### Purpose
This SOP defines institutional standards required at the University of Pittsburgh in the maintenance of medical records for rodents (see Applicability below).

### Background
The maintenance of specific medical records on bred for research rats & mice is not mandated by the United States Department of Agriculture (USDA) under the Animal Welfare Act, nor is it required by the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals or the National Research Council’s (NRC) Guide for the Care and Use of Laboratory Animals, although the latter document, in conjunction with previous NRC reports do emphasize the importance of accurate recording of the strain, sub-strain and/or specific genetic backgrounds (via standard nomenclature) of animals used in research projects.

In order to assure a satisfactory level of humane care and meet current standards in the field of laboratory animal science & expectations of oversight and accrediting bodies such as the Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC International), it is necessary to maintain a basic level of record keeping requirements for these species. Furthermore, the American College of Laboratory Animal Medicine (ACLAM), in a 2004 Policy Statement on Medical Records for Research Animals, has recommended the maintenance of (group) health records for rodents. Some aspects of medical record keeping requirements at this institution have already been described in the University of Pittsburgh Policy Guidelines for Surgery. This SOP will expand on those requirements.

### Applicability
The requirements specified in this SOP for the maintenance of medical/health records apply to all rodent species (including bred for research rats & mice and AWA-covered rodent species such as guinea pigs, hamsters and gerbils). The last section of this SOP defines recordkeeping procedures required only for those rodents regulated by the Animal Welfare Act (e.g., these additional requirements are not applicable to rats and mice that were purpose-bred for research).

Medical record keeping requirements for AWA covered “Large” species such as rabbits, cats, dogs, nonhuman primates, pigs, horses and large & small ruminants are described in the University of Pittsburgh SOP – Medical Record Keeping Requirements – Large Animals.
Procedures
The Principal Investigator (or his/her designee) is required to maintain the following documentation:

Medical Record Documentation at the CAGE LEVEL:

1) Documentation of all surgical/ invasive manipulation and protocol specified therapeutic peri-operative treatment:

   a. Logbook: The primary record-keeping tool for the small animal investigator is a logbook or bound notebook. Every rodent procedure or surgery must be documented. For batches of rodent procedures, a group logbook can be maintained. For high-risk procedures, information for each rodent must be maintained in a logbook or in a separate animal record. All animal use records must be readily available during regular business hours for review. If you have any questions, contact a DLAR Veterinarian.

   b. Cage card: Identifying cage cards must be maintained on all animal cages. These cards must be completely filled out, noting the date of arrival, strain, source, investigator’s name and protocol number. The DLAR will provide completed cage cards when animals arrive at the facility. Each PI however must check the cards for accuracy and completeness. If an error has been made, the PI is responsible for correcting it. Contact the DLAR facility supervisor if you have questions or concerns.

   c. Rodent surgery/Procedure card: Every surgical or invasive procedure must be documented by the investigator or their staff on a blue Rodent Surgery/Procedure card (provided by the DLAR). This blue card is placed on the animal’s cage behind the standard identifying card and provides a highly visible indicator to the DLAR staff of recent manipulations. The information on the blue card enables the DLAR to provide more intensive and direct follow-up assessments for the animals.

   On one side of the blue card the investigator must list the procedure performed, the initials of the individual who performed it, the date and the number of animals in the cage that were manipulated (including their specific identification – when available). The other side of the card serves as a signoff document for the administration of protocol specified, required post-operative medications – including analgesics, antibiotics and/or other therapeutic treatments. Drugs given should be listed, along with the dose (or amount administered) and frequency of administration for the entire duration of therapy (Rx). For each treatment, a check box on the blue card should be marked and initialed by the individual giving the Rx. Note that routine post-procedural treatments must be administered at least to the extent specified in the approved protocol. Reduction in the course of Rx according to subjective clinical impression—unless specifically defined and approved in the protocol—is not permitted. Card signoff verifies that all surgically manipulated animals in the cage have received treatment. Listing and signing off on the administration of non-hazardous experimental or study related drugs at the cage level is not required – but may be done if considered useful by the investigator.
At the time of each treatment, investigators should examine their manipulated animals. Completing the treatment cards provides documentation that the clinical condition—including the incision site(s)—of each animal has been evaluated. If end-point criteria as designated in the approved protocol are present, the animals should be euthanized as specified. If significant unanticipated morbidity occurs, additional monitoring is required and consultation with a DLAR veterinarian is recommended.

