

May 7, 2020

Brent Morse, DVM
Director
Division of Compliance Oversight
Office of Laboratory Animal Welfare
National Institutes of Health

Vía e-mail: <u>Brent.Morse@nih.hhs.gov</u>

Dear Dr. Morse,

I am writing on behalf of People for the Ethical Treatment of Animals (PETA) and our more than 6.5 million members and supporters to request that your office investigate the use and treatment of animals at Cleveland Clinic Lerner College of Medicine (CCLCM; PHS Assurance D16-00089), located at 9501 Euclid Avenue in Cleveland, Ohio.

A PETA investigator worked at CCLCM from September 2019 to March 2020. During that time, PETA's investigator documented, including with video recordings and photographs, numerous apparent violations of the Public Health Service Policy on Humane Care and Use of Laboratory Animals (PHS Policy) and the *Guide for the Care and Use of Laboratory Animals* (the *Guide*) (please see "CCLCM: Investigative Footage for OLAW Officials" and "CCLCM: Investigative Photographs for OLAW Officials"). PETA's investigator worked in the Lerner Research Institute. The majority of the observations summarized here were made in that building, while the remaining observations were made in the laboratories of the Cole Eye Institute. Based on the evidence, PETA believes that CCLCM has consistently failed to comply with PHS Policy and the *Guide*.

The evidence shows that vulnerable animals in CCLCM's suffered as a result of neglect, incompetence, and a culture of disregard for their welfare.

- 1. CCLCM failed to euthanize sick and injured animals in a timely fashion. As a result, animals suffered protracted pain and distress.
 - a. In experiments that caused animals to suffer weakness and paralysis, mice dragged their hind legs across the cage floor as they attempted to reach food; some mice were left this way for up to two weeks.
 - b. Mice were purposely bred to be prone to pelvic organ prolapse. These animals were then bred even as uterine, rectal, or vaginal tissue protruded from their bodies. Experimenters would occasionally apply lubricant to prolapsed tissue, but did not provide afflicted animals with any pain relief. In one case, a mouse suffered for 10 weeks with prolapsed—and often bleeding and necrotic—tissue.
 - c. Transgenic mice were bred to be prone to skin growths, lesions, and cataracts. Red, itchy sores extended over inches of the mice's

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- bodies, causing pain and distress—but the mice were only to be flagged for veterinary treatment if the lesions were freshly bleeding or the animals' movement was impaired.
- d. Experimenters cut incisions into mice's heads, drilled holes into their skulls, placed a glass coverslip over the exposed brain, and attached hardware on top of the window. Several mice used in this study were found dead in the cages in which they were confined.
- 2. CCLCM failed to use appropriate methods to euthanize animals consistent with the American Veterinary Medical Association Guidelines on Euthanasia. In at least one case discussed by CCLCM staff, a Principal Investigator gassed mice, held in an unsealed container, with carbon dioxide. The mice were exposed to a gas that caused burning pain in their nose, throat, and chest; made breathing difficult; and produced a sensation akin to conscious drowning. It reportedly took the mice 12 minutes to die.
- 3. CCLCM failed to ensure that personnel were adequately trained and qualified to work with animals. PETA's investigator repeatedly found cages which had been inserted backward into ventilated racks—cutting off air supply to the animals—and that procedures had been carried out incompetently, jeopardizing the well-being of animals.
- 4. CCLCM failed to maintain an adequate "environment, housing, and management" program to provide for animals' health and well-being. PETA's eyewitness documented animals who had been left in cages or cardboard buckets—and forgotten; neonatal mice who were not given food; and cages that were so severely crowded that mouse pups were routinely found dead in them. PETA's investigator routinely found cages where the bedding had become wet as a result of leaking Hydropacs. The cages were not always cleaned and the negligence of one experimenter was the talk of the facility, while other experimenters were known for diminishing the concerns of the veterinary staff.

All the above appears to violate PHS Policy and the *Guide*. The above failures are detailed in the attached appendix, which is intended to illustrate the pain and misery suffered by animals at CCLCM and the pervasive failures there with the most severe consequences for many animals.

PETA's investigator, who is available for an interview upon request, will verify that she captured the referenced video recordings and photographs. I can be reached at 757-803-6447 or AlkaC@peta.org. Thank you for your time and consideration.

Sincerely,

Alka Chandna, Ph.D.

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I. Failure to maintain an adequate veterinary care program

The Guide specifies:

Veterinary care is an essential part of an animal care and use program. ... This responsibility extends to monitoring and promoting animal well-being at all times during animal use and during all phases of the animal's life. ... [A] veterinary program that offers a high quality of care and ethical standards must be provided, regardless of the number of animals or species maintained.

The *Guide* elaborates that an "adequate veterinary care program consists of assessment of animal well-being and effective management of ... protocol-associated disease, disability, and other sequelae," "surgery and perioperative care," "pain and distress," "anesthesia and analgesia," and "euthanasia."

However, PETA's investigator documented serious deficiencies in multiple aspects of CCLCM's veterinary care program, as detailed below.

A. Failure to provide veterinary care, including timely euthanasia, to sick and injured animals and failure to manage protocol-associated diseases, disability, or other sequelae

The *Guide* instructs that "a mechanism for direct and frequent communication should be established to ensure that timely and accurate information is conveyed to the responsible veterinarian about issues associated with animal health, behavior, and well-being, and that appropriate treatment or euthanasia is administered." Moreover, the *Guide* advises that "in the preparation of the protocol by the researcher and its review by the [Institutional Animal Care and Use Committee (IACUC)], ... criteria and process for timely intervention, removal of animals from a study, or euthanasia if painful or stressful outcomes are anticipated" should be considered.

However, dead or moribund mice were often found in cages at CCLCM—suggesting a failure to adequately assess mouse health, a failure to communicate health concerns to veterinary staff in a timely manner, and a failure to implement humane endpoints. In some cases, it appears that the IACUC may have failed to adequately review protocols to ensure that pain, discomfort, and distress to animals were minimized through the implementation of humane endpoints.

While the literature indicates that appropriate surveillance can help minimize the pain, discomfort, and distress experienced by animals—for example, in a 2012 paper describing "the essentials of assessing mouse health, colony health surveillance, common conditions, and determination of appropriate endpoints," researchers with the National Institutes of Health (NIH) advise that "careful observation of mice in their home cage can provide a wealth of information about the health and welfare of the animals" —the evidence suggests that workers at CCLCM failed to adequately assess the well-being of mice, failed to effectively manage protocol-associated disease, disability, and other sequelae, and failed to communicate concerns

¹ Burkholder, T., Foltz, C., Karlsson, E., Linton, C. G., & Smith, J. M. (2012). Health evaluation of experimental laboratory mice. *Current protocols in mouse biology*, 145-165.

related to the well-being of mice to the veterinary staff. In some instances, the staff of the Principal Investigator (PI) ignored the guidance of the veterinary staff—exposing animals to additional pain and distress.

- 1. Mice used in Experimental Autoimmune Encephalomyelitis (EAE) experiments: At CCLCM, EAE was induced in mice in multiple experimental protocols—carried out under the direction of PIs Dimitrios Davalos, Antoine Louveau, and Tara DeSilva. A husbandry technician named informed PETA's investigator that although mice used in such procedures would become paralyzed from the waist down, their condition was not to be reported to veterinary staff unless the mice were to the point where they could not ambulate the cage using their front legs, or if they started to have urine scalding or skin conditions due to not being able to move their back ends. However, also admitted that it was not always possible to see by looking in the front of the cage that the mice were paralyzed to the point where they would not be able to ambulate. Consequently, many mice used in EAE experiments endured considerable distress, and very likely pain as well, as a result of having compromised mobility and weakness for as many as 14 days before they were finally euthanized.
 - a. PI Dimitrios Davalos, Protocol 1684:
 - i. On November 22, 2019, PETA's investigator observed two cages in room 132 containing mice who had been injected with a compound the day before to induce EAE. On December 4, 2019, the mice were subjected to spinal cord imaging; and on December 6, 2019, PETA's investigator observed that the mice had shaved backs, with incisions along their spinal cords. According to the treatment cards, the mice had been given buprenorphine and Baytril the day before, but had not received additional treatments. There was either an extra nestlet or an extra paper towel in each of these cages, but the mice within didn't appear able to create nests with them, and were just sleeping on top of the paper towels. While PETA's investigator was observing the mice, one of the mice tried to get up and walk—but his back legs dragged through the bedding (please see Video 2019-12-06 V1 and Photographs 2019-12-06 2, 2019-12-06 3, 2019-12-06_4, and 2019-12-06_7). On December 20, 2019, PETA's investigator observed that these mice were no longer there and had presumably been euthanized.
 - ii. On February 20, 2020, PETA's investigator observed that there were two cages in room 132 used by PI Davalos, in which singly-housed mice had shaved areas on their backs, exposing an incision along the spine. These mice had been induced with EAE on February 6 and had been subjected to spinal cord imaging the previous day (February 19). Both mice were hunched. One mouse appeared to be fairly active, but the other (in cage 604452) didn't appear to want to move much. The mice had received the first injections of Baytril (once daily for three days) and buprenorphine (to be injected once the day of and once the morning after "as needed") the previous day, but had not received additional treatments (please see Video 2020-02-20_V1 and Photograph 2020-02-20_2). On February 24, the solitary mice in the two cages used by PI Davalos (604452, 604450) for spinal imaging were still hunched and appeared to be moving about the cages, though slowly (please see Video 2020-02-24_V1). On

February 27, these mice were moving slowly about, though it did appear that there was some weakness or slowing of their hind limb movement, and their posture was still hunched (please see Video 2020-02-27_V3 and Video 2020-02-27 V4). On March 5, 2020, PETA's investigator observed that the two cages confining mice used for spinal imaging and EAE were still there. One of the mice (in cage 604452) was sleeping in a nest, so PETA's investigator wasn't able to assess his or her condition. The other mouse (in cage 604450) was walking around. There was granulation and some crusty dryness around the incision, with new hair growing much closer to the area. The mouse's back was still hunched, and he walked with some slowness to his back end, but did not seem to be dragging his feet (please see Video 2020-03-05 V4). On March 6, 2020, PETA's investigator learned from that these mice were euthanized—one full month after being induced with EAE and 16 days after being subjected to spinal cord imaging.

b. PI Tara DeSilva, Protocol 2185:

- i. On November 29, 2019, PETA's investigator observed several cages in room 120 containing mice who had been induced with EAE and noticed that the mice in these cages had already begun to lose strength in their lower limbs, and were not walking, but were crawling or dragging themselves through the bedding to get to the food pellets on the floor of the cage. PETA's investigator wanted to examine the mice more closely, but veterinary technician , who was also in the room, called out: "The EAE cage you're checking, they're fine." PETA's investigator said that she wanted to make sure the mice weren't getting urine scald, but insisted that the mice were fine. Earlier in the had complained that she would be the only veterinary technician in the barrier and asked that the husbandry technicians "be nice" to her—which PETA's investigator understood to mean that they should err on the side of not reporting animal welfare concerns to her.
- ii. On December 17, 2019, PETA's investigator observed six cages in room 120 confining mice who had been induced with EAE. They had been injected with pertussis toxin on December 8 and 10. None of the mice appeared to have difficulties with locomotion at that point. On December 25, mice in three of the six cages had splayed back legs or had difficulty moving their back legs (please see Video 2019-12-25_V2). On December 27, mice in the six cages had progressing symptoms. In particular, some mice seemed to have lost control of the entire back half of their bodies, and had to drag themselves through the bedding (please see Videos 2019-12-27_V1, 2019-12-27_V2, and 2019-12-27_V3). On January 8, 2020, PETA's investigator observed that these mice were no longer there and had presumably been euthanized.
- iii. On January 22, 2020, PETA's investigator observed that three cages of mice in room 120 and used by PI DeSilva had been injected with pertussis toxin on January 18. On January 30, these mice had begun showing signs of weakness in their back legs, as some of them were starting to drag one or both of their limbs when walking. On February 6,

several of these mice were starting to have to drag themselves through the bedding using only their front limbs.

c. PI Antoine Louveau, Protocol 2115:

- i. On November 6, 2019, several mice in room 506 began to appear weak in their back legs, and their back ends tended to droop more toward the floor of the cage, as though they weren't standing fully as they tried to walk (please see Video 2019-11-06_V1). On November 7, 2019, the condition of these mice had not changed. On November 18, PETA's investigator observed that these mice were no longer there and had presumably been euthanized.
- ii. On November 8, 2019, a female mouse (cage 592715) displayed a head tilt. A veterinary technician named recommended that the mouse be euthanized. However, PI Louveau's staff responded that they would not euthanize the mouse, but would continue to monitor her (please see Video 2019-11-08_V2).
- 2. Mice bred to suffer pelvic organ prolapse: Experimenters at CCLCM, including PI Margot Damaser, deliberately breed mice so they are prone to pelvic organ prolapse. Technicians were informed that since the PI specifically studied organ prolapse, there was no need to report animals with prolapsed organs—and they did not have to fill out a health or treatment card for such animals. According to health or treatment card for such animals. According to health or treatment card for such animals. According to health or mice with prolapses—through to the end of their lives—was the application of lubricant to protruding tissue. He also stated that even female mice with pelvic prolapse were bred.

When, in a separate protocol, a mouse used for breeding suffered with a uterine prolapse, veterinary technician stated that breeding mice with a uterine prolapse is not recommended. Indeed, standard operating procedures for many facilities advise against the breeding of female mice with prolapses. 2,3 However, it appears that for this protocol, the IACUC neglected to consider the pain, discomfort, and distress that would be suffered by female mice who were repeatedly bred—even as they experienced pelvic organ prolapse. Thus, in addition to failures related to veterinary care for animals used in this protocol, it appears that the IACUC failed to ensure that pain, discomfort, and distress to animals would be minimized.

Additionally, the Damaser lab maintained a "decision tree" flow chart to guide laboratory workers on how to assess rectal prolapses (please see Photograph 2020-03-08_2). According to the flow chart, if the prolapsed tissue was dry or cracked and not bleeding (severity 4) or bleeding, ulcerated, or dark red (severity 5), then the tissue must be treated with lubrication for up to three days in a row by the lab or veterinary services. And if the condition did not improve, the mouse would have to be euthanized. If the prolapsed tissue reached severity level 6, described as necrotic tissue, hunched posture, porphyria, repetitive itching, scratching, or chewing, or "other signs of moribund"

² McGill University. Standard Operating Procedure #609: Common Rodent Treatments. 2018. Available online: https://mcgill.ca/research/files/research/619- common rodent treatments - may 2018 0.pdf.

