

**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE
CALIFORNIA STATE UNIVERSITY, BAKERSFIELD**

**MINUTES OF MEETING
20 February 1998
Blue Room/Student Union**

Members Present

Veterinarian: Mylon Filkins, DVM
Safety/Hazardous Materials: Barbara Brenner
Scientific Concerns: David Hinds, Ted Murphy, Steve Suter
Non-Scientific Concerns: B. J. Moore
Community Issues: Debby Kroeger
Ex Officio: Salina Ganipole, Dean of Graduate Studies and Research

Members Absent

Bruce Jones (Non-Scientific Concerns)
Martin Murdock (Community Issues)

Visitors

Carol Raupp, Associate Professor of Psychology, for memorandum, "Items for consideration," dated 19 February 1998, to Members of the IACUC, which was distributed at the beginning of the meeting
Todd McBride, Assistant Professor of Biology, for Protocols 98-01 and 98-02
Jess Deegan, Associate Professor of Psychology, for Protocol 98-04
Jeffrey Craft, undergraduate student in Psychology, for Protocol 98-05
Jamison Motherhead, graduate student in Psychology, for Protocol 98-06

1. Meeting was called to order by Chairperson Steve Suter at 12:55 PM.
2. Since this was the first meeting of the new IACUC, introductions of all members and visitors were made.
3. The first order of business was to discuss and approve the general procedures by which the IACUC would conduct its meetings, specifically whether it would be (a) closed to the public, except for formally invited guests, (b) open to the public for any and all visitors, or (c) open to the public for any and all visitors, except for closed "executive sessions." The executive sessions would normally follow the introduction of each protocol and questions and answers with the principal investigator(s); these executive sessions would be for the private deliberations and formal voting by the IACUC on each protocol. Upon request by Chairperson Suter, Secretary Sasaki indicated that the Institutional Review Board for Human Subjects Research (IRB/HSR), a parallel board for reviewing protocols involving human subjects, follows option "c," i.e., open meetings with closed "executive sessions" for the deliberations and final voting by the IRB/HSR. Discussion followed regarding

the merits and likely problems with each option. David Hinds moved, and Mylon Filkins seconded, a motion that the IACUC conduct its meetings in accord with the procedures used by the IRB/HSR, i.e., open to the public, except deliberation and formal voting on each protocol would be conducted in a closed executive session. The motion was passed unanimously, with 7 "aye," 0 "nay," and 0 "abstentions."

4. The next item of business was to review, discuss, and clarify the newly approved "Policy and Procedures for the Protection of Animals in Research and Education" for CSUB and the "OPRR Guide for IACUC Members." Barbara Brenner asked about the "occupational health program" referred to in Section XIII (erroneously indicated as Section X) on pages 10-11 of the CSUB policy and procedures; she asked specifically about the costs of the "medical testing and monitoring" referenced in subsections A and B of Section XIII and who would be responsible for bearing those costs. Mylon Filkins asked about the "institutional training program" referred to in Section XII (erroneously indicated as Section IX) on pages 9-10 of the CSUB policy and procedures; he requested specifically that a "standard operating procedure" for training of all persons handling and caring for animals be developed.

5. Protocol 98-01, *Efficacy of creatine monohydrate as an ergogenic aid during high resistance exercise*, with Todd McBride. Dr. McBride provided a brief overview of the research protocol, which was being conducted with a Biology student, Mike Gregory, and would involve rats being given 4 weeks of training exercise with creatine phosphate supplement in their water during the entire time. After the training exercise, the tibialis anterior muscle would be surgically exposed for physiological assessment; the muscle then would be surgically removed for biochemical assessment. The animals would be under anesthesia for both physiological and biochemical assessments. Following the biochemical assessments, the animals would be euthenized. Questions regarding the protocol included:

- housing of the animals--the response was that the animals would be housed in the new animal facility and taken to the Biology lab for the exercise regime and for the surgery of the tibialis anterior muscles for the physiological and biochemical assessments. Mylon Filkins requested that a "standard operating procedure" for the animal facility, including the acceptance of new rodents, watering, feeding, changing bedding, daily and week-end care, etc., be developed.
- light-dark cycles for the animals--the response was that the "standard" cycle being used for the animal facility would be sufficient and that the 12/12 light-dark cycle specified in the protocol was not critical.
- requirements for surgery rooms--the response was that separate facilities are not necessary for rodent surgery and that "non-survival" surgery can be performed in common laboratories, such as those used by Biology. Mylon Filkins requested that a "standard operating procedure" for rodent

surgery be developed. He also requested that a "standard operating procedure" for the disposal of all surgical items that come in contact with blood, especially sponges, etc., be developed. This latter request was also strongly supported by Barbara Brenner.

