28 July 2020

Dr Sue Bidrose
Chief Executive
AgResearch
1365 Springs Road
Lincoln 7674
Christchurch 8140

Dear Sue,

**Re: Outdoor Transgenic Programme (Our Reference: OIA 2020/09)**

On 15 July 2020, the McGuinness Institute wrote a letter to the Minister for the Environment. This has since been published in our *Working Paper 2020/06: Letter to the Minister on AgResearch's approval for GM animals in light of pandemic risk*, found here The letter also contains an OIA to the EPA (see Attachment 3).

I am writing to obtain further information on the outdoor transgenic programme, in particular ERMA 200223 (approved 2010) and the earlier approvals that were conducted under ERMA 200223 from 2010, (being GMF 98009 [approved 1999 and 2001] and GMD 02028 [approved 2002]). See more detail in Appendices 9 and 10 of our 2013 report, *Report 16 – An Overview of Genetic Modification in New Zealand 1973–2013: The first forty years,* found here).

**(A) Direct and indirect costs per annum for all outdoor transgenic experiments since 1999**

1. What have been the total direct costs to AgResearch for outdoor transgenic experiments annually since 1999? Note: The Institute estimates this may be in the vicinity of $100 million in total (see footnote 6, page 12, of *Working Paper 2020/06*) but it would be useful to have the actual figure per annum.

2. What have been the total indirect costs to AgResearch for outdoor transgenic experiments annually since 1999? Note: This should include legal and media costs that are outside the approval process.

3. What government grants have been received annually by AgResearch for outdoor transgenic experiments since 1999? This might be from Callaghan Innovation, MBIE or any other government entity. If yes, please place the following information in an Excel sheet or Word table:
   a. Name of the individual or entity that provided AgResearch the grant/s,
   b. When the grant/s were provided,
   c. The type of grant/s that was/were provided,
   d. The total amount of funds provided, and
   e. Any reporting requirements or other controls that formed part of the grant process (before, during and after the grant was approved).

**(B) Collaboration per annum for all outdoor transgenic experiments since 1999**

4. Has AgResearch entered into a collaboration with any other party/ies to progress AgResearch's outdoor transgenic experiments? For example, this would include the joint venture with Scottish company PPL Therapeutics (see footnote 5, page 12, of *Working Paper 2020/06*). If yes, please place the following information in an Excel sheet or Word table:
   a. Name of the individual or entity that AgResearch has entered into a collaboration,
   b. When the collaboration started (and finished if appropriate),
   c. How the collaboration was/is legally constituted (e.g. a joint venture contract, a shareholding or an agreement that enables a party to have shares in a future profit making entity if the research proves profitable).
   d. The type of obligation the collaboration created/creates in terms of benefits/risks/costs to AgResearch per annum:
      (i) Since 2010 to 30 June 2020, and
      (ii) From 1 July 2020.
   e. The total amount of money provided as part of the collaboration (being funds the collaborator has provided or has promised to provide) per annum, and
   f. Any requirements or other controls placed on AgResearch that formed/form part of the collaboration agreement (before, during and after the grant was approved). This could include confidentiality, right to bring the product to market, profit share, profit margin on amount of product sold and reporting requirements).

**(C) Board discussions on risks and benefits for all outdoor transgenic experiments since 1999**

5. Please identify the actual date of all board meetings since 1999 (i.e. DD-MM-YYYY) and identify those meetings that specifically discussed AgResearch's outdoor GM experiments? Note: An asterisk is adequate to identify those specific meetings.

6. For each meeting that discussed AgResearch's outdoor GM experiments (e.g. asterisked) we request:
   a. A soft copy of all relevant board papers that specifically discussed AgResearch's outdoor GM experiments, and
   b. A soft copy of all relevant minutes that resulted from those meetings that specifically discuss the outdoor GM experiments.

7. Can you advise the dates the board (or board members) visited the paddocks where the GM animals are placed outdoors?

8. Control 12 (a) and (c) relates specifically to benefits (see Attachment 1 of *Working Paper 2020/06).* Can you advise whether an independent medical/pharmaceutical expert is (i) on the board or (ii) has been employed by the board or executive team to advise on any of the following key issues:
   a. Progress on the proof of concept research,
   b. The demand for current and potential medical products made from GM animal milk, and in particular, the demand for cetuximab made from the mammary gland of goats?
   c. The efficacy of such products in terms of purity and quality standards (see comments at the bottom of the article in Attachment 5, page 15, of *Working Paper 2020/06)* and
   d. The expected timeline and obstacles to FMA approval? If yes, we request copies of the report and papers.

   If yes, we request their name, expertise and copies of all their reports and papers.

9. Further to Question 8, has AgResearch undertaken any other work (in addition to the independent medical/pharmaceutical expert mentioned above) to assess the points (a) to (d) raised in Question 8? If not, can you explain what expertise the board is relying upon in regard to potential benefits. We would like copies of all additional papers on benefits that are being relied upon by the executive team and/or the board.

10. More specifically, can you advise whether any work has been undertaken to assess the demand and supply of the drug cetuximab (sold under the drug name Erbitux). Note: The article (found in Attachment 5, page 15 of the letter), implies there is high demand for the drug and that the current manufacturing costs are excessive with no competing/emerging technology that will lower the costs of manufacturing the drug in a laboratory in the foreseeable future.

11. Medsafe have a fact list, found here. It states that 'Erbitux® is a trademark of ImClone LLC, used under license by Merck KGaA and its affiliates'. Can you advise whether AgResearch has had discussions with ImClone LLC or any other seller or license holder that makes or sells cetuximab? If yes, please explain the purpose of this discussion and whether in AgResearch's view, ImClone LLC or Merck is a collaborator or a possible competitor)?

12. The Institute has found an article on the GM goats on the bioRxiv service, found here (posted 10 June 2020), however this means it is not peer-reviewed. The publishers note that 'Because this process can be lengthy, authors use the bioRxiv service to make their manuscripts available as "preprints" *before* completing peer review and consequent certification by a journal. This allows other scientists to see, discuss, and comment on the findings immediately. Readers should therefore be aware that articles on bioRxiv have not been finalized by authors, might contain errors, and report information that has not yet been accepted or endorsed in any way by the scientific or medical community.'
    a. Are you aware when and if this article will be peer reviewed?
    b. Are you aware of any other articles published by scientist and staff at AgResearch on the outdoor GM experiments? If yes, can you please provide a list of the date, name, publication and ideally a link.

**(D) ERMA 200223 – The 10-year report**

13. Has AgResearch prepared the 10-year report (as per Control 12)? The 10-year report was due 31 August 2019. If yes, has that report been provided to the EPA? If yes, please advise the date the report was sent to the EPA. If yes, we request a soft copy of the 10-year report.

14. Has there been any correspondence between AgResearch and the EPA about the 10-year report? If yes, we request a soft copy of all correspondence.

15. Has there been any correspondence between the AgResearch board (including the Chair) and AgResearch staff about the 10-year report? If yes, we request a soft copy of all correspondence.

**(E) COVID-19**

The McGuinness Institute's *Think Piece 33 – The Long Normal: Preparing the National Reserve Supply (NRS) for pandemic cycles* notes that 'human coronaviruses have only been around since the 1960s; before that time coronaviruses were only found in animals' (see here). Given the recent pandemic is thought to have been

created when a coronavirus crossed the species barrier at a time when animals and humans were in close proximity to one another (e.g. a wet market), we ask the following questions:

16. Has the risk of AgResearch accidentally creating a novel virus been a part of the executive team or Board's agenda in 2020? If yes, has this led AgResearch to reconsider its outdoor transgenic programme? We request any relevant papers, minutes or correspondence.

17. Our understanding is that AgResearch currently enables different modified animals to co-exist in the same paddock (e.g. two types of modified cattle). Can you clarify if this is current practice?

18. Further to Question 17, if this is current practice, would the board consider keeping each modification type in a separate paddock to reduce risks (e.g. if two types of modified cattle were created, each type would be placed in a separate paddock)? This is our preference.

19. Has the board requested from the executive team at AgResearch a reassessment of ERMA 200223 regarding the risks of accidentally creating a virus that might spread between animals or between animals and humans: (i) this year (since the arrival of COVID-19) or (ii) any previous year since 1999? Please explain.

20. Are there any further controls/requirements/actions being placed on the GM animals since the arrival of COVID-19?

Thank you for your time. Please do not hesitate to contact me if you have any questions.

Kind regards,

Wendy McGuinness
Chief Executive

From: [redacted]
Sent: Wednesday, 29 July 2020 11:29 AM
To: wmcg@mcguinnessinstitute.org
Cc: [redacted]
Subject: RE: OIA

Kia ora Wendy,

Thank you for your OIA request below regarding our work in relation to ERMA200223.

AgResearch has logged your request, and will respond in line with the requirements of the Act.

As you have requested a large range of information, I may be in touch over the next week or so if we have any questions or need any clarification as we develop our response.

Thanks,
[redacted]

agresearch
āta mātai, mātai whetū

19 August 2020

AGR/20-21/02

Wendy McGuinness
McGuinness Institute
wmcg@mcguinnessinstitute.org

Kia ora Wendy

**Official Information Act request: Extension of timeframe**

Thank you for your OIA request on 28 July for a range of information on our work in relation to the approved application ERMA200223. Your request covers:

- Costs per annum for outdoor transgenic experiments since 1999
- Collaboration per annum for all outdoor transgenic experiments since 1999
- Board discussions on risks and benefits for all outdoor transgenic experiments since 1999
- Queries about AgResearch's ERMA reporting
- Queries about COVID-19 and transgenic programmes.

As you are aware, the OIA requires that we advise you of our decision on your request no later than 20 working days after the day we received your request. Unfortunately, it will not be possible to meet this timeframe and we are therefore writing to notify you of an extension of the time to make our decision. The reason for the extension is that consultations necessary to make a decision on your request are such that a proper response cannot reasonably be made by 25 August.

