



The Science Inside

t +44(0)1980 950000  
e [dstlfoi@dstl.gov.uk](mailto:dstlfoi@dstl.gov.uk)  
w [dstl.gov.uk](http://dstl.gov.uk)

Dstl Porton Down  
G01 Bldg 5  
Salisbury  
Wilts  
SP4 0JQ  
United Kingdom

[REDACTED]

Our Ref: FOI 2021/04020

[REDACTED]

Date: 27 July 2021

[REDACTED]

Thank you for your email of 14 April 2021 requesting the following information:

**“I am writing to make a request under the Freedom of Information Act 2000, for information held by the Defence Science and Technology Laboratory (DSTL) which relates to animal research conducted under ASPA (Animals (Scientific Procedures) Act 1986.)**

- **Please advise me how many animals, and of which species, were subject to scientific research, covered by ASPA, in 2020.**
- **Please advise me of the specific purposes for which the procedures were conducted and also the severity classifications?**
- **Please also provide me with the AWERB (Animal Welfare and Ethical Review Body) minutes and reports from October 2020 to March 2021 inclusive**

**I am not interested in any information pertaining to people, places or intellectual property”.**

We wrote to you on 13 May 2021 advising that we were in the process of conducting a Public Interest Test (PIT) and that we would write to you no later than 14 June 2021, with the outcome of the PIT.



Ministry  
of Defence

- Please advise me how many animals, and of which species, were subject to scientific research, covered by ASPA, in 2020.

<b>Animals by species and year</b>		
<b>Common name</b>	<b>Species name</b>	<b>2020</b>
Mice	Mus musculus	1014
Pigs	Sus scrofa domestica	47
Marmosets	Callithrix jacchus	53
Rats	Rattus norvegicus	16
Guinea-pigs	Cavia porcellus	32
Hamsters (Syrian)	Mesocricetus auratus	30
<b>Total animals</b>		<b>1192</b>

- Please advise me of the specific purposes for which the procedures were conducted and also the severity classifications?

<b>Animals by purpose, observed severity and year</b>	<b>2020</b>					
	<b>Non-recovery</b>	<b>Sub-threshold</b>	<b>Mild</b>	<b>Moderate</b>	<b>Severe</b>	<b>Total</b>
<b>Basic Research</b>	23	0	174	17	45	259
<b>Translational/ Applied</b>	59	0	349	153	372	933
<b>Total animals</b>						1192

In respect of your request for copies of the AWERB (Animal Welfare and Ethical Review Body) minutes and reports from October 2020 to March 2021 inclusive, some of the information you have requested is attached.

However, some of the information falls entirely within the scope of the absolute exemptions provided for at section 40 (Personal Data), and the qualified exemptions provided for at section 24 (National Security), section 26 (Defence), section 27 International Relations), section 38 (Health and Safety) and section 43 (Commercial Interests) of the Freedom of Information Act (FOIA) and has been redacted.

Section 40(2) has been applied to some of the information in order to protect personal information as governed by the Data Protection Act 1998. Section 40 is an absolute exemption and there is, therefore, no requirement to consider the public interest in making a decision to withhold the information.

Section 24, 26, 27, 38 and 43 are qualified exemptions and are subject to public interest testing which means that the information requested can only be withheld if the public interest in doing so outweighs the public interest in disclosure.

Section 24(1) has been applied to some of the information because it contains details that are operationally sensitive and would prejudice the capability and effectiveness of our national security, and which would expose vulnerabilities in terms of current security risks that could be exploited by those with malicious intent.

We acknowledge that releasing this information would increase the public's understanding and confidence of the research for the UK and increase public understanding about research involved. The balance of public interest was found to be in favour of withholding the information given that, overall, the public is best served in not releasing any details on the research. For these reasons, we have set the level of prejudice against release of the exempted information at the higher level of "would" rather than "would be likely to".

Section 26 (1) (b) has been applied to some of the information because it contains details that are operationally sensitive and would prejudice the capability and effectiveness of our Armed Forces.

Whilst releasing the information would provide public awareness of the research work carried out for the future defence of the UK and confidence in associated countermeasures, the balance of public interest was found to be in favour of withholding the information that would prejudice the security of UK personnel and which would provide tactical advantage to our enemies. We have set the level of prejudice against release of the exempted information at the higher level of "would" rather than "would be likely to".

Section 27 (1) (a) has been applied because the information has the potential to adversely affect relations with our allies.

