

Document Number: ANP020	Title: STANDARDIZATION OF BALANCES <u>CONFIDENTIAL INFORMATION</u> MOLECULAR MEDICINE RESEARCH INSTITUTE	Effective Date: JANUARY 2005
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1.0 OBJECTIVE

- 1.1 This document describes the procedure used for standardization of balances used by the MMRI animal facility.

2.0 SCOPE

- 2.1 This procedure applies to balances within or pertaining to the Animal Facility.

3.0 POLICY

- 3.1 It is the policy of MMRI to establish written and approved procedures to ensure that all balances are used properly, standardized and calibrated on a routine basis to assure that accurate weights are being measured and documented, and that there is no bias in selection of animals for study procedures.

4.0 RESPONSIBILITIES

- 4.1 It is the responsibility of Manager of Animal Research or designated alternate to implement this procedure and revise it when necessary.

5.0 REFERENCES

- 5.1 Installation and operation manual of the balance being used.

6.0 PROCEDURE

- 6.1 A scale standardization log (Appendix I) will be maintained with each balance. Each balance is identified by its serial number.
- 6.2 Once every six months or after a change in location, the balance must be calibrated by qualified personnel against known standard that are traceable to the National Institute of Standards and Technology (NIST). The accuracy and linearity of the balance will be checked throughout its entire weight range. Deviation from the standards will be corrected at this time. The results will be recorded in the Maintenance log and a calibration sticker attached to the balance showing the date of calibration, initials of the inspector and the date when the next calibration is due.
- 6.3 Standardization must be performed at the beginning of each weighing cycle.

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- 6.3.1 Examine the scale to make sure that it is clean and level.
- 6.3.2 Re-zero the balance before performing the weight check.
- 6.3.3 Consider the item(s) that will be weighed in this weighing cycle. Perform a two point weight check using a high and a low weight which will bracket the weight of the item(s) to be weighed. Please refer to Table 1 as an aid in making an accurate selection.
- 6.3.4 Press the tare key to zero the weight display. You can tare within the entire weight of the balance.
- 6.3.5 Place the first standard weight on the weighing pan. Read the weight indicated in the display only after the weight unit "g" appears as the stability symbol. Place the second standard weight on the weighing pan. Read the weight. Make sure that there are no direct air currents and that nothing is interfering with the balance platform.
- 6.3.6 Record the displayed weights, date, study number and initials in the Standardization Log. For balances with a printer, attach the printer tape with the weight check in the calibration log.
- 6.3.7 The observed weight must be within 1% of the stated weight. If the difference between the standard weight and the observed weight is greater than 1%, re-zero the balance and re-weigh the standards.
- 6.3.8 Observe the weight displayed and the weight printed on the tape. The displayed weight and the printed weight should match and be within 1% of the standard. Do not use balance if it is not within limits and notify the study director.

Table I. Standard weights

Standard weight

Balance Use

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1 gm	Weighing of necropsy tissues
10 gm	Weighing of necropsy tissues
30 gm	Weighing of mice and tissues
50 gm	Weighing of mice, rats and tissues
200 gm	Weighing of animals, and tissues
500 gm	Weighing of animals, and tissues
1000 gm	Weighing of animals, and tissues

6.4 Use of balance.

6.4.1. Animals

- 6.4.1.1 Make certain that the balance is level and steady.
- 6.4.1.2 Place appropriate container on balance and tare.
- 6.4.1.3 Place animal in container and initiate the animal weighing program.

6.4.2 Feed, tissues, tec.

- 6.4.2.1 Place appropriate container on balance and tare.
- 6.4.2.2 Place ample in container and record weight.

APPENDIX I

SCALE STANDARDIZATION LOG

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Scale Name _____ Model No. _____

Serial No. _____

Date	Time	Study Number	Standard Weight	Observed Weight	Initials

APPENDIX II

BALANCE MAINTENANCE LOG

Scale Name _____ Model No. _____

