

**Media Release - Wednesday, 20th March 2019**

## **Leading scientists call for a moratorium on human gene editing**

**Leading experts on new CRISPR gene editing methods and their living products** are questioning their safety and calling for a global moratorium on human genetic engineering. In an open letter in the journal *Nature* these scientists say, “the risk of failing to make the desired change or of introducing unintended mutations (off-target effects) is still unacceptably high.” (1)

**Despite these uncertainties** the Australian Federal Government is stampeding state and territory governments into approving CRISPR. Our Gene Technology Regulator (OGTR) would have no say over laboratory or commercial use.

**The community's referee in the Gene Technology race** (the OGTR) would be banned from play before the new GM game even starts and be powerless to intervene. Australian scientists and industry could use the new Genetic Manipulation (GM) techniques in animals, plants, microbes and humans without any approval whatsoever.

**Louise Sales, from Friends of the Earth's Emerging Tech Project** says “the scientists' call for restraint directly contradicts the OGTR's claims that new GM techniques only result in small, precise and safe genetic changes.”

**“Only rigorous assessments could conclude that heritable genome changes** made using CRISPR are unsafe in humans yet safe in animals, plants and microbes.

**“When recommending deregulation** the OGTR also took the advice of scientists whose work-places have clear commercial conflicts of interest including partnerships with Bayer/Monsanto and others.” (2)

**“The biotech industry must not be allowed to trump the public interest.”**

**Our Government has failed** to fully and fairly consider the hazards, risks and costs of new GM organisms in the light of emerging evidence of harm.

**For example, two new studies in the journal Science** (3) on mice and rice provide evidence that gene editing techniques can result in “substantial genome-wide off-target mutations”. Another new study in the journal *Nature* (4) also found that CRISPR caused unexpected mutations that adversely affect the immune system of mice.

**Louise Sales says “these studies join a growing body of evidence** (5) that shows CRISPR is not as precise or safe as industry scientists claim. It is vital that GM animals, plants and microbes produced using the techniques are safety-checked before any release into our environment and food chain.”

**“In July 2018, the European Union's top court ruled** that all gene editing techniques such as CRISPR pose similar risks to older GM processes so must have the same safety assessments. Our key agricultural competitor New Zealand (7) will also regulate the new techniques as GM.”

**“The OGTR has the job of ensuring that GM processes and products are safe to use.** So recommending the deregulation of CRISPR gene manipulation techniques is shirking its duty under the Gene Technology Act 2000,” concluded Ms Sales.

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1. <https://www.nature.com/articles/d41586-019-00726-5>
2. <http://emergingtech.foe.org.au/wp-content/uploads/2018/10/Mutant-Meat-Friends-of-the-Earth-Australia-2018.pdf>
3. <https://www.sciencenews.org/article/crispr-spinoff-gene-editor-causes-unintended-typos-dna>
4. <https://www.nature.com/articles/s42003-019-0321-x>
5. <https://www.newscientist.com/article/2174149-crispr-gene-editing-is-not-quite-as-precise-and-as-safe-as-thought/>
6. <https://curia.europa.eu/jcms/upload/docs/application/pdf/2018-07/cp180111en.pdf>
7. <https://www.beehive.govt.nz/release/gmo-regulations-clarified-0>