Because of the consultations required to make a decision on your request, AgResearch is extending the timeframe to Friday 11 September 2020.

Please note you have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Yours sincerely

[redacted]

Communications and Marketing Director
**AgResearch Limited**

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Private Bag 50034, Mosgiel 9053
T +64 3 489 3809

www.agresearch.co.nz

From: [redacted]
Date: 11 September 2020 at 9:29:15 AM NZST
To: Wendy McGuinness <wmcg@mcguinnessinstitute.org>
Cc: [redacted]
Subject: RE: OIA

Kia ora Wendy,
Please find attached AgResearch's response to your request.

As noted in the reply, we have been able to answer many of your questions. However, there were some that we were unable to comprehensively answer. We look forward to discussing the scope of these particular questions with you, should you wish.

Thank you again for your request, and your patience as we worked through it.

Kind regards
[redacted]

agresearch
āta mātai, mātai whetū

11 September 2020

Wendy McGuinness
McGuinness Institute
wmcg@mcguinnessinstitute.org

Kia ora Wendy

**Official Information Act request**

Thank you for your OIA request on 28 July for a range of information on our work in relation to the approved application ERMA200223. Please find answers to the questions we were able to answer below and note also that, in light of the wide-ranging scope of others, we have provided a commentary to provide some context and insights, and invite you to rethink the scope of the other questions we could not answer.

As you are aware, there are provisions in the Act that can be invoked when the time, expense and volume of information sought become too large. We believe some of your questions (see below) fit this definition and are too broad for us to effectively and efficiently answer as they are currently worded.

We take our obligations under the Act seriously and strive to be as transparent as possible. Therefore, if after reviewing the information below you are unsatisfied with the information provided, we'd like to join in a dialogue (over the phone or in person) to frame practical parameters for future questions, and provide some information on the search tools and record-keeping at our disposal, to add context to what is realistic in terms of information-gathering and meeting our legislative obligations.

Please note you have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Yours sincerely

[redacted]

Communications and Marketing Director
**AgResearch Limited**

**1. What have been the total direct costs to AgResearch for outdoor transgenic experiments annually since 1999? Note: The Institute estimates this may be in the vicinity of $100 million in total (see footnote 6, page 12, of Working Paper 2020/06) but it would be useful to have the actual figure per annum.**

The accumulated operating total cost to run AgResearch's outdoor Animal Containment Facility from 2005 to 2020 was $6.6 million. Please note, we have chosen to use 2005 as the starting point to answer this question simply because this is when our financial record keeping, in its current form, dates back to. Our operating costs are defined as the direct overheads from the facility (the base for transgenic livestock experiments) to the organisation. Note, the figure doesn't include associated costs for gaining such things as EPA approvals or costs associated with genetic cloning research.

**2. What have been the total indirect costs to AgResearch for outdoor transgenic experiments annually since 1999? Note: This should include legal and media costs that are outside the approval process.**

AgResearch is unable to provide a specific financial figure that would accurately reflect indirect costs associated with our "outdoor transgenic experiments". As a Crown Research Institute, we maintain our own inhouse legal and communications teams. Their work is monitored and reported on. However, the cost of managing requests, liaising with media and other public-facing relationship management work, including Official Information Act responses, is not, as an independent work stream, accounted for. Certainly, there is a cost to maintaining this inhouse capability. However, the amount that could be attributed indirectly to "transgenic experiments" over the time frame specified would be insignificant.

**3. What government grants have been received annually by AgResearch for outdoor transgenic experiments since 1999? This might be from Callaghan Innovation, MBIE or any other government entity. If yes, please place the following information in an Excel sheet or Word table: a. Name of the individual or entity that provided AgResearch the grant/s, b. When the grant/s were provided, c. The type of grant/s that was/were provided, d. The total amount of funds provided, and e. Any reporting requirements or other controls that formed part of the grant process (before, during and after the grant was approved).**

| Funding Agency | Dates | Grant type | Total funding | Reporting/controls |
|---|---|---|---|---|
| MBIE | 2017-2021 | Endeavour Smart Idea | $1.17M | annual reporting |
| MBIE | 2015-2018 | High Value Manufacturing & Services | $1.2M | annual reporting |
| MBIE | 2011-2019 | Core / SSIF | $10M | annual reporting |
| MSI/MBIE | 2008-2011 | NERF | $3.6M | external peer review after 2 years, annual reporting |

| | | | | |
|---|---|---|---|---|
| MoRST | 2005-2007 | AR&C | $380K | quarterly reporting<br>final report |
| FRST/MSI | 2003-2008 | NERF | $6M | mid-term review<br>annual reporting |
| FRST | 1999-2003 | PGSF/NERF/NSOF | $2.2M | annual reporting |

Please note this table excludes the recent Climate Smart Cattle (MBIE Research Programme 2019-2024 ; total funding $10M) as this involves genome editing of endogenous genes and not "transgenic animals". It also excludes research on Auckland Island Pigs (MBIE Smart Idea 2019-2022 Total Funding $1M). This is a xenotransplantation project.

**4. Has AgResearch entered into a collaboration with any other party/ies to progress AgResearch's outdoor transgenic experiments? For example, this would include the joint venture with Scottish company PPL Therapeutics (see footnote 5, page 12, of Working Paper 2020/06). If yes, please place the following information in an Excel sheet or Word table: a. Name of the individual or entity that AgResearch has entered into a collaboration, b. When the collaboration started (and finished if appropriate), c. How the collaboration was/is legally constituted (e.g. a joint venture contract, a shareholding or an agreement that enables a party to have shares in a future profit making entity if the research proves profitable). d. The type of obligation the collaboration created/creates in terms of benefits/risks/costs to AgResearch per annum: (i) Since 2010 to 30 June 2020, and (ii) From 1 July 2020. e. The total amount of money provided as part of the collaboration (being funds the collaborator has provided or has promised to provide) per annum, and f. Any requirements or other controls placed on AgResearch that formed/form part of the collaboration agreement (before, during and after the grant was approved). This could include confidentiality, right to bring the product to market, profit share, profit margin on amount of product sold and reporting requirements).**

| Entity | Dates | Collaboration type | Obligations | Funding | Requirements |
|---|---|---|---|---|---|
| PPL Therapeutics, UK | 2000-2003 | A proposed joint venture didn't go ahead due to PPL going into liquidation | N/A | N/A | A confidentiality agreement to protect commercial interests of both parties |
| AborVita Associates | 2014- | Material Transfer Agreement (MTA) | Exchange of research materials and | N/A | Confidentiality agreement |

| | | | | | |
|---|---|---|---|---|---|
| | | | In-kind support | | |
| AgGenetics | 2019-21 | Service Agreement | Collaborative research Scientific exchange | $260K | Confidential contracted milestones |
| Bio Sidus S.A. | 2007- | Confidentiality Agreement | Collaborative opportunities | N/A | Confidential |
| China Agricultural University | 2012- | Confidentiality Agreement | Collaborative opportunities | N/A | Confidential |
| CSIRO, Australia | 2013- | Researcher to Researcher | Collaborative opportunities Scientific exchange | N/A | Confidential |
| FBN Dummerstorf | 2006 | Collaboration Agreement | Sample Analyses | Visiting Researcher travel grant | Confidential |
| GTC Biotherapeutics / rEVO Biologics / LFB USA | 2003- | Confidentiality Agreement<br>Collaboration Agreement<br>Service Agreement | FTO<br>In-kind support<br>Collaborative research | $1.29M | Confidential<br>Contracted milestones |
| Institute of Animal Science and Veterinary Medicine, China | 2014- | Researcher to Researcher | Collaborative research Scientific exchange | Visiting Scholar grants, Chinese Government | Confidential |
| Institute of Farm Animal Genetics, Germany | 2014- | Researcher to Researcher | Collaborative opportunities Scientific exchange | Visiting Researcher travel grants | Confidential |
| Islamic Azad University, Isfahan, Iran | 2007- | MOU | Collaborative opportunities | N/A | Confidential |
| LIC | 2013-14 | MTA | Sample Analysis | N/A | Confidential |
| Massey Uni | 2010-11 | MTA | Sample Analysis | N/A | Confidential |

| | | | | | |
|---|---|---|---|---|---|
| Max-Planck-Institute for Molecular Genetics, Germany | 2013-15 | Collaboration Agreement | In-kind support<br>Collaborative research<br>Scientific exchange | Visiting Researcher travel grants | Confidential |
| Pharming | 2005-15 | HOA<br>MTA<br>Service Agreement | FTO<br>In-kind support<br>Care of animals Germplasm | $423K | Confidential |
| Recombinetics, USA | 2013- | Joint research<br>MTA | FTO<br>In-kind support<br>Collaborative research | N/A | Confidential |
| University of Auckland | 2016- | MoA | Joint Research Centre Scientific exchange | $58K pa | Teaching |
| | 2017-19 | Research sub-contract | Collaborative research Scientific exchange | $175K | Contracted milestones |
| | 2015-18 | Service contract | Collaborative research Scientific exchange | -$534K | Contracted milestones |
| Université Laval, Canada | 2018- | Researcher to Researcher | Collaborative research Scientific exchange | Visiting Researcher travel grant, Canadian Government | |

**5. Please identify the actual date of all board meetings since 1999 (i.e. DD-MM-YYYY) and identify those meetings that specifically discussed AgResearch's outdoor GM experiments? Note: An asterisk is adequate to identify those specific meetings.**

Please see the answer to question 6*

**6. For each meeting that discussed AgResearch's outdoor GM experiments (e.g. asterisked) we request: a. A soft copy of all relevant board papers that specifically discussed AgResearch's outdoor GM experiments, and b. A soft copy of all relevant minutes that resulted from those meetings that specifically discuss the outdoor GM experiments.**

AgResearch holds a database of board and executive management meetings from 1999 to the present day. A search of this database yielded nine matches relating to "transgenic" animal research - the focus of this OIA.

