

# Clemson University Institutional Animal Care and Use Committee (IACUC)

**Policy Number: 3.11**

**Policy Title: The Use of Genetically Modified Animals (GMAs)**

## **Section 1: Purpose**

The following policy provides guidance for the use of genetically modified animals.

## **Section 2: Scope**

This policy applies to all vertebrate animal activities using genetically modified animals.

## **Section 3: Policy**

The following guidelines should be followed when utilizing genetically modified animals in research, teaching, testing or demonstration activities.

1. When animals are genetically modified, the phenotype is unpredictable and may produce pain, distress, or affect that animal's ability to grow and thrive. Therefore, when new genotypes are created, these animals must be monitored closely for
  - morbidity,
  - mortality,
  - proper development,
  - anatomic abnormalities,
  - histologic abnormalities, and
  - abnormal lifespan.

Additional analysis may be necessary to define the phenotype and determine if proactive measures can alleviate the impact of the genetic modification on the animal's well-being and to establish humane endpoints. These additional measures must be made in consultation with the University Veterinarian and the IACUC.

2. Appropriate containment of genetically modified animals must be assured to avoid unintended breeding with other animals or possible transfer of either altered genetic material or viral vectors to personnel or other animals.
3. When a genetically modified strain (other than rodents) is to be produced at Clemson University, the procedures must be reviewed and approved by the Institutional Biosafety Committee (IBC).
4. It is the investigator's responsibility to monitor genetically modified animals and communicate with the veterinary staff and the IACUC. All novel GMAs should be monitored a minimum of once daily for the development of unexpected phenotypes.
5. Unexpected phenotypes associated with a novel GMA model that affect the health and well-being of the animal would be considered an unexpected outcome, and should be

reported to the IACUC following Policy #1.6, *Reporting and Investigating Unexpected Outcomes or Adverse Events*.

6. The only acceptable transfer of genetically altered animals is to other investigators within the University or at other research institutions who can guarantee the same level of care and containment as the parent colony. Recipients should be provided information regarding the specific genetic alterations. Donation of genetically modified animals to zoos or shelters as a food for other animals or for other purposes is not allowed unless approved by the IACUC.