We acknowledge that releasing this information would further provide insight into the types of research conducted with other international states. The balance of the public interest test conducted that while release would increase public understanding and confidence with regard to the relationships the United Kingdom has with other international states, the balance of the public interest lay in withholding this information you desire. We have considered it necessary to apply the higher level of prejudice against release of the exempted information at the higher level of "would" rather than "would be likely to".

Section 38 (1) (a) (b) has been applied because some of the information has the potential to adversely affect the interests and welfare of our staff and suppliers involved in working with animals. Although disclosure would provide the bigger picture, the balance of the public interest lies in withholding this information because its release would very likely prejudice the health, safety and wellbeing of these individuals.

Section 43 (2) has been applied because some of the information relates to commercial interests. While releasing this information would allow the public to understand with which commercial companies and partners Dstl contracts involving the use of animals, the balance of the public interest lies in withholding this information because it has the potential to adversely affect future relationships with, and the commercial viability of, the companies with which Dstl contracts.

We have considered it necessary to apply the higher level of prejudice against release of the exempted information at the higher level of "would" rather than "would be likely to".

Under Section 16 of the Act (Advice and Assistance) we would like to advise the AWERB PPL minutes date is 5 November 2020 not 5 November 2021 as recorded, this is a typographical error.

If you have any queries regarding the content of this letter, please contact this office in the first instance

If you wish to complain about the handling of your request, or the content of this response, you can request an independent internal review by contacting the Information Rights Compliance team, Ground Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail [CIO-FOI-IR@mod.gov.uk](mailto:CIO-FOI-IR@mod.gov.uk)). Please note that any request for an internal review should be made within 40 working days of the date of this response.

If you remain dissatisfied following an internal review, you may raise your complaint directly to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not normally investigate your case until the MOD internal review process has been completed. The Information Commissioner can be contacted at: Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website at <https://ico.org.uk/>.

Yours sincerely

Dstl Secretariat



The Science Inside

Meeting name	AWERB for new PPL application. Toxic industrial chemical antidotes.		
Chair	[REDACTED]		
Date	05 Nov 2021		
Attendee Name (Initials)	Role within this AWERB	Attendee Name	Role within this AWERB
[REDACTED]	AWERB Chair	[REDACTED]	PPL Holder
[REDACTED]	NVS	[REDACTED]	No connection to PPL application (representing lay person)
[REDACTED]	Deputy NVS	[REDACTED]	Statistician
[REDACTED]	Scientist & applicant	[REDACTED]	Group Leader
[REDACTED]	PPL Holder	[REDACTED]	Project Manager
[REDACTED]	Scientist	[REDACTED]	Scientist
[REDACTED]	NACWO	[REDACTED]	Scientist
[REDACTED]	Scientist	[REDACTED]	Project Manager
[REDACTED]	No connection to PPL application (representing lay person)	[REDACTED]	Scientist
[REDACTED]	Team Leader & NACWO		
[REDACTED]	AWERB Secretary		

Agenda item	Description, discussion points, decisions and actions
Intro and welcome	Chair explained how these meetings function and the purpose of an AWERB for an application for a Project Licence (PPL).
Presentation by Applicant	The applicant explained the need for an antidote (medical countermeasure, MedCM), arising from the knowledge that the UK military may be exposed toxic industrial chemicals, for example

Ministry  
of Defence

Agenda item	Description, discussion points, decisions and actions
	<p>[REDACTED]</p> <p>[REDACTED] has been investigated in an animal model in pigs [REDACTED]</p> <p>[REDACTED] is proposed as improved MedCM because published data demonstrate preliminary efficacy in a model relevant to military exposure. The applicant presented some details of what is already known from this work and confirmed that they are in contact with the relevant groups, including [REDACTED]</p> <p>The PPL will use an anaesthetized pig model to develop a model of [REDACTED] exposure that is relevant to human military exposure, to determine the PK of proposed MedCMs and to determine the efficacy of MedCMs.</p> <p>NC3Rs experimental design assistant output was presented to show the proposed types of experiments on the PPL. Animal numbers and power calculations were presented and the applicant confirmed that they have sought and taken statistician advice.</p> <p>Animal impacts/ harms, the typical animal experiences and humane endpoints were discussed. Animal impacts/ harms proposed were oral administration of MedCM, general anaesthesia, surgical preparation to enable blood sampling and administration of MedCM via intravenous route, exposure to [REDACTED] whilst anaesthetized. The typical animal experience was presented as a non-recovery anaesthetic, preceded by oral administration of MedCM in some experiments. The non-recovery anaesthetic meaning that the pig would have no conscious experience after sedation and induction of anaesthesia. The endpoint proposed was based on publications of comparable models, animals to receive an overdose of anaesthetic if monitoring during anaesthesia indicates irreversible failure of the cardiovascular system.</p> <p>The data that will be generated were discussed including how they will be shared via publication.</p> <p>Replacement was discussed. The applicant confirmed that proposed experiments in the PPL have taken account of prior work with non-animal alternatives. For further progress with MedCM development, <i>in vivo</i> PK and efficacy data are required.</p> <p>Reduction was discussed. Applicant confirmed that animal numbers proposed include consideration of publications of other relevant models and statistician input.</p> <p>Refinement was discussed. Proposed that 75% of animals will have all adverse effects mitigated by non-recovery anaesthesia. 25% of animals will experience mild due to oral administration of MedCM, with the rest of the experiment being under non-recovery anaesthesia.</p>