Seven of these related to transgenic forage research (AgResearch is a leader in transgenic forage research, more commonly referred to as HME ryegrass). As this research does not yet include outdoor field trials involving animals, we considered these seven papers outside the scope of this request.

The other two documents found as part of the search mentioned "transgenic research". The first was an "Animal Science Roadmap" (June 2017), a discussion paper that focuses on the scientific capability of AgResearch and its scientists of their performance. We have decided under section 9(2)(a) of the Official Information Act to withhold the paper to protect the privacy of these individuals. We do not consider the public interest considerations that may be in favour of releasing this information outweigh the need for privacy in this instance.

The second paper was tabled at a board meeting in 2014. This paper, titled "Revised Farm Strategy to meet the needs of Future Footprint", discusses AgResearch's farm holdings, their commercial performance, and strategic importance and alignment with our research goals. After careful consideration, we have decided to withhold the paper under section 9(2)(i) of the Official Information Act because it contains commercially sensitive information that, if released, would prejudice AgResearch's commercial activities. We do not consider the public interest considerations that may be in favour of releasing this information outweigh the need for privacy in this instance.

A keyword search of board and executive meeting papers for references to genetic modification produced over 1000 different results which would take an unreasonable amount of time to review for the purposes of public release. We therefore invite the Institute to redefine the scope of this part of the request.

*The AgResearch board has met either monthly or bimonthly every year since 1999. Requests for information relating to all board meetings since 1999 are wide ranging and broad, and in our view lack the specificity required for us to effectively and efficiently provide the information requested. We therefore believe, without a significant rescope, that question five and six would require a substantial collation of material taking many hours and that, as they stand at the moment, this would place an unreasonable burden on AgResearch in terms of resource and expense.

**7. Can you advise the dates the board (or board members) visited the paddocks where the GM animals are placed outdoors?**

AgResearch maintains a record of all visitors to our containment facility to meet compliance requirements. These records date back to 1999. As you would appreciate, a page-by-page search of

21 years of visitor records would take a considerable amount of time, effort and expense. However, I can advise that our current containment facility manager does not have any record or recollection of the board having, with the express purpose, visited or inspected our GM large animal containment facility in Ruakura.

For completeness, I can also confirm that several board members have visited the facility over the past two decades, as part of routine campus tours. The visits are designed to introduce and familiarise directors with our research, people and their places of work. Animals housed in the facility can be viewed from enclosed vantage points, including offices and observation posts. Visits by non-science staff do not therefore include direct inspections of "paddocks" as outlined in your question or areas animals access for grazing.

**8. Control 12 (a) and (c) relates specifically to benefits (see Attachment 1 of Working Paper 2020/06). Can you advise whether an independent medical/pharmaceutical expert is (i) on the board or (ii) has been employed by the board or executive team to advise on any of the following key issues: a. Progress on the proof of concept research, b. The demand for current and potential medical products made from GM animal milk, and in particular, the demand for cetuximab made from the mammary gland of goats? c. The efficacy of such products in terms of purity and quality standards (see comments at the bottom of the article in Attachment 5, page 15, of Working Paper 2020/06) and d. The expected timeline and obstacles to FMA approval? If yes, we request copies of the report and papers. If yes, we request their name, expertise and copies of all their reports and papers.**

The AgResearch board has not employed or contracted an independent medical or pharmaceutical expert to advise on the issues summarised in question eight.

**9. Further to Question 8, has AgResearch undertaken any other work (in addition to the independent medical/pharmaceutical expert mentioned above) to assess the points (a) to (d) raised in Question 8? If not, can you explain what expertise the board is relying upon in regard to potential benefits. We would like copies of all additional papers on benefits that are being relied upon by the executive team and/or the board.**

No. A review of our board papers – as per question 6 - did not yield any reports on the subject of "potential benefits" of transgenic research. However, the board annually reviews AgResearch's science strategy and financial allocation to research programmes, including research to advance New Zealand's scientific understanding of GM technology.

**10. More specifically, can you advise whether any work has been undertaken to assess the demand and supply of the drug cetuximab (sold under the drug name Erbitux). Note: The article (found in Attachment 5, page 15 of the letter), implies there is high demand for the drug and that the current manufacturing costs are excessive with no competing/emerging technology that will lower the costs of manufacturing the drug in a laboratory in the foreseeable future.**

AgResearch has been provided with market assessments information for the demand of cetuximab by independent commercial entities.

**11. Medsafe have a fact list, found here. It states that 'Erbitux® is a trademark of ImClone LLC, used under license by Merck KGaA and its affiliates'. Can you advise whether AgResearch has had discussions with ImClone LLC or any other seller or license holder that makes or sells cetuximab? If yes, please explain the purpose of this discussion and whether in AgResearch's view, ImClone LLC or Merck is a collaborator or a possible competitor)?**

No, we not had discussions with the companies referred to in question 11.

**12. The Institute has found an article on the GM goats on the bioRxiv service, found here (posted 10 June 2020), however this means it is not peer-reviewed. The publishers note that 'Because this process can be lengthy, authors use the bioRxiv service to make their manuscripts available as "preprints" before completing peer review and consequent certification by a journal. This allows other scientists to see, discuss, and comment on the findings immediately. Readers should therefore be aware that articles on bioRxiv have not been finalized by authors, might contain errors, and report information that has not yet been accepted or endorsed in any way by the scientific or medical community.' a. Are you aware when and if this article will be peer reviewed? b. Are you aware of any other articles published by scientist and staff at AgResearch on the outdoor GM experiments? If yes, can you please provide a list of the date, name, publication and ideally a link.**

A. Yes, the paper has been accepted for publication in FASEB BioAdvances following peer review.

B. AgResearch has published numerous articles about GM research over the last two decades to advance scientific understanding of this field of research. These journals are publicly available resources therefore not covered by the OIA.

**13. Has AgResearch prepared the 10-year report (as per Control 12)? The 10-year report was due 31 August 2019. If yes, has that report been provided to the EPA? If yes, please advise the date the report was sent to the EPA. If yes, we request a soft copy of the 10-year report.**

Yes, our report was due at the end of August 2020, (not August 2019). It will be made publicly available on the EPA website in due course.

**14. Has there been any correspondence between AgResearch and the EPA about the 10-year report? If yes, we request a soft copy of all correspondence.**

Yes, we received a reminder email earlier this year that our report was due at the end of August. A duplicate of the email is provided below. The phone numbers of staff members have been deleted under section 9(2)(a) of the Official Information Act to protect the privacy of these individuals.

**15. Has there been any correspondence between the AgResearch board (including the Chair) and AgResearch staff about the 10-year report? If yes, we request a soft copy of all correspondence.**

No.

**16. Has the risk of AgResearch accidentally creating a novel virus been a part of the executive team or Board's agenda in 2020? If yes, has this led AgResearch to reconsider its outdoor transgenic programme? We request any relevant papers, minutes or correspondence.**

No.

**17. Our understanding is that AgResearch currently enables different modified animals to co-exist in the same paddock (e.g. two types of modified cattle). Can you clarify if this is current practice?**

Yes, animals of the same species are permitted to co-exist in our animal containment facility.

**18. Further to Question 17, if this is current practice, would the board consider keeping each modification type in a separate paddock to reduce risks (e.g. if two types of modified cattle were created, each type would be placed in a separate paddock)? This is our preference.**

No. There is no increased risk created by having animals of the same species and gender together in this manner in our secure animal containment facility.

**19. Has the board requested from the executive team at AgResearch a reassessment of ERMA 200223 regarding the risks of accidentally creating a virus that might spread between animals or between animals and humans: (i) this year (since the arrival of COVID-19) or (ii) any previous year since 1999? Please explain.**

No. Our GM research has no correlation or connection - scientific or otherwise – to COVID 19.

**20. Are there any further controls/requirements/actions being placed on the GM animals since the arrival of COVID-19?**

No. Our GM research has no correlation or connection - scientific or otherwise – to COVID 19.

**Appendix:**

Email correspondence from the EPA to AgResearch, Wednesday 29/07/2020 6:13 pm

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Hi Tim,

I know you're still a month away from the due date for the ERMA200223 annual report, but I wanted to send you a reminder that, with this being the 10th full year that ERMA200223 has been in use, the Ten Year report is due this year per Control 12 of the approval. I've provided the text of the control for your convenience below:

**Ten year report:**
12. In addition to the annual reporting requirements, and for the purposes of providing the Authority with information relating to whether there are grounds for reassessment of the approval, the tenth annual report must include additional information about:
a) any progress that the approval holder has achieved towards completion of the proof-of-concept research;
b) any adverse effects of the organisms that have occurred, including any effects which relate to the matters described in section 6(d) and the principles of the Treaty of Waitangi (Te Tiriti o Waitangi); and
c) any beneficial effects of the organisms that have occurred in the first ten years, or that are forecast to occur over the next ten years.

12 a) "Proof of concept" is described in section 2.2.3 of the Decision document, and the text is below:

2.2.3 The scope of the application is limited to undertaking research and development activities to completion of proof-of-concept. The applicant is not seeking regulatory approval to maintain transgenic animals for the commercial production of therapeutic proteins, and states that none of the proposed activities meet the definition of a field test. The application does not specify the duration of the project.

Thus, it's essentially a progress report on the research undertaken under the auspices of ERMA200223.

12 b) Section 6(d) refers to the HSNO Act, which states:

"All persons exercising function, powers, and duties under this Act shall, to achieve the purpose of this Act, take into account the following matters:

...

(d) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, valued flora and fauna, and other taonga

Thus, the description of any adverse effects must explicitly take section 6(d) of the HSNO Act into account in its description.

12 c) appears to be essentially self-explanatory.

Please let me know if you have any questions regarding these requirements for this year's report.

