



THE  
**CRIMESCENE**  
 NEWSLETTER OF THE LAKE COUNTY CRIME LABORATORY

## LeAnne Suchanek: The Lab's Latest CODIS Hit

BY ROBERT SBERNA

For 14 years, LeAnne Suchanek was a key member of a crime laboratory in Southwest Louisiana, rising to the position of DNA Technical Leader. This past June, the Michigan native returned to the Midwest, bringing her forensic talents to the Lake County Crime Laboratory.

Suchanek is primarily responsible for analyzing blood, semen, saliva, and other bodily fluids submitted to the Crime Laboratory.

Suchanek examines and collects forensic evidence from a variety of crime-related items, including clothing, weapons, and sexual assault kits. In cases where DNA samples are required, she extracts and processes the genetic material from the biological evidence that has been collected. Suchanek also serves as the Combined DNA Index System manager (CODIS) for the Crime Laboratory. In that role, she oversees the matching of DNA samples with profiles contained in the nationwide CODIS database. (CONTINUED ON PAGE 3)



LeAnne Suchanek

## Cunningham: A Shattering Discovery

BY ROBERT SBERNA

Shortly after 4 a.m. on August 30, 2005, two employees at the Willoughby Hills Giant Eagle were startled when the front window of the store was shattered and two men stepped inside. The intruders, who wore masks, gloves and black clothing, fled empty-handed when one of the employees screamed at them. They were arrested an hour later in Cleveland after a high-speed chase on I-90 that involved a half dozen police departments.

Although Willoughby Hills Police were certain they had their perpetrators, the suspects, Selvin Cunningham and Antwon Wright, denied their involvement in the break-in. When investigators reviewed the store's surveillance video, they recognized Cunningham's clothing, but were unable to (CONTINUED ON PAGE 5)



# Frequently Asked Questions

This Column  
Answers  
Questions  
Commonly  
Asked of our  
Scientists



**ANSWERED BY LINDA ERDEI, M.S.**  
LABORATORY DIRECTOR

**Q:** Why does the Crime Lab request a police report?

**A:** A police report helps focus the analyst's examination for the most accurate and comprehensive examination of evidence submitted to the laboratory. Oftentimes when an agency submits evidence to the laboratory, the submitter is unfamiliar with the case and evidence that is being submitted. They are therefore not able to fully discern what laboratory disciplines should be involved in the investigation. The utility of a police report is severalfold, starting at the point of intake all the way to the scientific analysis of the evidence. Several disciplines require a police report to proceed with analysis, including DNA, Fingerprints, Firearms, Toxicology and Trace Evidence. A police report is strongly recommended for Digital Evidence and is only requested intermittently in Drug Chemistry.

A police report directs an analyst to the proper examination of the evidence submitted. For example, an officer submitting an item for DNA testing may not realize that Fingerprint and Trace Evidence analysis may also aid in the investigation. The police report allows the analyst to add additional requests to a case, and coordinate the analysis between disciplines.

For most disciplines, a police report can add relevant information to aid in the analyst's decision making process prior to evaluating evidence. For example, in the trace section, a report will provide direction as to what the agency is looking for – glass, hair, paint, toolmarks, or perhaps something else. In the digital evidence section, the analyst must know if the investigator is looking for text messages for a drug deal or multimedia files on a child exploitation case. Additionally, courts have now ruled that the agency cannot have

carte blanche in looking through digital evidence and a report will narrow down the search fields for the analyst. For toxicology, a narrative often reveals the officer's observations of the suspect's behavior, driving, standard field sobriety test results, as well as a potential list of medications or illicit drugs collected during the investigation. This information will help determine what drugs to screen for and to make determinations as to whether or not the drugs that are present are consistent with the driver's behavior. A police report is useful for fingerprint analysis by helping the analysts to be more effective in deciding what should be processed and the techniques required. DNA requests a report not only to direct the efficient collection of the biological evidence, but to determine the likely origin of the evidence. A police report that specifically addresses the reasons why the DNA on an item is believed to be that of the suspect is germane for CODIS submission since there must be substantial, documented reasons for believing that the DNA came from a suspect rather than a victim or other innocent person.