Agenda item	Description, discussion points, decisions and actions
Discussions with actions for the applicant	<p>Discussion on the purpose of administering [REDACTED] with no medical countermeasure. <b>Action 1.</b></p> <p>Discussion on experimental model/ design for PK, including the quality of PK data obtained from animal that is anaesthetized and whether the PPL draft should be amended to carry out PK experiments in conscious animals; the order of experiments (PK data availability in relation to efficacy experiments); whether intravenous PK data can be used to model oral PK. <b>Action 2.</b></p> <p>Discussion on oral therapy including: the correct severity category to apply for where animals have oral therapy, then non-recovery anaesthesia; group size for oral therapy if variability is higher; would oral therapy be associated with any adverse effects. <b>Action 3.</b></p> <p>Discussion on anaesthesia, including likely duration, whether ventilator support would be required and fluid therapy. <b>Action 4.</b></p> <p>Discussion on regulatory approval for MedCMs showing efficacy. <b>Action 5.</b></p> <p>Text describing the humane endpoint in a non-recovery anaesthetized pig was agreed to be unclear. <b>Action 6.</b></p> <p>Query re has the current experimental design maximized opportunities to share controls and/ or make interim analyses. <b>Action 7.</b></p>
Questions to audience	<ul style="list-style-type: none"> <li>• Have/ do the aims and probability of achieving them justify the cost to the animal?</li> <li>• Was/ is use of live animals essential for these aims?</li> <li>• Was/ is the statistical approach satisfactory?</li> <li>• Was/ will the suffering of the animal be minimised?</li> <li>• Was/ will the work be scientifically sound?</li> <li>• Was / will there be veterinary input?</li> <li>• Was/ will there be other Named Person input (eg NTCO, NACWO).</li> <li>• Is there sufficient co-ordination between groups working in similar areas?</li> <li>• Has / will new knowledge result from use of live animals?</li> <li>• Has/ will the quantity of useful data be maximised and appropriately shared?</li> <li>• Has/ have any special ethical issues (eg use of primates) been considered appropriately?</li> </ul>
Outcome	<p>Decision was that the AWERB supports the application proceeding. Applicant needs to complete the agreed actions 1-7, following which the AWERB will review any significant changes to the proposed PPL text. Applicant also needs to consult with the NTCO.</p>

**Action list**

Action Ref	Details	Action owner	Status
1	Amend text to make it clear that the purpose of administering [REDACTED] with no MedCM is to determine what dose of [REDACTED] in an anaesthetized pig models human exposure.	Applicant	Complete
2	Revisit experimental design and consider if the PPL needs to include PK in conscious animals.	Applicant	Complete
3	Seek advice re correct severity category if this experiment type is retained; applicant to amend group size for oral therapy; applicant to make PPL text clear re any adverse effects from oral therapy.	Applicant	Complete
4	Seek veterinary advice/ advice from other PPL holders with anaesthetised pig models.	Applicant	Open
5	Discuss whether data are required to compare [REDACTED] to any current standards of care.	Applicant	Complete
6	Revise humane endpoint text.	Applicant	Complete
7	Discuss with statistician.	Applicant	Complete

**Notes**

Action list last updated: 30 Jan 2021.