Kind regards,

[Name of staff member]

**[Name of staff member]**

Acting Manager and Principal Scientist, New Organisms

Environmental Protection Authority
Te Mana Rauhī Taiao

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Email to AgResearch, OIA 2021/03, Sent 4 January 2021

Attention: [redacted], Communications and Marketing Director

Kia ora [redacted],

Thank you for your correspondence dated 11 September 2020 (I have included a copy for your records). I have a few outstanding questions that relate directly to your letter:

EPA and MPI

1. Can you advise what date the 2020 ten-year annual report was sent to the EPA?

2. Can you provide a copy of any accompanying correspondence to the EPA that related directly or indirectly to the 2020 ten-year annual report?

3. Can you advise what date the 2020 ten-year annual report was sent to the MPI?

4. If yes, can you provide a copy of any accompanying correspondence to the MPI that related directly or indirectly to the 2020 ten-year annual report?

5. Can you advise if an early copy (draft) of the 2020 ten-year annual report was sent to either the EPA or the MPI? If yes, please advise the recipient and the date and provide a copy of any correspondence between AgResearch and the party concerned (i.e. EPA or MPI)? I am particularly interested in whether the EPA or MPI provided any advice, comment or feedback on the content and timing of the 2020 ten-year annual report?

6. Can you advise if any correspondence or conversations between yourselves, the EPA or MPI mentioned the McGuinness Institute? If yes, we would appreciate a copy of any correspondence/notes.

AgResearch's governance

7. Did AgResearch's Board *request* a copy of the draft or final 2020 ten-year annual report?

    a. What date was the 2020 ten-year annual report provided to the Board?

    b. If yes, did the Board provide any feedback to the CEO or the author? Please explain what feedback and to whom?

    c. If yes, did the Board sign off on the 2020 ten-year annual report before it was sent to the EPA?

8. If no, did AgResearch's Board *see* a copy of the draft or final 2020 ten-year annual report? If yes:

a. Who instigated this?

b. What date was the 2020 ten-year annual report provided to the Board?

c. If yes, did the Board provide any feedback to the CEO or the author? Please explain what feedback and to whom?

d. Did the Board sign off on the 2020 ten-year annual report before it was sent to the EPA?

9. Did the CEO sign off on the 2020 ten-year annual report before it was sent to the EPA?

10. If neither the Board or the CEO signed off on the 2020 ten-year annual report, can you provide the title/role of the highest person in AgResearch who signed off on the report (before it was sent to the EPA)? In particular, we are keen to understand who was responsible for the quality of the content.

11. Was the report content independently reviewed? If yes, by whom?

Specific questions

I have attached three pages of your letter, highlighted. For the purposes of clarity, I will simply refer to the specific question.

12. My original Question 10. Can you advise the author and date and ideally supply a copy of the market assessment report/s mentioned on the commercial demand for cetuximab?

13. My original Question 12.

    A: Any news on the peer review?

    B: Can you provide a list of all the articles you refer to, with links? Note: Such a list will provide more clarity on risks, costs and benefits.

14. My original Question 18. What evidence are you relying upon to make the following statement: 'There is no increased risk created by having animals of the same species and gender together [e.g. two different types of modified cattle] in this manner in our secure animal containment facility'?

Thank you once again for your response to date. I have a number of concerns about the 2020 ten-year annual report; however, these will be dealt with in a separate OIA.

I do appreciate the time you have taken to respond to our OIA.

Thank you again.

Best wishes, Wendy

**From:** [redacted]
**Sent:** Monday, 1 February 2021 4:37 PM
**To:** wmcg@mcguinnessinstitute.org
**Cc:** [redacted]
**Subject:** AgResearch - OIA - 2020/08 - Points of Clarification "O" & "Q"

Hello Wendy

Further to our telephone conversation last Friday (29 January 2021), this email is to acknowledge receipt of your request dated **8 January 2021** concerning clarification of points “O” and “Q” of a letter dated 3 August 2020 from the Environmental Protection Authority to yourself.

I will endeavour to have rely to you by **Monday, 15 February 2021**.

Regards

---

[redacted]
Executive Assistant to the Directors of Finance and Technology
T +64 3 321 8839
Based at Lincoln Research Centre Campus agresearch.co.nz

agresearch
āta mātai, mātai whetū

agresearch
āta mātai, mātai whetū

12 February 2021

Wendy McGuinness
McGuinness Institute
Email: wmcg@mcguinnessinstitute.org

Dear Wendy

**OIA Request – 2020/08 – Partial Transfer from EPA to AgResearch**

**Points of Clarification: "O" & "Q"**

Further to your email request dated **Friday, 8 January 2021** and copy letter from the EPA dated 3 August 2020 addressed to yourself (copy **attached**) we respond to your questions below:

"O" *We note that the latest audit report mentions collaborators. Can you advise if they have a benefit in this experiment and if yes, whether this benefit dilutes the so called benefit to New Zealand identified by the applicant. Our understanding is that at the time of the application there were no other entities that had a shareholding or reagreed benefit from the experiment. Please can you provide an update as this would dilute the benefits to New Zealand, as assessed under the legislation.*

**Question O**
We are unable to provide information to assist with your request made in point "O" (as above). In it you refer to an "audit report" but you do not specify (in the question) which audit report we were to provide information on.

We accept this information may have been referred to in preceding questions in the original OIA to the EPA. However, this is not reflected in the partial transfer to us. Could you please specify precisely which audit report you want information in regard to?

Additionally, the inexact and ambiguous phrasing you used in "O" meant your question was difficult to answer.

Could you please individually number each question (rather than group several together) and also signify each individual question with a question mark? This will provide us with more clarity in regard how many questions you have asked, and the precise nature of the information you seek. The block of text annotated "O" contains statements interwoven with requests for information and was difficult to interpret.

**Question Q**

*"Q" Has the EPA identified costs in terms of the accumulated costs to AgResearch to implement the experiments since 2010? If not, can you ask AgResearch to provide detailed costs?*

We are unable to say whether *"the EPA has identified costs in terms of the accumulated costs to AgResearch to implement the experiments"* that you refer to in your information request which we will refer to here as "Q".

We assume because the EPA transferred the question to AgResearch and that we have never been asked by the EPA to supply this information that the answer is therefore, no. For completeness we would draw your attention to the information we provided in response to your OIA request to us to which we responded to 11 September 2020 (Jo Brady). This was and remains the best estimate in regards to the cost of our "transgenic" animal research notwithstanding the different time period in the two requests.

> **2. What have been the total indirect costs to AgResearch for outdoor transgenic experiments annually since 1999? Note: This should include legal and media costs that are outside the approval process.**
>
> AgResearch is unable to provide a specific financial figure that would accurately reflect indirect costs associated with our "outdoor transgenic experiments". As a Crown Research Institute, we maintain our own inhouse legal and communications teams. Their work is monitored and reported on. However, the cost of managing requests, liaising with media and other public-facing relationship management work, including Official Information Act responses, is not, as an independent work stream, accounted for. Certainly, there is a cost to maintaining this inhouse capability. However, the amount that could be attributed indirectly to "transgenic experiments" over the time frame specified would be insignificant.

Please note you have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Yours sincerely

pp: [redacted]

[redacted]

**Marketing & Communications Director**

agresearch
āta mātai, mātai whetū

18 February 2021

Wendy McGuinness
McGuinness Institute
Email: wmcg@mcguinnessinstitute.org

Dear Wendy

**OIA Request - ERMA200223 (Your Ref: 2021/03)**

Further to your email request dated **Monday, 4 January 2021** – we respond to your questions below:

**EPA and MPI**

Q1: Can you advise what date the 2020 ten-year annual report was sent to the EPA?

A1: The ERMA200223 Annual Report and 10 Year Report were submitted to the EPA together in draft (via email) on 31 August 2020. See **attached** email marked "**A**".

Q2: Can you provide a copy of any accompanying correspondence to the EPA that related directly or indirectly to the 2020 ten-year annual report?

A2: See emails **attached**, marked "**A**", "**B**" and "**C**". Please note we are withholding the personal details of the individuals mentioned in the emails (names, positions and contact details) under section 9(2)(a) of the Official Information Act 1982 (**Act**) to protect the privacy of those individuals, and have redacted the emails accordingly. We have not included the report as it is currently in draft and is pending some minor corrections being carried out by AgResearch. It will shortly be publicly released by the EPA after submission of the final version to the EPA.

Q3: Can you advise what date the 2020 ten-year annual report was sent to the MPI?

A3: MPI were included in communication to EPA via the MPI Facility Supervisor – refer to "**A**" **attached**.

Q4: If yes, can you provide a copy of any accompanying correspondence to the MPI that related directly or indirectly to the 2020 ten-year annual report?

A4: See Q2 above. The MPI Facility supervisor was included in emails "**A**" and "**B**".

Q5: Can you advise if an early copy (draft) of the 2020 ten-year annual report was sent to either the EPA or the MPI? If yes, please advise the recipient and the date and provide a copy of any correspondence between AgResearch and the party concerned (i.e. EPA or MPI)? I am

particularly interested in whether the EPA or MPI provided any advice, comment or feedback on the content and timing of the 2020 ten-year annual report?

A5: Yes - See emails "**A**", "**B**" and "**C**".

Q6: Can you advise if any correspondence or conversations between yourselves, the EPA or MPI mentioned the McGuinness Institute? If yes, we would appreciate a copy of any correspondence/notes.

Q6: Not that we are aware of. All emails with the EPA and MPI in relation to the report are **attached**.

**AgResearch's Governance**

Q7: Did AgResearch's Board *request* a copy of the draft or final 2020 ten-year annual report?

A7: No - we have no record of a request.

Q7a: What date was the 2020 ten-year annual report provided to the Board?
A7a: The report hasn't been provided to the Board at this stage.

Q7b: If yes, did the Board provide any feedback to the CEO or the author? Please explain what feedback and to whom?
A7b: N/A.