³ Washington State University. Standard Operating Procedure #9. 2020. Available online: https://iacuc.wsu.edu/documents/2016/06/wsu_sop_9.pdf/

condition," then the mouse would have to be euthanized. However, as is explained below, PETA's investigator documented the condition of two particular mice used in this protocol (please see (b) and (d) below). Both of these mice exhibited a hunched posture; and the mouse in (b) suffered with a prolapsed tissue that became necrotic. But both of these mice were deprived of appropriate treatment and were not euthanized in accordance with the flow chart maintained by the lab itself—in spite of repeated inquiries on the part of PETA's investigator regarding the mice's condition. This suggests that neither the PI's lab workers nor the members of the veterinary staff were appropriately familiar with the parameters outlined in the lab's flow chart; and as a consequence, mice used in this protocol suffered even more pain, discomfort, and distress.

a. Male mouse with rectal prolapse:

- i. On September 23, 2019, PETA's investigator observed that in room 506, a male mouse confined in a cage used by PI Damaser had a small rectal prolapse. The tissue was red and moist and PETA's investigator wrote up a report for veterinary services. However, veterinary technician informed PETA's investigator that the PI was "allowed" to have animals with prolapses, that there was no need to request treatment for the animals, and that it was the responsibility of the PI's staff to ensure that the mice were treated.
- ii. On September 24 and 25, 2019, PETA's investigator observed that there had been no markings on the cage card to indicate that the PI's staff had provided any kind of treatment to the mouse with the rectal prolapse.
- iii. On September 26, 2019, PETA's investigator observed that veterinary technician had marked her initials on the cage card to indicate that she had treated the mouse's prolapsed area with lubricant. PETA's investigator later noticed a single-page memorandum from veterinary services to the Damaser group, noting that if the group failed to record that they are monitoring an animal, the case would be brought to the veterinarian, Dr. Kimberly Such (who goes by "Dr. Kim").
- iv. On September 27, 2016, PETA's investigator observed that the rectal tissue looked worse than it had all week—the tissue appearing to be dry, with a black string-like piece of tissue or debris hanging off of the prolapsed tissue and dragging into the bedding. It isn't clear whether the hanging matter was necrotic tissue, bedding, or something that had been ingested. PETA's investigator brought the matter to the attention of a veterinary assistant named ; and later discussed the matter with veterinary technician.
- v. On October 21, 2019, PETA's investigator observed that it did not seem that the condition of the male mouse had changed—and the prolapsed tissue appeared bright, red, and moist.
- b. Female mouse with rectal prolapse and possibly a uterine prolapse as well (cage bar code 563855):
 - i. On October 7, 2019, PETA's investigator noticed that in room 506, immediately adjacent to the cage confining the mouse with the rectal prolapse, there was a female mouse with a rectal prolapse. There were treatment cards on both cages, but the last time the cages had been

- marked as observed or the mice treated by the PI group was October 2, 2019.
- ii. On October 9, 2019, the cage cards for both mice indicated that their prolapsed tissue had been treated with lubricant the day before.
- iii. On October 10, 2019, _______ observed that the female mouse with a prolapse seemed more painful or sensitive to handling. Upon closer observation, ______ noticed that the mouse's urethral area was swollen and red, with a slight protuberance that may have been internal tissue or extremely inflamed outer tissue. ______ suspected that the mouse had suffered another prolapse, this time of her bladder—and she expressed concern that the mouse was in "significant pain."
- iv. On October 11, 2019, reported that the mouse still seemed "uncomfortable," but no treatment had been applied and no pain relief had been provided. The PI group stated that it would be "monitoring" the mouse's condition, but did not specify whether the mouse would receive any pain medication.
- v. On October 21, 2019, this mouse appeared to be walking slowly and painfully, with her back hunched. Later, upon closer inspection, PETA's investigator observed that the mouse appeared to be walking a little less hunched than earlier in the day, but the prolapsed tissue was a darker red than it had appeared in previous weeks; it was moist and there was bedding stuck to the tissue. The lower genital area was very swollen and seemed painful to the touch. There were spots of blood on the paper towel in the cage (please see Video 2019-10-21_V1 and Photographs 2019-10-21_1 and 2019-10-21_2).
- vi. On October 22, 2019, this mouse still looked a little hunched and uncomfortable; there was no indication anywhere on the cage cards that any pain medication had been added to her treatment. Later in the day, PETA's investigator discussed the mouse's condition with a veterinary technician named who exclaimed: "I can't believe they're breeding this mouse." Veterinary technician stated that the mouse's condition was "within allowable limits." When asked whether the mouse could be given pain relief, responded, "Not at this point."
- vii. On October 23, 2019, this mouse was still hunched and seemed to be walking in a waddle, as if to not jostle the swelling on her caudal, ventral area (please see Video 2019-10-23_V1). PETA's investigator discussed the mouse's condition with the would be no change in how veterinary services approached her condition.
- viii. On October 25, 2019, PETA's investigator discussed the mouse's condition with ____asking whether the protocol would allow for pain medication. But ____asking whether the protocol would allow research on these mice 15 years, and with a pelvic prolapse, they have never had any pain." PETA's investigator observed that the mouse walked gingerly to avoid the swollen area and was hunched, but _____ insisted that this was simply their "model" (please see Video 2019-10-25_V1).

- ix. On November 4, 2019, PETA's investigator observed that the mouse had some dry, black, necrotic tissue at the end of her prolapsed rectal tissue. PETA's investigator brought the mouse's condition to every experiment to the tissue and reported that the necrotic tissue had "sloughed right off" when she had touched it.
- x. On November 8, 2019, PETA's investigator observed that the mouse once again was hunched, with dry, partially black, necrotic-looking tissue at the end of her prolapse, with bedding stuck to the more moist tissue closer to her body. There was dried blood spotted all over the paper towel in the cage. This time, applied lubricant to the tissue and again, the necrotic tissue was gone (please see Video 2019-11-08_V1).
- xi. On November 15, 2019, PETA's investigator again observed some necrotic, dry tissue at the end of the mouse's pink prolapse—and bedding stuck to the more moist area closest to her body (please see Video 2019-11-15_V1).
- xii. On November 18, 2019, PETA's investigator observed that there was still bedding stuck to the mouse's prolapsed rectal tissue, and there was dried-out, necrotic-looking tissue on the end of the prolapse (please see Video 2019-11-18_V1).
- xiii. On November 19, 20, 21, and 22, 2019, PETA's investigator observed that the mouse continued to suffer with the prolapse (please see Videos 2019-11-19_V1, 2019-11-20_V1, 2019-11-21_V1, and 2019-11-22_V1). PETA's investigator observed that the end of the tissue on the mouse's rectal prolapse was drying out. However, there was no indication on any of these dates that lubricant had been applied to the prolapsed tissue.
- xiv. On November 26, 2019, PETA's investigator observed that the mouse's condition did not appear to have changed, and the prolapsed rectal tissue still had some bedding stuck to the more moist tissue. PETA's investigator checked the treatment card, and saw that someone had initialed "" and dated the card "11/27." This may have been a mistake, but it could also have been an intentional falsifying of records to allow the employee to leave early for the Thanksgiving holiday (please see Photograph 2019-11-26_1 and Video 2019-11-26_V1).
- xv. On November 29, 2019, PETA's investigator observed that the mouse moved around the cage, but still seemed to walk carefully with her back legs somewhat spread, as though to not put pressure on her lower abdomen (please see Video 2019-11-29_V1).
- xvi. On December 2, 2019, PETA's investigator observed that the mouse seemed to be struggling to pass a pellet of feces thorugh her prolapsed rectum. She was hunched, with both bedding and nesting material stuck to her prolapsed tissue (please see Video 2019-12-02_V2). There was no indication that lubrication had been applied to the prolapsed tissue.
- xvii. On December 3, 2019, PETA's investigator observed that the prolapsed tissue appeared to be dryer than usual; there was no indication that lubrication had been applied by either veterinary services or the PI group (please see Video 2019-12-03_V3). Similar observations were made on December 4 and 5, 2019 (please see Video 2019-12-5_V1). After PETA's

- investigator shared her concerns regarding the mouse's welfare to the PI group applied lubricant to the mouse's prolapse.
- xviii. On December 20, 2019, PETA's investigator found that cage 563855 that had confined the mouse was no longer on the rack. A deactivation slip for the cage suggested that the mouse had been euthanized—10 weeks after her prolapse was first observed.
 - xix. On February 27, 2020, confirmed to PETA's investigator that this mouse had been euthanized because she wasn't breeding and didn't "look too good."

c. Mouse in cage 565828:

- i. On January 11, 2020, PETA's investigator observed that a mouse in room 506 and in a cage used by PI Damaser had a slight rectal prolapse. The prolapsed tissue was red and moist. According to the cage card, the mouse's prolapse was first treated with lubricant on January 3, 2020.
- ii. On February 6, 2020, PETA's investigator observed that the mouse's prolapse was now more prominent. There were also dried spots of blood all over the paper towel in the cage (please see Video 2020-02-06_V1).
- iii. On February 8, 2020, PETA's investigator observed that the cage confining this mouse was missing from the rack. A slip indicated that the cage had been deactivated, suggesting that the mouse had been euthanized—more than 5 weeks after the prolapse was first treated.

d. Mouse in cage 565832:

- i. On February 6, 2020, PETA's investigator observed a cage confining a breeding pair of mice with a small litter of pups born January 16, 2020. The adult female of the pair had a rectal prolapse, which did not prominently protrude, but was accompanied by a bulging pelvic floor, indicating that the condition was significant internally. The mouse had not received any lubrication treatment (please see Video 2020-02-06_V2).
- ii. On February 19, 2020, PETA's investigator observed that a treatment card on the cage indicated that the mouse should be reported to veterinary services if she was in "poor condition" or if her rectal tissue was "bleeding, dry, irritated, red." There was no indication anywhere that any pain medication had been given to the mouse. However, this mouse stood in a wide-legged stance, so that her back legs did not touch the distended area beneath her, from her pelvic prolapse. The prolapsed rectal tissue appeared pink and moist, with bedding stuck to it. The mouse's back was hunched in a manner consistent with a mouse experiencing pain or discomfort (please see Video 2020-02-19 V2).
- iii. On February 21, 2020, PETA's investigator observed that the mouse had more protruding rectal tissue than before (please see Video 2020-02-21_V1).
- iv. On February 25, 2020, PETA's investigator observed that the color of the prolapsed rectal tissue had become darker, as though the end is progressing towards becoming necrotic (please see Video 2020-02-25_V1).
- v. On February 27, 2020, PETA's investigator discussed this mouse's condition with from the Damaser laboratory.

- confirmed that the bulge in the mouse's pelvic area was a pelvic prolapse; and reiterated her claim that the prolapses did not cause the animals pain (please see Video 2020-02-27_V1).
- vi. On February 28, 2020, PETA's investigator again observed this mouse and found that the prolapsed tissue was still prominent (please see Video 2020-02-28_V1).
- vii. On March 4, 2020, there was bedding and nesting material stuck to the prolapsed tissue (please see Video 2020-03-04_V1).
- viii. On March 8, 2020, PETA's investigator noticed that the cage confining this mouse was no longer on the rack. Although PETA's investigator was unable to look for the deactivation slip for the cage, it seems likely that this mouse was finally euthanized—one month and two days after the prolapse was first observed by PETA's investigator.
- 3. Transgenic mice bred to be prone to kidney disease: Experimenters at CCLCM, including PI Leslie Bruggeman, bred genetically modified mice so they were prone to have skin growths, lesions, and cataracts (protocol 1854). Monitoring cards posted on the cages confining these mice specified that health reports for the mice were only to be written if any of the lesions were freshly bleeding or if the growths impaired movement. However, mice used in these experiments suffered considerable discomfort and distress outside the narrow parameters stipulated in the monitoring directive. Moreover, according to veterinary technician the monitoring directive were susceptible to "sudden death syndrome"—underscoring the need to have well-defined humane endpoints in place.
 - a. On November 14, while checking the mice used by PI Bruggeman, PETA's investigator observed a mouse in cage 588431 (labeled on the monitoring card as cage 574618) with growths (on her right side) larger than the others—approximately the size of a thumb nail. The other mouse in the cage had small pebbly growths behind her right shoulder (please see Photographs 2019-11-14_1 and 2019-11-14_2).
 - b. On December 16, 2019, veterinary technician pointed to a female mouse used in PI Bruggeman's experiments (cage 588407). This mouse had a very large growth on top of her head that pressed down on her face, pushing at her right eye. It was clearly bothering her, as the mouse repeatedly stopped to said that this mouse appeared to be "at an scratch at the growth. endpoint," although she also said that they only needed to write health reports for the mice on this study if the growths were ruptured, bleeding, or were interfering with the mouse's movement or behavior. said that she would contact the lab to determine a time frame for euthanizing the mouse. The monitoring card on the cage indicated that these mice should be monitored bi-weekly; however, the last date initialed on the card before 's from that date was 11/25, which was three weeks previous (please see Photographs 2019-12-16_1 and 2019-12-16 2 and Video 2019-12-16 V1).
 - c. On December 18, 2019, while in room 120, PETA's investigator found a dead adult mouse in a cage used by PI Bruggeman. There was a surviving mouse in the cage. Veterinary technician explained that the mice used in this protocol (1854) were susceptible to "sudden death syndrome." pointed to a label on the cage that indicated that PI Bruggeman used genetically

- modified mice (Apol1-G1MF) in this protocol and said that it would not be unusual to find that these mice had died with no apparent cause (please see Photograph 2019-12-18_1).
- d. On January 2, 2020, PETA's investigator observed that in room 120, mice used in PI Bruggeman's experiments had skin lesions that were large and appeared to be itchy (as the mice scratched at them) or scabbed. A male mouse in cage 574627 had a lesion that stretched from his left side across his back to the right, approximately 3 inches in length. The lesion was void of hair, and the skin was red, thickened, and rough looking. The mouse was scratching at it, but did not seem to have drawn blood. A female mouse in cage 588437 had a round, roughly thumb-sized sore on her lower back that was thickly scabbed in the center. A male mouse in a breeding cage (588423) with a female had a lesion on his right side, similar in appearance to the first mouse, but approximately 2 inches long. The mouse was scratching at this lesion, which PETA's investigator suspected must also be itching. To the knowledge of PETA's investigator, the mice in this protocol were not given any kind of treatment for the lesions, such as ointment for the itching. Veterinary technician wondered whether the mice were getting close to their "endpoint," suggesting that veterinary concerns related to the mice's well-being were not insignificant (please see Videos 2020-01-02_V1, 2020-01-02_V2, and 2020-01-02_V3). Later in the day, PETA's investigator overheard a conversation between PI Bruggeman and veterinary technicians and regarding the endpoint for the expressed concern that the lesions might be painful, but PI study. Bruggeman dismissed the concerns, saying loudly: "You can't kill mice just because they're ugly!"
- e. On January 8, 2020, PETA's investigator noticed that the mice with large lesions in cages 574627 and 588423 were gone, along with other mice who had skin growths. The mouse in cage 588437 with the round sore was still there. PETA's investigator discussed the matter with veterinary technicians who affirmed the endpoint for PI Bruggeman's protocol—that "unless there is muscle showing or it's bleeding actively, they're allowed to look gross." Both and admitted that it was difficult to determine whether a mouse is at an endpoint—suggesting that with poorly defined endpoints, mice can suffer pain, distress, and discomfort beyond what would ostensibly be considered "necessary" to meet the scientific objectives of a study (please see Video 2020-01-08_V1).
- f. On January 27, 2020, while in room 120, PETA's investigator observed that one of four mice confined in a cage used by PI Bruggeman appeared hunched. All four mice had skin growths of varying sizes. said that she would continue monitoring this mouse. The following day, PETA's investigator noticed that the mouse was no longer in the cage and had likely been euthanized.
- g. On January 29, 2020, while in room 120, PETA's investigator found that two singly housed adult mice used by PI Bruggeman had died. There were no outward signs as to what caused the deaths, though they were of the genotype previously described as having "sudden death syndrome." These mice had no visible skin growths or lesions.
- h. On February 8, 2020, while in room 120, PETA's investigator found a dead mouse used by PI Bruggeman in protocol 1854. The mouse was singly-housed,

had no visible skin growths, and was not one of the mice with the "sudden death" genotype.

