



CANINE

BY JEN REEDER

COLLEGE

Future working dogs choose careers at the Penn Vet Center.

The idea for the Penn Vet Working Dog Center at the University of Pennsylvania sprang from a grim source: Ground Zero. Founder Cindy Otto, DVM, Ph.D., DACVECC, DACVSMR, CCRT, deployed to Ground Zero in response to 9/11 as a veterinarian on a search-and-rescue (SAR) task force. She spent 10 days treating SAR dogs looking for survivors and victims, and was struck by the importance of their work—and how little science there was to

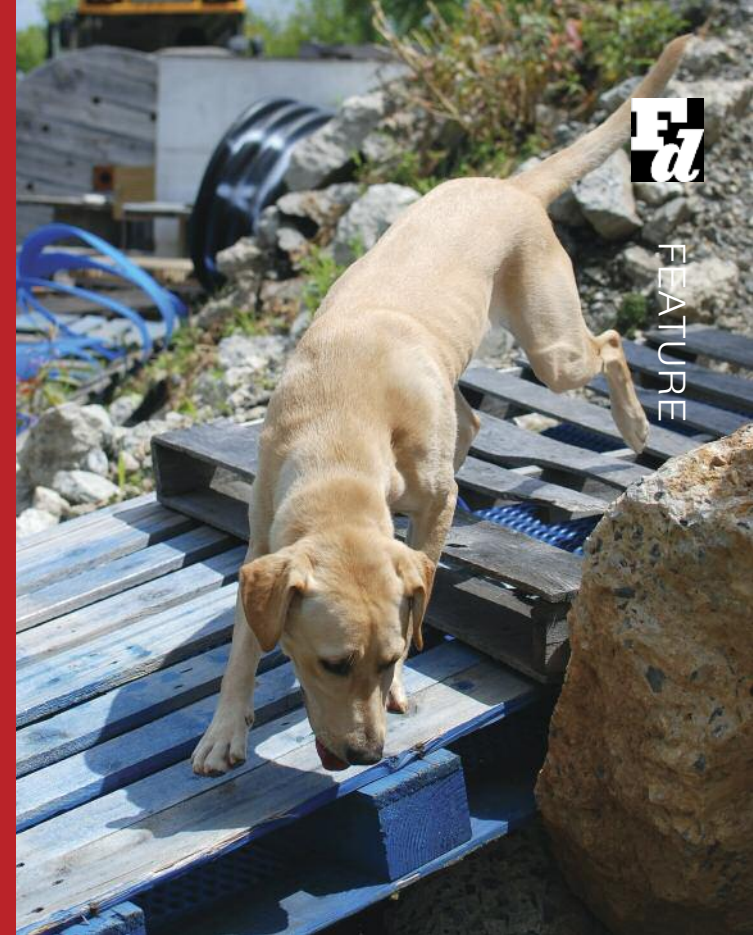
support them in doing their jobs.

In a powerful gesture of hope, the [Penn Vet Working Dog Center](#) opened its doors on September 11, 2012. Its goal is to collect scientific data about the factors that create successful working dogs, such as genetics, training methods, and health. Puppies of varying breeds live with foster families and start training for eight hours a day at the center when they are 8 weeks old.

“The way we describe it is they’re sort of



Sniffer Scholars: McBaine follows his nose to catch a cancer; A student (right) learns to navigate a rubble field.



FEATURE

in a liberal arts program when they come in,” Otto says. “They all get foundation training so they get the basics, but they don’t get exposed to explosives or drugs or anything like that until we know what they’re going to do.”

BRINGING UP THE REAR

Those initial general-education requirements include training in obedience, fitness, and proprioception, or body awareness. Annemarie DeAngelo, training director of the Penn Vet Working Dog Center (WDC), says it’s crucial for working dogs, particularly SAR dogs, to be aware of their body when searching uneven surfaces, like rubble piles.