Q7c: If yes, did the Board sign off on the 2020 ten-year annual report before it was sent to the EPA?
A7c: N/A.

Q8: If no, did AgResearch's Board see a copy of the draft or final 2020 ten-year annual report?

A8: As above, the report hasn't been provided to the Board at this stage.

If yes:
Q8a: Who instigated this?
A8a: N/A

Q8b: What date was the 2020 ten-year annual report provided to the Board?
A8b: N/A

Q8c: If yes, did the Board provide any feedback to the CEO or the author? Please explain what feedback and to whom?
A8c: N/A

Q8d: Did the Board sign off on the 2020 ten-year annual report before it was sent to the EPA?
A8d: N/A

Q9: Did the CEO sign off on the 2020 ten-year annual report before it was sent to the EPA?

A9: No

Q10: If neither the Board or the CEO signed off on the 2020 ten-year annual report, can you provide the title/role of the highest person in AgResearch who signed off on the report (before it was sent to the EPA)? In particular, we are keen to understand who was responsible for the quality of the content.

A10-: The Research Director at AgResearch has overall responsibility for the submission of the report.

Q11: Was the report content independently reviewed? If yes, by whom?

A11: AgResearch has not organised an independent review.

**Specific Questions**

I have attached three pages of your letter, highlighted. For the purposes of clarity, I will simply refer to the specific question.

Q12: My original Question 10. Can you advise the author and date and ideally supply a copy of the market assessment report/s mentioned on the commercial demand for cetuximab?

A12: We are withholding the names of the authors of those reports under section 9(2)(a) of the Act to protect their privacy. We have also decided to withhold the reports under section 9(2)(i) of the Act, as disclosure of the reports may prejudice AgResearch's ability to carry out commercial activities in this area.

Q13: My original Question 12.

Q13a: Any news on the peer review?
A13a: The paper has been published: Götz Laible, Sally Cole, Brigid Brophy, Paul Maclean, Li How Chen, Dan P. Pollock, Lisa Cavacini, Nathalie Fournier, Christophe De Romeuf, Nicholas C. Masiello, William G. Gavin, David N. Wells and Harry M. Meade (2020). Transgenic goats producing an improved version of cetuximab in milk. FASEB BioAdvances 2(11): 638-652. https://faseb.onlinelibrary.wiley.com/doi/10.1096/fba.2020-00059

Q13b: Can you provide a list of all the articles you refer to, with links? Note: Such a list will provide more clarity on risks, costs and benefits.
A13b: The report includes a list of publications (with links) which will be available when the report is publicly released by the EPA.

Q14: My original Question 18. What evidence are you relying upon to make the following statement: 'There is no increased risk created by having animals of the same species and gender together

[e.g. two different types of modified cattle] in this manner in our secure animal containment facility'?

A14: Animals of the same gender are unable to breed together so there is no increased risk created by keeping them together in containment.

Please note you have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

[redacted]

[redacted]

**Infrastructure and Instructure Management Director**

"A"

## Rose Ashby

**From:** [redacted]
**Sent:** Tuesday, 1 September 2020 8:18 AM
**To:** monitoring@epa.govt.nz
**Cc:** [redacted]
**Subject:** RE: Draft Annual and 10 year reports for ERMA200223 for period ending 30th June 2020 C Letter 1/09/2020
**Attachments:** Cover letter 10y report F.pdf

As advised yesterday the attached is a cover letter for the 10 year report.

[redacted]
agresearch
āta mātai, mātai whetū
[redacted]
Based at Ruakura Campus agresearch.co.nz

**From:** [redacted]
**Sent:** Monday, 31 August 2020 4:44 PM
**To:** monitoring@epa.govt.nz
**Cc:** [redacted]
**Subject:** Draft Annual and 10 year reports for ERMA200223 for period ending 30th June 2020

Good afternoon,

Please find attached the draft Annual Report for the ERMA200223 approval for the period 1/07/2019 to 30/06/2020.
As previously there are some ethics reports in the supporting information to be added, these are in progress and at this stage should be available once approved by the Ruakura animal ethics committee at its meeting on the 3rd of September.

Also attached is the draft 10 year report for the ERMA200223 approval as required by Control 12 of the decision. A covering letter will be sent tomorrow.
This report contains some confidential sections which will need to be amended prior to public release for commercial sensitivity reasons.

As per previous years -The process we have normally followed with this report is to submit draft by due date, the EPA reviews and often asked questions or for further information.
We would respond to these and complete / confirm acceptance of draft elements of the report.
EPA confirms it is satisfied the report meets requirements and we confirm it is in its final version.
I send a PDF version which EPA uploads to your website (we may need to take some names out of public version), we are advised of planned upload date so both communications teams can be ready for any query's (normally from GE Free).

Regards

[redacted]

[redacted]
Based at Ruakura Campus agresearch.co.nz

agresearch
āta mātai, mātai whenua

31 August 2020

[redacted]
Environmental Protection Authority
Private Bag 63002
Wellington 6140

Re: Ten-year report, ERMA200223

Dear [redacted]

We are submitting, as required under the approval for ERMA200223 and specified in control 12, the ten-year report to provide the Authority with information whether there are grounds for reassessment of the approval.

The ten-year report briefly summarises the outdoor activities in cattle, goat and sheep, as well as iwi liaison activities, animal numbers, Ruakura Animal Ethics Committee oversight and MPI audits. During the ten-year period, no unforeseen adverse effects and no breaches of containment were identified. No restrictions on the ACF's ability to operate were imposed by MPI

The report also contains information on the progress of proof-of-concept research, any adverse and beneficial effects of the organisms as specified in control 12. Following the generation of the animals, characterisation of the full impact of the genetic modification is still ongoing but has already generated substantial benefits in the form of new scientific knowledge. Lists of scientific publications, presentations and media reports have been included to indicate the scale and impact of the scientific knowledge gained by the activities. During the ten-year period, we have not identified any adverse effects caused by the GM animals.

Please note that the detailed science section includes specific information under 'Summary of Science Activities for the 10-year period to 15th April 2020', section 'a), any progress that the approval holder has achieved towards completion of the proof-of-concept research', sub-heading **'9. Genetically engineered goats capable of producing female'** and section c) any beneficial effects of the organisms that have occurred in the first ten years, or that are forecast to occur over the next ten years, sub-heading **'9. Genetically engineered goats capable of producing female only offspring'**, that is confidential and not suitable for public dissemination. The relevant sub-sections 9. have been marked as **'CONFIDENTIAL'** and relate to commercial plans and activities that have been shared with AgResearch under a Non-Disclosure Agreement and are not in the public domain.

AgResearch Limited
[redacted]

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Ruakura Research Centre
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Hopkirk Research Institute
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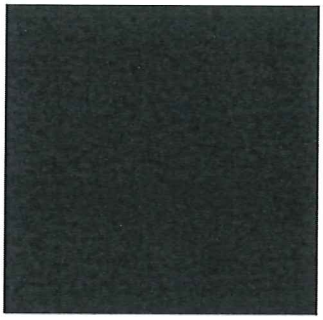
Grasslands +64 6 351 8019
Hopkirk +64 6 351 8009

Invermay Agricultural Centre
176 Puddle Alley, Mosgiel 9092
Private Bag 50034, Mosgiel 9053
+64 3 489 3809

www.agresearch.co.nz

In summary, the ten-year report shows that the controls and MPI oversight are appropriate to manage the residual risk posed by the GM animal activities in outdoor containment, the activities generated substantial benefits through advancing science and no adverse effects of the animals have occurred.

Yours sincerely



"B"

## Rose Ashby

**From:** [redacted]
**Sent:** Tuesday, 15 September 2020 10:20 AM
**To:** [redacted]
**Cc:** monitoring@epa.govt.nz; [redacted]
**Subject:** RE: Draft Annual and 10 year reports for ERMA200223 for period ending 30th June 2020 15/09/2020
**Attachments:** Annual Report ERMA200223 June 2020 Draft2.docx

Good morning [redacted],

Attached is the updated version of the Draft Annual Report – addition of the animal ethics reports which have been accepted by the RAEC.

*Regards*
[redacted]

**From:** [redacted]@epa.govt.nz>
**Sent:** Monday, 31 August 2020 5:01 PM
**To:** [redacted]
**Subject:** RE: Draft Annual and 10 year reports for ERMA200223 for period ending 30th June 2020

Thank you, [redacted]

I'll have a look at it, and get back to you.

Kind regards, [redacted]

[redacted]
RSOP - New Organisms Applications

+[redacted] | [redacted]

Environmental Protection Authority
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**From:** [redacted]
**Sent:** Monday, 31 August 2020 4:44 PM
**To:** Monitoring <Monitoring@epa.govt.nz>
**Cc:** [redacted]
**Subject:** Draft Annual and 10 year reports for ERMA200223 for period ending 30th June 2020

Good afternoon,

Please find attached the draft Annual Report for the ERMA200223 approval for the period 1/07/2019 to 30/06/2020.
As previously there are some ethics reports in the supporting information to be added, these are in progress and at this stage should be available once approved by the Ruakura animal ethics committee at its meeting on the 3rd of September.

Also attached is the draft 10 year report for the ERMA200223 approval as required by Control 12 of the decision. A covering letter will be sent tomorrow.
This report contains some confidential sections which will need to be amended prior to public release for commercial sensitivity reasons.

As per previous years -The process we have normally followed with this report is to submit draft by due date, the EPA reviews and often asked questions or for further information.
We would respond to these and complete / confirm acceptance of draft elements of the report.
EPA confirms it is satisfied the report meets requirements and we confirm it is in its final version.
I send a PDF version which EPA uploads to your website (we may need to take some names out of public version), we are advised of planned upload date so both communications teams can be ready for any query's (normally from GE Free).

