Jerald Silverman, DVM, Column Coordinator

Too many IACUCs in the kitchen

Dr. Jacob Flatt of BeachFront University had a thriving colony of *Heterocephalus glaber*, the naked mole rat. The unique social living structure of this rodent was the focus of Flatt's research. While on vacation, he met Dr. Jonas Gold, a biochemist at Great Eastern University whose research used interference RNA to modulate the expression of genes involved with the initiation and progression of certain cancers. Both scientists quickly recognized that tissues from mole rats might be beneficial to Gold's research. They made plans for a pilot study in which Flatt would provide Gold with tissue samples from mole rats. Gold would use the tissues for *in vitro* studies, comparing data that he had previously obtained from the tissues of typical laboratory rats and mice. If Gold found significant differences, they would initiate a series of additional studies to help elucidate why naked mole rats were spared from developing cancer and how that information might supplement Gold's studies of interference RNA.

The protocol that Flatt submitted to the BeachFront IACUC described the number of additional animals that would need to be bred and euthanized in order to provide Gold with the tissues that he needed. However, the IACUC strongly insinuated that it would not approve Flatt's protocol because the IACUC members had no background in biomedical research and were therefore unable to judge the importance of the planned study or the amount of tissue needed. Equally important, the members were not inclined to have animals bred and euthanized just to serve the needs of a researcher at a distant university. One member said, "We are not in the factory farming business." Still, the BeachFront IACUC did indicate that it would support Flatt's collaboration if the IACUC at Great Eastern University would first evaluate Gold's plan, inform the BeachFront IACUC of the perceived importance of the proposed research and subsequently approve the study.

The Great Eastern IACUC also had concerns about this collaboration. The members did not know enough about naked mole rats and their resistance to neoplasia for them to determine the importance of Gold's proposed study. Nor did they know anything about Flatt's skill at carrying out euthanasia, tissue collection or the preparation of tissues for shipping, since he was an animal behaviorist and not a bench scientist like Gold. Nevertheless, the Great Eastern IACUC indicated it would have no objection to the study if the BeachFront IACUC would approve it, because only tissues, not live animals, would be sent to Great Eastern.

Each IACUC was willing to let the other IACUC approve the study because neither IACUC wanted to shoulder the responsibility of overseeing the study. Could a Memorandum of Understanding be used to split the responsibilities between the two IACUCs, or is there another path that should be considered?

RESPONSE

Collaboration requires mutual understanding

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The live animal portion of the proposed study would occur at BeachFront University, so the IACUC of this institution should review and, if appropriate, approve the protocol. Meanwhile, Great Eastern University could seek a memorandum of understanding (MOU) from BeachFront University, since Great Eastern is receiving the tissues from BeachFront, where the naked mole rats are bred, housed and euthanized. As described in the *Guide for the Care and Use*

of *Laboratory Animals*, this MOU should detail which institution's IACUC is responsible for reviewing the protocol, overseeing the program, overseeing the animal care and use, and reporting the animals to the US Department of Agriculture in their annual report. Furthermore, the MOU could formalize the respective concerns of each IACUC and effectively outline and address each one such that the division of responsibility between the collaborating institutions is transparent.

The issues raised by members of the BeachFront IACUC regarding their lack of experience with research on interference RNA could be remedied by inviting one or more expert consultants who are familiar with this technology and its implications in cancer pathophysiology. Consultants would meet with the IACUC during protocol review to assist in reviewing any concerns,

although they would not be able to approve or withhold approval of any activity, and they would not be allowed to vote unless they are also members of the IACUC¹. In this way, a consultant could clarify for the IACUC the scientific relevance of this study and its justification of the species and number of animals required to provide the necessary tissue samples. Furthermore, the BeachFront IACUC could extend an invitation to Gold so that he may further explain the scientific relevance of this work and, if necessary, elaborate upon his research objectives.

BeachFront University could address the concerns that the Great Eastern IACUC raised regarding Flatt's training and skill level by stating in the MOU that BeachFront University assumes responsibility for training Flatt. In so doing they would ensure that the principal investigator is adequately trained in handling naked mole rats, euthanizing