“Dogs don’t naturally know where their back legs are—it’s kind of like front-wheel

drive and the back ends just follow,” she says. “It’s important for them to know where their back legs are and how to use them to help balance and climb. These dogs climb ladders—it’s pretty amazing.”

But before climbing ladders, the dogs develop their proprioception with exercises, like learning how to get into increasingly smaller boxes with all four paws. They also start learning to search for hiding humans.

“We gradually make it harder to where you see this little dog looking and looking and looking, and then all of a sudden you see that nose go up in the air. That’s the sign that now he’s using his nose to help him make the find,” DeAngelo says. “I’ve been training dogs since 1980, and it still always fascinates me when I see it.”



THE GRADUATE # 1

NAME: Papa Bear

BREED: Labrador Retriever

JOB: Narcotics Detection

PARTNER: Alex Molnar, K-9 Sheriff Officer with the Gloucester County Sheriff's Department in New Jersey

Officer Molnar says Papa Bear lives up to his name. The dog can detect a variety of narcotics, including marijuana, hashish, heroin, black tar heroin, cocaine, crack cocaine, MDMA, and methamphetamine—as well as large amounts of cash.

Here's how precise he can be: At a car stop in December 2015, Bear alerted on a closed car with rolled-up windows as traffic was speeding by—two ounces of cocaine were hidden inside.

"He loves his job," Molnar says. "He's had a lot of success."



THE GRADUATE # 2

NAME: Felony

BREED: Dutch Shepherd

JOB: FEMA-certified Search and Rescue

PARTNER: Kim Lark, DO, a family-practice physician and SAR volunteer in Carlsbad, New Mexico

Felony, whose nickname at the Penn Vet WDC was "Princess," trains three or four times a week on a rubble pile to stay ready in case the team is deployed to a disaster. She also greets Lark's patients and stays fit swimming or racing through the agility course at home.

"Felony is so agile and so strong," Lark says. "She just flies over the rubble pile, and there's not a doubt in her mind what she's on this earth to do. She is an awesome SAR dog."



THE GRADUATE # 3

NAME: Socks

BREED: Labrador Retriever

JOB: Explosives Detection

PARTNER: Julie Wesley, police officer with the University of Pennsylvania Police Department

When the university created a K-9 unit, Socks and Wesley were the first team to join. They sweep the campus for bombs and respond to calls for service for unattended bags and bomb threats. Socks is a bit of a celebrity on campus, so many students ask to take photos with her.

Officer Wesley says being part of a K-9 unit with Socks is the best thing that's ever happened in her career.

"It's amazing to see what she can do and how quickly she learns," she says. "She's become a big part of my family—she's not just a partner, you know?"

PLAY TO WIN

The WDC has found that dogs respond best to positive reinforcement training, so when they succeed at a task, they are rewarded with a toy. Most of them have high play drives, so playing tug or fetch with a toy is like earning an A+.

"If a dog's not enjoying something, you're not going to get the best results from him. We want to set them up for success, so we make everything fun," she says. "That's the whole key to a good working dog: Keep them happy."

Because of this outlook, students are encouraged to choose their own "major"—the field in which they'll eventually have a career. WDC dogs can study SAR (live finds or human remains), explosives detection, narcotics detection, or medical detection for ovarian cancer, or for low blood sugar in people with diabetes. They typically graduate within a year to assist police officers, firefighters, volunteer first responders, and the occasional private citizen.

The canine students test periodically to evaluate their aptitude and interest in a given field, but the deciding factor for a career path is essentially what the dog seems to enjoy doing most. DeAngelo's team suggests a major course of study based on the strengths and personality traits of each dog.

For instance, she says currently a 9-month-old yellow Labrador Retriever named Scout is majoring in search and rescue because he loves to "run rubble."

"He's so comfortable up there, he has a





Dr. Otto with puppy Rookie

great alert, he loves the game,” she says. “He’s given all the opportunities, but that’s what he seems to enjoy. But other dogs are not as comfortable on the rubble but like the search. So we’ll go more toward narcotics or explosives, something odor-specific.”

