

Animal rights activist Justin Goodman is using science's own tools to combat animal research

By David Grimm

rom a small wooden desk in a row home a few miles north of the U.S. Capitol, Justin Goodman is waging war against animal research. Goodman, 34 and thin, with a scruffy beard, close-shaved head, and colorful tattoos covering most of his skin, directs laboratory investigations at People for the Ethical Treatment of Animals (PETA). Whereas other activists stick to protests and publicity stunts, he and his team have spent the past 5 years challenging scientists on their own turf. In talks and papers published in the

peer-reviewed literature, they marshal data in an attempt to show researchers that animal experimentation is flawed, cruel, and just plain worthless. "We're trying to make inroads with a community that has historically despised us," he says.

Goodman never earned a Ph.D., but he's notched some significant successes as a PETA scientist. His papers have questioned the validity of the university committees that oversee animal research, encouraged U.S. allies to explore alternatives to animals in military medical training, and wounded the reputation of the world's largest accreditor of lab animal welfare.

Many researchers are unswayed, countering that although Goodman's studies have the veneer of science, they're anything but. They say the work is biased, methodologically flawed, and deeply misleading. "PETA is trying to make a point, and they've done a good job making that point," says Taylor Bennett, the senior scientific adviser for the National Association for Biomedical Research, who's based in Hinsdale, Illinois. "But I don't consider what they're doing science."

Science or not, Goodman's campaign could weaken the public's shaky support



for animal studies, Bennett says. The effort is already hurting research, adds Christian Newcomer, who leads the accrediting organization Goodman has targeted. "The point is to attack everything about biomedical research at every level," he says. "They're putting up barriers to scientific progress."

But Goodman is just getting started.

"LET ME PLAY YOU SOMETHING," Goodman says, as he tilts open a laptop on his dining room table and pulls up Spotify. He clicks on a song from 1989 called "Cats and Dogs" by the hardcore punk band Gorilla Biscuits. Breakneck drumming and guitar thrash from the speakers as a nasal-voiced singer screams, "My true compassion is for all living things/And not just the ones who are cute so I do what I can/I wanna save lives and I've got a plan." Goodman nods along with the tempo. "My whole ethic as a human being can be traced back to records like this," he says.

Goodman began thinking about animal rights as a teenager. Although he grew up eating meat, something changed when, at 15, he started going to punk rock shows in dive bars and smoky nightclubs in New York City. His immediate family was wracked by drug addiction and mental illness, and the gigs and the sense of community they fostered offered escape. They were also a window into a new worldview.

"I would go see a show on a Saturday night, and there would be a table set up about animal rights issues," he says.

Pamphlets trumpeted undercover PETA investigations at chimpanzee labs; a TV hooked up to a VHS player looped videos with titles like "Meat is Murder." Bands talked about vivisection between songs and wrote about the evils of factory farming in their album liner notes. It was a world that nurtured many animal rights advocates.

"It connected with something in me,"

says Goodman, who soon went vegan. His voice is deep and raspy, as if his vocal cords are still strained from years of howling along with his favorite groups. "I was trying to figure out who I was and what I cared about, and it was all laid out for me on a silver platter."

He wanted to follow punk bands around the country, but forced himself to go to college instead. His grandfather had practically raised him, taking him to movies and museums when things got volatile at home. He taught Goodman how to oil paint and write letters, and he schooled his young grandson in civic engagement, bringing him along as he visited politi-

cians in Queens to complain about everything from cracks in the sidewalk to the national debt. "After he retired, he spent 30 years auditing classes at a local university," Goodman says. "The whole reason I went to college is because I didn't want to disappoint my grandfather."

Still, Goodman struggled. He dropped out of three schools before entering San Diego City College in 2002. There, in a speech communications class, he had to give a presentation on how something is made. "I had never spoken publicly about animal issues before," he says, "but I decided to talk about where meat comes from." He delivered a 5-minute presentation about making a hamburger, from the cow to the meat patty, with no grisly details omitted. "A couple of years later, I ran into a guy who sat next to me in that class," Goodman says. "He told me he had gone vegetarian because of my talk. I realized the power an individual could have when talking about animal rights."

The issue became Goodman's calling. After college, he moved back to the East Coast with his wife, where they attended the University of Connecticut (UConn), Storrs. Both pursued Ph.D.s: his wife in experimental psychology, he in sociology. Though Goodman had begun thinking about animal rights, he had never participated in, much less organized, a protest. That changed when Herbert Terrace gave a talk on campus. The Columbia University psychologist was famous for trying to teach a chimpanzee, named Nim Chimpsky, to communicate with humans, and Goodman felt Terrace had mistreated the animal. He founded a group called the UConn Animal Rights Collective, a name that belied its modest composition: Goodman, his wife, and one other student.

Nevertheless, the group made an impact, handing out flyers at the door of Terrace's



Goodman with his dog Zoe. The "WOLF FIRE" tattoos on his knuckles refer to a book about radical environmentalism.

talk that blasted primate "imprisonment" in U.S. labs. "People thought we were passing out information about the talk," Goodman grins. "You should have seen their faces when they sat down."

