



A declaration of the *Académie nationale de médecine* and of the *Académie des sciences* concerning the announcement made by Dr Hé Jiangkui

Having taken note of Dr. Hé Jiangkui's announcement of the birth of two children after modification of the embryonic CCR5 gene, the National Academy of Medicine and the Academy of Sciences condemn the initiative of this scientist which does not prevent a possible HIV infection and which raises many unresolved scientific, medical and ethical issues.

New molecular tools open hopes to prevent or treat pathologies. Their use in humans should be considered with the utmost caution.

Human embryos gene editing raises major questions insofar as it will be transmitted to the offspring and subsequent generations. It cannot be implemented when the desired goal can be achieved by other means as is the case for protection against HIV infection.

In the current state of knowledge, conditions are not in place to pave the way for the birth of children whose genomes have been modified in an embryonic state. If this approach is undertaken in the future, it should only be done after approval of the project by the relevant academic and ethical bodies and an in-depth public debate.

The National Academy of Medicine and the Academy of Sciences, however, wish to reaffirm the importance for human beings of responsible research using DNA-modifying technologies, including those carried out in embryos, and to bring them their support.

Paris, November 28, 2018