<b>Meeting name</b>	<b>AWERB Animal Care and Use Meeting</b>	<b>Date:</b>	<b>06 Oct 2020</b>
<b>Chairperson:</b>	[REDACTED]	<b>Time:</b>	<b>13.00pm – 15.00</b>
<b>Location:</b>	<b>Jabber Teleconference</b>		
Attendees			
Name	Role	Name	Role
[REDACTED]	AWERB Chair	[REDACTED]	PPL holder
[REDACTED]	NVS	[REDACTED]	NACWO
[REDACTED]	Future PPL holder	[REDACTED]	PPL holder
[REDACTED]	NACWO	[REDACTED]	PPL holder
[REDACTED]	NACWO	[REDACTED]	TL for GAS
[REDACTED]	PPL holder	[REDACTED]	Future PPL holder
[REDACTED]	Deputy NACWO	[REDACTED]	PPL holder
[REDACTED]	NTCO	[REDACTED]	Future PPL holder
[REDACTED]	PPL holder	[REDACTED]	Deputy NVS
Apologies			
Name	Role		
[REDACTED]	AWERB secretary		
[REDACTED]	PPL holder		

Agenda item	Discussion points, decisions and actions
<b>Welcome and Introductions</b>	[REDACTED] welcomed all to the meeting.
<b>Review of previous minutes and actions</b>	Minutes and actions from the last meeting (June 2020) were reviewed. See list at end. Note it was decided that an interim meeting was not needed in Aug 2020. <b>Action 06/10/2020/01. AWERB Chair, to formally approve minutes from June 2020, AWERB Secretary to save and file. 2020100601.</b>
[REDACTED]	[REDACTED] called an extra meeting 30 Sept 2020, all PPL holders dialled in, to discuss business continuity for animal experiments in the context of COVID situation within the UK. [REDACTED] [REDACTED] [REDACTED]

Agenda item	Discussion points, decisions and actions
<p><b>Project licence Holders updates</b></p>	<p><b><u>PPL holder updates</u></b></p> <p>Received from [REDACTED] (future PPL), [REDACTED] (future PPL) [REDACTED] (future PPL). <i>In vivo</i> work in the context of COVID was discussed. PPL holders are all taking risk based approach, considering the need to follow COVID secure processes in the work place, ensuring training and competence, the need to optimise the possibility of changing experiment plans should workforce availability change and non <i>in vivo</i> workload [REDACTED]</p> <p>Examples were given on how risks are being managed: ordering smaller cohorts of animals; prioritising shorter duration experiments; avoiding two resource intense experiments side by side; pre planning alternative animal use should the planned use not be able to go ahead.</p> <p>[REDACTED] requested that future PPL holders be invited to this meeting.</p> <p><b>ACTION: [REDACTED] to use ASPEL to identify future PPL holders (applicants with a draft PPL) and ensure they are invited. 2020100602.</b></p> <p><b><u>PPL amendments and applications</u></b></p> <p>AWERB Chair requested that [REDACTED] (applying for a licence to replace that held by [REDACTED]) keeps in touch with AWERB re planning in a review date. <b>ACTION: [REDACTED] to plan provisional date with [REDACTED] 2020100603.</b></p> <p>[REDACTED] and [REDACTED] advised on progress with their PPL applications.</p> <p><b><u>3Rs</u></b></p> <p>Two things were highlighted. Recent experiment to determine potency of antitoxin, [REDACTED] PPL: checking regimen and refined humane endpoint has achieved application of an endpoint in 88% of the animals that were recorded as non-survivors, 12% of the non-survivors were found dead. In the context of a severe severity experiment supporting medical counter-measure development for a toxin with acute onset signs of toxicity, this is very positive progress.</p> <p>Recent refinement of technique used for animal handling during IV access in marmoset primates.</p> <p>[REDACTED] proposed that [REDACTED] PPL share their data on endpoints. NTCO added that this would ideally include discussion of measurement of body surface temperature (is it useful data for a humane endpoint?). <b>ACTION: [REDACTED] or PILs using his PPL to present data at a future meeting. 2020100604.</b></p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