In contrast, Quigley, a black Lab, has a very strong bond with people and is happy staying by one’s side. While search dogs with high drives couldn’t be expected to lie under a table at a restaurant, it seems Quigley would love that. So he’s training to be a diabetic-alert dog.

“Yesterday we had done 15 or 20 reps and he was like, ‘I don’t want this game to be over. I want to keep doing this and have fun.’ He loves that game—he loves being

with his person and when he finds the odor, alerting with a little paw scratch.”

And three dogs at the WDC have demonstrated very special skills: the ability to detect ovarian cancer. When the plasma of a healthy woman, a woman with benign ovarian tumors, and a woman with ovarian cancer are placed on a stainless-steel wheel used in training, the dogs only indicate on the samples containing malignant cancer. The names of these future valedictorians are Tsunami, a German Shepherd Dog; Ffoster, a yellow Lab; and McBaine, a Springer Spaniel.

“You can see how non-breed specific that is,” DeAngelo says. “The thing we look for there is a very methodical searcher—a dog that takes his time.”

ADVANCED DEGREES

The ovarian-cancer detection dogs will conduct post-graduate studies at the WDC in conjunction with the Monell Chemical Senses Center to try to identify precisely what in the sample tells the dogs that ovarian cancer is present. This could have major implications for early detection of the disease.

DeAngelo says the WDC trains prodigies as well as late bloomers. Jessie P., a black Lab, was a prodigy who knew “right away” that he wanted to be a SAR dog, and now works in SAR in New Mexico. In contrast, a chocolate Lab named Thunder trained for a year before “telling” DeAngelo’s team what he wanted to do.

“He was a very late bloomer, but once he started blooming, once he was having a lot of fun and you could see that, it was so easy. He turned into a phenomenal SAR dog,” she says, adding that he now works in live-find SAR for New Jersey Task Force 1.

DeAngelo said it’s hugely beneficial for the dogs to be allowed the time to develop their skills and interests on a case-by-case basis; some even “change majors” halfway through. But the success of the methods is clear: The WDC has 26 graduates, 20 current students (with three about to graduate), and only three “contributors” who didn’t graduate (one had a defective heart valve and was adopted by his foster family; one is training privately to be a therapy dog; and one wanted to be a bird dog and loves hunting with the breeder who originally donated him to the program).

“We have people call all the time and say, ‘I’d like to get one of your washouts.’ I’m like, ‘Sorry!’ ” she says with a laugh.

OUT OF THE NEST

No matter what “degree” a dog chooses to pursue, when the time comes for them to graduate and leave to work their new job, it’s emotional for the staff at the WDC. Otto, who remains hands-on, says graduations are bittersweet.

“Ask any parent how they feel on graduation day: so proud and sad to see them leave. But mostly, just proud knowing what they can do and what they will do makes a difference.”

One graduate, a German Shepherd Dog named Rookie, was training to become a diabetic-alert dog for several months before she decided to change majors. Now she works as a patrol dog and explosives-detection dog with Jeff Seamans, a police officer with the Lower Merion Police Department in Pennsylvania. He said Rookie has been a “phenomenal asset” since he partnered with her in October 2015. They work 12-hour patrol shifts together.

“We respond to any call where we may be useful, such as tracking suspects from crimes if they run away, and article search—if someone’s running from the police and drops the gun, she’ll be able to find that gun,” Seamans says. “She can find a set of car keys in a football field with 3-foot-high grass ... any hidden object with human odor on it. She has a phenomenal nose.”

Like all graduates of the WDC, after work Rookie enjoys life as a family dog.

“When we go home, she gets her nice pink collar that my daughter picked out for her,” he says.

Seamans says he “absolutely” recommends dogs from the Penn Vet Working Dog Center to other law enforcement officials, and praised all the center does to train outstanding working dogs.

“It’s the wave of the future what they’re doing there.” 🐾

Freelance journalist Jen Reeder is an award-winning member of the Dog Writers Association of America.