

## Mouse aggression study – Frequently asked questions

### General

#### 1. Are there comments boxes on the Excel spreadsheet?

Yes, there are comments boxes that should appear when you open the Excel file which contain some additional tips on how to complete each sheet. The ability to see the comments may depend on your settings on Excel. In addition, the [video tutorial](#) provides background information on the aims of the study, together with step-by-step instructions on how to collect and submit data. A written version of the instructions is given [here](#). Email [MouseAggressionStudy@nc3rs.org.uk](mailto:MouseAggressionStudy@nc3rs.org.uk) if you have any further queries.

### Section A3 – injury log

#### 2. Should we record any cases of male aggression to female mice on the spreadsheet?

No, we would like you to only record information on **all** cases of aggression-related injury to **group-housed male mice (defined as one male mouse housed with at least one other male mouse) in your facility during your Data Collection Period**. For clarity, injuries to mice in cages containing male and female mice (i.e. mating cages) should not be included in the study.

#### 3. Do we document mice that have already had aggression related incidents within the facility in the Data Collection Period or only new aggression incidents that arise?

In section A3, we would like you to record **all incidents of aggression-related injury to group-housed male mice (defined as one male mouse housed with at least one other male mouse) in your facility during your Data Collection Period**. If you note that these incidents involve mice that may have previously been injured before the Data Collection Period due to aggression or shown aggressive behaviour, please add a comment to the spreadsheet to state this observation.

**For each mouse injured due to aggression during the Data Collection Period, you are asked to observe for seven days following the report of the injury and to note if the action you took was effective in minimising further injury to the mice in the cage. If a mouse is injured and logged, and then presents again with a fresh injury after the seven day follow up period but still within the Data Collection Period, then log the mouse again as a new entry and make a note in the comments section that this mouse has previously been injured within the Data Collection Period.** Please ensure that it will be possible to trace the repeated incident (this is important if the mouse is identified by for example marker pen and/or the cage identifier has changed since the first incident).

#### 4. Would you like technicians to record all incidents of aggression, such as when they see a couple of mice in a cage fighting, or only when a visible injury is inflicted?

The study is geared towards recording injuries caused by aggression rather than behavioural observations so we would like you to **record cases where you observe injuries that are likely to be due to aggression**. However, in column AS, **you can record if you have observed any behavioural disturbances in the cage of an injured mouse prior to or at the time of injury** (add any additional comments such as date of observation of behavioural disturbance in column AW). A good way to approach this would be to make a note of mice that you do observe fighting/behavioural disturbances and then you can include these observations in column AS if any of these animals go on to present with subsequent injuries.

Whilst we do not want you to log on the spreadsheet incidents where you only see fighting but no visible injury, what would be highly relevant to the study would be to **know about any action you decide to take when you see fighting in a cage before you see any physical injuries** (for example, if you add further enrichment) and if your actions prevent further escalation of the situation. As such, please feel free to provide additional data regarding any real-time observations on this at the time you submit the main study data. This could be a summary of the number of observations of fighting, interventions made and the number of mice that actually report with injuries from this cohort over a seven day follow up. Your Facility Manager may wish to provide this information in the email in which the completed spreadsheet is sent to the NC3Rs at the end of your Data Collection Period. This data isn't part of the main study but if you would like to provide this information, it would certainly be of interest.

#### 5. Should I add details on the aggressor mouse?

Sheet A3 of the spreadsheet is geared towards recording details any injured male mouse that has been group-housed with other male mice. If more than one mouse in a cage presents with injury, each mouse should be recorded on a separate row.

If you have **identified the aggressor mouse, there is opportunity to add comments on the aggressor mouse** in columns AI, AO, AR, BE or any of the other comments column in sheet A3. For example, if the aggressor is much bigger in size than the other mice, you may wish to record this in column AI. In addition, in column AV, you are asked what actions you take to minimise further injury and the drop down options include 'remove the bully', 'cull the bully' etc but you can also add further comments in column AW. The more information you can provide the better!

### **Section A4 – total numbers of mice**

#### 1. When logging the total number of mice in section A4, do we exclude singly housed males and males which are set up in breeding pairs?

In section A4, we would like you to record the total number of **ALL GROUP-housed male mice** in your facility during the Data Collection Period so that we can calculate the percentage of the group-housed male mice that get injured during the Data Collection Period (as logged in section A3). For clarity, as the study is focused on group-housed male mice, **single-housed males and males in a breeding pair should be excluded from the numbers.**

#### 2. Do we include all of the strains of mice that are housed within our facility within the A4 section of the spreadsheet? Or only the strains that show aggression related incidents during the data collection time?

Please provide a breakdown of the **numbers of group-housed male mice of each strain**, if possible. **Even if no mice from a particular strain have been involved in an aggression-related incident during the Data Collection Period, the number of mice of that strain housed at the facility during the Data Collection Period should be recorded.**

If you have **mice on the same background strain but they are genetically altered animals, we ask that you provide the background strain and then group the different modifications on the same background strain in the same entry** i.e. we are not asking for the entire breakdown of different mutations of mice you may house if they are all on a C57/BL6 background, for example.