

# WORKING LIKE DOGS

The new Penn Vet Working Dog Center will breed and train the country's top detection dogs, but Center founder and director Cindy Otto's sweeping vision doesn't stop there. Through detailed tracking of what leads to success, "It will be the flagship of knowledge—knowledge about the dogs, knowledge for the dogs, knowledge that feeds back to the dogs," she says. *By Molly Petrilla*

PHOTOGRAPHY BY CANDACE DICARLO

**S**irius has the scent. As trainer Annemarie DeAngelo hides a black leather tug toy, the 14-week-old yellow lab frantically jumps and barks and strains against his leash so hard he's nearly choking. With the toy in place, Sirius is off before DeAngelo even says "Search." Tail wagging and nose snuffling, he pokes his head into boxes, peers onto desktops and, in a moment of pure puppy-ness, knocks a phone off its cradle and tangles himself in the curly cord.

Once extricated, he plants himself in front of a low desk drawer, tail still pumping. He scratches at the metal and barks sharply. "That's what he's supposed to do," DeAngelo says, opening the drawer with a sly smile. The slim leather toy sits on a stack of papers. Sirius snatches it and DeAngelo bellows praise: "Aaah! Good job! Yay, Sirius! Yaaaah!"

"The dogs have to enjoy what they're doing," she says later. "We need them to understand that it's a game, and to make sure they're having a really good time. The more fun they have, the better their work is. They don't know it's work; it's all a big game to them."

Cindy Otto  
and Morgan.





(Left to right, from top) Thunder, Bretagne, Morgan, Sirius, Sarge, PApa Bear, Ohlin, Socks, and Kaiserin.

**Sirius is a member** of the Penn Vet Working Dog Center's inaugural class—a wriggly, wet-nosed bunch that arrived on September 11, 2012 to great fanfare. Picture a brand-new, all-star sports team making its first hometown appearance, then add tails and extra legs.

At the center's grand opening, which doubled as a 9/11 commemoration event, the puppies were introduced by name, breed, back story. One at a time, they wobbled up the aisle for a dramatic handoff from breeder to foster parent. Gasps, sniffles, and camera flashes filled the tent with every debut.

Piles of custom trading cards displayed each puppy's name and photo on the front and its namesake on the back. The puppies are all named for dogs who lent their noses to 9/11 search-and-rescue efforts. Socks, for instance, is a little yellow lab named in honor of Socks Lavoie, who dug through the Staten Island Landfill. A pointy-eared, speckled Dutch shepherd is named Kaiserin, after a dog who helped search the World Trade Center.

Several of those elderly K9 namesakes came to the opening celebration in their work harnesses, looking rather world-weary and offering a quiet reminder: These seven little puppies aren't here simply to be adored. Not unlike the University's human students, they came to start school, learn a trade, and, yes, occasionally run wild on College Green. Next fall, after a full year of five-days-a-week training, they'll be ready to work as detection dogs. They'll use their noses to find missing people or sniff out bombs or uncover drug stashes; some of them may even help doctors detect cancer—and the Penn Vet Working Dog Center will be tracking them every paw-step, bark, and tail-wag of the way.

"This place is truly one-of-a-kind," says Cindy Otto, associate professor of critical care at Penn's School of Veterinary Medicine and the founder and director of the new center. "It will be the flagship of knowledge—knowledge about the dogs, knowledge for the dogs, knowledge that feeds back to the dogs."

While working dogs help the world in all sorts of ways, Otto says there hasn't been a concerted effort to figure out what makes some more successful than others. Is it genetics? Training approaches? A personality type? Health and fitness levels? While certain breeders are known for producing

top-tier working dogs—and several of those breeders have donated puppies to the new Penn Vet center—there's no real way to determine which puppies will excel.

"If you could identify out of a litter of puppies which dogs are going to become superstars, you could take and put energy into those dogs," Otto says. "Right now, what happens is you try to train all the dogs in the litter or you go *eenie meenie miney mo* and randomly pick one or two."