But what he considers his biggest coup came when he found out that a lab at UConn was doing invasive research on monkeys. Scientists had implanted devices into the skulls of a handful of rhesus macaques to study how the brain records eye movements. "The lab wasn't on anyone's radar," Goodman says, "so I started looking into it." He asked questions around campus, scoured the Internet, and reached out to a scientist at PETA, the world's largest animal rights organization, with headquarters in Norfolk, Virginia.

Although PETA was known for its campaigns against fur and factory farming, it had made its reputation fighting animal reThe PETA scientist taught Goodman how to file Freedom of Information Act (FOIA) requests to get lab documents. "I was reading sloppily written vet records, experimental protocols, and grant applications," Goodman says. The lab files revealed welfare violations including injured animals and inadequate veterinary care, he says. Two monkeys died during the research.

Goodman's group hammered the lab in

cal environmentalism—and dropped out of his Ph.D. program, leaving UConn after 5 years with just a master's degree. Then he applied for a job at PETA.

GOODMAN'S DESK SITS IN THE BACK of

his house, snuggled into a corner underneath a single window on the first floor. Inherited from his grandfather, the workspace overlooks a narrow yard, where a black-and-white border collie and a chestnut-brown mutt sun themselves on the grass. On the desktop is a stack of PETA business cards, a laptop, and a framed postcard from 1928 that features a portrait of a white cat. "It says something about a mysterious and delicate

That meant compiling the data, looking for patterns, and publishing in the peer-reviewed scientific literature. "A lot of things about animal research are taken at face value," Goodman says, noting for example that researchers often claim they are trying to reduce the number of animals they use. "I knew there was actual science we could bring to the table that would challenge decisions about funding and policymaking."

His methodology tends to be simple. In 2010 and 2011, for example, he and colleagues sent e-mail surveys to all 28 NATO nations, asking whether they used animals in military medical training, like gunshot surgery or treating injuries from chemical

warfare. Most said they didn't. Goodman published the findings in *Military Medicine—*a move that pressured some of the remaining countries to form a working group to explore alternatives.

At about the same time, Goodman's team requested federal and state records to glean the composition of Institutional Animal Care and Use Committees (IACUCs), which oversee animal welfare at U.S. universities. The resulting paper, published in Animals in 2012, showed that IACUCs at the top NIH-funded schools were heavily dominated by animal researchers. "These committees are supposed to be unbiased," Goodman says. "Our work showed that there's no meaningful oversight."

Goodman made his biggest impact last year when he published a study in the *Journal of Applied Animal Welfare Science* that questioned the validity of inspections by the Association for Assessment and Accredita-

tion of Laboratory Animal Care (AAALAC) International, a private organization that bestows its seal of approval on more than 900 institutions in 39 countries. The paper—based on records requests and data from government databases—claimed that AAALAC-accredited labs were *more* likely to violate animal welfare guidelines than nonaccredited labs (*Science*, 29 August 2014, p. 988). Though scientists slammed the study, it received prominent media coverage and tarnished AAALAC's reputation.

Today, Goodman commands a small army of 12 researchers, and he'll be adding more soon. The group—which also coordinates undercover investigations, runs ad campaigns, and lobbies policymakers—has published six papers and presented



Goodman (left) and other PETA members protest outside the National Air and Space Museum in Washington, D.C., in 2010.

a 4-year campaign that included leafleting the campus, staging a mock funeral while wearing monkey masks, and disrupting the university's 125th anniversary festivities, shouting on bullhorns, "There's nothing to celebrate. UConn kills primates!" Goodman also sent a 40-page complaint to the U.S. Department of Agriculture. His efforts were covered by Connecticut's largest newspaper and *The New York Times*. The National Institutes of Health (NIH) eventually ordered the lab to return more than \$65,000 in grant money, and the research shut down in 2006.

Empowered by the victory, Goodman decided to pursue animal rights full time. He got the words "WOLF FIRE" tattooed on his knuckles—a reference to a book about radi-

creature ending up on the table of a vivisector," Goodman says, translating the French text at the bottom.

Goodman has spent the past 7 years at this desk, ever since he and his wife moved to Washington, D.C., after leaving Connecticut. (She, unlike her husband, finished her Ph.D. and now teaches experimental psychology at Marymount University in Arlington, Virginia.) PETA hired him in 2007, and he spent his first couple of years filing FOIA requests to corroborate tips about animal welfare violations at university labs. But he soon realized he could do much more. "PETA had amassed tons of data on animal research, but most people were just focused on individual cases," he says. "I wanted to find a better way to use it."

more than two dozen posters at scientific conferences. More manuscripts are in the pipeline, including studies documenting a rise in animal use in U.S. labs and research into the mental impacts of captivity on primates. Goodman hopes that by publishing in the peer-reviewed literature, he can reach an audience that has traditionally viewed PETA as the enemy. "The public can push all it wants," he says, "but ultimately we need scientists to change their minds."