- 4. <u>Mice used in tumor studies</u>: Experimenters at CCLCM, including PI Mohamed Abazeed, used mice in tumor studies. However, PETA's investigator reports that the tumor burden for mice used in PI Abazeed's experiments exceeded what is conventionally considered acceptable.
 - a. On September 13, 2019, PETA's investigator accompanied a husbandry technician named to room 159-A in a Biosafety Level 2 (BSL-2) suite. One side of a rack of cages was used by PI Abazeed and each of these cages confined mice whose bodies were wracked with tumors. PETA's investigator reported that some of the tumors were larger than 2 centimeters; and some were bulbous, with more than one lobe—and almost like a cauliflower. PETA's investigator expressed shock at the size of the tumors, but explained that PI Abazeed was allowed more "leeway" in the protocol, and that the mice would not be euthanized unless the tumors either ruptured or significantly impaired their locomotion. The "leeway" extended to PI Abazeed deviates from what is considered "acceptable" in most laboratories. For example, the NIH's Guidelines for Endpoints in Animal Study Protocols⁴ specifies that for adult mice tumors should not exceed 2 cm in any one dimension.
- 5. Mice implanted with cranial windows: Experimenters at CCLCM, including PI Dimitrios Davalos, implanted cranial windows in mice. PETA's investigator documented that some of the mice used in this protocol were found dead in the cages in which they were confined—suggesting that either the protocol failed to include well-defined and meaningful humane endpoints that would have precluded the scenario where mice died in cages without the benefit of humane euthanasia; or, there were issues with daily observations that precluded a humane intervention. Additionally, PETA's investigator reports that for some mice, the apparatus was very close to their eyes in a way that likely caused the animals distress and discomfort; however, it seems that the mice may have been left with implanted cranial windows for extended periods.
 - a. On October 11, 2019, while in room 132, PETA's investigator observed that a cage used by PI Davalos, which confined four mice embedded with cranial windows, was labeled with a veterinary services sticker that indicated that one of the four mice might have an infection at the cranial window site. As the mice were sleeping at the time, PETA's investigator could not discern any additional swelling, redness or discharge.
 - b. On February 8, 2020, while in room 132, PETA's investigator observed approximately seven cages used by PI Davalos under protocol 1684 in which mice had cranial windows. One of these cages (598989) confined only one mouse, but a pink card behind the treatment card indicated that two mice from this cage had died and two others had been euthanized. The treatment cards for two of the Davalos cages— 598989 and 602143—indicated that these mice had not received any treatment other than buprenorphine the day the cranial windows were implanted and the day after. The mice in cage 598989 had been implanted

⁴ National Institutes of Health. Animal Research Advisory Committee. Guidelines for Endpoints in Animal Study Proposals. 2019. Available online: https://oacu.oir.nih.gov/sites/default/files/uploads/arac-guidelines/b13 endpoints guidelines.pdf

- with cranial windows on December 23, 2019, and the mice in cage 602143 had been implanted with cranial windows on January 21, 2020 (please see Photographs 2020-02-08_1, 2020-02-08_2, and 2020-02-08_4).
- c. On March 5, 2020, while in room 132, PETA's investigator noticed that there were still mice with implanted cranial windows in several cages (please see Photographs 2020-03-05_5, 2020-03-05_6, and 2020-03-05_7, and Video 2020-03-05_V3).

B. Failure to implement procedures for disease prevention, diagnosis, and therapy

The *Guide* states: "All animals should be observed for signs of illness, injury, or abnormal behavior by a person trained to recognize such signs" and recommends that "such observation should occur at least daily." Also: "Appropriate procedures should be in place for disease surveillance and diagnosis. Unexpected deaths and signs of illness, distress, or other deviations from normal in animals should be reported promptly and investigated, as necessary, to ensure appropriate and timely delivery of veterinary medical care. Animals that show signs of a contagious disease should be isolated from healthy animals ... Procedures for disease prevention, diagnosis, and therapy should be those currently accepted in veterinary and laboratory animal practice."

However, in addition to the issues summarized in part A of this section, PETA's investigator observed several instances where CCLCM employees failed to comply with these guidelines.

- 1. On September 13, 2019, PETA's investigator accompanied a husbandry technician named as they checked cages in room 159-A in a BSL-2 suite. While checking cages, explained that there had been cases of *Corynebacterium bovis* (*C. bovis*) in this room. *C. bovis* can cause scaly dermatitis in mice, and in nude mice, the bacterium causes widespread scaly dermatitis and alopecic areas. Infection with this bacterium "may cause weight loss, probably due to dehydration through skin lesions, or from anorexia, and pruritis." Moreover, *C. bovis* is known to be "persistent in the environment" and facilities have reported difficulties removing the bacterium from the environment. However, PETA's investigator observed that there were at least two cages confining nude mice in this room—indicating that CCLCM failed to take the simple step of housing these nude mice in another part of the facility not impacted by *C. bovis*.
- 2. On September 18, 2019, while in room 121, PETA's investigator found that in a breeding pair of mice used by PI Bergmann, the female mouse had a uterine prolapse. It did not appear that the mouse had given birth to pups recently—so the cause for the prolapse was not clear. PETA's investigator reported the matter to veterinary technician who said that breeding is not recommended in the case of a uterine prolapse; and she said that she would recommend that the mouse be euthanized.
- 3. On October 3, 2019, while in room 120, PETA's investigator found that a mouse who was held alone in a cage used by PI Peacock had died. The cage card indicated that the mouse—who was very small and hunched—had been born on August 16, 2019. It seemed that the mouse must have died recently as his/her body was still in a upright,

⁵ Charles River Laboratories. *Corynebacterium bovis*. Technical sheet. 2009. Available online: https://www.criver.com/sites/default/files/resources/CorynebacteriumbovisTechnicalSheet.pdf

though hunched, position, and rigor mortis had set in. Food and water were available in the cage, and PETA's investigator suspected that the mouse may have had a malocclusion, which would have prevented the mouse from eating and growing at a normal rate. Had this been the case, it would indicate that CCLCM employees failed to carry out proper daily observations that would have revealed—particularly for a singly-housed mouse—that the animal was not eating. On October 7, 2019, PETA's investigator asked a veterinary assistant named whether a necropsy had been conducted on this mouse—but said that the mouse was very young, and not yet "important to the study," and consequently, a necropsy would not be done.

- 4. PETA's investigator documented numerous instances of mice with dermatitis. While dermatitis may be a spontaneous condition in some strains of mice, it can also be caused following a break in the skin—either scratch marks that are self-inflicted due to extreme psychological distress or sustained due to fighting. CCLCM's treatment of dermatitis included conducting a tape test (in which a piece of tape is used to take a sample of hair from the mouse and checked under a microscope for mites), nail trim, and application of a triple antibiotic ointment. However, no effort was made to investigate the genesis of the incidents of dermatitis.
 - a. On October 8, 2019, while in room 506, PETA's investigator discovered that in a cage confining three adult mice, one of the mice had developed a small area of dermatitis on the back of his or her neck, and another mouse had some scratch marks that looked like they could be signs of oncoming dermatitis.

 wrote up a health report for these mice.
 - b. On October 9, 2019, while in room 506, PETA's investigator found a mouse who appeared to be developing some dermatitis. The mouse was confined with one other mouse, in a cage used by PI Olman (protocol 1785). The mouse had a few scratch marks on the back of his or her neck, and the area was just starting to look a little inflamed, but hadn't ulcerated or swollen yet. treated the mouse according to CCLCM's protocol and PETA's investigator wrote up a health report for this mouse.
 - c. On October 29, 2019, while in room 121, PETA's investigator found a mouse with dermatitis, caged with at least one other mouse on rack 1. The mouse was scratching compulsively at small areas of broken skin behind both ears and on their left shoulder. The areas were not actively bleeding, but the broken skin was red and inflamed.
 - d. On November 6, 2019, while in room 506, PETA's investigator found that in a cage used by PI Olman, confining a breeding pair of adult mice and a litter of pups, the male adult mouse was vigorously scratching at his ears. There were open sores on the backs of the ears, so PETA's investigator wrote up a report for dermatitis. Veterinary technician examined the mouse and said that she suspected the PI group would likely end up euthanizing him.
 - e. On November 22, 2019, while in room 506, PETA's investigator found that in a cage used by PI Byzova, an adult female mouse was scratching at one ear, which was starting to get red. PETA's investigator wrote up a health report for this mouse, and later learned that had treated her.
 - f. On January 6, 2020, while in room 121, PETA's investigator observed that one mouse—part of a breeding pair—in a cage used by PI Bergmann was developing

- dermatitis. PETA's investigator wrote up a health report for the mouse, but was later informed by that both mice had been euthanized.
- g. On January 7, 2020, while in room 121, PETA's investigator found a mouse with a small area of dermatitis on the back of his neck and on one ear. The mouse was in a cage used by PI Dasarathy.
- h. On January 15, 2020, while in room 120, PETA's investigator observed that a male mouse used by PI Cheropanova had been scratching at the edges of his ears, which were inflamed and bloody. PETA's investigator wrote up a health management report for this mouse.
- i. On January 21, 2020, while in room 121, PETA's investigator found two mice in two separate cages on a rack used by PI Dasarathy who had small areas of dermatitis, approximately half an inch in size, developing on the backs of their necks. These areas were red, inflamed, and had scratch marks.
- j. On February 17, 2020, while in room 121, PETA's investigator found that a mouse used by PI Davalos had a small area of dermatitis, approximately the size of a pencil eraser, on the back of her neck. There were some areas of redness and small scabs around this area. The mouse was confined with a male mouse, as part of a breeding pair. Later that day, PETA's investigator learned that from the Davalos lab would be euthanizing the mouse.
- 5. On October 29, 2019, while in room 121, PETA's investigator found a mouse used by PI Hashimoto under protocol 1932 who was hunched and appeared dehydrated. PETA's investigator suspected that this mouse had a malocclusion and wrote out a health report. Veterinary technicians and an analocclusion and confirmed that the mouse had a severe case of malocclusion; and a referred to the mouse as having "scissor teeth." The veterinary technicians clipped the mouse's teeth and added diet gel to the cage—whereupon, the mouse began eating immediately.
- 6. On November 5, 2019, while in room 506, PETA's investigator observed that a singly-housed mouse held in a cage used by PI Corey had a small rectal prolapse that was bleeding. PETA's investigator wrote up a health report for this mouse. Later in the day, veterinary technician examined the mouse. The blood was still visible, but the prolapse had reduced. removed the "veterinary services requested" sticker from the cage, saying: "Well, that makes my life easier." PETA's investigator understood this to mean that she would not give the mouse any treatment.
- 7. On November 8, 2019, while in room 159, PETA's investigator found a cage confining a mouse who appeared to be hunched and had unkempt fur. PETA's investigator communicated the issue to veterinary technician who said that she would take care of writing a report and treating the mouse.
- 8. On November 14, 2019, while in room 120, PETA's investigator found that in a cage used by PI Sen, there was a breeding pair of mice and the body of a dead pup. Upon closer inspection, PETA's investigator observed that there were no other pups in the cage and the dead pup appeared to have been dead for a few days. The body was flattened, stiff, and dehydrated, and appeared to be missing a head. The pup was not a neonate, and appeared to have been over 12 days old at the time of death, judging by the size and the amount of fur.
- 9. On November 27, 2019, while in room 121, PETA's investigator found a solitary female mouse in a cage on rack 7, used by PI Lin, to be hunched and shuddering with increased respiratory effort. The mouse appeared to be in acute distress so PETA's investigator called the veterinary office. Veterinary technician said she would send a

heavily. Ten mi said the PI group. A was giving the	the problem was "likely neurological" and she left the room to contact in hour later, informed PETA's investigator that PI group until 9:30 am before euthanizing the mouse. Douse and said: "The mouse is clearly suffering." At 9:30 am, no one from	
10. Mice with ear h	ematomas:	
(cage 59 confined appeared of the mapplied. swollen	ember 29, 2019, while in room 506, PETA's investigator found a cage 19250, protocol 1930) used by PI Reider in which a mouse, who was d with four other mice, had an ear hematoma surrounding an ear tag. It d that the ear tag had been forced into well-vascularized skin in the center ouse's ear, as opposed to the edges of the ear, where tags are usually The mouse was scratching at the hematoma, which appeared red and directly around the tag, taking up approximately just under half the area	
pointed she was investig	replied: "That's just how this group does it" and further stated that n't sure what PETA's investigator expected her to do. PETA's ator suggested that perhaps the ear tag could be removed, the ear could	
	ed with a topical antibiotic, and the mouse's nails could be trimmed. aid that she "guess[ed]" she could trim the mouse's nails, but she would	
	check with the PI group before removing the tag.	
b. On Dece	ember 2, 2019, PETA's investigator noticed that had left the	
	ary attention requested" sticker on the cage confining the mouse with the	
	atoma, although there was no treatment or monitoring card on the cage at nt. PETA's investigator noticed that the ear of at least one other mouse	
-	inning to swell up around the tag—and that the tags on all of the mice's	
_	been placed improperly near the center of the ear. As PETA's	
investig	ator checked the surrounding cages, it became apparent that some of the	
	at least three surrounding cages had the ear tags placed this way—and	
	the mice in those cages were getting swelling at the site as well (please	
	eo 2019-12-02_V1). Later in the day, PETA's investigator discussed the with veterinary technician who expressed concern at	
	reluctance to treat the mice, but said that was fairly new and	
•	y hadn't seen an ear hematoma before. contacted the PI lab	
	ked with them to remove the tag from the mouse with the hematoma.	
	ember 3, 2019, informed PETA's investigator that she was convince the PI group that they should remove the ear tags from the rest	
	ice in the four cages where the tags had been placed improperly.	
	5, 2019, a woman named who worked as the husbandry	
supervisor at th	e Cole Eye Institute (referred to as simply "Cole") trained PETA's	
investigator on husbandry duties at Cole. said that PETA's investigator should		
bring a flashlight to make it easier to check the cages at Cole. On January 11, 2020 and again on March 8, 2020, PETA's investigator performed husbandry checks in the		
mouse-housing rooms in Cole. However, these rooms were dimly lit and so the cages		
	e difficult to see and PETA's investigator did not get an adequate look at	

