

PROPERTY OF THE UNIVERSITY



BEHIND CLOSED DOORS

While research institutions contend that animals in laboratories are treated well and their use is rigorously monitored, industry insiders and government reports tell a different story.

The HSUS is pressuring taxpayer-supported university facilities to clean up their acts and set limits on animal suffering.

by RUTHANNE JOHNSON ■ illustrations by ANNI BETTS

For five frustrating years, Richard Brown tried to improve conditions for the monkeys, pigs, dogs, rabbits, sheep, mice, and other animals at the University of Wisconsin in Madison. He repeatedly got the same advice: “Don’t get in the way. . . . Don’t stick your neck out. . . . Are you sure you want to fall on your sword for this one?”

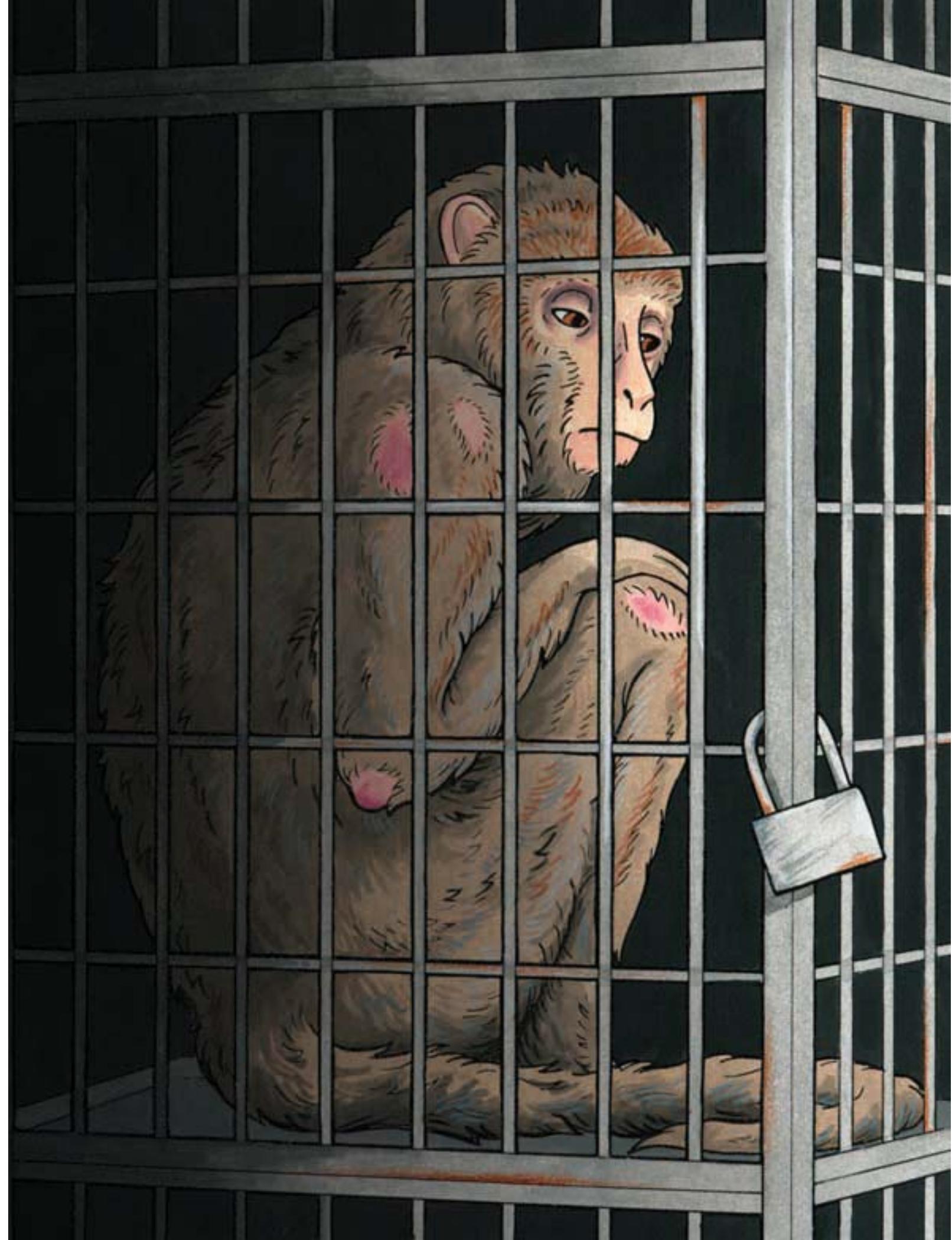
Overseeing laboratory animal care at the university was a job marked by guilt and disillusionment, says the former senior program veterinarian. There were the experiments of dubious scientific value and those in which the animals’ pain could have easily been alleviated but wasn’t. And there were the countless animals who died simply because no one bothered to give them food or water, or who cooked to death when antiquated heating and air conditioning systems malfunctioned.