Regards

[redacted]

agresearch
*āta mātai, mātai whetū*

Based at Ruakura Campus agresearch.co.nz

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"C"

## Rose Ashby

**From:** [redacted]@epa.govt.nz>
**Sent:** Friday, 5 February 2021 4:04 PM
**To:** [redacted]
**Subject:** 10 year Report ERMA200223 June 2020 Draft-TS.docx
**Attachments:** 10 year Report ERMA200223 June 2020 Draft-TS.docx

CAUTION: External sender

Hi [redacted]

I'm just preparing to finalise things for giving the 10 year report to our CE, and thought I had only a couple of minor comments regarding things that needed fixing. However, I'm afraid that I've found a lot of problems with the in-text citations not being found in your list of references.

It hadn't been my intention to go through the references systematically, but I went to look for the McLean et al, 2019 reference under Germline complementation of sheep on page 6, and noted it wasn't in the references. I thought I'd best check some of the other citations, and very quickly found problems, as you'll see in the comment boxes. After finding problems relatively quickly, I didn't go through the rest of the document, and decided to refer it back to you to correct, especially as this is something we intend to publish on our website. I think it would also be helpful for the references to be in alphabetical order by first author.

I know my timing on this email is on a Friday just before a long weekend, but I would really like to finalise all of this sometime soon, If you could return it to me as soon as you can after the holiday, I'd appreciate it.

Please let me know if you have any questions, or if you otherwise wish to discuss.

Have a great Waitangi weekend!

[redacted]

Environmental Protection Authority
Te Mana Rauhī Taiao

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McGuinness Institute 20210308 Our OIA 2020/08



**Subject:** Re: AgResearch - OIA - 2020/08 - Points of Clarification "O" & "Q"
**Date:** Monday, 8 March 2021 at 5:01:45 PM New Zealand Daylight Time
**From:** Wendy McGuinness
**To:** [redacted]
**CC:** [redacted]
**Attachments:** image001.jpg, image002.png, image003.png, image004.png, image005.jpg, image006.jpg, image007.png

---

**From:** Wendy McGuinness <wmcg@mcguinnessinstitute.org>
**Date:** Monday, 8 March 2021 at 5:01 PM
**To:** [redacted]
**Cc:** [redacted]
**Subject:** Re: AgResearch - OIA - 2020/08 - Points of Clarification "O" & "Q"

Dear [redacted],

I am responding to your letter of 12 February 2021; in particular questions (o) and (q) mentioned in our original correspondence (dated 3 August 2020).

Thank you for your response. We were referring to the 2018 report as that was the latest annual report on the EPA website at that time. Given your confusion, I have taken this opportunity to ask more specific questions.

Our OIA request "O" stated:
*"O": We note that the latest audit report mentions collaborators. Can you advise if they have a benefit in this experiment and if yes, whether this benefit dilutes the so called benefit to New Zealand identified by the applicant. Our understanding is that at the time of the application there were no other entities that had a shareholding or reagreed benefit from the experiment. Please can you provide an update as this would dilute the benefits to New Zealand, as assessed under the legislation.*

More specific questions are as follows:

**2011 Annual Report to EPA for Activities under ERMA 200223 AgResearch Limited**

O (a): Please explain who are the collaborators that AgResearch sent "Milk [cattle] ... for purification and functional testing of hMBP" to in 2011 (see page 5 of the *2011 Annual Report to EPA for Activities under ERMA 200223 AgResearch Limited)?*

O (b): Was there any promise of a shareholding or monetary benefit from this collaboration (pre-experiment)?

O (c): Since 2011, has there been any benefit to the collaborator from this experiment taking place (post-experiment)?

O (d): Were the results of this research made public?

O (e): What were the results of the functional tests and how did they benefit New Zealand?

**2018 Annual Report to EPA for Activities under ERMA 200223 AgResearch Limited**

O (f): Please explain who are the collaborators that AgResearch sent "Semen [goat] ... to export standard for United States collaborators use", to in 2018 (see page 3 of the *2018 Annual Report to EPA for Activities*

*under ERMA 200223 AgResearch Limited?*

O (g): Was there any promise of a shareholding or monetary benefit from this collaboration (pre-experiment)?

O (h): Since 2018, has there been any benefit to the collaborator from this experiment taking place (post-experiment)?

O (i): What "use" did the collaborators have for the semen? And how was it used?

O (j): Were results of this research made public?

O (k): How did this collaboration benefit New Zealand?

**2019 Annual Report to EPA for Activities under ERMA 200223 AgResearch Limited**

O (l): Please can you forward a copy of the *2019 Annual Report to EPA for Activities under ERMA 200223 AgResearch Limited?* Note: If there is any mention of collaboration in the 2019 report, please answer in more detail (as per the other annual reports questions on this email).

**2020 Annual Report to EPA for Activities under ERMA 200223 AgResearch Limited**

O (m): Please explain what are the "Milk [cattle] ... analysed as part of international collaborations", to in 2020 (see page 4 of the *2020 Annual Report to EPA for Activities under ERMA 200223 AgResearch Limited)?*

O (n)*:* Was there any promise of a shareholding or monetary benefit from this collaboration (pre-experiment)?

O (o): Since 2018, has there been any benefit to the collaborator from this experiment taking place (post-experiment)?

O (p): Why did the collaborators conduct the analysis of the milk? What was it used for?

O (q): What were the results of this analysis?

O (r): Were results of this research made public?

O (s): How did this collaboration benefit New Zealand?

**Other Collaborators?**

O (t): Has AgResearch entered into collaboration with any other national or international party (not mentioned in the annual reports above) in regard to ERMA 200223? If yes, please explain in detail (ideally using the same level of detail that is set out in the questions above).

Our OIA request "Q" stated:

*"Q." Has the EPA identified costs in terms of the accumulated costs to AgResearch to implement the experiments since 2010? If not, can you ask AgResearch to provide detailed costs*?

For the purposes of understanding more about these costs, we have changed this question to focus on 'direct costs'. This is relevant as the legislation refers to need for an assessments to include costs. FYI: A view on whether AgResearch considers these costs 'insignificant' over the time frame is not very helpful [your comment on page 2].

Q (a): What is the accumulated 'direct costs' to date (from 2010 to 2021) of AgResearch implementing ERMA 200223? As an accountant, I suggest your financial team are likely to have direct costs to the experiments or at least to the project more generally.

Q (b): Can you list the direct costs every year since 2010?

If you have any questions, please do not hesitate to contact me.

Thank you for responding in advance.

Best wishes, Wendy

PS: You might also be interested to know that we now upload all our OIA's and responses on our website, see here. Please note we follow government policy and redact any personal names or email addresses other than the CEO. However, please do come back to me if there are any issues.

---

**From:** [redacted] <[redacted]>
**Date:** Friday, 12 February 2021 at 4:19 PM
**To:** Wendy McGuinness <wmcg@mcguinnessinstitute.org>
**Cc:** [redacted] <[redacted]>, [redacted] <[redacted]>
[redacted] <[redacted]>
**Subject:** AgResearch - OIA - 2020/08 - Points of Clarification "O" & "Q"

Hello Wendy

Please see our response to you request dated 8 January 2020.

Regards

---

[redacted]
Executive Assistant to the Directors of Finance and Technology
T +64 3 321 8839
Based at Lincoln Research Centre Campus agresearch.co.nz

agresearch
āta mātai, mātai whetū

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**From:** [redacted] <[redacted]>
**Sent:** Monday, 1 February 2021 4:37 PM
**To:** wmcg@mcguinnessinstitute.org
**Cc:** [redacted] <[redacted]>; [redacted] <[redacted]>
**Subject:** AgResearch - OIA - 2020/08 - Points of Clarification "O" & "Q"

Hello Wendy

Further to our telephone conversation last Friday (29 January 2021), this email is to acknowledge receipt of your request dated **8 January 2020** concerning clarification of points "O" and "Q" of a letter dated 3 August 2020 from the Environmental Protection Authority to yourself.

I will endeavour to have rely to you by **Monday, 15 February 2021.**

Regards

[redacted]
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If you have received this message in error, please notify the sender immediately and delete the message and any attachments received.

**From:** [redacted]
**Date:** Tuesday, 9 March 2021 at 9:52 AM
**To:** Wendy McGuinness <wmcg@mcguinnessinstitute.org>, [redacted]
**Cc:** [redacted]
**Subject:** RE: AgResearch - OIA - 2020/08 - Points of Clarification "O" & "Q"

Hello Wendy

This email is to acknowledge receipt of your request dated **8 March 2021** concerning clarification of points “O” and “Q” following our response dated 12 February 2021. This response was to your initial request dated 8 January 2021.

I will endeavour to have a rely to you by **Wednesday, 7 April 2021**.

Regards

---

[redacted]
Executive Assistant to the Directors of Finance and Technology

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Based at Lincoln Research Centre Campus agresearch.co.nz

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**From:** Wendy McGuinness <wmcg@mcguinnessinstitute.org>
**Date:** Tuesday, 9 March 2021 at 8:28 PM
**To:** [redacted]
**Cc:** [redacted]
**Subject:** AgResearch - OIA - 2020/08 - Points of Clarification "O" & "Q" continued

Mōrena [redacted] (and [redacted]),

Thank you for your response.

Based on the responses to our OIAs (2020/08; 2020/09; 2021/03; 2021/04) and the content of the annual reports (including the verification report), we will be formally asking the EPA to reassess the ERMA application 200223. Your response and that of MPI's (our OIA 2021/05) are the two remaining pieces of information we require before we provide our research to the EPA.

To help the EPA in this process, we have added a further section on our OIA/Correspondence page on our website under the OIA table (see image below). This is to help keep track of the OIAs we have received to date. If we have made any mistakes or missed any correspondence, please do not hesitate to contact me and I will correct our records immediately.