Agenda item	Discussion points, decisions and actions
	<p><b><u>New models</u></b></p> <p>█ PPL, just completed work to establish a model of SARS-CoV-2 in mice, using adenovirus transfection to insert the human receptor for the virus, which make mice susceptible and therefore a valid model. Model development was shortened by publications being available on suitable methods.</p> <p>█ PPL, Future plans for a new model of SARS-CoV-2 in the marmoset, funded by █, financial aspects of the project under negotiation. PPL amendment in progress to permit transfection of marmoset with the human SARS-CoV-2 receptor. █ PPL also has future plans for a model of EEEV, PPL amendment in progress to permit the work and an ACURO will be needed.</p> <p><b><u>Timelines for PPL amendments</u></b></p> <p>This was discussed &amp; concluded time taken varies depending on complexity (eg 10 days – 6 weeks).</p> <p><b><u>Containment facility update</u></b></p> <p>█ and █ both highlighted a recent issue with █ meaning that proceeding with use of the facility needs HSE approval. We have 140 mice on site housed in █ due for use, currently housed as stock. NVS queried what the timelines are for HSE feedback/ any other actions. Decision taken that Friday 09 Oct is the next day to review use of these 140 mice and 2 future mouse orders.</p> <p><b>ACTION: █ and █ to review mouse orders by 09 Oct 2020. 2020100606.</b></p> <p>█</p> <p>█</p> <p>█</p>
<p><b>Named person updates</b></p>	<p>NACWOs and NVS confirmed no other matters to raise.</p> <p>NTCO updated re electronic training system prototype now in process of being built. <b>ACTION █ to ask for volunteers to test the system, ensuring a range of roles participate. 2020100607</b></p> <p>Chair raised question ASPA awareness for a range of roles. Agreed that previously the AWERB has highlighted the need for line management to have a good understanding of ASPA. In addition, this awareness useful for other roles eg H&amp;S, BM, WPM. NVS suggested we could use a set of slides. <b>ACTION: █ █ to discuss and propose some materials for role holders to use. 2020100608.</b></p>
<p><b>Welfare issues</b></p>	<p>Agreed no matters to raise.</p>

Agenda item	Discussion points, decisions and actions
AOB	<p>AAES process raised for awareness. [REDACTED] has used and feedback is not onerous process. Main activity will be for PMs to ensure projects keep records. <b>ACTION:</b> [REDACTED] to highlight to GL for [REDACTED]. 2020100609.</p> <p><b>ACTION: All, please give Chair feedback on how well meetings work, given that we have moved to Jabber as the meeting process. 2020100610</b></p>
Date Of Next Meeting	14 <sup>th</sup> January 2021 via Jabber, [REDACTED] to book 2020100611

### Actions list

Serial No.	Action Description [and update on progress]	Owner	Status
2020060201	[REDACTED] Completed.	[REDACTED]	Closed
2020060202	[REDACTED] to approve amendment to [REDACTED] Licence. Completed.	[REDACTED]	Closed.
2020060203	Review text in business continuity plans re whether of benefit to amend, learning from recent experience.	[REDACTED] [REDACTED]	Open
2020060204	[REDACTED] to put [REDACTED] licence application onto the new form in ASPEL	[REDACTED]	Open
2020060205	Access to telemetry supplier website. Completed.	[REDACTED]	Closed.
2020100601	Approve minutes of June 2020	[REDACTED]	Open
2020100602	Use ASPEL to refresh invitee list for this meeting, to include future PPL holders	[REDACTED]	Open
2020100603	[REDACTED] to book AWERB date	[REDACTED]	Open
2020100604	[REDACTED] or PIL holder for [REDACTED] PPL to present at a future meeting	[REDACTED]	Open
2020100605	[REDACTED]	[REDACTED]	Open
2020100606	Review mouse orders by 09 Oct 2020.	[REDACTED]	Open
2020100607	Volunteers to test the new electronic training system (variety of roles)	[REDACTED]	Open

Serial No.	Action Description [and update on progress]	Owner	Status
2020100608	Slide set, ASPA awareness eg for BMs.	[REDACTED]	Open
2020100609	Highlight of AAES process to PM GLs	[REDACTED]	Open
2020100610	Feedback to Chair on these meetings	All	Open
2020100611	Book next meeting for Jan 2021	[REDACTED]	Open

Meeting name	AWERB Animal Breeding Meeting		Date	25/03/2021
Chairperson	[REDACTED]	Time	13:00-14:30	
Location	Via Jabber			
Attendees				
Name	Role	Name	Role	
[REDACTED]	AWERB Chair	[REDACTED]	PPL Holder	
[REDACTED]	NVS	[REDACTED]	Team Leader	
[REDACTED]	NACWO	[REDACTED]	dNVS	
[REDACTED]	PPL Holder	[REDACTED]	NTCO	
[REDACTED]	PPL Holder	[REDACTED]	Home Office Inspector	
[REDACTED]	NACWO	[REDACTED]		
[REDACTED]	PIL holder	[REDACTED]		
Apologies				
Name	Role			
[REDACTED]	Group Leader			
[REDACTED]	AWERB Secretary			