Eventually, Brown did fall on his sword—over experiments in which researchers practiced using a cauterizing device on live pigs.

He presented more than 20 examples of identical work being done with slaughterhouse tissue taken from already deceased animals. He also argued that the research method was inhumane; scientists were using a paralyzing agent but not monitoring vital signs to ensure the animals were adequately anesthetized. “It was probable this animal was stuck on the table but experiencing pain,” he says. When the university approved the experiments despite his objections, Brown filed a report with the National Institutes of Health—one of the rock-the-boat actions he says led to his forced resignation in December.

Unfortunately, the problems Brown cites aren’t unique in higher education. At Emory University, a 4-year-old monkey languished for two weeks in a 2007 malaria study. Reluctant to move or eat, the monkey developed anemia and purple spots all over his body as the infection spread. He began biting his fingertips and tail, which turned gangrenous, before he was finally euthanized. Similarly, macaques in a 2008 virus study at the University of Kansas Medical Center experienced prolonged, avoidable suffering, according to a USDA inspection report. A research assistant informed the primary researcher that one of the animals was vomiting and acting strangely and that “he hunches in the corner, lowers his head and grimaces, almost like he is in pain.” Yet the macaque lingered in this miserable condition for 13 days before euthanasia.

These disturbing examples illustrate a fundamental flaw in federal oversight of animal research: Public Health Service standards and the Animal Welfare Act allow



procedures that cause severe suffering if an institution decides they are justified. It's a loophole that, HSUS experts argue, can exacerbate a culture of apathy in research settings that aren't meeting the minimum legal standards for animal care and use. In 2005, the USDA's Office of Inspector General found that many of the nation's research institutions were failing to search for alternatives to animal experiments, review painful procedures, monitor for unnecessary duplication of research, or provide adequate veterinary care. Thirty-three of the "top 50 research violators" were educational institutions.

As a starting point for addressing these problems, The HSUS is calling on educational facilities to adopt internal policies to eliminate severe animal suffering in their laboratories. To date, more than 60 universities and colleges have confirmed that they already prohibit severe suffering or have committed to do so. But many schools, including several with reported animal-related violations, have declined.

Through advertisements in student and local newspapers, press releases, and Facebook campaigns, The HSUS is targeting these holdouts and mobilizing students, faculty, alumni, and other stakeholders to lobby for change. "They don't need to have an animal suffering severely to learn what they are seeking to learn," says Kathleen Conlee, senior director for animal research issues. "This is a commonsense thing we're asking institutions to do."

CULTURE CLASH

An estimated 600 educational institutions conduct animal research, ranging from small labs with a dozen or more animals to sprawling off-campus complexes that maintain thousands. Last year, 420 of these facilities received an estimated \$11.5 billion in federal funds for research involving about 6 million animals, from dogs and rats to pigs and primates.