When treatments are completed and an animal has made a full, functional recovery, the blue card may be folded in half and placed behind the standard cage card, unless hazardous agents have also been administered. When an animal is sacrificed, the records must be managed according to the University Guidelines on Research Data Management [http://www.provost.pitt.edu/documents/rdm_guidelines.pdf](http://www.provost.pitt.edu/documents/rdm_guidelines.pdf).

d. Large animal record-keeping forms can be used for small animal procedures if the investigator needs a more comprehensive form for individual records. Both the small and large animal forms along with the other forms listed in these guidelines can be found on the IACUC web site at [www.iacuc.pitt.edu](http://www.iacuc.pitt.edu) and in other areas, (See section VI-5).

2) Documentation of administration of all Chemical, Biological and Radiation Hazardous Agents:

For each hazardous agent administered, the investigator must list on the blue Surgery/Procedure card, the biological, chemical or radiation substance used and date given. Additionally, to promote a higher level of general hazard awareness, cages in which hazardous agents have been administered should be marked with an appropriate chemical, biological or radiation hazard sticker (available through the DLAR).

Unlike surgical procedures, blue cards noting hazard administration should always remain visibly posted on cages until animals are sacrificed. At that point, they should be retrieved, decontaminated (or copied) and filed with the research/data records.

Investigators are encouraged to include any additional information on the cage card or blue surgical/procedural cards they feel may be of benefit in their use and monitoring of the animal or in the care provided by the DLAR. Card space restrictions and legibility issues should be considered in such entries.

**Medical Record Documentation at the LABORATORY LEVEL:**

General Methodology:
Required and recommended information maintained at the Laboratory (unless otherwise specified in the animal care and use protocol) can be entered in “batch” form via group entry notation, and may be integrated with research data recorded. As such, the format in which it is maintained may vary significantly from lab to lab.

a) Documentation of all surgical research manipulation and hazard administration (Although this documentation may be done by retrieving and filing blue surgical/procedural cage cards, investigators are encouraged to maintain independent central records of such procedures).
b) Brief documentation of post-anesthetic/peri-operative course. For example:

- “Post-operative recoveries were unremarkable – All 7 animals were returned to facility cages awake and ambulatory at 3:00 PM”
- “Post-operative courses generally unremarkable – 2 of the 8 animals (list specific animal identification numbers if available) had more prolonged recoveries and required additional external heat support”
- “One of ten animals operated on died during recovery (list specific animal identification number if available)”

c) Documentation of any weight measurements or other objective data used in end-point determination – when specified and required by the protocol. Such data must be maintained per animal. It is advisable to also record this information on the cage card or make it available at the room level.

d) Documentation of any additional monitoring or assessment that may be specified and required by the protocol.

e) Documentation of protocol transfer of animals.

f) Accurate documentation, with standardized nomenclature where it is available, of both the strain and substrain or of the genetic background of animals used in the research.

**Recommended** (The IACUC recommends that investigators consider maintaining the following information):

- Documentation of euthanasia
- Rodent identification methodology (if used)
- Documentation of all research substances administered and non-invasive research manipulation
- Breeding, weaning and culling records
- When appropriate, documentation of testing and methodologies used in assuring the maintenance of genetic integrity within lines

**Institutional Oversight of Records**

Investigator-maintained rodent medical records should be made available on request for IACUC, Compliance or DLAR veterinary review. The IACUC reserves the right to mandate changes in record keeping methodologies if it does not feel they are sufficiently accurate, comprehensive or otherwise suitable.

**Medical Record Documentation Applicable Only to Rodents Covered Under the Animal Welfare Act (e.g., any rodent species other than mice or rats that were purpose-bred for research):**

The Animal Welfare Act and USDA Policy 3 provide specific guidance for recordkeeping that is applicable to rodent species covered by this legislation. To satisfy these legal requirements, all
recordkeeping procedures outlined above must be strictly followed. In addition, the following
additional measures must be taken:

a. DLAR’s Veterinary Services will maintain an individual file for every animal, and this file
will be retained for at least three years subsequent to the animal’s death. It is the
responsibility of the PI to provide the cage card documentation outlined above to
Veterinary Services so it can be filed in the animal’s record.
b. A “Post Procedure Form,” available from DLAR Veterinary Services must be completed
for research manipulations that are invasive and/or involve the administration of
chemical, biological or radiation hazards. This form should be returned to DLAR
Veterinary Services to be filed in the animal’s record.
c. A “Post Procedure Form” must also be filed with DLAR Veterinary Services subsequent
to euthanizing the animal.