Agenda item	Discussions, decisions and actions (actions to be recorded in the Actions section).
1. Welcome and Introductions	The Chair welcomed all to the meeting, including the Home Office Inspector, and facilitated brief introductions. The main purpose of this meeting is to continue to discuss supply and demand with users and those involved in managing breeding.
2. Review of previous minutes and action	Minutes of the previous meeting were agreed, and actions from previous meeting were reviewed (see below).
3. Marmoset supply	<p>The Chair led a discussion regarding marmoset supply and demand.</p> <p>Given the limitations of supply data captured via marmoset requirement form submissions, users were asked at the previous meeting to provide granularity to their requests. Some information has been provided but, due to bringing this meeting date forwards, not all information has been collated yet.</p> <p>The data that has been collected on current demand requirements was presented by [REDACTED] and is now accessible for meeting attendees. [REDACTED] also presented data on marmoset usage 2013-2020 which suggests an average usage of 74/year – this is in line with the previous general breeding goal of 70/year (when breeding at full capacity). Usage shows some peaks and troughs over years. [REDACTED] commented that there appears to be a higher demand coming in future years.</p> <p>There was discussion about different contracting approaches making planning difficult. E.g. the [REDACTED] approach where T&amp;Cs are pre-agreed and Dstl is put on contract based on capability, but does not control when tasks may be</p>

Agenda item	Discussions, decisions and actions (actions to be recorded in the Actions section).
	<p>requested (though there is the ability to reject task requests) [REDACTED]</p> <p>[REDACTED] commented that [REDACTED] is available; the supply of marmosets needs to be understood to support a response to this. All of this means we need to refine our approach to supply and demand based on new ways of working.</p> <p>[REDACTED] It was agreed that consideration of longer commitments to contracting would be helpful given that it takes two years to breed marmosets. Understanding of the supply and demand issues by [REDACTED] and customers remains a requirement. Action remains to produce customer document and engage with [REDACTED]. NVS to share information and discuss context with [REDACTED] by end June.</p> <p>In order to consider a return to full breeding, up to date information is required, with additional granularity over contracting status, etc. It was agreed that information would be provided and meeting will be held in one month to discuss this further.</p>
<p><b>4. Marmoset demand</b></p>	<p>Discussed as part of agenda item 3.</p>
<p><b>5. Welfare and 3Rs</b></p> <p><b>Including updates from NVS and NACWO</b></p> <p><b>3Rs updates</b></p>	<p>[REDACTED] highlighted previous work presented by Dstl staff member at [REDACTED] meeting, which shows Dstl's achievement with 3Rs. [REDACTED] to circulate to attendees.</p> <p>No additional NVS or NACWO updates other than supply and demand issues already discussed.</p> <p>No welfare issues reported.</p>
<p><b>6. AOB</b></p>	<p>[REDACTED] suggested that NACWOs from [REDACTED] could be invited to attend – to offer considerations and maintain awareness. Agreed. Action – to invite.</p>
<p><b>7. Date of next meeting</b></p>	<p>TBC. Next meeting to be held in approximately 1 month to review up to date supply and demand data.</p>

## Actions

Action description and updates	Owner	Status
<p>23 Sep 2020: Migration of health records for marmosets to electronic format.</p> <p>Update 25 Mar 2021: Next stage is to evaluate how electronic training record migration works, then to consider applicability to marmoset files. Keep open.</p>	[REDACTED]	Open
<p>23 Sep 2020: NVS to provide written documentation that helps customers understand the complexities of marmoset breeding and what information is needed by the breeding unit to manage supply.</p> <p>Update 25 Mar 2021: NVS described a plan to provide information on responsible use of primates and suggested sharing a Research Council document as a starting point. [REDACTED] to prepare skeleton document by end June, and will coordinate input from others thereafter.</p>	[REDACTED]	Open
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>Update 25 Mar 2021: Some information collected but due to bringing this meeting forwards, not all information has been collated yet. Aim to complete in next month. Keep open.</p>	[REDACTED]	Open
<p>27 Jan 2021: [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	[REDACTED]	Closed
<p>27 Jan 2021: Breeding unit to update documents held on veterinary care of marmosets to record that for any animal experiencing 2 caesarian sections, breeding control injections will be then be used to try to prevent further pregnancies.</p> <p>Update 25 Mar 2021: [REDACTED] updating guide for technicians and [REDACTED] is updating veterinary surgeon care guide. Action closed.</p>	[REDACTED]	Closed
<p>27 Jan 2021: AWERB Secretary to include deputy NACWOs in meeting invitations.</p> <p>Update 25 Mar 2021: Action closed.</p>	[REDACTED]	Closed
<p>25 Mar 2021: AWERB Secretary to include NACWOs for [REDACTED] in meeting [REDACTED].</p>	[REDACTED]	New
<p>25 March 2021: Circulation of Dstl's 3Rs work presented at external meeting to be circulated to attendees</p>	[REDACTED]	New