- anesthetics being used, especially the danger of flammability--the response was that the anesthetics being used are not flammable.

Since Protocol 98-02, *Mechanism of reduced adaptation to eccentric contractions in aged rats*, was similar to Protocol 98-01, Dr. McBride was asked to provide an overview of this protocol, which would again involve rats being given only 1-2 weeks of training exercise (rather than 4 weeks) and would NOT be given creatine phosphate as a supplement in their water. The same physiological and biochemical assessments would be made. All animals would be under anesthesia during the physiological and biochemical assessments, and they would be euthenized following surgery. No additional questions were asked.

The IACUC then excused all visitors and convened in executive session. Ted Murphy moved, and David Hinds seconded, a motion for full approval of Protocol 98-01. The motion was passed unanimously, with 7 "aye," 0 "nay," and 0 "abstentions." Ted Murphy moved, and David Hinds seconded, a second motion for full approval of Protocol 98-02. The motion was passed unanimously, with 7 "aye," 0 "nay," and 0 "abstentions."

6. Carol Raupp's memorandum of 19 February 1998 was raised for discussion. There was consensus that the IACUC would postpone discussion of the points raised in the memorandum until the next meeting of the IACUC, when the members had time to read and reflect upon the contents of the memorandum.

7. Protocol 98-03, *Proposal to use small endotherms for teaching metabolism in Biology 210*, submitted by Ken Gobalet, Associate Professor of Biology. Dr. Gobalet was unable to be present, so David Hinds provided an overview of this education protocol. He indicated that this protocol had been used for many years to provide students in Biology 210 with a "hands-on" experience in calculating the metabolic rate of a rat. The procedures have been well-developed over the years, and the risks to the rats and the students are minimal. The educational benefits for the students is that they receive "hands-on" experience in a basic measurement of metabolism. The only question asked was about the housing of the animals, and the response was that all the animals would be housed in the new animal facility.

The IACUC then excused all visitors and, again, went into executive session. The issue was raised about the necessity of applying each year for approval of this protocol, which had remained exactly the same since its inception more than 20 years ago. Secretary Sasaki volunteered that the IRB/HSR is allowed by federal regulations to "exempt" specified classes of research and to review under "expedited procedures" other specified classes of research; he suggested that the IACUC might

wish to adopt "expedited procedures" for protocols like 98-03. After some discussion, there was consensus that the IACUC consider such procedures; Secretary Sasaki indicated that he would draft procedures for expedited review of protocols for IACUC consideration. David Hinds moved, and Mylon Filkins seconded, a motion for full approval of the protocol. The motion was passed unanimously, with 7 "aye," 0 "nay," and 0 "abstentions."

8. Protocol 98-04, *Principles of learning: A class in the proper use of animals and behavioral training*, with Dr. Jess Deegan. Dr. Deegan provided a brief overview of this educational protocol, which would involve rats in classical and operant conditioning paradigms. Questions regarding the protocol included:

- 85% of "ad lib" body weight--the response was that the rats would be maintained at 85% of their ad lib body weights during the time that they were being tested; this criterion has been considered a standard in learning to ensure that the rats would be "motivated" to learn within the conditioning paradigms. The rats would be placed on a ad lib feeding schedule all other times so that they could eat without restrictions. The two student teaching assistants would oversee the feeding schedules.
- amount of contact students would have with the rats--the response was that students would be expected to spend 45-50 minutes per day for 5 days per week, i.e., Monday through Friday.
- re-using the animals--the response was that the rats could be used for research projects, as well as in laboratories associated with specific courses. Dr. Deegan stated that he would make every attempt to operationalize the 3-Rs concept--reduce (the number of animals used to a minimum), reuse (animals as many times as possible), and replace (animal-based "models" with alternatives whenever possible).
- training of the students in handling and caring for the rats--the response was that the students would receive training in safe handling of the rats, and the student teaching assistants would be available for assistance when needed. The teaching assistants would receive extensive training the handling and care of rats.
- who were the student teaching assistants--the response was Jeff Craft, an undergraduate student in Psychology, and Jamison Motherhead, a graduate student in Psychology. Both students are doing research using rats; Jeff for his senior thesis (see Protocol 98-05 below), and Jamison for her masters thesis (see Protocol 98-06 below).

