[redacted]

From: [redacted]@health.gov.au on behalf of OGTR.CDES@health.gov.au
Sent: Monday, 3 November 2014 13:54
Subject: Re: Fw: Enquiry regarding CRISPR technology [SEC=UNCLASSIFIED]

Dear [redacted]

Thank you for your email regarding CRISPR-CAS mediated genome editing technology, and my apologies for the delay in replying. This is a relatively new technology and we have been discussing it for some time now.

The OGTR currently has a working group that are considering organisms modified using new technologies, and whether or not they are regulated under the *Gene Technology Act 2000*. [redacted]
Site-directed mutagenesis using oligonucleotides is also a consideration of this group.

I have forwarded your query to this group, but you should be aware it may take some time before we can provide an answer.

The Regulations are periodically reviewed, in response to suggestions from regulated organisations, as well as from operational experience within the OGTR. The OGTR continually monitors advances in gene technology (including
technologies such as the CRISPR/Cas system), and how they should best be captured by the regulatory framework. These considerations feed into the regular review of the Regulations.

We encourage your organisation to make a submission to the Gene Technology Regulator regarding CRISPR/Cas9 mediated genome engineering so that it can be considered in the next round of the review process. Submissions can be made at
any time, and will be considered at the time of the next review.

I can't give you a specific date for the commencement of the next review of the Regulations, but as with previous reviews, we will correspond with stakeholders when the review process begins.

I hope this helps. Please don't hesitate to contact me if you need to discuss this matter further.

Regards

[redacted]

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From: [redacted]
To: "OGTR.Applications@health.gov.au" <OGTR.Applications@health.gov.au>,
Cc: [redacted]
Date: 23/10/2014 16:27
Subject: Enquiry regarding CRISPR technology [SEC=No Protective Marking]

Dear Sir/Madam

The MCRI/RCH (Melb) IBC has had several applications recently involving the use of CRISPR/Cas9 system for genetic manipulation of mice. Some issues have arisen that we would seek clarification on before beginning to approve any more projects.

More specifically, there seems to be a difference of opinion amongst researchers as to whether a mouse carrying a point mutation created by CRISPR technology is classified as genetically modified organism. The mice mentioned are created by CRISPR technology but do not have contain any exogenous DNA (for selection, reporters etc) and the only variation is the induced point mutation.

We have checked the OGTR guidelines and interpreted them as follows:
Mice created using CRISPR technology are of two kinds. Firstly, if a dsDNA break is used to make a mutation or deletion by non-homologous end joining (NHEJ), then they are classed as item 1 (therefore not GMO according to schedule 1, and therefore exempt like ENU mice). However, if foreign DNA is introduced at the site of the dsDNA break, e.g. an epitope tag or reporter, then these mice are classified as GMOs, as per other GM mice carrying exogenous DNA.

Can you please advise us as to whether we have interpreted the guidelines correctly in as they might apply to the use of CRISPR technology?

Best Regards
[redacted]

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