

Science takes case for animal research to the people



Elizabeth Flores, Star Tribune

Senior scientist Matt Lahti, center, prepared a sheep for a heart valve surgery at the Variety Cardiovascular Research Center on the U of M campus.

A decline in support for using animals in research has sparked an aggressive national campaign to promote it.

By JIM SPENCER, Star Tribune

That message, emblazoned on 15 billboards around the Twin Cities, strikes at the heart of a largely hidden but heated health care battle being waged beyond the national debate over access to medical care.

The billboards are part of a new, aggressive national push by biomedical researchers to promote and defend the use of animals to test drugs and medical devices. Across the country, the campaign is also playing out on cable TV commercials, websites, Facebook postings and Twitter tweets.

Campaign organizers say a serious drop in public support of animal research for scientific and medical reasons forced their hand. From 2000 to 2008, they say, Americans' support for that

research using animals shrank from 70 percent to 54 percent. A Pew Foundation poll in July found that only 52 percent of Americans support such research.

That's why the Foundation for Biomedical Research is investing more than \$1 million in its "Research Saves" campaign. Pollsters told foundation president Frankie Trull that without a widespread public education effort, Americans' support for scientific animal research will drop below 50 percent next year and could lead to legislative and regulatory research restrictions that Trull says would have huge implications on public policy and human health.

"We need a celebrity spokesperson, but can't find one," said Dick Bianco, an associate professor of surgery at the University of Minnesota Medical School, who is part of the campaign. "If we could get a celebrity, that would change everything. By nature, we're a bunch of introverted nerds."

Not anymore. Supporters of animal research believe advances in the treatment of many diseases are at stake in this campaign. The result is a full frontal assault on the emotions of average citizens and a no-holds-barred verbal attack on the violent methods of a few extreme animal rights activists. While the leprosy billboards speak unequivocally and, organizers believe, effectively, the campaign's most effective weapon so far seems to be a TV commercial featuring a physician who is a breast cancer survivor who also conducts breast cancer research using animals. In the spot, she holds and addresses a mouse.

"One of the problems we have nationally is that people don't see the connection between science and biomedical research and progress," said Mayo Clinic research dean Dr. Michael Joyner. "Things like heart valves and statins wouldn't be here without animal research."

Opponents of animal research answer that public aversion to hurting animals is tipping support away from medical testing on animals and eventually will force academic institutions and businesses to find alternatives.

"I'd rather see [animals] euthanized than go to a research facility," Minnesota Animal Rights Coalition president Charlotte Cozzetto said of stray dogs and cats in shelters. She thinks the new campaign "smacks of desperation."

Andrew Rowan, the chief scientific officer of the Humane Society of the United States, calls it futile. "We're on the downward slope of animal research," he said. "It's going to continue to go down no matter what we do."

The Research Saves campaign "is a fairly pitiful attempt to gather support for a cruel industry," added Kathy Guillermo, vice president of laboratory investigations for People for the Ethical Treatment of Animals (PETA).

Risky business

Trull says poll numbers are starting to reflect progress two months into her group's year-long campaign. With 170 billboards in 10 critical metropolitan areas and 3,000 commercials airing on

33 TV networks, the Foundation for Biomedical Research says it has already boosted support for medical animal research to nearly 61 percent.

However, most women (52.2 percent) and people ages 18 to 24 (55 percent) remain opposed. Democrats (50.6 percent) barely approve.

"The big challenge is sustainability," Trull said. "We think the American people don't understand. We need animal research to cure terrible diseases." Groups opposing animal research have effectively muddled that message, Trull said. Most opponents "think they're saving puppies."

Bianco has surgically implanted thousands of heart valves into sheep to test the valves' usefulness and safety before they were tested in humans, but he admits, "We're the worst in the world at PR."

At the same time, by speaking out, scientists might risk serious injury.

Dario Ringach, a professor at UCLA's medical school, once used monkeys to test ways to restore vision in blind patients. Ringach said he gave up his research in 2006 after masked protesters descended on his house and terrorized his family. Another UCLA med school faculty member, David Jentsch, continues to do animal research on the genetic causes of mental illness. But since March, when someone blew up his car in front of his house, he said, he has done so with taxpayer-paid armed guards securing his home around the clock.

Trull says these examples of intimidation have made it hard to recruit biomedical researchers to appear in the Research Saves campaign. But she says the campaign cannot succeed unless the research community "puts a face on" animal research. One of those faces will be Bianco's. His work has been digitally recorded as part of a series that the Foundation for Biomedical Research plans to air on the Discovery Channel.

"I follow rules and work on something that helps human health," he said. "If you abuse animals, you should get fired."

Refuting 'dungeon chambers'

Some people don't make that distinction. Having received death threats, Bianco sits at a desk that includes a panic switch connected directly to the U's Police Department. Blue panic switch boxes dot the walls of his experimental surgery lab a few floors below.

The Humane Society and PETA decry violence by animal rights activists. But PETA's Guillermo said: "The real violence is going on inside the laboratories. Very little is going on outside."

To dispute that notion, Bianco opens his experimental surgery lab to the media and high school students.

"I realized PETA was effective in the high schools," Bianco said. "So I bring high school students to my lab. I've had almost 10,000 high school students through to see what a medical laboratory really is. I let them see the animals. These aren't dungeon chambers."

A recent procedure to insert an experimental plastic valve in the heart of a sheep was like human surgery - sterile, professional and as painless as possible. Unlike human surgery, it could not be harmless. The sheep on which Bianco operated will be "terminated" after a certain number of months and a necropsy -- the animal version of an autopsy -- performed to see if the heart valve it received was biologically compatible. This is the state of the art and the law. Researchers must do animal tests before they move to clinical trials using humans. Similarly, to teach the insertion of heart valves to physicians requires the use of sheep that must then be killed.

The use of larger animals in medical experiments is decreasing, experts say. Mice and rats now make up more than 90 percent of animals used in medical tests.

And, Bianco noted wryly, "We have many more controls than the Orkin man."

Urging alternatives

Critics such as the Humane Society's Rowan and PETA's Guillermo wish more money would be spent developing alternative technologies instead of animal research.

In an August letter responding to the anti-animal research group Physicians Committee for Responsible Medicine, the U of M med school's emergency department announced that by year's end "simulation models" will allow the U to stop using live animals to train medical students in emergency medicine.

That day has not come for everyone. "I have friends who disagree with what I do," said senior scientist Peggy Norris, who directs Bianco's lab. "I'll respect anybody's opinion based on fact. If you can design a system without animals, I'll quit tomorrow."

Even Rowan, a Ph.D in biochemistry, agrees that technology cannot yet supplant all animal research for medical purposes. But if the research community coordinates its efforts, he believes it can end all animal research sooner than later.

Walter Low, a professor of neurosurgery at the U Medical School, is not so sure. An erosion of support for animal research will lead to a "downturn in innovations for people who have diseases," Low said.

Getting a solid majority of Americans to once again acknowledge that will require empathy. As he implanted a plastic mitral valve into the heart of the sheep on his operating table, Bianco made the same point that the Research Saves campaign hopes to make.

"If we can get a plastic heart valve that works in a child," he said, "the mother of that child will be on our side forever."