All federally funded facilities are supposed to ensure certain protections for vertebrate species: that animal use is minimized, euthanasia procedures are humane, and minimal standards of animal care are followed. Yet despite the money and lives at

stake, government inspections and enforcement are minimal, and penalties are weak or nonexistent. In effect, institutions are left to police themselves through internal bodies known as Institutional Animal Care and Use Committees, which are responsible for evaluating research proposals and ensuring compliance with laws and regulations.

In Brown's experience, it didn't work that way. Most IACUC members were researchers employed by the institution. They could be reluctant to reject colleagues' research proposals or discipline them for animal welfare violations.

Though Brown notes that he's not opposed to using animals in research, he frequently argued with other committee members about experiments he thought were unnecessary and protocols in which pain relief was unjustifiably withheld. He seldom won.

"[Researchers] don't have to prove that [the use of painkillers] will interfere" with results, he explains. "They only have to say that it *might* interfere."

In one experiment, Madison researchers used sheep to study decompression sickness, a life-threatening condition that can afflict divers who rise too quickly from deep water. Since the standard treatment for people suffering from "the bends" is recompression, Brown reasoned the same should be done for the sheep, alleviating their suffering and providing a better model for applying results to people. But the researchers refused, stating "that's not how we do it," Brown says. "These animals were in horrible pain for days. And all they really had to do was recompress them to relieve that pain." The experiments—conducted since the 1980s in violation of state animal welfare laws—ended in 2009 only after animal protection organizations filed suit.

While Brown met researchers who tried to do right by the animals, others were openly contemptuous of his concerns. "The attitude is [that] the laws are there to ruin our research," Brown says. "Therefore, we are going to do everything possible to get around that."

Yet most animal suffering isn't a result

of deliberate callousness, and most researchers aren't "evil people," says Martin Stephens, HSUS vice president for animal research issues. "Researchers have to teach, write papers and grants, conduct studies, and oversee the monitoring of their animals. But something has to give, and sometimes it's the animals who get short-changed."

In high-pressure academic environments, with little accountability for violations, animal care can remain a low priority—manifested in staff attitudes, lack of training, and the absence of commonsense safeguards. An HSUS review of university incident reports covering just a three-month period revealed that more than 800 animals were likely subjected to senseless suffering, including numerous animals found alive in carcass freezers after botched euthanasia attempts, mice who suffocated when their cages were stacked on top of each other, and a rabbit scalded to death when her cage was sent through a cage washing machine.

In several facilities, a 20-plus-year veteran of university and private research institutions witnessed rats and mice exhibiting clear signs of pain during attempted euthanasia in carbon dioxide chambers. "They hop around like popcorn before they die," says veterinarian John Smith (not his real name), who agreed to be interviewed on condition of anonymity. He expressed concern, but the workers had become desensitized to the animals' pain. Their attitude was, "It's just mice, so what. They are just rats, so what."

LIFTING THE VEIL

Whistleblower accounts, government documents, and studies published in scientific journals provide clues about what goes on behind the closed doors of university labs, but not the full picture. While federally funded research facilities must report serious deviations from animal care and use guidelines, more than a third of the reports The HSUS has reviewed contained large sections of excised material or were missing key information.

This lack of transparency makes it impossible to know exactly how many

facilities have serious problems, says Conlee.

Even the government agencies charged with monitoring facilities can help perpetuate the secrecy. At industry conferences, Conlee has heard officials with the National Institutes of Health and the USDA instructing researchers to provide only as much information as the law requires because the records could be subject to Freedom of Information Act requests. It took an HSUS lawsuit, following years of fruitless FOIA requests, before the USDA granted public access to the animal use reports that research facilities are required to file annually.

Within institutions, insiders describe an insular community quick to punish those who break ranks. “There are veterinarians everywhere in the research industry. ... We all get together and talk,” says Smith. “We know that things could be better. We know that things aren’t done right. And we know that we are forced to cover things up. If we don’t do that, we will be fired.”