- the animals. The poor lighting in the mouse rooms at Cole undermines the purpose of carrying out daily observations to ensure proper veterinary care for animals.
- 12. On December 20, 2019, while in room 120, PETA's investigator found that in one cage used by PI DeSilva, a mouse, confined with four others, had a condition that described as "ulcerative lesion" on his or her right rear leg. The lesion was approximately the size of a pinkie-finger nail, flesh-colored, and somewhat scaly in appearance, like scar tissue. It was not bleeding or moist, but the area was absent of hair. PETA's investigator wrote up a health report for the mouse.
- 13. On December 23, 2019, while in room 121, PETA's investigator found that a mother mouse in a cage used by PI Davalos (cage 586984, protocol 1684) had a uterine prolapse. The female mouse was confined with a male mouse and a litter of pups, born December 20, 2019. PETA's investigator brought the cage to the attention of who observed that tissue was protruding 6 to 8 mm, and was still moist and pink. PETA's investigator later learned that the mouse was euthanized—although it was not clear whether the pups were also euthanized or transferred to a foster mother.
- 14. On January 7, 2020, while in room 121, PETA's investigator found a dead mouse in a cage used by PI Bergmann. There were three surviving mice in the cage, and they were approximately one month old. Upon examination of the dead mouse, PETA's investigator found a malocclusion.
- 15. On January 9, 2020, while in room 121, PETA's investigator observed that a male mouse appeared slightly hunched. The mouse was singly-housed in a cage used by PI Dasarathy. Later in the day, confirmed that she had examined this mouse but did not share details on whether she had provided any treatment to the mouse.
- 16. On January 11, 2020, PETA's investigator accompanied husbandry technician to the primate rooms in the large animal area ("L"). mentioned that a monkey named Raspberry (previously "Buddha"; 13M-004) was also on probiotics due to some recent diarrhea, which said she's had "forever." PETA's investigator also learned that Raspberry and another monkey named Nala (16-M-005) are MRSA carriers.
- 17. On February 24, 2020, while in room 160, PETA's investigator observed a male mouse with a rectal prolapse. The mouse was confined with another male mouse in cage used by PI Gupta. There was blood on the paper towel in the cage, and the protruding rectal tissue was moist, pink, and had bedding stuck to it. The next day, PETA's investigator went to check on this mouse but learned that the PI group had decided to euthanize the mouse
- 18. On February 25, 2020, while in room 117, PETA's investigator found that an adult mouse's ear was slightly swollen and irritated around the ear tag, which had been improperly implanted near the center of the ear, instead of the near the periphery. The mouse was scratching at the ear, but did not appear to have broken the skin. The mouse was confined in a cage used by PI Chiang Liu.
- 19. On February 25, 2020, while in room 120, PETA's investigator found a dead mouse in a cage used by PI Sharifi (550555). There were three surviving mice in the cage. All of the mice seemed to have pink markings of their bodies. An orange caution card warned there was "enzalutamide" in the food and a biohazard sign indicated that the mice had been injected with human tumor cells on December 20, 2019.
- 20. On March 2, 2020, while in room 121, PETA's investigator observed that a mouse confined in a cage used by PI Davalos was scratching at his or her ears to the point where they were bleeding. A veterinary technician named trimmed the

mice's nails and treated his or her ears with ointment. But on March 5, 2020, PETA's investigator noticed that this mouse was gone and suspected that the Davalos lab had likely euthanized the mouse.

Additionally, PETA's investigator frequently found animals who had died while being confined in cages. The cause of death was not always apparent and PETA's investigator often discovered animals who had died. The overwhelming prevalence of such mysterious deaths not only underscores the grievous conditions for animals in CCLCM's laboratories, but also suggests that CCLCM has not implemented "[e]ffective preventive medicine"—as required by the *Guide*—aimed at "maintaining healthy animals and minimizing nonprotocol sources of variation associated with disease and inapparent infection, thus minimizing animal waste and potential effects on well-being."

- 1. On September 26, 2019, while in room 506, PETA's investigator found that in a cage used by PI Louveau (protocols 2115) and meant to confine five adult mice, PETA's investigator could only see three mice. Two of the mice had died and were buried under bedding. One mouse appeared to have died recently, while the other mouse's body was flattened and misshapen, and seemed to have been decomposing for several days. Food and water were available in the cage and there was no visible trauma on the bodies, so the cause of death was not apparent.
- 2. On October 21, 2019, while in room 506, PETA's investigator found that in a cage used by PI Graham confining two adult mice, one of the mice had died. The mouse was in unremarkable body condition, and there was food and water in the cage. There were no visible wounds or injuries on the mouse's body and the cause of death was not apparent.
- 3. On November 1, 2019, while in room 159, PETA's investigator found that in a cage used by PI Reizes, which confined two adult mice, one of the mice was near the front of the cage, dead. There was no obvious cause of death that was apparent. Veterinary assistant said that she would write up the report and remove the mouse.
- 4. On November 21, 2019, while in room 506, PETA's investigator found a cage used by PI Tatiana Byzova and observed that there were only three mice visible in a cage that should have confined four, according to the cage card. Eventually, PETA's investigator found the body of the fourth mouse, and saw that the skull of the mouse had been picked completely clean by the other mice (please see Photographs 2019-11-21_1, 2019-11-21_2, and 2019-11-21_3).
- 5. On November 25, 2019, while in room 121, PETA's investigator found a dead adult mouse in a cage used by PI Bruggeman. An obvious cause of death for the adult was not apparent.
- 6. On November 29, 2019, while in room 120, PETA's investigator discovered a dead mouse in a cage used by PI Wang. There were two other mice in the cage, and there was no outward apparent cause of death.
- 7. On December 2, 2019, while in room 506, PETA's investigator discovered a dead mouse in a cage used by PI Byzova. There were two other mice in the cage, and there was no obvious cause of death.
- 8. On December 10, 2019, while in room 121, PETA's investigator found two cages (one used by PI Dasarathy and the other used by PI Bergmann); in each, one adult mouse was dead, with one or two other surviving mice. The cause of death for either mouse was not outwardly apparent.

- 9. On December 23, 2019, while in room 121, PETA's investigator found one dead adult mouse in a cage with three surviving mice in a cage used by PI Hashimoto, though the cause of death was not readily apparent.
- 10. On January 11, 2020, while in room 117, PETA's investigator found that an adult male mouse, a little over one year old, was dead. The mouse was confined alone in a cage used by PI Myshrall. The mouse was overweight, but there was no obvious cause of death (please see Photograph 2020-01-11_4).
- 11. On February 3, 2020, while in room 121, PETA's investigator found a dead adult mouse in each of two cages used by PI Davalos under protocol 1684, with no visible clue as to the cause. Both cages had one surviving mouse.
- 12. On February 6, 2020, while in room 159, PETA's investigator discovered a dead mouse in a cage used by PI Huang. There were no visible clues as to the cause of death, which appeared to be somewhat recent, as the body was cold, but not yet rigid.
- 13. On February 8, 2020, while in room 159, PETA's investigator found one dead mouse in a cage with two surviving mice. The cage was used by PI Gastman under protocol 1888. There were not visible clues as to the cause of death.
- 14. On February 18, 2020, while in room 121, PETA's investigator discovered a dead mouse in the back of a cage used by PI Davalos. The cage confined four other mice. The cause of death was not readily apparent.
- 15. On February 25, 2020, while in room 121, PETA's investigator discovered a dead adult mouse, confined with another mouse, in a cage used by PI Eng. The dead mouse was in the back of the cage, partially buried in bedding.
- 16. On March 5, 2020, while in room 506, PETA's investigator found a cage (614413), used by PI Louveau, under protocol (2115) that was meant to confine five adult mice. The mice looked to be recently weaned as they were fairly small, but four of the mice were hunched and one of the mice was dead (please see Photographs 2020-03-05_2, 2020-03-05_3, 2020-03-05_4).
- 17. On March 8, 2020, while in room 159, PETA's investigator found a dead mouse in a cage used by PI Myshrall. This mouse had been singly-housed. There were no outward injuries that could be seen, and the cause of death was not apparent.
- 18. On March 8, 2020, while in room 506, PETA's investigator discovered that an adult mouse, confined with four other adult mice, had died. The mice were confined in a cage (600416) used by PI Rieder under protocol 1930. The dead mouse was slimmer than the other mice in the cage and upon inspection, it became clear that the mouse had a malocclusion, which may have been the cause of death (please see Photographs 2020-03-08_3 and 2020-03-08_4).
- 19. On March 9, 2020, while in room 121, PETA's investigator discovered that a mouse who had been confined alone in a cage used by PI Davalos was dead. The cause of death was not apparent.

C. Failure to use appropriate methods of euthanasia consistent with the American Veterinary Medical Association (AVMA) Guidelines on Euthanasia

The *Guide* instructs:

Euthanasia is the act of humanely killing animals by methods that induce rapid unconsciousness and death without pain or distress. Unless a deviation is justified for scientific or medical reasons, methods should be consistent with the *AVMA Guidelines*

on Euthanasia (AVMA 2007 or later editions). In evaluating the appropriateness of methods, some of the criteria that should be considered are ability to induce loss of consciousness and death with no or only momentary pain, distress, or anxiety; reliability; irreversibility; time required to induce unconsciousness; appropriateness for the species and age of the animal; compatibility with research objectives; and the safety of and emotional effect on personnel.

However, PETA's investigator documented an instance in which CCLCM personnel failed to comply with these guidelines. On November 1, 2019, PETA's investigator overheard veterinary technician and husbandry technician talking about carbon dioxide gassing of mice. The related that she had been had been stopped by a PI who was trying to euthanize mice using carbon dioxide in the necropsy room, and the PI had told her it wasn't working. Through the discussion, it became apparent that the PI was attempting to gas the mice in a cage that had a ventilation grommet in the back. In spite of attempting to gas mice in an unsealed container, the PI was eventually able to kill the mice by running the carbon dioxide machine twice—which would have been 12 minutes. By failing to use the non-ventilated cage provided to use with the carbon dioxide machine, the PI increased the pain and distress suffered by the mice whom she eventually killed—and failed to deliver anything approximating a "good death" (please see Video 2019-11-01_V1).

II. Failure to ensure that personnel conducting procedures are qualified to perform their duties

The *Guide* instructs that all "personnel involved with the care and use of animals must be adequately educated, trained, and/or qualified in basic principles of laboratory animal science to help ensure high-quality animal science and animal well-being." The *Guide* continues: "Personnel caring for animals should be appropriately trained ... and the institution should provide for formal and/or on-the-job training to facilitate effective implementation of the Program and the humane care and use of animals. Staff should receive training and/or have the experience to complete the tasks for which they are responsible."

However, PETA's investigator documented numerous incidents where incompetence of employees at CCLCM jeopardized the health and well-being of animals.

- 1. On September 17, 2019, PETA's investigator observed that a group of mice used by PI Srinivasan Dasarathy had been implanted with osmotic pumps, while other mice had been subjected to a procedure called "elastase install," which involved an oropharyngeal injection. One of these mice was moving slowly. He appeared to be in pain as he was hunched and his eyes were squinted. The mouse fell to his side and started gasping; three minutes later, the mouse died. It is unclear whether the injection possibly punctured the airways or esophagus of this mouse or whether inadequate monitoring following the procedure resulted in his painful death.
- 2. On October 17, 2019, PETA's investigator observed that in room 159, four cages used by PI Daniel Lindner—into which mice had been weaned the previous day—had been inserted into the rack backwards, with the air grommet facing outwards and not into the ventilated rack. PETA's investigator informed the barrier who said that she would contact the PI group to see if anyone in the group needed more training.

3. On January 11, 2020, PETA's investigator observed that in room 159, one cage used by PI Omar Mian had been inserted into the rack backwards, with the air grommet facing out from the rack. PETA's investigator did not know how long the cage had been placed improperly. 4. On January 29, 2020, a worker from the laboratory of PI Booki Min informed another staffer that she had weaned approximately 16 to 20 mouse pups at two weeks old, at least one week too early to wean. With the help of veterinary technician foster accommodations were made for the pups. 5. On February 21, 2020, errors made by a husbandry technician named , who had started at the facility on December 16, 2019, jeopardized the wellbeing of animals at CCLCM. A husbandry technician named concern that had not been adequately trained—and also that he was not being corrected after he made mistakes. a. In room 506, cage 590615 used by PI Jessica Williams (protocol 1871) was overpopulated, with seven adult mice. There was a "new pups" sticker on the cage dated February 11 (with a question mark), but there were no pups who appeared to be 10 days old in the cage. If some of the mice in this cage had recently been pups, they looked to be well over a month old, and this overpopulation should have been caught when the room was checked the previous week. According to the room book, was listed as the technician who had checked the room that week. An orange breeder card behind the cage card had information for the breeding pair, but no litter information had been filled out (please see Photographs 2020-02-21_2 and 2020-02-21_3). b. Approximately 10 cages in room 506 were found to be very low on water and two cages were very low on food. Adding food and water to the cages in this room had been 's task; it was later determined that he had not added food or water to the cages in room 159 either. It was left to to add food and water to approximately 160 cages in that room as they were too low to wait until after the weekend. , the husbandry supervisor in the barrier, discovered that failed to check cages in room 120 that week, as he hadn't seen the room number on the schedule. Apparently, hadn't been aware that when checking rooms, he needed to check all the housing rooms that weren't being changed that week. 6. On March 6, 2020, veterinary technician asked PETA's investigator to help address some issues in room 120.

III. Failure to maintain an adequate "environment, housing, and management" program to provide for "health and well-being" of animals

and had also discovered that two cages did not have adequate food or water to make it through the weekend. A husbandry technician named had ostensibly checked room 120, but evidently had done a poor job of checking the cages carefully.

The *Guide* instructs:

The design of animal facilities combined with appropriate animal housing and management are essential contributors to animal well-being, the quality of animal research and production, teaching or testing programs involving animals, and the health and safety of personnel. An appropriate Program ... provides environments, housing,

and management that are well suited for the species or strains of animals maintained and takes into account their physical, physiologic, and behavioral needs, allowing them to grow, mature, and reproduce normally while providing for their health and well-being.

The *Guide* further elaborates that consideration should be given to the "microenvironment"—which is the physical environment immediately surrounding the animal, including the primary enclosure, lighting, noise, vibration, and so on.

However, PETA's investigator documented that CCLCM repeatedly failed to ensure "appropriate" and "safe" confinement for animals, as stipulated by the *Guide*.

A. Failure to provide food or water to animals

The *Guide* specifies that "at a minimum," animals must have "access to potable, uncontaminated drinking water according to their particular requirements" and instructs that "watering devices, such as drinking tubes and automated water delivery systems, should be checked to ensure appropriate maintenance, cleanliness, and operation." The *Guide* further advises: "Animals sometimes have to be trained to use automated watering devices and should be observed regularly until regular usage has been established to prevent dehydration." The *Guide* also instructs that animals "should be fed palatable, uncontaminated diets that meet their nutritional and behavioral needs."

