



In vivo Procedures Involving Radioactive Materials in Lab Animals

These conditions must be met to perform experiments in which lab animals are labeled/injected with radioactive material:

1. In vivo radioactive material studies performed with lab animals must be permitted by your Principal Investigator's Radiation Use Authorization (RUA), and the persons performing the studies must be listed as authorized, trained personnel on the RUA.
2. All lab animal use will be conducted as approved by the *UC Irvine Institutional Animal Care and Use Committee*, and persons performing the work need to be enrolled in the *Laboratory Animal Occupational Health Program* (it can be accessed at the web link below):
<https://research.uci.edu/animal-care-and-use/training/laboratory-animal-occupational-health-program/>
3. In vivo radioactive material studies need to be performed in rooms listed as authorized locations on the RUA. After being radiolabeled, the animals must be kept in those authorized locations. *Radiolabeled animals must not be taken to the vivarium unless specific authorization for this has been granted by EHS Radiation Safety (very rarely allowed).*
4. Cages containing radiolabeled animals and all potentially contaminated empty cages will be kept on absorbent plastic-backed paper and will be posted with radioactive material caution labels.
5. Contaminated animal carcasses and tissue will be placed in double plastic storage bags, labeled with radioactive material caution labels, and kept in labeled radioactive material storage areas (freezers, etc.). Online radioactive waste pickup requests can be submitted at the web link below:
<https://app.smartsheet.com/b/form/3ff1b98f0e5f48c7875f304aa9ee1fed>
6. Radioactive excreta and bedding (sawdust, etc.) will be packaged separately from the animal tissue for disposal as radioactive waste in double plastic bags. These bags can then be disposed of in a dry radioactive waste box.
7. Contaminated animal waste containing only ^3H and/or ^{14}C in a concentration less than 0.05 uCi/gram will be kept in bags separate from all other waste.
8. Decontaminate cages after use and place any contaminated cleaning materials into radioactive waste. *Formula 409* works well for decontamination, or one of the specialty cleaners can be used (*Radiacwash*, *Radcon*). Perform a wipe test to make sure the cages have been sufficiently decontaminated. Decontaminate all other potentially contaminated items like surgery tools also.

If you have any questions, please email Radiation Safety at radsafety@uci.edu.