Therefore, when submitting evidence to the laboratory, the evidence custodians will often request that a report be forwarded to the laboratory at the time of evidence submission. Detailed police reports may enhance the analyst's examination and ensure the most exhaustive measures are taken while examining the evidence.

For questions, please contact Linda Erdei at 440-350-2793 or [lerdei@lakecountyohio.gov](mailto:lerdei@lakecountyohio.gov). 📍

**WILLOUGHBY HILLS PD**  
 Administrative  Investigation  Accident  Arrests Made  Suspects  
 PD-05-016214 10/06/2005  
 OFFICER: 118 DAVID BROADWATER  
**Incident Report Form**  
 Log Number: PD-05-016214  
 Incident Type: FOLLOW UP ACTION  
 Date Reported: 10/06/2005  
 Date Occurred: 11/02  
 Location: EUCLYD AVENUE, WILLOUGHBY HILLS, OH 44094  
 Narrative: DET. BROADWATER NARRATIVE: BROADWATER 10/06/2005  
 On this date, I met with Lt. Quilor of the Willoughby Police Department, and had him release the large brown garbage bag from bottom and black garbage bag that had been found in the suspects vehicle. The evidence was signed over to me at this time, which will be returned to Willoughby Hills P.D. and entered into evidence. I requested to look at the evidence that they had from the suspects. Some of the items had been sent to the crime lab, but they were still holding some items at the Police Department. I observed a large crowd bar which fits the description of what I had observed on the surveillance video. I also looked at a pair of dark colored gloves that had the entire back side of the wrist and fingers with large white letters that said MECHANIX written on them. This is what I had observed on the left glove of the suspect as he jumped through the broken window as he entered the store. I observed a pair of dark colored gloves and they covered me with a CD

## HIGHLIGHTS

- Master of Science Degree in Pharmaceutical Science - University of Florida
- Certified Technical Assessor for ASCLD/LAB- *International*
- Calcasieu Parish (Louisiana) Sheriff's Office Special Services Officer of the Year - 2010
- Member - Association of Forensic DNA Analysts and Administrators
- Member - Association of Forensic Quality Assurance Managers

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## LeAnne Suchanek: The Lab's Latest CODIS Hit

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"My favorite part of my job is actually doing the DNA bench work," said Suchanek. "However, it's also the most challenging because there is a lot of paperwork. Every step of the DNA process has to be documented."

In Louisiana, Suchanek gained extensive experience in DNA analysis. In fact, she oversaw the implementation of her laboratory's first DNA unit in 2006.

"I had the responsibility of deciding what equipment to purchase, which testing methods were going to be used, and developing all the operating protocols," she said. "I enjoyed the administrative function, and I'm not opposed to taking on that role again if the opportunity arises. Currently I'm enjoying focusing on the lab work."

Suchanek said she's always had a strong interest in science, particularly

biology and chemistry. She was born and raised in Bronson, Michigan, a small town near the Indiana border. "I earned good grades in my science classes and I knew that I wanted to help people, so I gravitated towards the medical field," she said. "After graduating from high school, I worked as a medical technologist and a phlebotomist in a hospital."

In the late 1990s, she met a police officer from DeQuincy, Louisiana, eventually moving there to marry him. Until then, the field of forensic science hadn't even been on her radar.

"One day, my husband was telling me about his recent visit to the regional crime lab, which was the Southwest Louisiana Criminalistics Laboratory. It sounded fascinating, so I told him that I might be interested in working there. He made a couple of phone calls and learned that a position was open in Forensic Biology."

Suchanek was hired and initially worked as a Serologist, analyzing blood samples. "I loved it immediately," she said. "The work was very rewarding and I was able to work on something different every day."

Along with maintaining her full-time lab position, Suchanek also continued her education, earning a Master of Pharmaceutical Science degree with a concentration in Forensic DNA and Serology.