However, PETA's investigator observed several instances in which CCLCM failed to provide food or water to animals.

- 1. On September 19, 2019, while in room 120, PETA's investigator observed that there were seven ventilated racks in the room, and three were double-sided. The cages in this room had not been changed that week and a few cages (a total of five) were absolutely filthy—and in one case, had mold growing on food on the floor of the cage. The bedding at the bottom of the cage was covered in feces and had areas where the urine was soaked through to the bottom. The cages in this room had not been scheduled to be changed that week, but the following week. PETA's investigator changed the five particularly problematic cages and added a new Hydropac to some cages with low water.
- 2. On October 28, 2019, while in room 121, PETA's investigator found that several cages used by PI Eng confined mice who had just been weaned that day. One of the cages confined a solitary mouse, but there was no food on the floor of the cage (CCLCM's policy is to leave food on the floor of a cage for a new weanling), nor any food in the food tray of the cage. PETA's investigator placed food on the cage floor and added food to the tray—and reported the serious lapse to placed (please see Photograph 2019-10-28_1).
- 3. On October 9, 2019, while in room 506, PETA's investigator knelt down to move some Hydropac bins and saw that on the lower shelf of the room cart (which is situated between the two adjacent hoods at a perpendicular angle) there was a cardboard "chicken bucket"—the informal term used by CCLCM employees in reference to small cylindrical cardboard containers used for transporting mice—that had not been thrown out. PETA's investigator pulled the bucket off the shelf and looking through the air holes on the lid, was surprised to see three adult mice confined with no bedding, no water, and no food. The mice were not very active; they were not to the point of lethargy, but

seemed oddly subdued. PETA's investigator called for veterinary technician placed the mice, who examined the mice. Veterinary technician placed the mice in a cage with a Hydropac and food, and placed the cage on an empty area of a rack, with a note about the mice being under the care of veterinary services. Although an effort was made to identify which PI group had abandoned the mice in the bucket, none of the groups came forward.

- a. On October 10, 2019, veterinary assistant commented that none of the PI groups would "own up to that mistake" and possibly take a penalty or even a warning from the IACUC.
- b. On October 11, 2019, PETA's investigator mentioned the incident to husbandry technician who shared that a similar incident had happened before—when a bucket containing live mice had been found in the necropsy room, as though someone had brought them there to euthanize them, but had left them there. It was never determined who the responsible party was in that instance either.
- c. On October 14, 2019, PETA's investigator discussed the incident with who said that no PI group had taken responsibility for the October 9, 2019, incident. She shared that on October 11, 2019, while she was working in room 120, she found a mouse pup walking on the floor in room 120. PETA's investigator asked if the pup was a weanling, wondering aloud if one of the PI groups had dropped the pup while weaning a group of mice into other cages. responded that the pup wasn't old enough for weaning, which she said was the "weird thing." She didn't know how a pup that young could have been misplaced under a hood or dropped on the floor, but said that she'd contacted all the PI groups in that room as well, and had not heard back from anyone who might know where the pup was from.
- d. On October 15, 2019, PETA's investigator discussed the incident with husbandry supervisor to suggest that PI groups be required to label buckets with the PI's name and protocol number. agreed that this was a good idea. She expressed surprise that the guilty party wouldn't "own up" to the abandonment of mice in the bucket, observing: "It isn't like they would get in trouble for it."
- e. On October 16, 2019, PETA's investigator learned from that the mice who had been abandoned in a bucket and the young mouse she had found on the floor of room 120 had all been euthanized; and that no party had come forward to take responsibility for either incident.
- f. On October 28, 2019, while in room 121, PETA's investigator observed workers from several PI groups working under the hood throughout the afternoon. Some of the workers removed mice from the room using the cardboard buckets, but PETA's investigator did not see anyone label the buckets—indicating that the suggestion to ensure accountability for animal care was not implemented.
- 4. On January 11, 2020, while in room 117, PETA's investigator observed that a cage confining two mice had no cage card. There was a handwritten note and an undated "Quarantine" sticker. The handwritten note read, "found on PI dirty rack"—referring to a cart by the sterilizer designated for PI staff to discard their dirty, *unoccupied* cages. The cart would then be transported outside the barrier, through the sterilizer, where the cages are all disposed of in dumpsters on the loading dock. If this cage had not been discovered, the mice would have been disposed of along with the rest of the cages.

- PETA's investigator observed that the sterilizer uses a chemical fog, but did not know whether outgoing trash is sterilized (please see Photographs 2020-01-11_1 and 2020-01-11_2).
- 5. On January 11, 2020, while in room 160, PETA's investigator found two more cages lacking cage cards, but with handwritten notes, which read, "2 [female]-found in hood in a bucket on 12/21/19," and "These 4 [male] mice were found in the [right] hood inside of a chicken bucket 12/21/19." There was also a crossed-out note indicating that six "mixed gender" mice had been found in a bucket, which likely indicated that all of these mice had been found together in one bucket, and then separated by whomever found them. As that had already occurred three weeks prior, it was unlikely that the responsible party would be identified and the mice would likely end up being killed (please see Photograph 2020-01-11_7).
- 6. On January 15, 2020, PETA's investigator asked veterinary technician about the unclaimed mice in rooms 117 and 160, to see if they were still there and if they were available for adoption. Said that the mice were still there, and that she didn't know if they could be adopted. She said that they had "never" adopted mice out before, but that she would ask the PI (Tim Myshrall), noting that the possibility of adoption would depend "on what the study was." PETA's investigator mentioned that the last time mice were left unclaimed in a bucket, they had discussed requesting that PI staff be required to label buckets when they are used. Said that she had requested this, and that "an email was supposed to go out," but had not. She said that she would "see what the status is of that." Indicated that it was unlikely that the person responsible for these mice would be found.
 - also said that over the weekend, she found a cage containing eight adult mice on a rack in the cage wash area. She said there was "no way" someone wouldn't have seen the mice running around in the cage while wheeling the rack down the hallway (please see Video 2020-01-15_V1).

B. Failure to ensure adequate space

In outlining space requirements for animals confined in laboratories, the *Guide* specifies: "An animal's space needs are complex and consideration of only the animal's body weight or surface area may be inadequate. Important considerations for determining space needs include the age and sex of the animal(s), the number of animals to be cohoused and the duration of the accommodation, the use for which the animals are intended (e.g., production vs. experimentation), and any special needs they may have." Further: "Breeding animals will require more space, particularly if neonatal animals will be raised together with their mother or as a breeding group until weaning age."

CCLCM's standard operating procedures allow for only up to five adult mice per cage, or up to two adults with a litter. However, PETA's investigator documented that CCLCM routinely permitted overcrowding of cages that confined mice who were used for breeding, by failing to remove adults or weaned infants in a timely fashion. This exacerbated the already stressful environment for mice and resulted in the trampling and cannibalization deaths of infants. PETA's investigator observed overcrowded cages on a near-daily basis as a litter of pups would be born into a cage confining three adult mice (one male and two females) or a litter would be born into a cage where an older, not-yet-weaned litter was already present. A small, but not complete, sampling of these incidents is included in the list below. PETA's investigator

frequently observed incidents in which mouse pups were trampled or cannibalized as a result of overcrowding or extreme stress—and those incidents are included in the list below. For each of the mortalities, PETA's investigator prepared a mortality report, which was given to or picked up by an employee on the veterinary services team.

Along with failing to always separate mice in a timely fashion to avoid overcrowding or trampling/cannibalization deaths of pups, CCLCM's failure to implement breeding colony management practices⁶ that would help the facility steer clear of the sorts of problems described above and itemized below indicates an indifference to the continuous problems with extreme stress and neonate deaths.

Deaths of Mouse Pups:

- 1. On September 9, 2019, while in room 506, PETA's investigator found a cage used by PI McDonald in which a recently born litter of pups appeared to have been cannibalized.
- 2. On September 11, 2019, while in room 506, PETA's investigator found at least three cages used by PI Louveau with a breeding pair of mice and a litter, with one pup from each litter found dead. In two of the cases the pup had been cannibalized, and in the third case a cause of death was not apparent. In this same room, PETA's investigator also found that three cages used by PI Aronica were overcrowded or soon-to-be overcrowded. Two of the cages confined two females with two distinct litters of pups (differentiated by different ages and sizes), and one of the cages confined two females with one litter of pups, but one of the females was heavily pregnant and could deliver at any time, which would be considered overcrowding.
- 3. On September 16, 2019, while in room 121, PETA's investigator found a dead pup who appeared to have been cannibalized in a cage used by PI Davalos and an overcrowded cage confining a male, two females, and a litter of pups.
- 4. On September 19, 2019, PETA's investigator found two cages used by PI Davalos with litters born the previous day, and in which the litters had been killed by the adult mice. The bodies of the pups had been dismembered. PETA's investigator also found that three additional cages used by PI Davalos had become overcrowded with new litters having been born in cages already confining three adult mice (one male and two females).
- 5. On September 20, 2019, while in room 160, PETA's investigator found a dead mouse pup in a cage that confined a breeding pair and a litter. The cause of death was not apparent, but PETA's investigator wrote up a mortality report. Later, in room 506, PETA's investigator found a dead weanling mouse, whose cause of death was not apparent.
- 6. On September 23, 2019, while in room 506, PETA's investigator discovered that a cage used by PI McDonald confined a dam and a litter of neonate pups—but the pups had all been killed and in some cases, partially cannibalized.
- 7. On September 27, 2019, while in room 506, PETA's investigator found two cages used by PI Williams with overcrowding situations due to new litters having been born. In the same room, PETA's investigator also found two cages in which the litters of pups had been killed by the adult mice.

⁶ National Institutes of Health. Animal Research Advisory Committee. Guidelines for the Establishment and Use of Mouse Breeding Groups. 2019. Available online: https://oacu.oir.nih.gov/sites/default/files/uploads/aracguidelines/b18 mouse breeding groups.pdf

- 8. On September 30, 2019, while in room 121, PETA's investigator found a cage used by PI Davalos confining a pair of mice and a litter of pups, with three pups from that litter dead under the bedding. One of the pups had been beheaded and there was no clear cause of death for the other two pups.
- 9. On October 1, 2019, while in room 121, PETA's investigator found a cage used by PI Dasarathy in which all of the pups had been cannibalized by the adult breeding pair of mice in the cage. Later in the day, PETA's investigator found one more cage used by PI Dasarathy, in which all the pups had been cannibalized. Also, PETA's investigator found that one adult mouse in a pair of sentinel mice was dead; the mouse was curled into a fetal position, but PETA's investigator did not see any obvious injuries or an apparent cause of death.
- 10. On October 2, 2019, while in room 121, PETA's investigator found a cage used by PI Bergmann which confined a breeding pair of mice and a small litter of two to three pups. It appeared as though the pups had been cannibalized, and all were dead. In this room, PETA's investigator also found a cage that had become overcrowded due to a second litter of mice being born in a cage with an older litter not yet weaned.
- 11. On October 4, 2019, while in room 120, PETA's investigator found two cages used by PI DeSilva in which breeding pairs of mice had cannibalized their entire litters of pups. Before PETA's investigator had an opportunity to fill out mortality reports for the two litters of pups, veterinary assistant would fill out the mortality reports.
- 12. On October 7, 2019, while in room 506, PETA's investigator found a cage in which a litter of four pups were all dead, with no obvious cause of death.
- 13. On October 11, 2019, while in room 121, PETA's investigator found a cage used by PI Dasarathy confining a breeding pair of mice and a litter of two pups. The pups had been cannibalized.
- 14. On October 14, 2019, while in room 121, PETA's investigator found that two cages used by PI Davalos had become overcrowded as litters of pups had been born in cages with a breeding harem (one adult male with two adult females). PETA's investigator also found three cages in which one to two pups had died, either by cannibalism or with no obvious cause of death apparent.
- 15. On October 16, 2019, while in room 121, PETA's investigator found a cage used by PI Bergmann that confined a breeding pair of mice and a litter of pups approximately 19 days old. The dam had a spot on her neck that appeared to be the start of dermatitis. It was very small, but appeared red, and she was scratching at it. Later, during the cage change, PETA's investigator noticed that one of the pups had been partially cannibalized. The front of the pup's head was missing, though the back of the skull and ears were present. The protocol number was 1903 and the barcode on the cage was 504100 (please see Photographs 2019-10-16_1 and 2019-10-16_2).
- 16. On October 17, 2019, while in room 121, PETA's investigator found two cages used by PIs Dasarathy and Davalos in which one or two newborn pups had been cannibalized.
- 17. On October 23, 2019, while in room 506, PETA's investigator discovered a cage used by PI Florian Rieder (protocol 1930, barcode 573109) in which an adult pair of mice were confined with a litter of pups born on September 30, 2019 and a newborn litter of pups who had just been born. This cage would be considered overcrowded, due to the two litters; however, all three of the newborn pups were dead, with no obvious cause of death apparent (please see Photographs 2019-10-23 1 and 2019-10-23 2).