These efforts to evade public scrutiny are inappropriate for institutions that receive billions in tax dollars. Moreover, Conlee notes, as the training grounds for our nation’s scientists, universities have a special responsibility to adopt the most progressive policies and practices.

The HSUS is urging schools to take a modest first step in this direction by adopting a policy that prohibits severe physical and emotional suffering, known technically as pain and distress. A model policy would bar procedures where severe pain and distress can’t be mitigated, such as long-term social deprivation, lethal dose testing, prolonged full-body restraint, and painful and inescapable electric shock. Other types of painful experiments would be approved only if researchers include plans to mitigate suffering, such as through analgesics.

Equally important, says Conlee, a policy would “inevitably draw attention to the issue of *all* pain and distress, because researchers are going to have to pay attention to levels and give thought to how much

pain and distress any procedure will cause.”

This could result in more compliance with existing laws and guidelines, fewer accidental injuries and deaths, and adoption of best practices such as the identification of “humane endpoints” in study protocols—when the research would be discontinued or the animals euthanized before they reach a state of severe pain and distress. Staff could also use species-specific score sheets to actively monitor indicators such as appetite, behavior, coat condition, and weight. This would be particularly important for mice, rats, and other prey animals, who instinctively hide their suffering and are the species most often subjected to painful and stressful procedures.

IT’S NOT ACADEMIC

Animal advocates and the research industry have historically had a contentious relationship, with one side pushing reforms and the other resisting any checks and balances. Change has been slow—and the oversight system is still far from perfect. But representatives from both camps say there have been improvements in recent decades.

The 1985 amendments to the Animal Welfare Act, which mandated the IACUC internal monitoring process, have forced some researchers to pay greater attention to pain, says Bernard Rollin, a Colorado State University professor who has written extensively about laboratory animal welfare. A senior staff member who takes the legal mandate seriously can have a tremendous influence on institutional practices,

Rollin says, helping to ensure a good-faith effort to abide by the law.

Steeper penalties may have also encouraged institutions to take AWA compliance more seriously. In 2008, The HSUS successfully lobbied to

increase maximum fines from \$2,500 per violation to \$10,000—an important step given that too many facilities viewed the previous fines as a simple cost of doing business, Conlee says.

Progress has also been spurred by a growing recognition that good science requires better animal care, says animal

behavior expert Jonathan Balcombe.

A 1990 study on mice populations in three laboratories reveals why. The mice were of the same strain, living in the same sterile conditions, and undergoing identical protocols—yet the variation in results was massive, and it was due to the animals’ stress. “These are complex individuals; they aren’t widgets,” Balcombe says.

With this in mind, some progressive researchers have discovered less stressful methods for common lab procedures. “Adding sugar in a [feeding tube] makes rabbits accept the tube more readily because they like the taste of that sugar. So they begin to get a positive association,” Balcombe says. In some labs, monkeys have been trained to accept needle sticks with the promise of a treat afterward.

Some institutions have also adopted more humane housing models based on species’ natural behaviors. Laboratory-bred mice and rats, for example, retain their instincts for burrowing and foraging. Simple steps like putting a PVC tube in a cage and scattering fresh fruit and seeds can make them a lot happier, says Balcombe.

But these methods aren’t yet the norm. Most labs still use rough handling to restrain animals, and most animals live in barren conditions with unvaried diets, Balcombe says. Social species are often overcrowded—or even worse, housed alone. And some facilities still fail to ensure the basics: “Yes, [housing] enrichment would be nice,” Brown says. “... That was beyond what I was trying to do, which was to make sure the animals were fed and watered on a daily basis. I was trying to prevent the animals from dying in their cages.”

For compassionate people inside or outside the system, pushing reforms continues to be a tough battle. The USDA’s Office of Inspector General 2005 report acknowledged the problem, noting that a few facilities were resistant to change and showed a “general disregard” for animal welfare regulations.