To develop that prescription for good health and high performance in working dogs, the center began gathering detailed data on each of its puppies the day they arrived. Height, weight, temperament, performance in training exercises, behavior in new situations, and other factors are being meticulously recorded and scrutinized. The data collection will continue even after the dogs enter their adult jobs.

"No one has looked at these puppies through these development phases with all of the cognition and learning stuff, let alone with all the interventions we're doing," Otto says. "The information we can generate is going to be invaluable not only to our program, but for any other program. There are a lot of little pockets of information here and there, but a lot of places are very proprietary. Until now, there hasn't been a central repository of information that is collaborative, open, and engaging."

Through careful observation and a unique training regimen, Otto expects that her center will produce some of the best-trained detection dogs in the world. While a class of seven puppies began the program, new dog-students will be added regularly—two more had already joined by late November—with a long-term goal of 24 detection-dogs-in-training enrolled at any given time. There's even talk of developing a "Penn Breed" working dog. The center will place its top two female dogs from the inaugural class with the Penn Police, leaving them readily accessible for breeding with other top-tier detection dogs.

Certainly, the goals are expansive—and expensive. Otto estimates that up to \$20,000 will go into raising and training each dog for a year—a sizable investment, considering that funding comes exclusively from private donors and the occasional grant, especially considering no one knew if the program would actually work until the first puppy class had arrived.

"We hadn't done anything like this before; no one really had," Otto says. "There's no book about how you make this happen."

So far, the proof is in the puppies' progress. "We're absolutely blown away by how well these dogs are working," she adds. "They've been here less than two months. They're babies. But they are learning and working like big grownup dogs."

In fact, on a recent visit to the center, a group of representatives from a government agency noted that the puppies were searching better than some of their fully trained adult counterparts. Another visitor—a retired special-ops K9 sergeant who is still heavily involved in the working-dog world—watched the young Penn dogs train and was so impressed that he decided to donate a dog he had planned to buy for himself. Sarge, a baby German shepherd, scampered into the center in late November, joining his classmates in the new corner of Penn reserved just for dogs.



**P**at Kaynaroglu's husband, Hakan, was in Turkey when the devastating Izmit earthquake struck in October 1999. More than 17,000 people died that day; many, trapped in the rubble of collapsed buildings, couldn't be found and rescued in time.

Though he frantically dug through the wreckage, Hakan couldn't find his best friend until it was too late.

"He said to me, 'If I'd had a search dog, I think my friend would still be alive,'" Kaynaroglu says. "A dog would have found his friend in minutes. I know how important the work is of these animals. It's real work. It's important work. They're saving lives."



**"IT'S REAL WORK.  
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Kaynaroglu has spent the last 20 years as a handler for search-and-rescue dogs, meaning she purchases, trains, and houses her own detection dogs, in addition to deploying with them. She's raised three FEMA-approved canines and has helped in tornadoes, hurricanes, and missing-persons searches. Not long ago, her border collie Kody found a man with Alzheimer's who had wandered off in the middle of the night. A human search team had already combed the same area without finding anything.

"We were out in the field, and Kody just took off," Kaynaroglu recalls. "I heard, *Bark, bark, bark*, and when I ran over to him, he was circling around the man. It was November in New Jersey. The guy would have died out there if we hadn't found him.

"My husband and I have both dedicated our lives to this work," she adds. "What better place to be than a center that raises scent dogs?"

In the team Otto assembled late last summer, Kaynaroglu serves as a volunteer and outreach coordinator. Shortly before the

center opened, she interviewed for the job and got it, then packed her car and drove east from Colorado. She started work within days of arriving in Pennsylvania. "For a dog lover and experienced handler," she says, "this is a dream job."