The IACUC again went into executive session. B. J. Moore moved, and Debby Kroeger seconded a motion for full approval of the motion. The motion was passed unanimously, with 7 "aye," 0 "nay," and 0 "abstentions."

9. Protocol 98-05, *Wavelength dependent startle responses in two species of rodents: Mus musculus and Rattus norvegicus*, with Jeff Craft under the supervision of Dr. Jess Deegan. Mr. Craft provided an overview of his research, which was the behavioral testing of the two species for sensitivity to ultra-violet light and the role of this retinal cone in the detection of predators. In addition, a comparison will be made between the two species, because *Mus musculus* has a unique distribution of this cone in the retina where 90% of the ultra-violet sensitive cones are in the ventral portion of the retina. Questions regarding the protocol included:

- benefits of the research--the response was that the ultra-violet sensitive cones have only been recently been discovered (Dr. Jess Deegan was involved in the initial discovery) and that the evolutionary "reason" for its existence is not obvious or known at this time. The benefits of the research are to learn more about the possible uses of the ultra-violet sensitive cones.
- amount of contact with the rats--the response was that he (Jeff Craft) would have daily contact (2-3 hours per day) with the rats over several weeks.

The IACUC convened in executive session, where Barbara Brenner moved, and Ted Murphy seconded, a motion for full approval of the protocol. The motion was passed unanimously, with 7 "aye," 0 "nay," and 0 "abstentions."

10. Protocol 98-06, *The effects of spectral sensitivity on exploratory behavior in the rat*, with Jamison Motherhead under the supervision of Dr. Jess Deegan. Ms. Motherhead provided an overview of her research, which involves testing of *Rattus norvegicus* for natural exploratory behavior under different wavelength conditions, including ultra-violet light. The only question that arose dealt, not with this protocol specifically, but rather with the general issue of dealing with "disaster" situations, such as power loss that would affect lighting, ventilation, heating and cooling. Mylon Filkins requested that "standard operating procedures" for disaster preparedness be developed.

The IACUC convened in executive session, where Barbara Brenner moved, and Debby Kroeger seconded, a motion for full approval of the protocol. The motion was passed unanimously, with 7 "aye," 0 "nay," and 0 "abstentions."

11. There being no further protocols to consider, the IACUC reviewed items that needed to be considered for the next meeting:

- Carol Raupp's memorandum of 19 February 1998
- Standard operating procedures (SOPs)
 - 1) training of individuals in the safe handling of rodents
 - 2) animal facility use, including the acceptance of new rodents, watering, feeding, changing bedding, daily and week-end care, etc.

- 3) rodent surgery
 - 4) disposal of surgical materials
 - 5) disaster preparedness
- Procedures for expedited review of specified protocols

Finally, some discussion was initiated regarding a standardized format for protocols being submitted for review and approval by the IACUC. Secretary Sasaki as indicated that the IRB/HSR uses a standardized protocol review form which is used by the reviewers to check all pertinent information. There was consensus that standardized protocol and standardized review forms be adopted by the university. If at all possible, drafts of these two forms should be considered at the next meeting.

12. The next meeting for the IACUC will be in late-May or early-June.

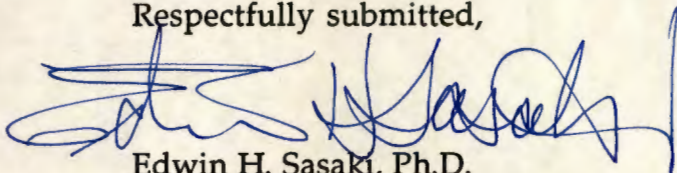
13. The IACUC then inspected the new animal facility in Dorothy Donohue Hall; no rodents had yet been accepted into the facility. The following factors were reviewed during the inspection:

- illumination--level, spectrum, distribution
- control of light-dark cycles
- ventilation
- humidity control
- wash down of the facilities
- floor sealing
- storage for food, bedding, etc.
- access control

Mylon Filkins reiterated the need for "standard operating procedures" for animal facility use, including the acceptance of new rodents, watering, feeding, changing bedding, daily and week-end care, etc. Ted Murphy moved, and Barbara Brenner seconded, a motion that the animal facility be approved by the IACUC for accepting and housing rodents. The motion was passed unanimously, with 7 "aye," 0 "nay," and 0 "abstentions."

14. There being no further business, the meeting was adjourned by Chairperson Suter at 3:30 PM.

Respectfully submitted,



Edwin H. Sasaki, Ph.D.
IACUC Secretary