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Authority to euthanize

Josh Scofield's research used C57Bl/6 mice, a strain he had used for years. Some of his animals had a dermatitis that was typical for the strain, and these animals usually received palliative care from Great Eastern University's veterinary service. When treatment could no longer provide adequate relief, the mouse was euthanized. There had never been any difficulty between Scofield and the school's veterinarians until he and one of the veterinarians disagreed about whether a particular mouse should be euthanized. Scofield said it should not be euthanized because grant money was tight and he needed to gain as much information as possible from every animal. The veterinarian said the mouse should be euthanized because it was suffering. The attending veterinarian was consulted, and she confirmed the opinion of the first veterinarian, adding that the animal was nearly moribund and that the longer euthanasia was delayed, the more likely it

was that Scofield would not be able to use any of the data obtained from the mouse. Scofield strongly disagreed and said he would euthanize the mouse the following morning. There was a temporary stalemate, during which time the mouse's health deteriorated, Scofield continued to refuse euthanasia and, finally, the veterinarian took it upon himself to euthanize the mouse, knowing full well that there would be negative repercussions.

Scofield vented his anger on the IACUC and Institutional Official (IO). The IO acknowledged his concerns but would only commit to supporting any decision made by the IACUC. The IACUC chairman established an *ad hoc* subcommittee to investigate the incident and determine how to prevent a recurrence. The first thing the subcommittee did was to consider an investigator's authority to refuse euthanasia of an animal and a veterinarian's authority to euthanize an animal contrary to the wishes

of an investigator. The *Guide for the Care and Use of Laboratory Animals*¹ (the *Guide*) provided the subcommittee with guidelines for the emergency care of animals, and the subcommittee members believed that the current problem could have been considered an emergency. But the *Guide* seemed to give the veterinarian the authority to euthanize an animal only if two conditions were met: first, that she or he could not reach consensus with the investigator, and second, that the IO, attending veterinarian and IACUC had previously delegated such authority to the veterinary staff. The latter condition had never been met.

What is your opinion? Did the veterinarian have legitimate authority to euthanize the mouse, or did he overstep his authority in doing so out of compassion for the animal?

1. Institute for Laboratory Animal Research. *Guide for the Care and Use of Laboratory Animals* 8th edn. (National Academies Press, Washington, DC, 2011).

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RESPONSE

Compassionate and rational

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In our opinion, the veterinarian acted compassionately and rationally and did not overstep his authority by euthanizing the mouse against the researcher's wishes. In decisions about humane endpoints, regulatory guidance, protocol parameters and professional judgment must be considered. We assume that Great Eastern University has a Public Health Service (PHS) Assurance. The *PHS Policy on Humane Care and Use of Laboratory*

*Animals*¹ contains the US Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training. Principle I states, "care and use of animals should be in accordance with the Animal Welfare Act² and other applicable Federal laws."

The attending veterinarian (AV) has the responsibility "for the health and well-being of all laboratory animals used at the institution"³. Additionally, the Animal Welfare Act regulations state that "[e]ach research facility shall assure that the attending veterinarian has appropriate authority to ensure the provision of adequate veterinary care"⁴. We believe that the AV should make the final decision concerning animal welfare. Veterinarians working under the direction of the AV should be considered the AV's delegates and therefore hold the same authority. In this case, the AV had been

consulted and agreed that euthanasia of the mouse was appropriate.

Investigator rights are described both in the protocol and in the regulations. Animal manipulations and humane endpoint criteria should be clearly described in the protocol, and appropriate pain levels should be assigned to these activities. When animal suffering goes beyond that described in the protocol, veterinarians and investigators should discuss how to proceed, but the American College of Laboratory Animal Medicine position statement on Adequate Veterinary Care⁵, endorsed by the *Guide for the Care and Use of Laboratory Animals*³, states that "the veterinarian... must have the authority to remove an animal from an experiment which is adversely affecting its well-being beyond a level reviewed and approved by the IACUC." Scofield could amend his protocol to include dermatitis

effects in the humane endpoint criteria and provide scientific justification for allowing the mice to progress to a moribund state, but currently his protocol does not contain this information, placing the mouse's well-being in the hands of the veterinary staff.

How can Great Eastern prevent this from recurring? An objective, humane endpoint scoring chart that includes potential clinical symptoms in addition to model-related symptoms can be used by animal care personnel to make consistent decisions about treatment and euthanasia. Official delegation of final decision-making authority to the veterinary staff by the AV, IO and IACUC should be documented. Finally, the spirit of the law in this situation should be considered. Avoidance of unapproved animal suffering is the focus of much regulatory guidance, and we think this situation provides a good example of an animal program that understands this objective.

