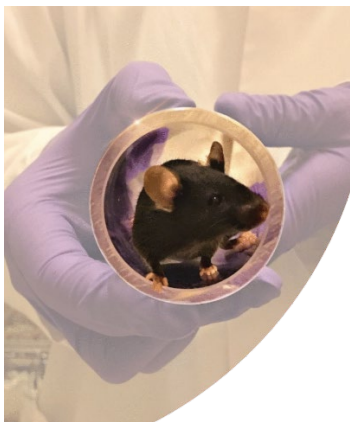


Mouse tube or tunnel handling at RRSSC

Research has shown that picking mice by their tails induces aversion and high anxiety levels, as assessed by a range of measures that can be minimised by using a tunnel or cupped hands instead.

Fourteen years ago, two scientists from the University of Liverpool, Jane L. Hurst & Rebecca S. West, were the first to publish data showing that picking up a research mouse by its tail during cage cleaning or experiments induces stress and aversion to human contact. Since then, researchers from multiple institutions have provided substantial evidence that tail handling disrupts the mental well-being of mice, with some studies suggesting that it could also affect the reliability of behavioural studies.



A mouse in the tunnel

In the Netherlands, Elke Schmitz and Noa van Leuffen established a training programme for animal caretakers, researchers, and technicians. Monique Janssens from "Ethisch Bedrijf" organised the training. Due to their full-time jobs, Elke and Noa had to discontinue the training.

There are two primary refinement methods that laboratories employ to reduce animal stress during handling. One involves the use of polycarbonate tunnels measuring five centimetres in width by 10–15 centimetres in length. The tubes are held alongside the cage wall. Often, because mice prefer tight, enclosed spaces, they run straight down the tunnel. If not, the handler can gently guide the mouse into the tunnel with their other hand. Once the mouse is inside, the tunnel is lifted, and the mouse is transferred to its next location. This method is generally easy for less-experienced handlers to learn and is especially beneficial for jumpy or aggressive mice.

Another technique is more low-tech, involving picking up mice with cupped hands. This method requires no equipment but does need some training. It is best suited for slightly calmer mice, as well as for pups, young weanlings, larger or older mice, or mice with delicate implants. Researchers who have studied these techniques have found that animal handlers can quickly adapt to tunnel handling and, after a few brief training sessions, to cupping.

Starting from the end of 2025, RRSSC has embraced this training. We are very enthusiastic about the course and hope to train many customers in this refinement technique.