That's likely to be a hard sell.

THIS PAST NOVEMBER, at a convention center just outside Washington, D.C., PETA supporters disrupted a special address by Francis Collins. As the NIH director began his presentation-celebrating the 20th anniversary of the Association for Molecular Pathology-two women began shouting, "Why do you cause the suffering of baby monkeys, Francis Collins?," a reference to an NIH lab that has been measuring the psychological impact of removing young rhesus macaques from their mothers. A security officer escorted the women from the crowded room, as they yelled "Shame on you!" while holding signs that read, "Collins: Stop Abusing Baby Monkeys."

The stunt-coordinated by Goodman's department-and similar PETA tactics are one reason Goodman will have a hard time reaching scientists, says Bennett, who oversaw animal research at the University of Illinois, Chicago, for nearly 3 decades. He adds that PETA has rebuffed attempts by him and other scientists to engage in a dialogue, leading him to believe that the group's only goal is to demonize biomedical research. "Given PETA's reputation, many scientists don't even bother to read these things," he says of Goodman's papers.

But Bennett and others say there are even more fundamental problems with the studies. Take the NATO and IACUC papers. Bennett says both draw overblown conclusions from simplistic data sets. Most NATO countries, he notes, don't have a large military presence—so of course they don't use animals in training. "It's comparing apples and oranges." And although he acknowledges that IACUCs are stacked with animal researchers, he says that the committees require this type of expertise to properly evaluate animal protocols. He adds that Goodman's study found no evidence that federal guidelines are being violated. "The paper misrepresents the process."

Similar problems plague the AAALAC study, says Bennett, who notes that a lab can be cited for reasons that may have nothing to do with how its animals are actually treated, such as mundane paperwork errors. He adds that the paper's last author, the only

PETA takes on animal research

Since its founding in 1980, People for the Ethical Treatment of Animals (PETA) has sought to end all animal research. Here are some of its notable campaigns.

1980

Ingrid Newkirk and Alex Pacheco found PETA and organize a protest against animal research: World Day for Laboratory Animals.

1981

Pacheco goes undercover at a Silver Spring, Maryland, laboratory, exposing injured monkeys in filthy conditions. Lead scientist is convicted for animal cruelty, but conviction later overturned.

1986

Maryland laboratory run by SEMA Inc. stops putting chimpanzees in isolation after PETA protests.

By holding stock shares and proposing shareholder resolutions at annual meetings, PETA convinces Gillette to adopt a moratorium on animal testing.

PETA announces \$1 million prize for labgrown meat, to spur research. Abandons prize in 2014 after limited interest.

2010

Justin Goodman becomes an associate director of research at PETA, soon begins publishing in scientific journals.

PETA donates simulators to Egypt (pictured) so country will stop using animals in medical trauma training.



PETA launches an International Science Consortium, which promotes and funds animal alternatives in biomedical research.

2014

PETA protests maternal deprivation experiments at NIH primate lab.

one unaffiliated with PETA, was paid for his work. "That raises red flags for me."

Newcomer, AAALAC's executive director, says he asked Goodman for a copy of his raw data, but Goodman refused. So AAALAC painstakingly compiled a comparable data set, which Newcomer says showed that-in some cases-PETA could not have determined which labs were and were not AAALACaccredited. "The underlying data points are hopelessly flawed," says Newcomer, who sent a letter to the journal. "They're trying to hoodwink scientists."

Yet AAALAC has already begun to feel the impact of the study, Newcomer says. Labs pay thousands of dollars a year to be accredited, and he says his employees have started getting questions about AAALAC's utility at conferences and during lab visits. If labs opt not to become certified based on the paper, he says, it will hurt animal welfare in the long run because they will no longer have AAALAC oversight. "We'll see more stray activities."

For his part, Goodman says that scientists aren't obligated to share their data and that AAALAC has a clear bias, too. "They make millions of dollars a year on their accreditations," he says. "Of course they're going to claim that their process works." He also takes issue with the idea that his papers overreach. "Our core conclusion with the AAALAC paper is that there needs to be more transparency with the accreditation process. Coming from PETA," he laughs, "that's pretty tame."

Goodman admits that if his AAALAC data had painted the organization in a positive light, he probably wouldn't have written it up. That doesn't make him different from any other researcher, he claims. "People don't publish stuff that isn't interesting. That's just the reality of science." He says he hopes researchers can get past PETA's reputation. "We are an interest group," he says. "But that in and of itself does not discredit the science we do. We shouldn't be held to a higher standard than everyone else."

BEFORE I LEAVE, GOODMAN takes me upstairs to show me his two cats, Mister and Baby, brown Maine Coons rescued from a shelter in San Diego. "Right after we got back from our honeymoon, we started a family," he smiles as he cuddles Baby. He says he sees where the desire to do animal research comes from. "I grew up with close family members who suffered from addiction, mental illness, and Alzheimer's," he says. "I'm not so far removed from the issue of human suffering that I can't understand why someone would be desperate to seek treatments and cures. I just think there's a better way." ■