1. Public Health Service. *Policy on Humane Care and Use of Laboratory Animals* (US Department of Health and Human Services, Washington, DC, 1986; amended 2002).
2. Animal Welfare Act. 7 U.S.C. § 2131 et seq.
3. Institute for Laboratory Animal Research. *Guide for the Care and Use of Laboratory Animals* 8th edn. (National Academies Press, Washington, DC, 2011).
4. Animal Welfare Act Regulations. 9 CFR. Part 2, Subpart C, 2.33(a)(2).
5. American College of Laboratory Animal Medicine. *Adequate Veterinary Care*. <<http://www.aclam.org/education-and-training/position-statements-and-reports>>

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RESPONSE

Cooperation and compassion

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This scenario is, unfortunately, all too common in biomedical research. In most cases, investigators care deeply about the well-being of their research animals and comply with veterinary recommendations. In some cases, however, investigators

A word from OLAW

In response to the questions posed in this scenario, the Office of Laboratory Animal Welfare (OLAW) offers the following guidance:

In responding to this scenario, OLAW assumes that Great Eastern University has an Animal Welfare Assurance with OLAW. The scenario asks the reader to consider the authority of a clinical veterinarian to euthanize an animal.

The decision to euthanize an animal experiencing unrelieved pain and distress is clearly within the authority of the veterinarian in the described scenario. It is also an essential responsibility in the program of veterinary care and a requirement in the *Guide for the Care and Use of Laboratory Animals* (the *Guide*). The *Guide* states, "the institution must provide the AV [Attending Veterinarian] with sufficient authority, including access to all animals, and resources to manage the program of veterinary care" and "if the investigator and veterinary staff cannot reach consensus on treatment, the veterinarian must have the authority, delegated by senior administration and the IACUC, to treat the animal, remove it from the experiment, institute appropriate measures to relieve severe pain or distress, or perform euthanasia if necessary"¹. The failure of the IACUC and Institutional Official to formally delegate such authority to the veterinary staff is not compliant with the Public Health Service *Policy on Humane Care and Use of Laboratory Animals*² and is reportable to OLAW. Consideration of the animal and relief of suffering is a basic tenet of US Government Principle VI and should be the default in decisions concerning euthanasia³. Maximizing the data obtained to the detriment of the animal because of budgetary limitations is inexcusable, and the IACUC is well-advised to counsel the investigator.

1. Institute for Laboratory Animal Research. *Guide for the Care and Use of Laboratory Animals* 8th edn. (National Academies Press, Washington, DC, 2011).
2. Public Health Service. *Policy on Humane Care and Use of Laboratory Animals* (US Department of Health and Human Services, Washington, DC, 1986; amended 2002).
3. Interagency Research Animal Committee. U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training (Office of Science and Technology Policy, Washington, DC, 1985).

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may be resistant or even hostile toward decisions of the veterinarians, particularly when they are faced with pressures such as limited finances or time during the course of research.

The primary goal of a laboratory animal veterinarian is to help investigators collect data while ensuring welfare of the research animals. In our assessment, the veterinarian had the legitimate authority to euthanize Scofield's mouse because the institution must have submitted an Animal Welfare Assurance to comply with the Public Health Service *Policy on Humane Care and Use of Laboratory Animals* (PHS *Policy*)¹. The institution's program of animal care and use described in the Assurance must have included details on authority of the veterinarian for providing emergency care including euthanasia of the research animals. The PHS *Policy* requires institutions to follow the *Guide for the Care*

and Use of Laboratory Animals (the *Guide*)² in providing care to the research animals. Per the *Guide*, the IACUC, in consultation with veterinarians, determines humane endpoints for research animals, which may not coincide with the study endpoints. The attending veterinarian concurred with the veterinarian that the mouse was "nearly moribund". Most IACUCs interpret 'moribund' to mean "near death, animal may or may not be conscious"³. Various clinical symptoms such as extreme emaciation, unresponsiveness, respiratory distress and inactivity may be indicative of moribund condition⁴. The veterinarian made conscientious efforts to convince the principal investigator (PI) to euthanize the mouse, but the PI refused. The clinical condition of the mouse worsened. The veterinarian acted compassionately by euthanizing the mouse, an act that was well within his authority and job description.