**Two further requests**

1. Please be aware that your table in response to question 4 (dated 11 Sep 2020; being our OIA 2020/9) does not align well with AgResearch's annual reports to the EPA for activities under ERMA 200223 (regarding collaborations). This is why we have asked many of the sub-questions in question O (including question O (t)). Our understanding of the term 'collaboration' is that it includes everything listed on your table as indicated in the third column 'Collaboration Type'. To this end, please update the table (to include the rest of 2020/2021), expand to clarify which collaborations are mentioned in the three annual reports and reissue. For clarity, if you are implying that the date '2014-' means '2014 – ongoing'; could you please add 'ongoing' to the table. For example, we note that the company AborVita (mentioned on the bottom of page 3 of your letter) may have one staff member at present – see https://www.crunchbase.com/organization/arborvita-associates/people. We therefore wondered if AgResearch is actively pursuing a collaboration at present with AborVita given its size. For this reason, can you confirm that the collaborations listed are ongoing and are being actively being pursued.

2. Lastly, I would like to add a further additional clarification question to O, a new O (u).

***O (u): Can you provide the approval numbers and dates of any material created as a result of ERMA 200223 that has then been (i) exported overseas or (i) transhipped through New Zealand? For example, we note that in 2018 the semen was exported to the United States.***

Please do not hesitate to contact me if you have any questions.

Thank you again,

Wendy

**From:** [redacted]
**Date:** 11 March 2021 at 11:48:34 AM NZDT
**To:** Wendy McGuinness <wmcg@mcguinnessinstitute.org>, [redacted]
**Cc:** [redacted]
**Subject: RE: AgResearch - OIA - 2020/08 - Points of Clarification "O" & "Q" continued**

Hello Wendy

This email is to acknowledge receipt of your continued request email dated **9 March 2021** concerning clarification of points “O” and “Q” below.

I will endeavour to have a rely to you by **Wednesday, 7 April 2021**.

Regards

---

[redacted]
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6 April 2021

Wendy McGuinness
McGuinness Institute
Email: wmcg@mcguinnessinstitute.org

Kia ora Wendy

**OIA Request: Your Ref: 2020/08 – Points of Clarification: "O" & "Q"**
**Our Ref: AGR 20-21-09**

Thank you for your further request dated 9 March 2021, please find our response below:

1. **Please be aware that your table in response to question 4 (dated 11 Sep 2020; being our OIA 2020/9) does not align well with AgResearch's annual reports to the EPA for activities under ERMA 200223 (regarding collaborations). This is why we have asked many of the sub-questions in question O (including question O (t)). Our understanding of the term 'collaboration' is that it includes everything listed on your table as indicated in the third column 'Collaboration Type'. To this end, please update the table (to include the rest of 2020/2021), expand to clarify which collaborations are mentioned in the three annual reports and reissue. For clarity, if you are implying that the date '2014-' means '2014 – ongoing'; could you please add 'ongoing' to the table. For example, we note that the company AborVita (mentioned on the bottom of page 3 of your letter) may have one staff member at present – see https://www.crunchbase.com/organization/arborvita-associates/people.**

   **We therefore wondered if AgResearch is actively pursuing a collaboration at present with AborVita given its size. For this reason, can you confirm that the collaborations listed are ongoing and are being actively being pursued.**

| Entity | Dates | Collaboration type | Obligations | Funding | Requirements |
|---|---|---|---|---|---|
| PPL Therapeutics, UK | 2000-2003 | A proposed joint venture didn't go ahead due to PPL going into liquidation | N/A | N/A | A Confidentiality agreement to protect commercial interests of both parties |
| AborVita Associates | 2014-15 | Material Transfer Agreement (MTA) | Exchange of materials In-kind support | N/A | Confidentiality Agreement |
| AgGenetics | 2019-21 | Service Agreement | Collaborative research Scientific exchange | $260K | Confidentiality Contracted milestones |

| | | | | | |
|---|---|---|---|---|---|
| Bio Sidus S.A. | 2007-10 | Confidentiality Agreement | Collaborative opportunities | N/A | Confidentiality |
| China Agricultural University | 2012-15 | Confidentiality Agreement | Collaborative opportunities | N/A | Confidentiality |
| CSIRO, Australia | 2013-18 | Researcher to Researcher | Collaborative opportunities<br>Scientific exchange | N/A | Confidentiality |
| FBN Dummerstorf | 2006 | Collaboration Agreement | Sample Analyses | Visiting Researcher travel grant | Confidentiality |
| GTC Biotherapeutics / rEVO Biologics / LFB USA | 2003-present | Confidentiality Agreement<br><br>Collaboration Agreement<br><br>Service Agreement | FTO<br><br>In-kind support<br><br>Collaborative research | $1.29M | Confidentiality<br><br>Contracted milestones |
| Institute of Animal Science and Veterinary Medicine, China | 2014-20 | Researcher to Researcher | Collaborative research<br>Scientific exchange | Visiting Scholar grants, Chinese Government | Confidentiality |
| Institute of Farm Animal Genetics, Germany | 2014-18 | Researcher to Researcher | Collaborative opportunities<br>Scientific exchange | Visiting Researcher travel grant | Confidentiality |
| Islamic Azad University, Isfahan, Iran | 2007-present | MOU | Collaborative opportunities | N/A | Confidentiality |
| LIC | 2013-14 | MTA | Sample Analysis | N/A | Confidentiality |
| Massey Uni | 2010-11 | MTA | Sample Analysis | N/A | Confidentiality |
| Max-Planck-Institute for Molecular Genetics, Germany | 2013-15 | Collaboration Agreement | In-kind support<br><br>Collaborative research<br><br>Scientific exchange | Visiting Researcher travel grant | Confidentiality |
| Pharming | 2005-15 | HOA<br><br>MTA<br><br>Service Agreement | FTO<br><br>In-kind support<br><br>Care of animals Germplasm | $423K | Confidentiality |
| Recombinetics, USA | 2013-18 | Joint research | FTO | N/A | Confidentiality |

| | | | | | |
|---|---|---|---|---|---|
| | | MTA | In-kind support<br><br>Collaborative research | | |
| University of Auckland | 2016-20 | MoA | Joint Research Centre Scientific exchange | $58K pa | Teaching |
| | 2017-19 | Research sub-contract | Collaborative research Scientific exchange | $175K | Contracted milestones |
| | 2015-18 | Service contract | Collaborative research Scientific exchange | -$534K | Confidentiality Contracted milestones |
| Université Laval, Canada | 2018-present | Researcher to Researcher | Collaborative research Scientific exchange | Visiting Researcher travel grant, Canadian Government | Confidentiality |

2. **Lastly, I would like to add a further additional clarification question to O, a new O (u).**

   ***O (u): Can you provide the approval numbers and dates of any material created as a result of ERMA 200223 that has then been (i) exported overseas or (i) transhipped through New Zealand? For example, we note that in 2018 the semen was exported to the United States.***

Please find **attached** a spreadsheet, listing materials that were exported with dates of their production and approval number and type of material.

Please note you have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Nga mihi

[redacted]
**Research Director**

**O (u): Can you provide the approval numbers and dates of any material created as a result of ERMA 20022 (i) transhipped through New Zealand? For example, we note that in 2018 the semen was exported to the U**

| Approval number | Date created | Destination | Material |
|---|---|---|---|
| GMD100277 | 27/09/2018 | overseas | Milk |
| GMD100277 | 23/11/2017 | overseas | Milk |
| GMD100277 | 22/11/2017 | overseas | Milk |
| GMD100277 | 21/11/2017 | overseas | Milk |
| GMD100277 | 22/11/2017 | overseas | Milk |
| GMD100277 | 21/11/2017 | overseas | Milk |
| GMD100277 | 20/11/2017 | overseas | Milk |
| GMD100277 | 20/11/2017 | overseas | Milk |
| GMD100277 | 20/11/2017 | overseas | Milk |
| GMD100277 | 20/11/2017 | overseas | Milk |
| GMD100277 | 20/11/2017 | overseas | Milk |
| GMD100277 | 20/11/2017 | overseas | Milk |
| GMD100277 | 20/11/2017 | overseas | Milk |
| GMD100277 | 18/11/2017 | overseas | Milk |
| GMD100279 | 8/11/2017 | overseas | Milk |
| GMD100279 | 7/11/2017 | overseas | Milk |
| GMD100279 | 16/09/2016 | overseas | Milk |
| GMD100279 | 14/09/2016 | overseas | Milk |
| GMD100279 | 14/09/2016 | overseas | Milk |
| GMD100279 | 12/09/2016 | overseas | Milk |
| GMD100279 | 13/09/2016 | overseas | Milk |
| GMD100279 | 1/06/2016 | overseas | Milk |
| GMD100279 | 1/06/2016 | overseas | Milk |
| GMD100279 | 1/06/2016 | overseas | Milk |
| GMD100279 | 1/06/2016 | overseas | Milk |
| GMD100279 | 1/06/2016 | overseas | Milk |
| GMD100277 | 22/04/2016 | overseas | Milk |
| GMD100277 | 25/04/2016 | overseas | Milk |
| GMD100277 | 28/04/2016 | overseas | Milk |
| GMD100277 | 16/12/2014 | overseas | Milk |
| GMD100277 | 5/12/2014 | overseas | Milk |
| GMD100277 | 6/12/2014 | overseas | Milk |
| GMD100277 | 8/12/2014 | overseas | Milk |
| GMD100277 | 11/12/2014 | overseas | Milk |
| GMD100277 | 12/12/2014 | overseas | Milk |
| GMD100277 | 15/12/2014 | overseas | Milk |
| GMD100277 | 16/12/2014 | overseas | Milk |
| GMD100277 | 2/12/2014 | overseas | Milk |
| GMD100277 | 2/12/2014 | overseas | Milk |
| GMD100277 | 2/12/2014 | overseas | Milk |
| GMD100277 | 29/11/2014 | overseas | Milk |
| GMD100277 | 30/11/2014 | overseas | Milk |
| GMD100277 | 24/11/2014 | overseas | Milk |
| GMD100277 | 24/11/2014 | overseas | Milk |
| GMD100277 | 23/11/2013 | overseas | Milk |

