UNESCO experts call for ban on genetic 'editing'

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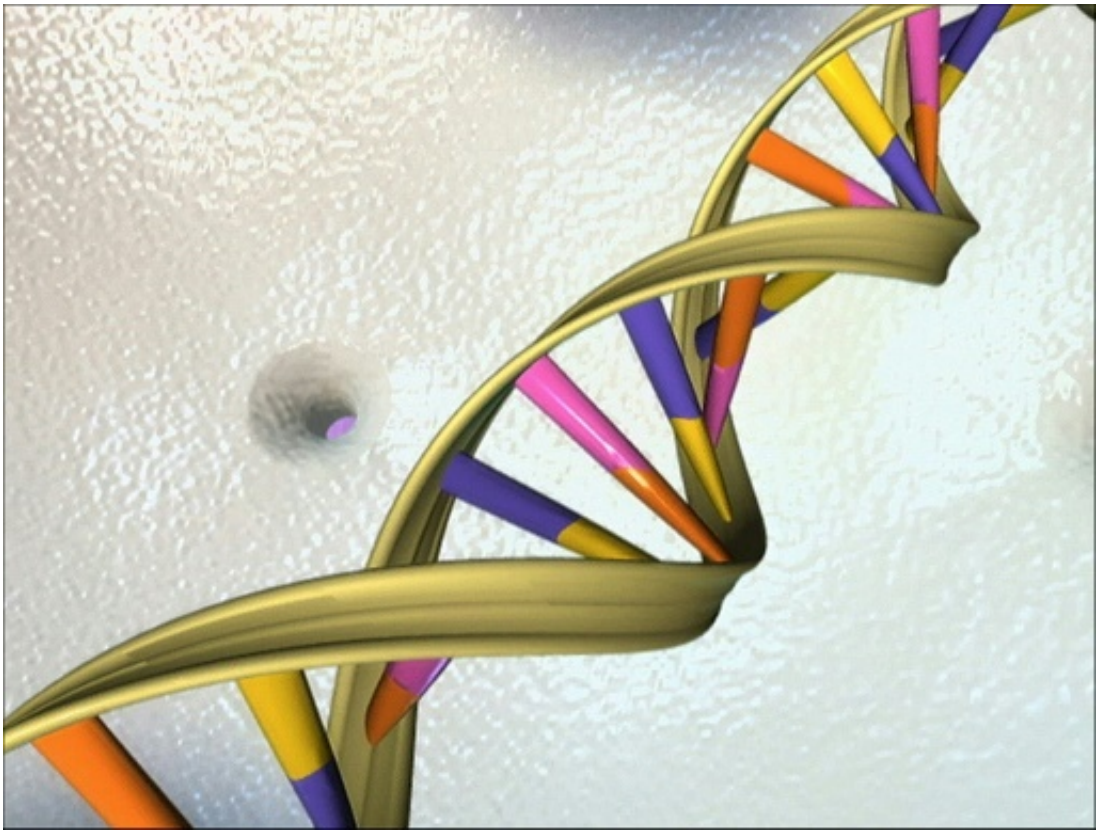

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A UNESCO panel of scientists, philosophers, lawyers and government

ministers called Monday for a halt to genetic "editing" of the human germline, warning of the danger of tampering with hereditary traits that could lead to eugenics.

UNESCO's International Bioethics Committee (IBC) said gene therapy could be "a watershed in the history of medicine" and genome editing "is unquestionably one of the most promising undertakings of science for the sake of all humankind."

But the experts said genetic editing required "particular precautions and raises serious concerns, especially if the editing of the human genome should be applied to the germline and therefore introduce hereditary modifications, which could be transmitted to future generations".

The IBC, meeting in Paris, therefore called for a moratorium on this specific procedure.

"Interventions on the human genome should be admitted only for preventive, diagnostic or therapeutic reasons and without enacting modifications for descendants," the panel said.

Unless such restrictions were applied, it could "jeopardize the inherent and therefore equal dignity of all human beings and renew eugenics," the IBC said.

The experts warned that the rapid developments were making so-called "designer babies" an increasing possibility, meaning that a wider public debate was essential.

A new genome "editing" technique called CRISPR-Cas9 makes it possible for scientists to insert, remove and correct DNA simply and efficiently, providing hope that certain illnesses, such as sickle cell diseases, cystic fibrosis and some cancers could be treated or even cured.

CRISPR-Cas9 was developed by US chemistry professor Jennifer Doudna and Emmanuelle Charpentier of France, who are among the favourites to win the Nobel chemistry prize when it is announced on Wednesday.