A better way to handle this situation would have been for the PI, the veterinarian and perhaps the IACUC chairperson to assess the clinical condition of the mouse together by the cage side. If a consensus could not be reached regarding euthanizing the mouse, the veterinarian could have presented this case to the full IACUC committee. In the meantime, the veterinarian could have continued to offer support to the PI. Both the PI and the veterinarian have vital roles in the success of a research project. A culture of cooperation and compassion will contribute to the satisfactory resolution of such issues.

1. Public Health Service. *Policy on Humane Care and Use of Laboratory Animals* (US Department of Health and Human Services, Washington, DC, 1986; amended 2002).
2. Institute for Laboratory Animal Research. *Guide for the Care and Use of Laboratory Animals* 8th edn. (National Academies Press, Washington, DC, 2011).
3. Silverman, J., Suckow, M.A. & Murthy, S. *The IACUC Handbook* 3rd edn. (CRC Press, Boca Raton, FL, 2014).
4. Bayne, K. & Turner, P.V. *Laboratory Animal Welfare* (Academic, London, 2014).

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RESPONSE

Veterinarian's responsibility

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The Veterinarian's Oath¹ seems to be a good starting point for this discussion: "I solemnly swear to use my scientific knowledge and skills for the benefit of society through the protection of animal health and welfare, the prevention and relief of animal suffering..." A veterinarian's first concern should be the welfare of an animal.

If an animal is suffering and moribund, then it is the veterinarian's ethical responsibility to alleviate that suffering, including, if needed, by euthanizing the animal.

Numerous organizations emphasize and reiterate that responsibility. The American Veterinary Medical Association *Guidelines for Euthanasia* discuss euthanasia and veterinary medical ethics². The American College of Laboratory Animal Medicine's statement on adequate care reads, "The veterinarian must have the responsibility and authority to assure that handling [and] euthanasia are administered as required to relieve pain and such suffering in research animals..."³. And the Association for the Assessment and Accreditation of Laboratory Animal Care International has issued a position statement titled *The Attending Veterinarian and Veterinary Care*⁴.

The responsibilities of the Attending Veterinarian (AV) are addressed in the Animal Welfare Act regulations⁵, which define the AV as the "person... who has direct or delegated authority for activities involving animals" and further states that "[e]ach research facility shall employ an attending veterinarian under formal arrangements."

Scofield's animals had a known history of dermatitis with treatment and euthanasia as recommended by the veterinary staff, and there had been no past problems with this strategy. But in this case, Scofield objected when a veterinarian recommended euthanizing a nearly moribund mouse. The attending veterinarian (AV) agreed with the veterinarian's assessment. The veterinarian chose to euthanize the mouse when its condition deteriorated. He may have acted out of compassion or on the belief that it was a reasonable action on the basis of past practices.

The *Guide for the Care and Use of Laboratory Animals*⁶ states that "overall Program direction should be a shared responsibility among the IO, AV, and IACUC" but does not indicate that each

entity must be a part of every singular decision within the animal program. Since Great Eastern has an IACUC and the investigator commented on lack of funding, it is safe to assume there is an Institutional Assurance document describing the animal care program. That document should include a description of the responsibility of the AV and his or her designees. A line of authority should be clearly delineated for all responsible parties: the Institutional Official (IO), the AV and the IACUC. This documentation would surely have made the subcommittee's investigation much easier. It would be very difficult to get all three responsible entities to meet and delegate authority to the clinical veterinarian each time a situation such as this occurs. Therefore, a written documentation of how the program will be managed in the future is crucial for good animal care and good animal research. This suggestion is in line with the emergency care section of the *Guide* addressing the need for delegated authority.

1. American Veterinary Medical Association. *Veterinarian's Oath*. <<http://www.avma.org/KB/Policies/Pages/veterinarians-oath.aspx>>
2. American Veterinary Medical Association. *AVMA Guidelines for the Euthanasia of Animals: 2013 Edition* (AVMA, Schaumburg, IL, 2013).
3. American College of Laboratory Animal Medicine. *Adequate Veterinary Care*. <<http://www.aclam.org/education-and-training/position-statements-and-reports>>
4. Association for the Assessment and Accreditation of Laboratory Animal Care International. *The Attending Veterinarian and Veterinary Care*. <<http://www.aalac.org/accreditation/positionstatements.cfm#vetcare>>
5. Animal Welfare Act Regulations. 9 CFR. Chapter 1, Subchapter A—Animal Welfare. Part 2, Regulations. (1.1; 2.33).
6. Institute for Laboratory Animal Research. *Guide for the Care and Use of Laboratory Animals* 8th edn. (National Academies Press, Washington, DC, 2011).

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