- 18. On October 25, 2019, while in room 506, PETA's investigator found three cages in which the full litters of pups had been cannibalized.
- 19. On October 28, 2019, while in room 121, PETA's investigator noticed that one of the Davalos cages bore a pup sticker with a date of birth written as "10/23," but the date had been crossed out, as sometimes is done when a litter has died. While changing the cage, PETA's investigator found no live pups, but under the bedding found three or four pups, in black and shriveled pieces. The pups appeared to have been dead for several days, but had not been removed from the cage. PETA's investigator suspected that someone had known the pups had died, but had not removed the bodies.
- 20. On October 29, 2019, while in room 121, PETA's investigator found a cage used by PI Hashimoto that confined a breeding pair of adult mice and a litter of pups who had been born a few days previous. The bodies of the cannibalized pups were under the bedding.
- 21. On November 4, 2019, while in room 506, PETA's investigator found a cage used by PI Asosingh (protocol 1995, barcode 568590) that was considered overcrowded, due to an older litter being in the cage with a newborn litter. Upon closer inspection, PETA's investigator observed that one of the adult mice had cannibalized one of the older pups, and was currently eating tissue from the pup's head (please see Photographs 2019-11-04_1 and 2019-11-04_2). In the same room, PETA's investigator found that in a cage used by PI Williams, an entire litter of three pups who had been born a few days previous were dead. There was no obvious cause of death.
- 22. On November 22, 2019, while in room 506, PETA's investigator found two cages used by PIs McDonald and Williams in which one or two pups had been cannibalized.
- 23. On November 25, 2019, while in room 121, PETA's investigator found three cages used by PIs Davalos and Dasarathy containing dead pups, all of whom had been cannibalized.
- 24. On December 3, 2019, while in room 506, PETA's investigator discovered that entire litters of newborn pups were dead in four cages used by PI Williams. In two of these cages, the pups had been cannibalized, and in the other two, there was no obvious cause of death.
- 25. On December 23, 2019, while in room 121, PETA's investigator found two cages used by PI Davalos in which entire litters of pups were dead. One litter had been cannibalized, while the other had no visible signs of trauma.
- 26. On January 14, 2020, while in room 120, PETA's investigator found three separate cages used by PI DeSilva under protocol 2203 in which all the pups in each cage had been cannibalized. These were pups up to two weeks old, not neonate pups as would usually be the case with this many cannibalizations. All three of these cages bore orange caution cards, as the adult mice within had been injected with tamoxifen on January 1 or 2, 2020. Stated that cannibalization isn't uncommon with mice injected with tamoxifen. However, no actions were taken to guard against these deaths that were likely painful and quite traumatizing.
- 27. On January 17, 2020, while in room 159, PETA's investigator found that four out of five pups from a new litter had been cannibalized in one of the cages used by PI Lindner.
- 28. On January 24, 2020, while in room 120, PETA's investigator found that whole litters of neonate pups were dead, some cannibalized, in two cages used by PI Cherapanova. In the same room, PETA's investigator found dead mice in two cages used by PI

- Wang (protocol 2142). In a cage confining three adult mice, one was dead; and in the other cage, a dam and her two pups were all dead. The cause of death was not apparent (please see Photographs 2020-01-24_2 and 2020-01-24_3).
- 29. On January 27, while in room 120, PETA's investigator found that in a cage, used by PI DeSilva and confining a breeding pair of mice and a litter, the entire litter of five pups were dead. They had not been cannibalized and the cause of death was not apparent.
- 30. On February 8, 2020, while in room 160, PETA's investigator found that litters of pups had been born in two cages on February 5, 2020. The full litters in both cages were dead, and some of the pups had been cannibalized. Both of these cages were used by PI Hazen. In this room, PETA's investigator also discovered a dead adult mouse in a cage used by PI Sharifi. There were no visible clues as to the cause of death.
- 31. On February 24, 2020, while in room 121, PETA's investigator discovered a litter of three dead pups in a cage used by PI Bergmann. The cause of death was not readily apparent.
- 32. On February 26, 2020, while in room 121, PETA's investigator found a cage used by PI Bergmann which housed a breeding pair of mice and a litter of approximately four pups. All of the pups were dead and some of them had been cannibalized by the adults.
- 33. On February 28, 2020, while in room 121, PETA's investigator found that a cage used by PI Bergmann had become overpopulated due to a litter born overnight in a cage that already confined a breeding pair of adult mice and an older litter. A colony management report was prepared. On March 2, 2020, PETA's investigator rechecked the cages and found that the mice had been separated. However, the remaining neonate pups were all dead, and all had been partially cannibalized.
- 34. On March 3, 2020, while in room 121, PETA's investigator found a litter of approximately five dead pups under a nest in a cage with a breeding pair of adult mice used by the Dasarathy lab. There were no signs of cannibalization and the cause of death was not immediately apparent.
- 35. On March 8, 2020, while in room 121, PETA's investigator found that in a cage used by PI Bergmann, which confined a breeding pair of mice and a pup, the pup—who appeared to be less than three days old—had died.
- 36. On March 8, 2020, while in room 160, PETA's investigator found that in a cage used by PI Hazen, a litter of three pups was dead. The pups appeared to have been partially cannibalized.

Overcrowding Conditions:

- 1. On September 12, 2019, while in room 506, in the section of cages used by PI Louveau, PETA's investigator found three cages that had overcrowded conditions due to litters being born the previous day, with an unweaned litter still in the cage.
- 2. On September 18, 2019, while in room 121, PETA's investigator found overcrowding conditions in a cage as a litter had been born while one pup from a previous litter was still housed with the breeding pair of mice. Later in the day, PETA's investigator observed that the neonate litter had been removed and presumably euthanized.
- 3. On September 24, 2019, while in room 506, PETA's investigator found three cages used by PI Louveau that had overcrowding due to new litters that had been born; two of the cages had three adults with a litter and one of the cages had two litters of different ages.

- 4. On October 18, 2019, while in room 121, PETA's investigator found a cage that had become overcrowded as it confined a breeding pair of mice, a litter nearly old enough for weaning, and a newborn litter of pups born overnight.
- 5. On October 25, 2019, while in room 121, PETA's investigator found a cage that would be considered overcrowded as it confined three adult mice (one male and two female) and a litter of pups. A note on the cage instructed personnel not to disturb the cage as the pups were "extremely important." The situation was written up in a colony management report. However, the PI's staff resisted separating the mice and they were not separated until October 29, 2019.
- 6. On November 8, while in room 117, PETA's investigator found that a cage used by PI Myshrall had become overcrowded, with three adult mice and as many as 20 pups. This was documented in a colony management report.
- 7. On November 11, 2019, while in room 121, PETA's investigator found that four cages used by PI Davalos had become overcrowded, with three adult mice and multiple litters of pups in each cage. This was documented in a colony management report.
- 8. On November 12, 2019, while in room 121, PETA's investigator found that another cage used by PI Davalos had become overcrowded due to a litter being born in a cage that already confined three adult mice. This was documented in a colony management report.
- 9. On November 13, 2019, while in room 121, PETA's investigator found that one cage used by PI Dasarathy had become overcrowded due to a second litter being born in a cage that already confined a breeding pair of mice and a litter born in October.
- 10. On November 15, 2019, while in room 506, PETA's investigator discovered a single neonate pup in a cage used by PI Seth Corey (cage 584129) that was supposed to confine five adult male mice—which meant that one of the adult mice thought to be male was actually female. The pup was being trampled by the adults. The situation was documented in a colony management report and the situation was handled later that day (please see Photographs 2019-11-15_2 and 2019-11-15_3).
- 11. On November 18, 2019, while in room 506, PETA's investigator found a cage used by PI McDonald that had become overcrowded due to a litter being born that day in a cage that confined a breeding harem of adult mice.
- 12. On December 4, 2019, while in room 506, PETA's investigator found that a cage used by PI Ivanov had become overcrowded, as it already contained a pair of adult mice with a litter almost ready to wean, but a new litter had been born overnight. In addition to the concerns of overcrowding, PETA's investigator observed that almost all of the older pups and one of the adults had been barbered by the other adult, and were missing hair in various areas (please see Photograph 2019-12-04_1).
- 13. On December 4, 2019, while in room 506, PETA's investigator found two more overcrowded cages, used by PI Louveau. One confined two females and two litters of pups, approximately four days apart in age, with the youngest born just that day. As only one litter of pups can be confined to a cage at any one time, PETA's investigator wrote up a colony management report for the cage. The other cage confined four adult female mice and a neonate litter of pups born that day. PETA's investigator suspected that the PI group had not realized that one mouse had been pregnant. Since the pups were vulnerable to become trampled by the adults in the cage, PETA's investigator wrote up a colony management report. PETA's investigator paged the veterinary assistant named to separate the mice, but complained that she wasn't keen to return to room 506. looked at the situation with the two overcrowded Louveau cages. She said that the first cage with the two litters could wait until the next day, but agreed that

the second cage with the newborn pups and the four adults needed to be separated sooner than that. The following day, PETA's investigator learned from a member of the Louveau group that she had separated the mice in the two cages noted by PETA's investigator the previous day. When PETA's investigator later saw PETA's investigator apologized for having return to room 506 only to find that a member of the PI group had separated the mice. responded that she hadn't returned to room 506 as she didn't think it was an "emergency situation." When PETA's investigator expressed concern that the pups were at risk of being trampled by the adults in the cage, said that if there had already been dead pups in that cages, she would have come to "save the rest." PETA's investigator asked, "So pups would have had to die for you to prevent the others from dying?"

- 14. On January 13, 2020, while in room 120, PETA's investigator found that in a cage used by PI Wang (cage 60087, protocol 2142) that was supposed to contain five male mice, there were many pups in the cage—possibly two litters. Veterinary technician examined the cage and estimated that the pups were approximately two to three days old. It was unclear how the male and female mice had gotten mixed together in a cage (please see Photographs 2020-01-13_1 and 2020-01-13_2).
- 15. On February 26, 2020, while in room 160, PETA's investigator found that a cage had become overpopulated due to a litter having been born in a cage before an older litter was weaned.
- 16. On February 28, 2020, while in room 121, PETA's investigator found that a cage used by PI Bergmann had become overpopulated due to a litter having been born in a cage already confining a breeding pair and an older litter.
- 17. On March 5, 2020, while in room 506, PETA's investigator found three cages of concern on a rack used by PI Williams. The most concerning was a cage confining eight adult mice. There was no "new pups" sticker on the cage to indicate that there had been a litter of pups who hadn't been weaned, and the mice were all approximately the same size and weight. The other two cages each contained more than one litter of pups of varying ages, but those also had no sticker to indicate the varying ages of the litters (please see Photograph 2020-03-05_1 and Video 2020-03-05_V2).
- 18. On March 6, 2020, while in room 121, PETA's investigator found three cages that had become overpopulated. Two of the cages, used by PI Dasarathy and Bergmann, confined two litters of different ages in the cages. The third cage, used by PI Davalos, confined three adult mice and one litter.
- 19. On March 11, 2020, while in room 121, PETA's investigator found that a cage used by PI Davalos had become overpopulated due to a second litter having been born in the cage.

C. Change in policy to address overpopulation in cages—and poor communication-increases vulnerability of animals

The problem of cages becoming overcrowded—jeopardizing the safety and well-being of the confined mice—was exacerbated when CCLCM implemented a policy during either November or December 2019 that veterinary assistants would not routinely separate mice held in overcrowded cages or to even email the PI groups to inform them of the issue. The veterinary assistants would instead be "monitoring the cages," with the "hope" being that PI groups would take care of colony management issues themselves, without veterinary services having to step in.

As explained by veterinary technician ______, the rationale behind the new policy was that the PI groups were expected to "show up" to "pay closer attention to their colonies," instead of relying on veterinary services. However, the policy was enacted before all parties involved were even aware of its existence—and this resulted in additional mouse mortalities. In particular, as detailed below, husbandry technicians would prepare colony management reports to draw attention to overcrowding situations and veterinary assistants would collect these reports—but nothing was done to address the overcrowding. This resulted in mortalities.

- 1. On December 19, 2019, while in room 120, PETA's investigator found that three cages used by PI Wang were overcrowded, as there were three adults in each of these cages, with a litter of pups present. A colony management report was prepared to document the situation in these cages and veterinary assistant collected the report. In the same room on December 20, 2019, PETA's investigator found that two cages used by PIs Ahern and Bruggeman had become overcrowded as new litters of pups had been born in these cages, which already confined existing litters of not-yetweaned pups. Again, colony management reports were prepared and these. On December 26, 2019, in room 120, PETA's investigator found three additional cages that had become overcrowded; in one, there were two litters whose ages differed by more than 7 days (category H), and in the other two, litters were born into cages each confining three adults (category C). PETA's investigator also found that one adult mouse in a cage of four mice used by PI Wang had died, with no visible cause of death. Colony management reports were prepared for all of these incidents. In the same room, on December 27, 2019, PETA's investigator found that entire litters of pups had died in two cages, while one cage contained a dead adult mouse. One of the cages with a dead litter of pups was the cage that had been documented as being overcrowded in a colony management report the previous day (category H). This was a cage used by PI Wang and PETA's investigator observed that the entire neonate litter had been cannibalized and one of the older pups in the cage was also dead, from unknown causes.
- 2. On December 27, 2019, when asked about the new policy, husbandry supervisor said that she was not aware of the policy. On December 30, 2019, after speaking with the veterinarian Dr. Kimberly Such, known as "Dr. Kim," reported that the policies were still being worked out—suggesting that changes had been made before deliberations had been completed, causing suffering and deaths to animals.
- 3. On January 6, 2020, while in room 121, PETA's investigator found a cage used by PI Dasarathy had become overpopulated (category H), due to a new litter having been born into a cage already confining an older litter. the veterinary assistant, picked up the colony management report, but per the new policy, did not separate the older pups out of the cage. Later in the day, PETA's investigator observed that in a different cage used by PI Dasarathy, a litter of three pups had been killed and cannibalized. On January 7, 2020, PETA's investigator rechecked the cage used by PI Dasarathy that had been marked as overpopulated (category H) the previous day. The mice in the cage had still not been separated and all of the approximately five younger pups were now dead, and some had been cannibalized. In a discussion on this matter, veterinary technician defended the new policy, saying that the facility was "hoping to encourage" PIs' staff to check on "their" mice more frequently. When challenged that the PI groups could be "encouraged" via email or a conversation without subjecting the mice to the consequences of knowing, documented neglect,

- assistants (in this case, were "monitoring" the cases, and would separate overpopulated cages by the end of the week if the labs had not done so sooner. Of course, such "monitoring" had not been an effective action to save the pups in PI Dasarathy's cage (please see Photograph 2020-01-07_2).
- 4. On January 16, 2020, PETA's investigator discussed the pup deaths stemming from the new policy wherein veterinary assistants no longer separated mice confined in an overcrowded cage with veterinary technician said that she had discussed the matter with the veterinary assistant named thought that pups had died in overpopulated cages "maybe 10 times altogether" since the new "method" of colony management had been initiated. In dismissed the incidents as "acceptable-ish"—but also admitted that a "final" policy had not been decided and that there was still not "an SOP in place." In further stated that it had been "over two months" that the veterinary assistants had not been separating overpopulated cages, but admitted that even though the laboratory groups were aware of the new policy, "they're still not doing anything" (please see Video 2020-01-16_V1).

D. Failure to ensure that cage-mates are socially compatible

While the *Guide* encourages social housing of social species, it cautions that "[n]ot all members of a social species are necessarily socially compatible" and that "social housing of incompatible animals can induce chronic stress, injury, and even death." To this end, the *Guide* advises that "[s]ocially housed animals should have sufficient space and structural complexity to allow them to escape aggression or hide from other animals in the pair or group."

However, PETA's investigator observed multiple instances wherein CCLCM failed to ensure that animals who were confined together were compatible—resulting in injury and death to animals.

- 1. On September 13, 2019, while accompanying husbandry technician in room 159-A, PETA's investigator found a cage confining a breeding pair of mice. The male was dead and the female appeared unthrifty with some barbering around one eye, which she seemed to squint more than usual.
- 2. On September 16, 2019, while observing the section of cages used by PI Davalos in room 121, PETA's investigator found one cage of four males, with three of the males showing fight wounds, one of which was severe. The wound was on the mouse's lower back, and it was a deep laceration approximately an inch long that had ripped all the way through the skin, showing the muscle layer below. The other wounds appeared to be mostly superficial bite wounds. From the Davalos group conferred with PI Davalos who determined that the mouse with the severe wound should be euthanized.
- 3. On October 7, 2019, while in room 506, PETA's investigator discovered two different cages in which mice who had been barbered by other mice in the same cage had areas of dermatitis developing. One of the mice, used by PI Asosingh, had a spot of dermatitis, the size of the eraser on a pencil, on his or her neck. The area was red and inflamed, with small scabs from scratches. The other mouse, used by PI Rieder, had dermatitis in two areas on the upper and lower back; these areas were the size of a pinky fingernail and were also red and inflamed, with areas of broken, ulcerated skin. On October 8, PETA's investigator found that the mouse used by PI Rieder was missing from the cage—and had likely been euthanized. The mouse used by PI Asosingh was still in the cage.

