



Questions and answers from the CRACK IT Challenge 49 Rodent Shelter Launch webinar

Questions related to eligibility and the application process are covered in the Single Phase Challenges [Guide for Participants](#).

1. What are the current methods for the post-operative care and monitoring of rodents?

Post-operative care is critical to aid recovery and minimise any pain and distress. This includes providing thermal support to mitigate against the risk of hypothermia. Warmth is provided by externally powered heat pads placed underneath the cage. However, this limits the cage type that animals can recover in since heat pads are incompatible with cages kept in racks such as individually ventilated cages. Rodent behaviour and vital signs are closely monitored post-surgery and enrichment items are often removed to avoid injuries and enable better monitoring. There is a need to develop a shelter which provides warmth and a means to monitor rodents to improve the housing environment and monitoring of rodents post-surgery. Further information about current methods for the post-operative care and monitoring of rodents can be found in the Rodent Shelter [Challenge brief](#).

2. Can you provide an estimate of the cost you would pay per shelter (what do you consider to be affordable)?

Around 100 – 200 euros for the basic shelter providing a source of warmth, with the option to purchase the modular component at an additional cost which could be added on to the basic shelter to remotely monitor the animals.

3. Should the shelter go inside or be attached to the cage?

The shelter should go inside any type of cage.

4. Are there any specific considerations applicants should be aware of when developing the approach for both mice and rats?

There is a size difference between mice and rats and we need one size of shelter for mice and another size of shelter for rats.



5. What cleaning procedures does the device need to withstand?

The types of procedures that are typically used include cleaning via a dishwasher or autoclave.

6. Do you have an idea of the market size for the shelter?

The shelter would have broad applicability across the bioscience sector where surgical animals are used including academic, contract research organisations and the pharmaceutical industry. It could also be used in veterinary clinics in the care of small pets.

7. Do rodents need to be able to move freely between the shelter and the cage?

Yes, rodents need to be able to move freely between the shelter and the cage.

8. Will the shelter be used for both individually housed and group-housed rodents?

Yes, the shelter should be applicable for both individually housed and group-housed rodents. A desirable deliverable is the ability to obtain individual animal data from group-housed rodents in their home cage.

It is encouraged that applicants discuss their proposed approach with the Challenge Sponsors. If you would like to be introduced to the Sponsors before the submission deadline please contact the CRACK IT team at crackitenquiries@nc3rs.org.uk