Meeting name	AWERB Animal Breeding Meeting		Date	25/11/2020
Chairperson	[REDACTED]	Time	12.30pm	
Location	Via Jabber Call			
<b>Attendee's</b>				
<b>Name</b>	<b>Role</b>	<b>Name</b>	<b>Role</b>	
[REDACTED]	AWERB Chair	[REDACTED]	PPL Holder	
[REDACTED]	NVS	[REDACTED]	PPL Holder	
[REDACTED]	AWERB Secretary	[REDACTED]	PIL Holder	
[REDACTED]	Group Leader			
[REDACTED]	Deputy NVS			
[REDACTED]	NACWO			
<b>Apologies</b>				
<b>Name</b>	<b>Role</b>			
[REDACTED]	PPL Holder			
[REDACTED]	NACWO			
[REDACTED]	Team Leader			

<b>Agenda item</b>	<b>Discussions, decisions and actions (actions to be recorded in the Actions section).</b>
<b>Welcome and Introductions</b>	The Chair welcomed all to the meeting.
<b>Review of previous minutes and actions</b>	See below.
[REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]
<b>Named person updates</b>  NACWO NVS	<p><b>a) <u>NACWO Update:</u></b></p> <p>No matters to raise outside of today's focus (return to breeding, see below)</p> <p><b>b) <u>NVS Update:</u></b></p> <p>No matters to raise outside of today's focus (return to breeding, see below)</p>

Agenda item	Discussions, decisions and actions (actions to be recorded in the Actions section).
<p><b>Marmoset supply and demand update</b></p>	<p>A proposal to return more pairs to breeding was discussed (breeding has been kept to minimal numbers recently following prediction that supply would exceed demand). Discussion points were: the need to have future breeders (for colony genetics) and for those breeders to have rearing experience; the age profile for breeders and predicted need for replacements; ensuring marmosets are available for scientific use.</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>Any additional breeding to be reviewed in consultation with animal users presenting demand data, next meeting planned for Jan 2021.</p>
<p><b>Welfare Issues</b></p>	<p>None raised.</p>
<p><b>AOB</b></p>	<p>PPL holders for licences that use marmosets to be routinely invited to AWERB Breeding.</p>
<p><b>Date of next meeting</b></p>	<p>TBC, [REDACTED] to arrange.</p>

**Action list**

Description and updates	Owner	Status
[REDACTED]	[REDACTED]	Closed 25 Nov 2021
<p>21 Jul 2020: NVS to have discussions with Programmes Office re improving supply and demand management.</p> <p>Update 25 Nov 2021: Action complete. Agreed standing agenda item on supply and demand at AWERB Breeding meeting and PPL holders to be routinely invited.</p>	[REDACTED]	Closed 25 Nov 2021
<p>21 Jul 2021: AWERB secretary to liaise with NACWOs for future meeting dates and times</p> <p>Update 25 Nov 2021: completed, meeting times will be in the afternoons to facilitate NACWO attendance.</p>	[REDACTED]	Closed 25 Nov 2021
<p>23 Sep 2021: NVS raised the issue of future migration of paper history files for marmosets to electronic format. Consideration is COTS software versus bespoke. First step is a statement of requirement.</p> <p>Update 25 Nov 2021: keep open.</p>	[REDACTED]	Open
<p>23 Sept 2021: NVS to inform AWERB Chair if any delays expected for the planned external supply.</p> <p>Update 25 Nov 2021: no longer required. No delays, supply complete.</p>	[REDACTED]	Closed 25 Nov 2021
<p>23 Sept 2021: At end of October 2021, breeding unit to engage with PPL holders on future demand.</p> <p>Update 25 Nov 2021: action can be closed as there is now a regular Agenda item on supply and demand at this meeting and PPL holders will be invited to all meetings in future.</p>	[REDACTED]	Closed 25 Nov 2021
<p>23 Sept 2021: NVS to provide written documentation that helps customers understand the complexities of marmoset breeding and what information is needed by the breeding unit to manage supply.</p> <p>Update 25 Nov 2021: keep open</p>	[REDACTED]	Open