- 4. On October 14, 2019, while in room 121, PETA's investigator found that in a cage used by PI Davalos, of three adult male mice confined in the cage, two had at least one bite wound each on their left or right flank. The wounds were small punctures, approximately the size of mouse teeth. The wounded mice were separated from the suspected aggressor.
- 5. On November 26, 2019, while in room 121, veterinary technician noticed that two male mice in one of the cages had begun fighting and had visible bite wounds on their lower backs and hindquarters. treated the mice and placed them in separate cages.
- 6. On December 16, 2019, while in room 120, PETA's investigator found that in a cage used by PI DeSilva, a male mouse who was confined with two female mice had a fight wound on his lower back. The wound was already scabbed over. PETA's investigator showed the injury to veterinary technician who was likely from before the mouse was moved into the new cage with the female mice. It also said that she hadn't been informed of the injury previously and asked PETA's investigator to prepare a new health report. Later that day, PETA's investigator learned from that the PI group had euthanized the mouse (please see Photograph 2019-12-16_3 and Video 2019-12-16_V2).
- 7. On January 6, 2020, while in room 121, PETA's investigator found that in a cage used by PI Davalos, a male mouse confined with three others had a deep puncture wound on his left flank. The wound was not freshly bleeding, so it was not clear how fresh the injury might be. examined the mouse and observed that the puncture was deep enough that she could see exposed muscle. The mouse was euthanized.
- 8. On January 24, 2020, while in room 120, PETA's investigator observed that in a cage used by PI DeSilva, a mouse who was confined with other mice had what appeared to be dermatitis or inflamed alopecia on his or her right flank. The mouse was scratching this area, which was approximately a half-inch in length, hairless, and bright red. The skin did not appear to be broken. Examined the mouse and determined that the issue did not seem to be dermatitis, but rather a healed-over injury with scar tissue.
- 9. On January 27, 2020, while in room 120, PETA's investigator observed that in a cage used by PI DeSilva, four male mice appeared to have areas of disturbed fur along their lower backs. Examined the mice and determined that there had been older, already healed fight wounds on some of the mice. did not separate the mice but said they would be monitored to see if any fighting occurred. The following day, the mice were separated and it appeared that three of the four mice may have been euthanized.

E. Failure to ensure that primary enclosures provide a safe, secure environment

The *Guide* instructs: "The primary enclosure should provide a secure environment that does not permit animal escape and should be made of durable, nontoxic materials that resist corrosion, withstand the rigors of cleaning and regular handling, and are not detrimental to the health and research use of the animals. The enclosure should be designed and manufactured to prevent accidental entrapment of animals or their appendages and should be free of sharp edges or projections that could cause injury to the animals or personnel. It should have smooth, impervious surfaces with minimal ledges, angles, corners, and overlapping surfaces so that accumulation of dirt, debris, and moisture is minimized and cleaning and disinfecting are not impaired. All enclosures should be kept in good repair to prevent escape of or injury to animals, promote physical comfort, and facilitate sanitation and servicing."

However, PETA's investigator documented several incidents in which CCLCM failed to comply with this guidance.

- 1. On December 20, 2019, while in room 159, PETA's investigator observed the feeder wire in the lid of a cage used by PI Abazeed had fallen away, creating an opening for the mice to climb up on the lid. Although the mice had chewed through the filter top and could have escaped, they were accounted for. As the mice had been exposed to room air, a health report had to be prepared for the incident. The mice may have been quarantined for a period, or they may have been euthanized.
- 2. On December 24, 2019, while in room 121, PETA's investigator observed a hole in the lower right corner of the front of a cage used by PI Charis Eng (cage 565673, protocol 1952). Several cracks branched off from the hole, which was large enough that a mouse was able to stick his or head through it as PETA's investigator approached the cage. A health report was prepared for this incident as once again, mice had been exposed to room air (please see Photographs 2019-12-24_1 and 2019-12-24_2).
- 3. On February 5, 2020, while in room 120, PETA's investigator observed that the food hopper in one of the cages had cracked and was hanging partially down.
- 4. On March 9, 2020, while in room 121, PETA's investigator observed that two mice confined in a cage used by PI Charis Eng had chewed a small hole approximately the size of a nickel in the cage lid. A health report was prepared for this incident as the mice had been exposed to room air.

F. Failure to adequately maintain environmental conditions conducive to health and well-being of animals

The Guide recommends cleaning, disinfection, and sanitation of animal enclosures—including removing "excessive amounts of excrement, dirt, and debris," carrying out "bedding change (as appropriate," and reducing or eliminating "unacceptable concentrations of microorganisms"—to ensure "the maintenance of environmental conditions conducive to [the] health and well-being" of animals. However, PETA's investigator documented numerous instances where cages were permitted to get particularly filthy.

Moreover, it is well documented that prolonged exposure to wet conditions causes mice physical discomfort and pain and psychological stress and anxiety, while decreasing immune function and increasing the risk of respiratory and skin disease. If food becomes wet, mice will not want to eat it, leading to debilitation and weight loss.

However, PETA's investigator documented numerous incidents in which cages became wet or even flooded due to leaking Hydropacs or when some malfunction in the watering system occurred. When PETA's investigator discovered a wet cage, either they or a veterinary technician would move the confined mice to a dry cage and replace the Hydropac with a new one. We have just presented a subset of the full set of incidents noted by PETA's investigator where bedding (and sometimes mice) became wet as a result of leaking Hydropacs.

Dirty Cages:

1. Cages used by PI Davalos:

- a. On October 4, 2019, while in room 121, PETA's investigator marked several cages where there were new litters of mice; and observed that several cages used by PI Davalos that bore "PI Will Change" stickers—used to signal that the cages held new litters of pups and should not be handled for three days following birth—had not yet been changed this week. This concerned PETA's investigator as some of the cages were low on food and water, and because if they were not changed that day, the time between cage changes would have gone past two weeks, which would be considered a welfare concern. PETA's investigator asked for guidance on the protocol with such situations, but contacted the PI group and they informed directed her to her that they had meant to change the cages earlier that week but had not gotten to it at that point. The PI group assured that they would attend to the matter that day; and they agreed—for purposes of accountability—to add information to the cage cards of any of the cages for which they were taking responsibility.
- b. On October 14, 2019, while in room 121, PETA's investigator noticed that several of the cages still bore "PI will change" stickers, but there was no information on the cage cards indicating when the cages would be changed (as per the agreement made on October 4, 2019). As the cages needed to be changed before Friday, October 18 in order to avoid what the facility would deem a welfare concern, PETA's investigator made note to follow up with the group later in the week if they had not yet been changed by then.
- c. On October 15, 2019, while in room 121, PETA's investigator observed that one of the workers for the Davalos lab was in the room from approximately 10:30 a.m. until 1:30 p.m. PETA's investigator enquired about the dirty cages and was told that the worker would get to some of them that day and some of them the following day.
- d. On October 16, 2019, while in room 121, PETA's investigator observed that the "PI Will Change" stickers had been removed from the cages used by PI Davalos. However, the cages were still dirty with feces and urine. PETA's investigator discussed these concerns with who said they would wait until the next change date of October 28, 2019 to begin monitoring the situation methodically—to determine whether the PI group was removing the "PI Will Change" stickers during the week when husbandry staff would be unable to change the cages. In requested a list of cages with those stickers on the Monday husbandry staff started changing cages, and then another later in the week to see if there was a difference. On October 28, 2019, PETA's investigator began preparing a list of all of the Davalos cages that bore "PI will change" stickers.
- e. On November 26, 2019, while in room 121, PETA's investigator observed that several cages on the Davalos lab racks with "PI Will Change" stickers on them were getting to the point of being excessively dirty, with no clean bedding, excessive feces, and food on the floor of the cage that could grow moldy if left for a few more days. PETA's investigator asked if there was a form or way of reporting either to veterinary services or to a supervisor if a PI group with cages marked "PI Will Change," was not changing those cages in a timely manner, or went past the two week mark in which cages must be changed.

shared that new protocols were being implemented for all new and renewing protocols that when labs use "PI Will Change" stickers, they would also have to put a green treatment card on the cage, which they would use to date cage changes so that they can be kept track of and enforced. Dr. Kim also had "trouble" with the Davalos group in the past. f. On November 27, 2019, while in room 121, PETA's investigator observed that some of the Davalos cages with the "PI Will Change" stickers had been changed, but others were left very dirty and had not been changed. One of these cages (596300) had a newborn litter of pups who had been born in the cage overnight, which would prevent anyone from changing this cage for another three days, leaving the cage to get even dirtier. PETA's investigator estimated that the material on which these mice are confined was about one third feces and two thirds bedding (please see Photographs 2019-11-27_1 and 2019-11-27_2). On November 29, 2019, while in room 121, PETA's investigator observed that the "PI Will Change" cages had still not been changed, and there were no green cards or other indicators regarding when the cages would be changed. h. On December 20, 2019, while in room 121 next, PETA's investigator observed that none of the cages used by PI Davalos with "PI Will Change" stickers had the required green treatment card detailing when the cages will be changed. PETA's investigator informed veterinary technician , who requested a list of non-compliant cages. PETA's investigator counted 13 cages on rack 2 and 11 cages on rack 5 that were missing the cards. PETA's investigator gave the list to , who said she wouldn't have time to contact that lab's staff today regarding this issue, but would try to contact them on Monday (December 23). On December 23, 2019, while in room 121, PETA's investigator saw that green cards had been added to the front of the cages used by PI Davalos and marked with "PI Will Change" stickers, but none had been filled out. A hand-written note (who had worked over the weekend) was attached to one of their racks, and it was a reminder that they were required to have the treatment cards marked with the cage information and changing dates of each cage marked from the Davalos lab came into the room and removed approximately half of the "PI Will Change" stickers from cages, but did nothing to correct the other non-compliant cages by filling out the treatment cards. She left quickly after that, but from that lab arrived not long was also in the room, checking cages. afterwards, while that the lab needed to fill out the treatment cards, explained to which must then be left with the cage cards, even if they later remove the "PI Will Change" stickers, telling her that it will count as a permanent record, and needs to be done for every one of those cages. was in and out of the room a few times during the day, but she failed to fill out a single card for any of the non-compliant cages. said that she would speak to about the matter, but she wasn't sure how they could enforce this rule, short of repeatedly asking them to comply. On December 24, 2019, husbandry supervisor went to room 121 to check the Davalos cages, to see if either or from the Davalos lab had filled out the green cards, as they had been instructed to do the previous day. She discovered five cages marked with the "PI Will Change" had initialed to indicate that she had changed the stickers, which

- cages on "12/23," but the cages were clearly dirty and had not been changed the previous day. had also failed to fill in any of the cage information on the green cards (such as cage number, protocol number, or contact information) for these cages, or any of the other cages that had the cards. said that this was considered falsifying records, and she would now have to inform the IACUC (please see Photographs 2019-12-24_3, 2019-12-24_4, 2019-12_5, and 2019-12-24_6).
- k. On December 24 2019, while in room 121, PETA's investigator saw from the Davalos lab. PETA's investigator mentioned that the cages had initialed as changed had clearly not been changed, and told her that it is considered falsifying records to do so. PETA's investigator suggested that she might want to change those cages and update the cards with the correct date. did not change any of those cages, but she did remove those five green cards that had initialed, replacing them with blank green cards.
- 1. On December 26, 2019, while in room 121, PETA's investigator observed that the Davalos lab had still not filled out green cards for any of the "PI Will Change" cages.
- m. On December 27, 2019, while in room 121, PETA's investigator observed that the "PI Will Change" stickers had been removed from all but a few of the Davalos cages, though the remaining green cards left on cages had been initialed to indicate those cages had been changed the previous day, which appeared to be accurate, judging by the relative amount of waste in those cages.
- 2. On January 8, 2020, while in room 120, PETA's investigator found one cage that had wet bedding and another cage that was excessively dirty (there were several pups near weaning age with the adult mice in the cage).

Wet Boxes:

- 1. On September 13, 2019, while in room 506, PETA's investigator found that a cage used by PI Louveau confined recently weaned mice and had flooded. The bedding and the mice were soaked. PETA's investigator placed the mice into a dry cage where they were observed shivering and moving slowly. PETA's investigator notified veterinary technicians and of the situation.
- 2. On September 18, 2019, while in room 121, PETA's investigator found that there was a flood in a cage used by PI Davalos. The bedding was wet in one fist-sized area.
- 3. On October 11, 2019, while in room 120, veterinary technician informed PETA's investigator that she had discovered a flooded cage. PETA's investigator moved the mice to a dry cage.
- 4. On October 16, 2019, while in room 121, PETA's investigator found that a cage used by PI Davalos that confined adult mice appeared to have a leaking Hydropac. PETA's investigator changed the cage and the Hydropac.
- 5. On October 17, 2019, while in room 121, PETA's investigator found a cage with a leaky Hydropac. In room 132, PETA's investigator found a cage that had flooded due to a leaking Hydropac, leaving most of the bedding damp. PETA's investigator changed both cages.
- 6. On October 18, 2019, while in room 121, PETA's investigator found two cages that had circles of damp bedding (approximately 2 inches in diameter) below the Hydropacs. PETA's investigator changed the cages and the Hydropacs to prevent flooding.

- 7. On November 6, 2019, while in room 506, PETA's investigator found a cage with a leaking Hydropac. PETA's investigator changed the cage and inserted a new Hydropac.
- 8. On November 13, 2019, while in room 121, PETA's investigator found a cage with a leaking Hydropac. The cage confined four adult mice and the bedding had become wet. PETA's investigator changed the cage and inserted a new Hydropac.
- 9. On November 19, 2019, while in room 506, PETA's investigator found that a cage, confining adult mice and used by PI Asosingh, had a circle of wet bedding under the Hydropac, which had been leaking. PETA's investigator moved the mice into a dry cage and inserted a new Hydropac. PETA's investigator also found that a cage used by PI Louveau had a leaking Hydropac that had left approximately half the bedding in the cage wet. Again, PETA's investigator changed the cage and the Hydropac.
- 10. On November 20, 2019, while in room 506, PETA's investigator found that four cages used by PIs Rieder, Asosingh, and Williams, as well as a sentinel cage, all had wet bedding due to leaking Hydropacs. Two of the cages, the one used by PI Rieder and the sentinel cage, had been pulled out from the rest of the rack, as though someone had discovered the leaks, but left without moving the mice to dry cages. PETA's investigator changed all the wet cages and the Hydropacs; and notified veterinary assistant and a veterinary technician named.
- 11. On November 22, 2019, while in room 506, PETA's investigator found a cage with wet bedding due to a leaking Hydropac.
- 12. On November 27, 2019, while in room 121, PETA's investigator found two cages used by PI Davalos that had wet bedding due to leaking Hydropacs.
- 13. On November 29, 2019, while in room 117, PETA's investigator found a cage with a leaking Hydropac. While in room 121, PETA's investigator found another cage with wet bedding due to a leaking Hydropac.
- 14. On December 6, 2019, while in room 159, found four cages with leaking Hydropacs. PETA's investigator changed these cages, placing the confined mice into dry cages with new Hydropacs.
- 15. On December 25, 2019, while in room 120, PETA's investigator found that a cage used by PI Wang had wet bedding due to a leaking Hydropac.
- 16. On January 2, 2019, while in room 120, PETA's investigator found that a cage used by PI DeSilva had wet bedding due to a leaking Hydropac.
- 17. On January 11, 2020, while in room 121, PETA's investigator found four cages with wet bedding due to leaking Hydropacs. While in room 506, PETA's investigator found another cage with wet bedding due to a leaking Hydropac.
- 18. On January 17, 2020, while in room 120, PETA's investigator found one cage with wet bedding due to a leaking Hydropac; in room 121, PETA's investigator found two cages with wet bedding due to leaking Hydropacs; and in room 159, PETA's investigator found five cages with wet bedding due to leaking Hydropacs.
- 19. On January 22, 2020, while in room 121, PETA's investigator found two cages with areas of wet bedding due to a leaking Hydropac.
- 20. On January 27, 2020, while in room 120, PETA's investigator found one cage with wet bedding due to a leaking Hydropac.
- 21. On January 28, 2020, while in room 120, PETA's investigator found two cages with areas of wet bedding due to leaking Hydropacs.
- 22. On January 30, 2020, while in room 120, PETA's investigator found three cages with areas of wet bedding due to leaking Hydropacs.

