

BIOLOGICAL RESOURCES: Post-procedure care

Biological Resources is committed to minimizing pain and distress in animals under its care. Since animals cannot verbally communicate their condition, it is crucial that animal care technicians and research personnel conduct consistent and careful observations. If you have questions regarding pain/distress in your experimental rodents you may contact Biological Resources at ANY TIME. Phone numbers are posted in several locations throughout the vivarium.

Recognizing Pain or Distress in Rodents:

Your **IACUC-approved protocol** includes a list of “end-points” and criteria for obtaining veterinary assistance for your test subjects. This is the primary reference and an important starting point.

In addition to the listed criteria, other signs of pain or distress may include:

- Rapid breathing
- Lethargy
- Hyperactivity and/or circling
- Inability to stand or maintain normal posture
- Hunched posture
- Ruffled hair coat or cessation of grooming
- Not eating or drinking

*Another useful tool is the **Grimace Scale** (see page 2). Mice and rats experiencing pain or distress may squint, flatten their ears, flatten cheeks/nose, and pull back their whiskers. Refer to the attached images for visual examples.*

Treating Pain or Distress in Rodents:

If you identify signs of pain or distress in post-procedure animals:

- Administer **analgesics** as specified in your IACUC-approved protocol.
- If no analgesic is listed, if you do not have the appropriate medication, or if you believe the animal needs veterinary care, **contact Biological Resources immediately.**

Record-Keeping Requirements

- Each cage must have a **Post-Procedure Care Record (PPCR)**
- These are **color-coded cards** available in the vivarium outside the supervisors’ office.
- The **PPCR must contain:**
 - IACUC Protocol number
 - Procedure performed
 - Anesthetic agent used
 - Time procedure was performed
 - Time(s) analgesics were administered
 - Time the animal recovered
- Research staff must fill out these cards and place them **in front of the regular cage card.**
- When monitoring animals and/or administering pain-relieving medications, document these actions on the PPCR and add your initials.

PPCR Color Chart

Pink = Post-surgery

Blue = Post-infection

Green = General post-procedure

Research staff are responsible for ongoing monitoring and documentation as specified in the IACUC protocol.

If you have **any questions or concerns** regarding pain or distress in your experimental rodents, you may contact **Biological Resources at any time**. The **Principal Investigator (PI) is not charged** for veterinary care.

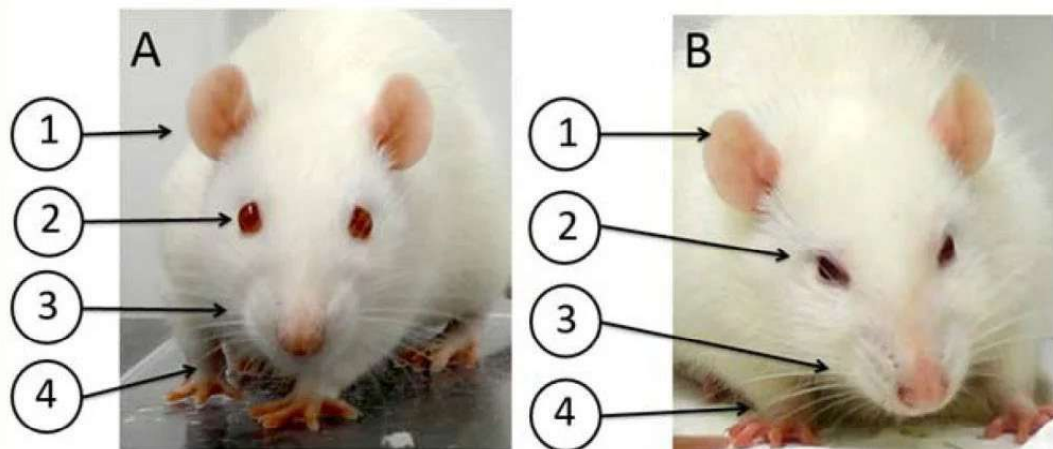
Mouse Grimace Scale:



0= absent, 1=moderate, 2=obvious

- [*Using the Mouse Grimace Scale to Reevaluate the Efficacy of Postoperative Analgesics in Laboratory Mice - Matsumiya, JAALAS 2012*](#)

Rat Grimace Scale:



A=absent, B=obvious

- [*The Rat Grimace Scale: A partially automated method for quantifying pain in the laboratory rat via facial expressions - Sotocinal et al., Molecular Pain 2011*](#)