Predicted lifetime experiences (not including procedures, which are addressed in sheet 2)

Project licence number	7076/54
Protocol number	1

Factor	Experience of the animal	Welfare issues	Ways of mitigating these
Sourcing	Mice are bred in-house. Supply and demand are carefully matched and animals provided with litter, nest boxes and nesting material. Cages are cleaned weekly.	Distress due to separation of dam and pups at weaning.	Ensure removal from dam is appropriately timed and keep litters together wherever possible. Review frequency of cage change (e.g. fortnightly?) to ensure cage is sufficiently clean but with minimal disturbance.
Transport	Once, between rooms within the same building before procedures begin.	Stress and anxiety due to movement.	Move in home cages, minimise distance, think about timing, ensure sufficient time to recover before any other interventions or procedures.
Marking for identification	Animals are identified using microchips, which involves capture and restraint for insertion.	Distress due to restraint, short term pain of chip insertion.	Trial less aversive capture techniques (see below). Research pros and cons of sedating or anaesthetising mice. Ensure adequate checks in case of longer term discomfort.

Biopsy for genotyping	N/A		
Housing and environment	Mice are housed in groups of 3 in standard mouse cages with litter, refuges, nesting material and chew blocks.	Space restrictions in standard size caging.	House mice in (empty!) rat cages to provide more space.
Husbandry and care	Cages are cleaned weekly.	Some fighting observed, especially in males, after cage cleaning.	Trial transferring some litter (not nesting material) from the soiled to the clean cage. Supply males with extra nesting material and remove refuges. Review cage cleaning intervals.
Capture, handling and restraint	Mice are caught and restrained by the tail.	Research indicates that this is distressing and causes anxiety.	Catch mice in cupped hands or tunnel – see NC3Rs resource.
Humane killing	Moved within home cage to chamber where they are exposed to a rising concentration of carbon dioxide.	Stress of being moved to chamber. Distress due to 'air hunger' as concentration increases.	Move to anaesthetising with minimally invasive gaseous agent before switching to CO_2. Research possibility of introducing CO_2 into home cages if housed in IVC.

Note: This sheet should be edited and tailored to the species and different factors that may apply under different circumstances. Factors may need to be added, edited or deleted.