- 23. On January 31, 2020, while in room 159, PETA's investigator found three cages that had wet bedding due to leaking Hydropacs.
- 24. On February 18, 2020, while in room 121, PETA's investigator found a cage with wet bedding due to a leaking Hydropac. The cage was used by PI Davalos.
- 25. On February 19, 2020, while in room 121, PETA's investigator found a cage with wet bedding due to a leaking Hydropac.
- 26. On February 21, 2020, while in room 121, PETA's investigator found a cage with wet bedding due to a leaking Hydropac.
- 27. On February 28, 2020, while in room 159, PETA's investigator found five cages used by different PIs that had wet bedding due to leaking Hydropacs.
- 28. On March 3, 2020, while in room 121, PETA's investigator found five cages with wet bedding due to leaking Hydropacs.
- 29. On March 4, 2020, while in room 121, PETA's investigator found that a cage used by PI Davalos had wet bedding due to a leaking Hydropac.
- 30. On March 5, 2020, while in room 121, PETA's investigator found two cages with wet bedding due to leaking Hydropacs.
- 31. On March 8, 2020, while in room 160, PETA's investigator found one cage with wet bedding due to a leaking Hydropac.
- 32. On March 9, 2020, while in room 160, PETA's investigator found two cages with wet bedding due to leaking Hydropacs.

G. Waste Disposal

The *Guide* states: "Conventional, biologic, and hazardous waste should be removed and disposed of regularly and safely." Also: "Waste containers should be leak-proof and equipped with tight-fitting lids."

However, PETA's investigator observed multiple instances where CCLCM failed to comply with this guidance.

- 1. On September 12, 2019, accompanied by husbandry technician PETA's investigator took several large rolling carts of trash, including the dirty mouse cages from the cage changes, to an indoor loading dock where they had to toss the cages into dumpsters. Pieces of plastic broke off and flew in various directions, and dirty bedding from the cages splashed out of the cages and onto the ground around the dumpsters. We swept up afterwards, but PETA's investigator commented that it seemed a very unhygienic way of disposing of animal waste. Said that she hadn't done it before, so she "hoped" that she had shown PETA's investigator the correct way of dumping them. This incident suggests that along with failing to dispose of waste properly, CCLCM failed to train employees on proper waste disposal methods.
- 2. On October 25, 2019, PETA's investigator noted that there were several bags of biohazardous trash in the anteroom on the way out of the BSL-2 suite, but there were no more plastic biohazard bins that could be used to remove them. PETA's investigator checked in with to see if they could pick up more of the bins that day, but she said that she was in too much pain from a sore back, so they could get them on Monday, October 28, 2019. However, on October 28, 2019, the biohazard bins were not picked up. On October 29, 2019, PETA's investigator again asked whether they should pick up the biohazard bins that would be needed to remove trash from the BSL-2 suite.

investigator looked through the window to the ante-room of the BSL-2 suite, where the bins were usually stored, and saw none there—but still seemed disinterested in going. The bins were stored in a different building, in an area that PETA's investigator did not have permission to access at that time. On October 31, 2019, PETA's investigator saw that several biohazard bins were stacked in the exit anteroom of the BSL-2 suite. PETA's investigator filled two bins with bags of biohazardous PPE trash, closed them up, and brought them out of the BSL-2 suite to be stored by the sterilizer until they were removed. The failure to dispose of biohazardous waste promptly undermines the intent of federal guidance and also jeopardizes worker safety.

H. Noise

The *Guide* advises: "Noise produced by animals and animal care activities is inherent in the operation of an animal facility ... and noise control should be considered in facility design and operation." The *Guide* further recommends: "Assessment of the potential effects of noise on an animal warrants consideration of the intensity, frequency, rapidity of onset, duration, and vibration potential of the sound and the hearing range, noise exposure history, and sound effect susceptibility of the species, stock, or strain." Also: "To the greatest extent possible, activities that generate noise should be conducted in rooms or areas separate from those used for animal housing."

However, PETA's investigator reported that noise from multiple sources—including construction work in the cage wash area and loud alarm sounds—was believed to have increased incidents of cannibalization in the mouse populations at CCLCM. The recurrence of such issues and the failure to implement simple solutions suggests that CCLCM was not taking action to attempt to ameliorate the impact of the noise on the well-being of animals in its laboratories.

1. On October 23, 2019, while working in the laundry room, PETA's investigator began hearing an unusual alarm beep that was loud and constant. Veterinary technician was coming out of the BSL-2 suite, so PETA's investigator used the opportunity about the number of cannibalized pups PETA's investigator had observed recently to see if she thought there was anything they could do to prevent the occurrence, or if she had an idea as to the cause. As PETA's investigator mentioned the frequency of pup cannibalization to , one of the workers from the Davalos lab, who worked on cages in room 121, jumped in, to say that she "had a suggested that the pup cannibalization might stem from the noise from "construction in cage wash." repeated that she had "lost a ton" of pups. She said that she had suspected one of the PI's other workers was "handling them too much when they were pregnant," but that pups were "completely cannibalized out of nowhere" in cages the other worker had not "done anything with." PETA's investigator mentioned that the fire alarm was also recently worked on, and the said that noise was "non-stop." She said that room 121 was "awful." The suggestion was made that placing "huts" in the mouse cages might help ameliorate the mice's stress over the loud noises. asked that the suggestion be communicated to . the husbandry supervisor, but that "it doesn't help when we have all the construction happening." said that the alarm going off that day was the "air flow handler" and that there was "no air flow today." The alarms went off for approximately 20 to 30 minutes.

2.	On October 24, 2019, while in room 506, PETA's investigator found four cages in which most or all the pups in each litter had died or been killed since the previous day. Each cage was used by a different PI, including Ivanov, Corey, McDonald, and Byzova. There was no obvious cause of death for some of the pups, but others had wounds consistent with cannibalization. PETA's investigator discussed the matter of the cannibalized pups with and asked if the alarms going off the previous day might have something to do with the higher number of deaths found that morning (please see Photograph 2019-10-24_1). Showed PETA's investigator a panel to the right on the wall near the door for room 506. There was a screen that showed the alarm and a button that could be pushed to "silence" it, but said that it would only silence the alarm for about one minute, after which it would continue to go off if the problem continued. Then said that she would let said, "Wow," and "That's kind of crazy." PETA's investigator asked about possibly providing more enrichment to cages confining solitary mice, as the <i>Guide</i> recommends. Although agreed with providing an "extra" paper towel or nestlet, as it was "a minute cost" to provide those extra items, she said that she'd tried to introduce huts, but found resistance in that they would need to be collected and brought downstairs to cage wash for washing, and would then need to be sterilized, and were also too expensive (please see Video 2019-10-24_V2).
3.	On November 14, 2019, while PETA's investigator was walking to the Biological Resources Unit with husbandry technicians and and the saw husbandry supervisor in the hallway outside the barrier. A beeping alarm went off from within the barrier, which indicated was the sterilizer.
<i>I</i> .	Environmental "Enrichment"
ing	by providing animals with sensory and motor stimulation, through structures and ces that facilitate the expression of species-typical behaviors and promote psychological

Th be resources that facilitate the expression of species-typical behaviors and promote psychological well-being through physical exercise, manipulative activities, and cognitive challenges according to species-specific characteristics.

However, PETA's investigator found that some employees at CCLCM failed to provide the items for "enrichment" prescribed by the institution, while CCLCM itself opted for the bare minimum "enrichments," citing concerns related to cost.

- 1. On October 14, 2019, PETA's investigator observed that in the cages confining mice, husbandry technicians provided one nestlet and one napkin for nest making; however, if PI groups changed the cages, they would occasionally provide several napkins (and no nestlet) or nothing at all. If this was discovered, husbandry technicians would add a nestlet and napkin to that cage. However, no huts, tubes, or other structures were provided to mice for shelter or privacy, and no foraging material was provided for enrichment or stress reduction.
- 2. On November 11, 2019, while in room 121, PETA's investigator discussed the issue of environmental enrichment and pup cannibalization with with the Davalos lab. said that her lab typically attributed pup

cannibalization to the breeding dams being "bothered during the process, or within the first three days." She agreed that adding huts to the cages would make the breeding dams feel more secure. She also said that "first-time mothers have a higher cannibalization rate" because they are "inexperienced," and that if a mouse's first litter "didn't make it," then the lab would watch her second litter "more closely." She said if a new mother was "stressed or bothered," or if the cage was changed too soon before she gave birth, she may cannibalize the pups (please see Video 2019-11-11_V1).

3. On January 9, 2020, while in room 120, PETA's investigator found three cages used by PI Cherapanova that had been set up with recent weanlings, but did not have any food on the floor of the cage, or any nesting material at all. PETA's investigator added food, a napkin, and a nestlet to each of these cages, and wrote a report for veterinary services to contact the lab about this lapse.

The *Guide* emphasizes the importance of environmental enrichment for social species who are caged alone: "Single housing of social species should be the exception and justified based on experimental requirements or veterinary-related concerns about animal well-being. In these cases, it should be limited to the minimum period necessary, and where possible, visual, auditory, olfactory, and tactile contact with compatible conspecifics should be provided. In the absence of other animals, enrichment should be offered such as positive interaction with the animal care staff and additional enrichment items or addition of a companion animal in the room or housing area. The need for single housing should be reviewed on a regular basis by the IACUC and veterinarian."

However, PETA's investigator documented numerous instances where CCLCM failed to provide additional forms of enrichment to solitary-housed mice.

- 1. On October 17, 2019, while in room 132, PETA's investigator noticed that one of the mice who previously had a cranial window had been moved to a separate cage where s/he was housed alone and the cranial window had been removed. However, the cage was equipped with the same single nestlet and napkin that were standard in cages confining multiple mice.
- 2. On October 17, 2019, while in the BSL-2 suite, PETA's investigator observed that there were 18 new cages confining singly-housed mice, used by PI Cresci. These cages were equipped with a single nestlet and napkin—but there was no additional enrichment as recommended by the *Guide*.
- 3. On October 23, 2019, while in the BSL-2 suite, PETA's investigator observed that in addition to the 18 cages confining solitary mice for PI Cresci, there were two cages confining solitary mice for PI Diaz; 10 cages confining solitary mice for PI Lee; and eight cages confining solitary mice for PI Corey (this last group of mice were being used in protocol 2044). All of these mice had only been provided a single nestlet and a single napkin—and no other enrichment (please see Photographs 2019-10-23_3 and 2019-10-23_4).
- 4. On October 24, 2019, PETA's investigator discussed the paucity of additional enrichment for singly-caged mice with husbandry supervisor (please see the reference to this conversation in the section on noise, above) and secured 's permission to add an extra nestlet or sheet of paper towel to solitary mice.
 - a. On October 25, 2019, while in room 506, PETA's investigator observed that there were singly-housed mice used by the following PIs: PI Lee (protocol 1783),

- PI Olman (protocol 1785), and PI Louveau (protocol 2115). PETA's investigator observed two singly-housed mice used by PI Olman in cages on rack 5; and 21 singly-housed mice used by PI Louveau on rack 7. None of the solitary mice in these cages had been given extra enrichment (please see Photographs 2019-10-24_1, 2019-10-24_2, 2019-10-24_3, and 2019-10-24_4).
- b. On October 25, 2019, while in room 121, PETA's investigator observed that there were 30 singly-housed mice on racks 2 and 3 used by PI Dasarathy; and 10 singly-housed mice used by PI Bergmann on rack 1. None of these singly-housed mice had been afforded any extra enrichment. However, on October 28, 2019, while performing cage changes in this room, PETA's investigator added extra enrichment in the form of more sheets of paper towel and nestlets.
- c. On October 25, 2019, while in the BSL-2 suite, PETA's investigator observed that there were 36 singly-housed mice used by PI Cresci and one singly-housed mouse used by PI McDonald. None of these animals had been afforded any extra enrichment. All of the Cresci cages were marked with a "PI will change" sticker, so husbandry staff would not be responsible for changing the cages—and were not able to add extra enrichment for those mice.
- d. On October 28, 2019, while in room 121, PETA's investigator found a couple cages confining mice who had just been weaned that day by PI Eng's group. One of these cages confined a solitary mouse, but there was no extra enrichment afforded to this mouse. PETA's investigator added extra enrichment.
- e. On October 30, 2019, while in room 121 and changing a rack of cages, PETA's investigator made sure to always provide extra enrichment for any singly-housed mice.

IV. Failure to maintain and safe and healthy workplace

The *Guide* instructs: "Each institution must establish and maintain an occupational health and safety program (OHSP) as an essential part of the overall Program of animal care and use ... and should focus on maintaining a safe and healthy workplace."

However, PETA's investigator documented several lapses in CCLCM's program to ensure health and safety of personnel.

1.	On November 11, 2019, in apparent preparation for an upcoming site visit by inspectors with the Association for the Assessment and Accreditation of Laboratory Animal Care
	International (AAALAC), the husbandry supervisor in the barrier,
	informed a group of technicians that they might be asked questions on a variety of
	matters, from Material Safety Data Sheets to "whistleblower" reporting policy.
	also instructed the technicians on the appropriate Personal Protection Equipment
	(PPE) that should be worn when making the disinfectant, Trifectant. In contrast to the
	manner in which the technicians had been trained and the practice employed at CCLCM,
	informed the technicians that when making Trifectant, they should be
	wearing rubber gloves (as opposed to the nitrile gloves they wore) and either goggles or
	a face-shield (in addition to the surgical mask that they wore).

2. On February 25, 2020, ______, admitted that the hand soap in the dispensers by each sink in the BSL-2 suite had expired in January.