Otto's experienced squad also includes training director Annemarie DeAngelo. The retired police major created the New Jersey State Police Canine Unit and served as the state police's first narcotics-dog handler. She and her dog Buster were even awarded the National Detector Dog's Case of the Year after helping uncover 1,200 kilograms of cocaine hidden in a tractor trailer. As DeAngelo herself puts it, "I'm getting paid to play with dogs again. It's awesome!"

The puppies report to Working Dog School each weekday morning around 8 a.m. They stay until 6 or 7 at night, though a good chunk of that time is spent napping and relaxing. (They're still babies, after all.) DeAngelo starts with the toughest work early in the day to deplete some of their puppy-in-the-morn-

ing energy: searches for people and toys; agility training; general exercise and fitness. Later on, they'll have a practice vet visit or work on basic obedience commands, or maybe they'll take a field trip on a public bus or train to practice self-control and staying calm amid chaos.

"The biggest concern I have with these puppies is fear," Otto says. "The more things they're exposed to while they're young, the braver they're going to be as adult dogs. Persistence and bravery are the two most important qualities in a detection dog."

One morning in late October, DeAngelo takes the Dutch shepherd puppy Kaiserin outside for her daily search practice. An energetic assistant named Jonathan hides inside a nearby bush with one of the dogs' prized leather tug toys.

When DeAngelo says "Search," Kai races across the empty parking lot and up a flight of concrete stairs. Sensing Jonathan in the bush below—or maybe catching a whiff of the leather toy—she jumps straight off the stairs, into the bush and onto Jonathan. There's no hesitation, no fear of falling.

A chorus of hoorays and good-jobs erupt from DeAngelo, Jonathan, and two volunteers. A guy named Mo calls it the “play of the week.” Praise abounds.

In fact, encouraging words fly through the Working Dog Center all day, ensuring that the dogs see their training as more play than work—or, better yet, that the two become indistinguishable. Did Thunder sit still while a volunteer attached his leash? *Good boy, Thunder!* Did Bretagne “stay” on command? *Yay!* Did Sirius retrieve a hidden plastic bottle? *Nice! Good job! Hooray!*

Between the puppies and the positivity, “it’s all so fun here,” Otto says. “Everything we do is based on the dogs having a good time and enjoying themselves. There’s no domination here; it’s about relationship building. That, to me, permeates this place. Some of the stories of our volunteers are heart-wrenching. There are people who come here and find a safe



place. They find the ability to ‘be somebody’ with the dogs. It’s a healing place. You walk in and you just feel better.”

Mo began volunteering at the center the day after it opened. He’d been out of work on medical disability for five years by then, passing the days cooking, cleaning, and watching TV. He now rides his bike over from North Philly every morning before dawn, about five miles, and stays until the last dog has gone home for the day. He does “some of everything, really,” from bathing the dogs and cleaning up crate accidents to assisting on field trips and training

exercises. He’s not paid for any of it.

“Instead of sitting at home, I just came here and gave my life to these dogs,” he says. “I love being here. That [jump] Kai did earlier? That just gave me 10 more hours of energy.”

When the center first put out a call for volunteers, the response was massive.



