls that the need for such debates was foreseen by the Convention in its Article 28²;
- agrees, as part of its mandate, to examine the ethical and legal challenges raised by these emerging genome editing technologies, in the light of the principles laid down in the Oviedo Convention.

¹ Article 13 - Interventions on the human genome

An intervention seeking to modify the human genome may only be undertaken for preventive, diagnostic or therapeutic purposes and only if its aim is not to introduce any modification in the genome of any descendants.

² Article 28 – Public debate

Parties to this Convention shall see to it that the fundamental questions raised by the developments in biology and medicine are the subject of appropriate public discussion in the light, in particular, of relevant medical, social, economic, ethical and legal implications, and that their possible application is made the subject of appropriate consultation.