Home Office

PPL Standard Condition 18 Notification Form

Please use this form to notify the Animals in Science Regulation Unit (ASRU) of procedural-related adverse effects that have exceeded or are likely to exceed the severity limitations or controls described in the project licence. ASRU will use this information to determine whether any further action is required.

Do not use to report:

- adverse effects that are due to non-procedural issues;
- potential non-compliance (report by other means);
- issues without adverse welfare consequences.

If you are in doubt whether or not you need to fill in this form, please contact your assigned Inspector.

Please clearly title your document: **'ASRU_establishment name_PPL number_PPLh surname_date_sc18'** and send to your Inspector (e.g. using cjsm) with the subject heading 'PPL SC 18 Notification PPL [Number] – **Check Home Office's Updated Bridging Ways of Working for updated advice on email addresses and subject headings. Cjsm no longer necessary.**

Establishment Licence name	University of Cambridge
Establishment Licence number	X81BD37B1
Name of PPL holder	Elisa Galliano
PPL number	PP0165908
Protocol no	8
Protocol title	Neonatal/adult injection, with/without electroporation, with optional modulation of neuronal activity
Severity classification	Moderate
1. Date of incident	25.01.2024
2. Species	Mouse

3. Brief details of study and how the limits or constraints have been breached	The study entailed stereotaxic injections in the brain of two genetically modified mice to express a modulator of neuronal activity in specific brain cells. The experimenter has extensive experience in this type of surgery from their previous work, they competed the mandatory PIL A-C training, and they have received full training for this specific facility (induction and shadowing of other experienced users). Given the location of the target brain area (olfactory bulb) which is very close to the nose, the procedure was performed using injectable anaesthesia (ketamine and xylazine) instead of inhalation anaesthesia (isoflurane). This is to maintain sterility around the incision while properly accessing the brain. In both animals we did not manage to start the surgery because five/ten minutes after inducing anaesthesia the animals suddenly stopped breathing and died during the prep time (fur shaving, eye lubricant application, securing to stereotaxic table, etc.). In fact, the second animal did not even leave the prep room.
4. Have you taken advice from the Named Animal Care and Welfare Officer/Named Veterinary Surgeon/others?	Given the controlled substance status of ketamine, the NVS was present for the entire duration of the procedure. They advised on the dosages using standard recommended figures. They commented on the fact that the experimenter performed all steps (i.p injection of the anaesthetic, mouse handling, surgery area preparation) exemplarily, and they were very surprised that this occurred.
5. Cause of Problem, if known	The animals, which were siblings from the same litter, overdosed before any surgical procedure was started. They displayed no signs of suffering or distress; they went to sleep and never woke up.
6. Action that has been or will be taken *(For example, formulation of drug changed, supportive treatment given, study design modified). If no action needed, indicate why (for example, none required as study has been terminated and will not be repeated)*	As per NVS advice, we will (a) order new bottles of both ketamine and xylazine and dispose of the ones that we used; (b) lower the dose of ketamine to the lower border of the recommended range; (c) use animals from different litters; (d) perform again the next surgery in the presence of the NVS who will once more supervise the entire process.
7. Reported by (name)	Elisa Galliano

8. Date	25.01.24

**********************************For official use***

Inspector's comments and recommendations:

Comments and recommendations	
Inspector name	
Date	