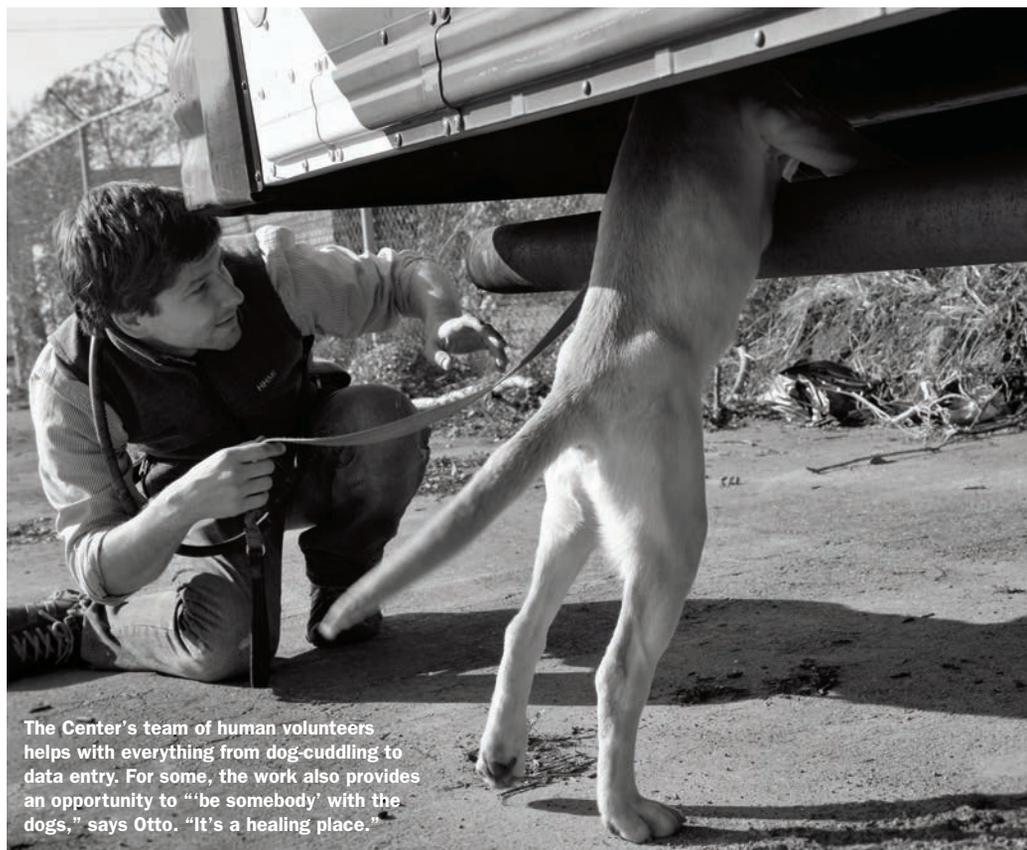
Within a few weeks, more than 300 people had signed up. Kaynaroglu had to de-activate the online form. As of late October, 96 people had completed volunteer training. They come from all walks of life, Otto says, and range from 18-year-olds to retirees. Some are professional dog trainers; some are college kids who just miss their family pets. Based on experience and preference, they do everything from cuddling with the dogs to grooming them to helping input training and medical data.

“You know how they say it takes a village to raise a child?” DeAngelo muses at one point. “Let me tell you: it’s taking the city of Philadelphia to raise these puppies.”

### The search for temporary homes

began months before the dogs arrived. Volunteer foster families would be charged with dropping the puppies off for school each morning and picking them up each night. They would provide loving homes during the dogs’ out-of-school hours and, perhaps above all else, they had to be prepared to say goodbye after a year, when the dogs would head off to their adult jobs.

“What we’re asking our fosters to do is extraordinary,” says Sarah Griffith, the



The Center’s team of human volunteers helps with everything from dog-cuddling to data entry. For some, the work also provides an opportunity to “‘be somebody’ with the dogs,” says Otto. “It’s a healing place.”



center's director of operations. She's sitting at her desk, and over her right shoulder a dog-face clock ticks off the seconds with its wagging red tongue. "They respect what these animals are going to be asked to do as adults and they understand their role in cultivating that really beautifully. We're all about the working aspect here, but when the puppies go home, it's about socialization and just being a normal family pet."

Of the seven foster families selected, almost all are Penn alumni. Joanna Ku D'07 and her husband Derek Conover D'08 WG'10, both dentists, always wanted a dog, but felt guilty leaving a puppy home alone all day. Not an issue with their foster puppy Papa Bear, who spends his day training at the center.