<b>Meeting name</b>	<b>AWERB Animal Breeding Meeting</b>	<b>Date</b>	<b>27th January 2021</b>
<b>Chairperson</b>	[REDACTED]	<b>Time</b>	<b>12:30-14:00</b>
<b>Location</b>	<b>Via Jabber</b>		
<b>Attendees</b>			
<b>Name</b>	<b>Role</b>	<b>Name</b>	<b>Role</b>
[REDACTED]	Chair	[REDACTED]	PPL Holder
[REDACTED]	NVS	[REDACTED]	PPL Holder
[REDACTED]	NACWO	[REDACTED]	NTCO
[REDACTED]	Team Leader	[REDACTED]	
[REDACTED]	dNVS	[REDACTED]	
[REDACTED]	PPL Holder	[REDACTED]	PIL Holder
<b>Apologies</b>			
<b>Name</b>	<b>Role</b>		
[REDACTED]	AWERB Secretary	[REDACTED]	Group Leader

<b>Agenda item</b>	<b>Discussions, decisions and actions (actions to be recorded in the Actions section).</b>
<b>Welcome and Introductions</b>	The Chair welcomed all to the meeting. The main purpose for this meeting is to discuss supply and demand with wider community as agreed in Nov 2020.
<b>Review of previous minutes and actions</b>	Actions from previous meeting were reviewed (see below).
<b>Marmoset supply and demand</b>	<p>NVS led a discussion to inform all attendees of the current position with supply and demand, including the timelines, planning and process for managing supply and demand. Current position, based on current knowledge (firm and tentative requirements), is that supply will not meet demand [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED] It was highlighted that some types of studies (e.g. dose-ranging) are challenging in planning for usage accurately as final usage depends upon initial results. A further point was raised that the demand appears to be somewhat cyclical, whereby a period of time with 'lower' demand is often followed with a period of 'higher' demand; this may be influenced by contracting cycles, for example.</p>

Agenda item	Discussions, decisions and actions (actions to be recorded in the Actions section).
	<p>It was agreed that, in order to support planning of supply [REDACTED]  [REDACTED]  [REDACTED]  [REDACTED]  [REDACTED]</p> <p>Furthermore, stakeholder management could be improved to help align supply and demand. Flexibility within contracts with customers could be considered further, for example.</p> <p>Actions arising from the discussion are captured in the list below.</p>
<p><b>Named person updates</b></p> <p><b>NACWO</b></p> <p><b>NVS</b></p>	<p><b><u>NACWO Update:</u></b></p> <p>[REDACTED] informed attendees that [REDACTED] is to be deputy NACWO for the [REDACTED].</p> <p><b><u>NVS Update:</u></b></p> <p>[REDACTED] informed attendees that there had recently been need to conduct two caesarean sections in animals giving birth. It was proposed that these two animals are not allowed to be bred from intentionally again due to the increased risks associated (they have both had two caesarian sections). This was discussed resulting in agreement to the proposal.</p> <p>Actions are captured in the list below.</p>
<p><b>Welfare update and 3Rs.</b></p>	<p>No welfare issues to raise.</p> <p>No 3Rs matters to raise or highlight.</p>
<p><b>AOB</b></p>	<p>No AOB was raised.</p>
<p><b>Date of next meeting</b></p>	<p>Next meeting to be scheduled for April (TBC).</p>

**Action list**

Description and updates	Owner	Status
<p>23 Sep 2020: NVS raised the issue of future migration of paper history files for marmosets to electronic format. Consideration is COTS software versus bespoke. First step is a statement of requirement.</p> <p>Update 27 Jan 2021: keep open</p>	<p>[REDACTED]</p>	<p>Open</p>
<p>23 Sept 2020: NVS to provide written documentation that helps customers understand the complexities of marmoset breeding and what information is needed by the [REDACTED] to manage supply.</p> <p>Update 27 Jan 2021: keep open</p>	<p>[REDACTED]</p>	<p>Open</p>
<p>[REDACTED]</p>	<p>[REDACTED]</p>	<p>New</p>
<p>[REDACTED]</p>	<p>[REDACTED]</p>	<p>New</p>
<p>27 Jan 2021: [REDACTED] to update documents held on veterinary care of marmosets to record that for any animal experiencing 2 caesarian sections, breeding control injections will be then be used to try to prevent further pregnancies.</p>	<p>[REDACTED]</p>	<p>New</p>
<p>27 Jan 2021: AWERB Secretary to include deputy NACWOs in meeting invitations</p>	<p>[REDACTED]</p>	<p>New</p>