Legislative action is one avenue for pressing the issue. In Maine, an HSUS-led bill was recently introduced to prohibit researchers from subjecting animals to severe and unrelieved pain and distress.



approximate number
of educational
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THE HUMAN TOLL

Former research employees describe the emotional impact of their work

More than a decade has passed since Kathleen Conlee left her job at a primate research and breeding center, yet the nightmares still come. Sometimes the monkeys are escaping into the woods, and she's struggling to get them back before hunters shoot them. Or she's driving to the center to feed a baby animal when her car keeps breaking down.

As upsetting as the dreams are, the reality was worse. During the seven and a half years she worked as the center's animal behaviorist, Conlee saw monkeys confined in small barren cages, driven to psychoses from prolonged isolation, and wasting away from disease.

Like many people who work in research, Conlee entered the field because she wanted to study and interact with animals. She stayed because she wanted to change the system. She fought "tooth and nail" to move spigots to the bottoms of cages so elderly, arthritic animals could access their water. She analyzed mortality reports to prove to researchers that they would lose fewer monkeys by keeping babies with their mothers for a full year. When the head veterinarian dismissed her concerns about crippled monkeys who were in pain, she secretly slipped them painkillers.

But it never felt like enough. Time and again, she witnessed suffering that did nothing to further scientific learning; it was simply a result of the scant priority given to the creatures' well-being. The animals seldom received treatment for pain, even after surgery.

Conlee eventually left the job and joined The HSUS. As senior director for animal research issues, she works to change research practices from the outside—efforts she believes will help insiders experiencing the same problems she once faced. "The culture within an institution can have a significant influence over employee well-being, which can, in turn, directly impact animal welfare," she says.

Few studies have examined the emotional impact of laboratory animal work, but some former employees talk of relying on alcohol, drugs, and other self-destructive coping mechanisms. Some are plagued by nightmares, anxiety, and depression—even years later.

What Conlee most often witnessed were caretakers who learned to shut down their empathy and began to view the ani-

mals as just a source of irritation. A few were deliberately cruel. One incident that started out as an April Fools' Day joke epitomized the profound disconnect. "I thought it would be funny to put a stuffed animal in the cage, and the lab workers actually provided it with food," Conlee says. "They weren't even looking at the animals."

For workers who can't disengage, the job can seem like a battlefield—and a trap. "Once I was there, I thought, if I leave, then who is going to be there to watch out for the animals?" says Jessica Ganas of the 28 months she spent as a research assistant at the Yerkes National Primate Research Center in Atlanta. "... [It was] like I was carrying a weight on me all the time."

She received emotional support from a few coworkers who shared her feelings, but their compassion wasn't encouraged. "We were in the trenches fighting for these animals—going in early, making special meals—and we were scoffed at," Ganas remembers.

Eventually, she quit and, with another former Yerkes employee, founded the all-volunteer Laboratory Primate Advocacy Group to lobby against primate research and provide emotional support for former or current research employees.

But the job is still with her, in flashbacks to particularly disturbing scenes: The newborn macaques, some with placentas still attached, snatched from their mothers and shipped in black boxes for an eye study that would keep them in darkness their entire lives.

"When we started working there, we had an open mind. But based on what we had seen for many years ..." Ganas says, her voice trailing off.

As Ganas, Conlee, and many other former research employees have discovered, the job will haunt them for a long time.



This first-of-its-kind legislation could set a precedent for the rest of the country. And The HSUS continues to seek increased funding for laboratory inspections and stiffer fines for violations.

But as long as facilities remain largely self-monitoring, much of the power to improve lab animal welfare remains within

the hands of institutions' top officials and senior scientists—and the culture of care they promote.

For those who refuse to set limits on pain and distress, Conlee has this message: Public support for animal research drastically decreases as suffering rises, she says. "The public and prospective students want

to know that their institution does care about these things." ■

▲ **FOR MORE** on The HSUS's efforts to improve conditions for animals in laboratories, and to find out which schools have a policy prohibiting severe pain and distress, visit humanesociety.org/campuspolicy.