"He has been a huge joy," Ku says. "We take him hiking, we go to the beach; he's gone swimming a few times. The biggest problem right now is walking him because

he wants to eat everything!” Selected as the Class of 2013 class dog, Bear even went to Oktoberfest and Skimmerfest with his human classmates. (He reportedly abstained from both beer and bratwursts.)

Eileen Houseknecht Nu’86 had to make some lifestyle changes before her charge, Sirius, even arrived. “When I went to the foster meeting, they said you had to have the dog in a crate in the back seat of the car,” she recalls. “My heart sank. I thought, ‘I can’t transport him in my little convertible; what am I going to do?’”

She bought a used Honda Element with the manufacturer’s “dog-friendly” package—which includes an entry ramp and mounted fan to keep four-legged cargo cool—and has been driving Sirius around in it ever since. Her sporty convertible lives in the garage for now.

Houseknecht knows Sirius is one of the class’s top dogs, so to speak, and gushes over his achievements.

“The trainer tells me he’s able to focus sooner than a lot of other dogs she’s trained,” she says. “He really is good. He’s very focused, very driven, and he has tons of energy. He’s just tremendous.”

“They’re so proud,” Otto says of the puppies’ foster families. “They have these pangs of worry about what’s going to happen when they give up their dogs, but they’re so proud.”

“I try not to think too much about it,” Houseknecht says of that event. “I just want to enjoy my time with him. I know in the future I’m going to have so many happy memories, and I’m just going to appreciate being involved in such an important program.”

Penn Executive Vice President Craig Carnaroli W’85 and his wife Amie Thornton C’84 WG’87 were among the first to submit their names in the foster-family lottery. (Some 70 people wanted the job, with only 14 slots available for seven full-time fosters and another seven backups.)

“We knew the deal going into it, and we know Socks will serve a higher purpose,” Carnaroli says. “She’s so well-suited for what she’s being trained for, but it’s still going to be difficult to say goodbye.”

The foster structure is another one of the center’s distinctive features. The Seeing Eye Puppy-Raising Program, for instance, places dogs in foster homes until they’re a year old; then they start school. Other programs put dogs in fos-

ter families but don’t send them to school five days a week. Puppies Behind Bars—in which service dogs are raised and trained by prison inmates—allows the pups little chance to see the outside world and experience typical home life during their formative years.

Both the foster and volunteer experiences offer still more material for the Working Dog Center team to collect and analyze.

“There’s a huge piece to study regarding the dogs’ impact on the people who come here,” Otto says. “We need to reach out to people in social work to help us explore that. I think we can learn a lot here about how humans and dogs benefit each other.”

“Dogs change people’s lives,” Kaynaroglu adds, “whether they’re saving them or just bonding with them.”

**“THE** vision for this place is so much bigger than the physical facility you see right now,” Otto is saying. She’s sitting in a tidy, white-walled office that overlooks the puppies’ indoor training area. The open space resembles a kids’ gymnastics facility, down to the padded blue floors. Lined up against the back wall, seven sleepy puppies doze in their wire crates.

The facility is tucked inside a 23-acre complex at 3401 Grays Ferry Avenue, formerly owned by DuPont, that Penn purchased in 2010. [For more on that site, see this issue’s “From College Hall.”] When Otto heard that Penn had acquired the site, she immediately began making calls, telling University officials: “I need that space.” She eventually secured a piece of it—about 3,500 square feet inside a building that formerly housed the lab workers’ gym. The private space was something she’d been wanting for a long time; the center itself, even longer.

Otto began working with detection dogs in 1994 as a member of the Pennsylvania Urban Search and Rescue Task Force 1, which is part of the Federal Emergency Management Agency. Rather than working as a dog handler herself, she helped document everything they did through photos and write-ups. After the 9/11 attacks, Task Force 1 asked Otto to join them in New York as an on-site vet for their deployed dogs [“When the Search is Over,” Sept/Oct 2002]. “I knew what these dogs did, I knew how they trained, but I never saw so many of them working so hard at the same time

until 9/11,” she says. “It was incredibly moving and inspiring.”

