Welcome to the IACUC Newsletter

Welcome to the fourth edition of the IACUC newsletter. The animal care and use program at UMKC aims to make improvements where needed. In an effort to improve communication between the IACUC and the animal user community, we are publishing a quarterly newsletter with the goal of informing the animal user community on upcoming events, animal facility news, protocol changes, educational opportunities, and any other relevant information related to animal research. We look forward to your feedback and any suggestions you may have on how to make the newsletter better serve you.

The responsibility of the IACUC is to oversee and routinely evaluate the Program. The animal use protocol is a detailed description of the proposed use of laboratory animals. Topics to be considered carefully by the researchers when preparing his/her protocol include, but not limited to:

- rationale and purpose of the proposed use of animals
- clear description of procedure involving the use of animals that is easily understood by all members of the committee
- availability or appropriateness of the use of less invasive procedures, other species, or non-animal alternatives.

Guide For the Care and Use of Laboratory Animals, 8th ed., 2011
A special thank you to Dr. Kover for her presentation to the LARC and Sponsored Programs staff regarding her research on diabetes.

The LARC in conjunction with the Research Compliance office would like to continue these presentations on a quarterly basis to better inform the LARC staff in particular, but ORS as a whole, as to the importance of their involvement in the research being conducted at the LARC. The goal of these presentations is to generate greater ownership and understanding of the roles each person plays in the development, conduct and ultimate success of our researchers.

If you would be interested and willing to participate please contact Chris Winders at 816-235-5370 or windersc@umkc.edu.

New Resources:

Do you need assistance with a database search? The UMKC library offers help—http://libguides.library.umkc.edu/alternatives.

This guide will help researchers complete the literature search needed to fulfill the regulations of finding alternatives to using animals in scientific research and ensuring there is no duplication of research efforts.

IACUC meetings are open access with advance notice. If you are interested in attending an IACUC meeting contact Lori Reierson reiersonl@umkc.edu or Jodi Troup troupj@umkc.edu for time, date and location.
Postoperative Analgesia For Rats

The local anesthetic bupivacaine is extremely useful for perioperative analgesia, but its use in the postoperative period is typically limited by its short duration of action. Extended-release liposomal bupivacaine is a slow-release bupivacaine formulation intended to provide extended postoperative analgesia after single-dose administration. Liposomal bupivacaine is commercially available for humans and reportedly attenuates hyperalgesia for 48-72 hours in humans.

The article noted below raises the question whether a modification is possible in order to attenuate postoperative mechanical and thermal hypersensitivity in a rat model of incisional pain. The (5) treatment groups consisted of:
- Saline, 1mL/kg SC
- Buprenorphine HCL, 0.05mg/kg SC
- 0.5 % bupivacaine, 2mg/kg SC
- Liposomal bupivacaine, 1mg/kg SC
- Liposomal bupivacaine, 6mg/kg SC

The data from the study (Adult male Sprague-Dawley rats from Charles River were used) suggests that a single local infiltration of liposomal bupivacaine at a dose of 1mg/kg SC effectively attenuates postoperative mechanical and thermal hypersensitivity for 4 days in a rat model of incisional pain.

Additional research is suggested as many factors are at play when determining an appropriate analgesic, such as dosage, size of surgical site, species, etc.

JAALAS, “Use of Liposomal Bupivacaine for Postoperative Analgesia in an Incisional Pain Model in Rats (Rattus norvegicus)

Resources:

**Journal of Visual Experimentation** (JoVE) is a great resource available to University of Missouri-Kansas City users, providing useful videos on experimental techniques and information in areas of biology, medicine, immunology and infection, engineering, and bioengineering.

Check it out at: [http://www.jove.com/](http://www.jove.com/)

**AALAS Webinars:** [https://www.aalas.org/education/educational-resources/webinar-schedule](https://www.aalas.org/education/educational-resources/webinar-schedule)

- Contact us if you are interested in attending the next webinar viewing session at UMKC!

**Additional CITI training modules:**

**Group 2: Researchers**
- Federal Mandates
- The Veterinary Consultation
- Getting Started
- Alternatives
- Avoiding Unnecessary Duplication
- USDA Pain/Distress Categories
- Endpoint Criteria
- And more!

Go to: [https://www.citiprogram.org/](https://www.citiprogram.org/)