

<https://news.berkeley.edu/2018/11/26/doudna-responds-to-claim-of-first-crispr-edited-babies/>

## Overview

The overall emphasis of this statement is not on the violation of ethics but on the benefits of CRISPR.

The public message the announcement recommends does not include ethics at all. The message to share with publics is twofold: (1) scientist don't know if He et al really did what they say, and (2) human germline modification should be done under some circumstances.

These conclusions are explained below.

## Quantitative

The announcement spends:

- 33 words on demanding an explanation of their deviation from norms.
- 77 words on how to talk about this deviation, none of which actually talk about the norms:
  - 30 of these words are used to suggest that the “accomplishment” announced may not be valid
  - 47 of these words are about how CRISPR should be used
- 28 more words on the value of CRISPR
- 31 words saying that discussion about CRISPR use should continue

Thus, of the 181 words in the announcement:

- 18.2% reference norms
- 16.6% call the announcement into question
- 41.4% talk about good uses of CRISPR
- 17.1% mention the importance of talking about how to use CRISPR

## Sentence by Sentence

Statement	My thoughts
It is imperative that the scientists responsible for this work fully explain their break from the global	The sentence starts with strong language that positions Doudna as a judge who has the authority to proclaim an “imperative” that calls

<p>consensus that application of CRISPR-Cas9 for human germline editing should not proceed at the present time.</p>	<p>other scientists to account by insisting they “fully explain” their actions. It declares her position of having a moral high ground. It also serves to distance her (and by implication her work) from these scientists’ actions.</p> <p>The reference to a “global consensus” is both strong and vague. It declares that the world has agreed on what she says (no germline editing at this time) but does not say who came to that consensus, or how, or where one could find information about it. A reader familiar with her involvement with the 2015 Washington DC and 2018 Hong Kong Summits could reasonably conclude she is referring to the outcome of the 2015 summit, but a reader not familiar with that will only have her word that such a consensus exists, and that it is “global.”</p> <p>Furthermore, assuming this is a reference to the 2015 summit, the label of “global” is problematic, as the 481 invited participants were overwhelmingly from the USA, with the next largest groups from Europe, the UK, Canada, China, and Japan; these five areas together make up 94% of the participants. By contrast, there were 4 participants from Mexico, one from the continent of South America (Chile), and six from the continent of Africa (one from Egypt, two from Nigeria, and three from South Africa). The twelve organizers were all from North America, Europe, and China: six from the USA; two from China; two from the UK, and one each from Canada and Germany. This also means that 10 of the 12 were from English-speaking countries.</p> <p>Returning to the statement, the final phrase “at the present time” implies that the world has agreed, via the consensus, there will be a time when this could happen. It is not a question of if, but of when.</p> <p>Finally, there is a lack of any references to ethics (medical ethics, research ethics, or any other ethics), or to regulations or laws. What is the “consensus” based on? It is reflected in any actual regulatory or legal strictures?</p>
<p>It is important for the public to consider the following points:</p>	<p>This is interesting, because it’s not clear that “the public” is the audience here.</p> <p>The use of third person* suggests that the announcement is providing talking points to fellow scientists, and that this section of the statement is oriented not so much toward outreach and dialogue with publics, but rather toward maintaining control of the narrative around this event.</p> <p>(*Instead of direct address or inclusive address as in “we as members of the public” or “we scientists and members of the public”)</p>
<p>The clinical report has not been published in the peer-reviewed scientific literature.</p>	<p>Distancing Doudna and other researchers from the event.</p>
<p>Because the data have not been peer reviewed, the fidelity of the gene editing process cannot be evaluated.</p>	<p>Casting doubt on the claims.</p>
<p>The work as described to date reinforces the urgent need to confine the use of gene editing in human embryos to cases where a clear unmet medical need exists, and where no other medical approach is a viable option, as recommended by the National Academy of Sciences.</p>	<p>This makes a very interesting move away from “should not proceed at the present time” (i.e. “don’t do this”) to setting out conditions under which is reasonable to do this thing.</p>

<p>[this space indicates what was not said]</p>	<p>What “the public” should know notably does NOT include anything about regulation or laws. It also does not include anything about ethics. In fact, it does not include any mention of how He et al broke with norms, or the consensus alluded to earlier.</p> <p>Based on the three points given, “the public” only needs to know that:</p> <ul style="list-style-type: none"> <li>- Scientist don’t have if He et al really did what they say</li> <li>- Human germline modification should be done under some circumstances</li> </ul> <p>That’s it.</p>
<p>It is essential that this news not detract from the many important clinical efforts to use CRISPR technology to treat and cure disease in adults and in children.</p>	<p>Redirects attention to non-germline use of CRISPR.</p>
<p>Public and transparent discussion of the many uses of genome editing technology must continue, as is happening over the next three days at the Human Genome Editing Summit in Hong Kong.</p>	<p>Describing the 2018 Summit as “public... discussion” implies it is a discussion involving publics, when in fact it is a group of experts, and participation is by invitation only.</p> <p>(Note: I haven’t finished compiling information about this summit’s speakers and participants, but a colleague who is there reports that, as in the 2015 summit, there’s a distinctly narrow range of perspectives present.)</p> <p>Is it also interesting that this call is for discussion of “the many uses” of CRISPR and not for discussion of the ethical, legal, and social aspects of those uses. This call comes immediately after the points about positive uses of CRISPR; by the time we get to it, the topic has been shifted from the violation of norms at the start, to the positive benefits we can have from CRISPR, including in human germline modification.</p> <p>In effect, this is not a call for conversation about ethics; it is a call to continue talking about how—not if—we should use CRISPR for genome modification, including germline modification.</p>