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|---|---|---|---|
| GMD100277 | 23/11/2013 | overseas | Milk |
| GMD100277 | 24/11/2013 | overseas | Milk |
| GMD100277 | 24/11/2013 | overseas | Milk |
| GMD100277 | 25/11/2013 | overseas | Milk |
| GMD100277 | 25/11/2013 | overseas | Milk |
| GMD100277 | 26/11/2013 | overseas | Milk |
| GMD100277 | 26/11/2013 | overseas | Milk |
| GMD100277 | 22/11/2013 | overseas | Milk |
| GMD100277 | 21/11/2013 | overseas | Milk |
| GMD100277 | 20/11/2013 | overseas | Milk |
| GMD100277 | 6/11/2013 | overseas | Milk |
| GMD100277 | 5/11/2013 | overseas | Milk |
| GMD100277 | 4/11/2013 | overseas | Milk |
| GMD100277 | 3/11/2013 | overseas | Milk |
| GMD100277 | 2/11/2013 | overseas | Milk |
| GMD100277 | 1/11/2013 | overseas | Milk |
| GMD100277 | 23/8/12-14/10/12 | overseas | Milk |
| GMD100277 | 14/03/2013 | overseas | Milk |
| GMD100277 | 13/03/2013 | overseas | Milk |
| GMD100277 | 12/03/2013 | overseas | Milk |
| GMD100277 | 12/03/2013 | overseas | Milk |
| GMD100277 | 11/03/2013 | overseas | Milk |
| GMD100277 | 9/03/2013 | overseas | Milk |
| GMD100277 | 10/03/2013 | overseas | Milk |
| GMD100277 | 10/03/2013 | overseas | Milk |
| GMD100277 | 11/03/2013 | overseas | Milk |
| GMD100277 | 9/03/2013 | overseas | Milk |
| GMD100277 | 8/03/2013 | overseas | Milk |
| GMD100277 | 7/03/2013 | overseas | Milk |
| GMD100277 | 7/03/2013 | overseas | Milk |
| GMD100277 | 8/03/2013 | overseas | Milk |
| GMD100277 | 6/03/2013 | overseas | Milk |
| GMD100277 | 7/03/2013 | overseas | Milk |
| GMD100277 | 5/03/2013 | overseas | Milk |
| GMD100277 | 5/03/2013 | overseas | Milk |
| GMD100277 | 6/03/2013 | overseas | Milk |
| GMD100277 | 4/03/2013 | overseas | Milk |
| GMD100277 | 3/03/2013 | overseas | Milk |
| GMD100277 | 1/03/2013 | overseas | Milk |
| GMD100277 | 2/03/2013 | overseas | Milk |
| GMD100277 | 1/03/2013 | overseas | Milk |
| GMD100277 | 28/02/2013 | overseas | Milk |
| GMD100277 | 26/02/2013 | overseas | Milk |
| GMD100277 | 27/02/2013 | overseas | Milk |
| GMD100277 | 26/02/2013 | overseas | Milk |
| GMD100277 | 25/02/2013 | overseas | Milk |
| GMD100277 | 24/02/2013 | overseas | Milk |
| GMD100277 | 22/02/2013 | overseas | Milk |
| GMD100277 | 21/02/2013 | overseas | Milk |
| GMD100277 | 19/02/2013 | overseas | Milk |

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| GMD100277 | 14/02/2013 | overseas | Milk |
| GMD100277 | 12/02/2013 | overseas | Milk |
| GMD100277 | 1/02/2013 | overseas | Milk |
| GMD100277 | 1/02/2013 | overseas | Milk |
| GMD100277 | 2/02/2013 | overseas | Milk |
| GMD100277 | 2/02/2013 | overseas | Milk |
| GMD100277 | 31/01/2013 | overseas | Milk |
| GMD100277 | 31/01/2013 | overseas | Milk |
| GMD100277 | 31/01/2013 | overseas | Milk |
| GMD100277 | 20/8/12-3/9/12 | overseas | Milk |
| GMD100277 | 30/08/2012 | overseas | Milk |
| GMD100277 | 23/08/2012 | overseas | Milk |
| GMD100277 | 21/08/2012 | overseas | Milk |
| GMD100279 | 2/05/2012 | overseas | Milk |
| GMD100279 | 2/05/2012 | overseas | Milk |
| GMD100279 | 29/09/2010 | overseas | Milk |
| GMD100279 | 29/09/2010 | overseas | Milk |
| GMD100279 | 29/09/2010 | overseas | Milk |
| GMD100277 | 28/02/2012 | overseas | Milk |
| GMD100277 | 29/02/2012 | overseas | Milk |
| GMD100277 | 1/03/2012 | overseas | Milk |
| GMD100277 | 2/03/2012 | overseas | Milk |
| GMD100277 | 3/03/2012 | overseas | Milk |
| GMD100277 | 4/03/2012 | overseas | Milk |
| GMD100277 | 5/03/2012 | overseas | Milk |
| GMD100277 | 6/03/2012 | overseas | Milk |
| GMD100277 | 7/03/2012 | overseas | Milk |
| GMD100277 | 8/03/2012 | overseas | Milk |
| GMD100277 | 9/03/2012 | overseas | Milk |
| GMD100277 | 10/03/2012 | overseas | Milk |
| GMD100277 | 11/03/2012 | overseas | Milk |
| GMD100277 | 14/10/2012 | overseas | Milk |
| GMD100277 | 23/8/12 - 8/9/12 | overseas | Milk |
| | | | |
| GMD100277 | 2/05/2013 | overseas | DNA |
| GMD100277 | 14/11/2014 | overseas | DNA |
| GMD100277 | 24/11/2014 | overseas | DNA |
| GMD100277 | 13/05/2019 | overseas | DNA |
| GMD100277 | 7/04/2016 | overseas | DNA |
| GMD100277 | 5/09/2018 | overseas | DNA |
| GMD100277 | 5/09/2018 | overseas | DNA |
| GMD100277 | 19/11/2012 | overseas | DNA |
| GMD100277 | 14/11/2016 | overseas | DNA |
| GMD100277 | 14/11/2016 | overseas | DNA |
| GMD100277 | 5/09/2018 | overseas | DNA |
| GMD100277 | 5/09/2018 | overseas | DNA |
| GMD100277 | 6/11/2017 | overseas | DNA |
| GMD100277 | 6/11/2017 | overseas | DNA |
| GMD100277 | 9/05/2013 | overseas | DNA |
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| GMD100277 | 9/05/2013 | overseas | DNA |
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| GMD100279 | 2/02/2016 | overseas | DNA |
| GMD100279 | 2/02/2016 | overseas | DNA |
| GMD100279 | 7/06/2018 | overseas | DNA |
| GMD100279 | 7/06/2018 | overseas | DNA |
| GMD100279 | 25/05/2018 | overseas | DNA |
| GMD100279 | 25/05/2018 | overseas | DNA |
| GMD100279 | 25/05/2018 | overseas | DNA |
| GMD100279 | 25/05/2018 | overseas | DNA |
| GMD100279 | 25/05/2018 | overseas | DNA |
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| GMD100277 | 11/08/2015 | overseas | RNA |
| GMD100277 | 11/08/2015 | overseas | RNA |
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| GMD100277 | 11/08/2015 | overseas | RNA |
| GMD100277 | 11/08/2015 | overseas | RNA |
| GMD100277 | 11/08/2015 | overseas | RNA |
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| GMD100277 | 9/05/2013 | overseas | Serum |
| GMD100277 | 9/05/2013 | overseas | Serum |
| GMD100277 | 9/05/2013 | overseas | Serum |
| GMD100277 | 9/05/2013 | overseas | Serum |
| GMD100277 | 9/05/2013 | overseas | Serum |
| GMD100277 | 17/05/2013 | overseas | Serum |
| GMD100277 | 17/05/2013 | overseas | Serum |
| GMD100277 | 17/05/2013 | overseas | Serum |
| GMD100277 | 17/05/2013 | overseas | Serum |
| GMD100277 | 17/05/2013 | overseas | Serum |
| GMD100277 | 26/02/2013 | overseas | Serum |
| GMD100277 | 26/02/2013 | overseas | Serum |
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| GMD100277 | 14/02/2013 | overseas | Serum |
| GMD100277 | 14/02/2013 | overseas | Serum |
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| GMD100277 | 12/12/2012 | overseas | Serum |
| GMD100277 | 19/11/2012 | overseas | Serum |
| GMD100277 | 19/11/2012 | overseas | Serum |
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| GMD100277 | 6/08/2015 | overseas | Tissue |
| GMD100277 | 6/08/2015 | overseas | Tissue |
| GMD100277 | 6/08/2015 | overseas | Tissue |
| GMD100277 | 6/08/2015 | overseas | Tissue |
| GMD100277 | 6/08/2015 | overseas | Tissue |
| GMD100277 | 6/08/2015 | overseas | Tissue |
| GMD100277 | 6/08/2015 | overseas | Tissue |
| GMD100277 | 11/02/2015 | overseas | Tissue |
| GMD100277 | 11/02/2015 | overseas | Tissue |
| GMD100277 | 11/02/2015 | overseas | Tissue |
| | | | |
| GMD100277 | 10/02/2015 | overseas | Tissue & Semen |
| GMD100277 | 10/02/2015 | overseas | Tissue & Semen |
| GMD100277 | 10/02/2015 | overseas | Tissue & Semen |
| | | | |
| GMD100277 | 20/01/2017 | overseas | Semen |
| GMD100277 | 20/01/2017 | overseas | Semen |
| GMD100277 | 20/01/2017 | overseas | Semen |
| GMD100277 | 12/07/2017 | overseas | Semen |
| | | | |
| GMD100277 | 11/05/2016 | overseas | Fixed cells |

**23 that has then been (i) exported overseas or United States.**