She began to think about how this difficult work might affect the dogs later on and quickly launched the first long-term study on working dogs’ health and behavior—a study that’s still active today, more than 11 years later. She says the findings have been remarkable: “The dogs have not had the problems that the humans have. That piece is huge. On average, these dogs are living until they’re 12 years old. These are *big dogs*. That’s *good*. It turns out there’s something really good and beneficial about the work these dogs are doing.”

In running a first-of-its-kind study, Otto became further embedded in the working-dog community. She imagined a center that would focus on the broader scientific study of detection dogs, and eventually founded one at the vet school in 2007. “It was a great concept,” she says, “but there was no money and no space.”



Around the same time, she became aware of a working-dog shortage in the United States.

“We’re going to need to answer this deficit of dogs,” she said at a foster-parent information session last summer. “There are at least a thousand needed every year just to fill the spots of dogs who are retiring.” Her imagination began spinning again, and she pictured not only studying the science behind working dogs, but also breeding and training them.

Now, with her dream fully realized, Otto walks around the center beaming. With the proper training and close observation, she says, these dogs’ noses could help them do any type of detection work. They could be placed in fire departments, local law-enforcement agencies, in the military, or

# "I DON'T THINK THERE'S ANYTHING YOU *COULDN'T* TRAIN THESE DOGS TO DETECT."



with a city's port authority or the Transportation Security Administration. They could sniff out endangered plants or species, help kids with allergies avoid peanuts, even identify cancer cells in lab samples.

"There's no limit—no constraints," she says, smiling again. "In my mind, understanding what I do about how dogs smell and their cognitive processes in recognizing odors, I don't think there's anything you *couldn't* train these dogs to detect."

At the end of this inaugural year, the first class of puppies will move on to more specific scent-training programs based on their individual strengths and temperament. "One of these dogs that didn't want to go racing over rubble and stones could totally be successful in another detection realm," Otto says.

Inside the center's new building, there are nearly 8,000 square feet that haven't been allotted to the working dog program—yet. Some of the space houses vet school resources; the rest is empty. "We need that space," Otto says, gesturing, "and then we need that building over there and that building over there and that one, too." She isn't one to get sidetracked by

challenges or even impossibilities. This is, after all, a woman who taught her cat more tricks than most dogs ever learn.

She's picking up speed now, barreling toward an expansive future. "I want this center to be the whole picture—the education piece, the research piece, the social-interaction piece, the cognition, the veterinary medicine: every aspect of our interaction with dogs and people related to these dogs and their work." Under the Penn Vet Working Dog umbrella, she talks about creating an education center, a training center, a medical center.

"I'm a big-picture person," she adds. "That's why it's so fitting to be a University center. I really want this to be one of those shared centers we have on campus where people come in from all different disciplines. Social work, psychology, biological basis of behavior. They can all own a piece of this. There is such huge opportunity here."

"Cindy is just one of those people who has the big view and the broad view," Griffith says later. "There are lots of people who dream, but Cindy has the skill and the energy and the ability to get it done, which

is an amazing combination. Something was going to capture her imagination. How lucky are we that it was this?"

**Something happens before Otto and I speak again.** A brutal storm named Sandy tears through the East Coast in late October, leaving millions without power and causing billions of dollars worth of damage. People go missing. Working dogs are called in to help.

Several days after the storm, a news outlet reports on detection-dog Marci and her handler Jason Geary. Deployed from New York Task Force 2, they search a seven-story apartment building in Long Beach, New York, for people in need of help. Marci finds two elderly women who couldn't hear rescuers' calls. They do hear Marci's bark, and open the door to discover the nine-year-old yellow lab, tail wagging with joy at her find.

Just like the determined little Sirius, she has won this game of Search; only this time, the stakes are far higher than a game of tug. ♦

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