While working at the Southwest Louisiana Criminalistics Laboratory, Suchanek's most gratifying case—and saddest—involved the death of a two-year-old girl who died of blunt force trauma and third-degree burns.

"The coroner noticed crisscrossed burn marks on the girl's back that seemed to match the grill of a space heater in the suspect's home," Suchanek recalled. "I swabbed the grill and collected what appeared to be skin. From that material, I was able to extract the girl's DNA." (CONTINUED ON PAGE 4)



Suchanek looking for bodily fluids on a carpet.



## LeAnne Suchanek: The Lab's Latest CODIS Hit

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The suspect, who was the boyfriend of the girl's mother, claimed that the child accidentally fell against the space heater. However, Suchanek's DNA analysis, along with the coroner's report, helped investigators determine that the suspect may have burned the child with the space heater in order to cover up bruises he had inflicted on her back. At trial, he was found guilty of negligent homicide.

"It was very satisfying to assist in determining what actually happened to the victim," Suchanek said. "Abused child cases really tug at my heart-strings, but I have to detach myself emotionally and continue on with the work. As a forensic scientist, if I don't maintain my objectivity, it can jeopardize a case."

Suchanek is committed to professional development in her field. She is a member of several national forensic associations and has presented case studies at numerous DNA seminars.

"Forensic science is not just a job for me," she said. "This is my career. And I not only care about what happens in my lab, but I care what happens in the field in general."

In 2010, she was certified as a technical assessor for the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB-*International*), the nation's primary certifying body for crime labs. In her role as an assessor, which is a voluntary position, she has reviewed forensic laboratories throughout the United States. "It's a week-long process



Suchanek validating new DNA instrument.

to assess a lab," she said, adding that she is responsible for one assessment a year. "I'm not only seeing what they might be doing wrong, but I'm also seeing alternative practices that I can bring back to our Crime Laboratory, which may be helpful to implement."

In 2015, Suchanek decided that she was ready for a change of scenery. "I knew I wanted to be closer to my family. My parents and my sister live in Michigan, so I started looking for a job up north. Fortunately, a position at the Lake County Crime Laboratory happened to be available."

Suchanek, who has two daughters and two grandchildren, has taken up residence in Painesville. "I really like it here. Painesville offers the best of both worlds: We have a small-town atmosphere, yet we're near the metropolitan area of Cleveland."

In her spare time, she enjoys reading—mainly science fiction, but also some true crime. She also crochets. "It's a lost art," she said. "I find it very relaxing." 🧶



Suchanek analyzing data.

# Cunningham: A Shattering Discovery

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obtain clear images of the men's faces.

With little direct evidence to tie the suspects to the crime scene, police turned to the Lake County Crime Laboratory for assistance. David Green, a highly skilled crime scene investigator and trace evidence examiner, focused his attention on the glass fragments from the broken window.

As an inexpensive, utilitarian material, glass is indispensable for many everyday uses. Forensically, glass can also be vitally important, particularly for crimes involving car thefts and burglaries of homes and businesses. In those cases, intruders often gain entry by smashing windows, which can transfer tiny particles of broken glass onto their clothes, as well as their hair and skin.

The presence of glass particles on a suspect can be a tell-tale link to a crime, said Green, who joined the Crime Laboratory in 1989.

"Even though glass is mass-produced and commonplace, the fact remains that most people aren't just running around with glass fragments in their hair and on their clothing," he said. "So unless somebody is a glazier who installs glass for a living, when we find glass on a person, it's a good indication that they were in close proximity to a window when it was broken."



Recovered criminal tools.

Cunningham and Wright, in fact, were suspected of a week-long spree of burglaries throughout Northeast Ohio. An hour before they broke into the Giant Eagle, the two men had burglarized a gas supply business in



Point of Entry.

Willoughby. Then, after fleeing the Giant Eagle, they were spotted in the parking lot of a Willoughby trailer company, in a stolen van. Upon observing the van a police officer attempted a traffic stop, however, they sped away, entering I-90 westbound. The chase, which reached speeds of 110 mph, ended when their vehicle crashed. The men were apprehended by Euclid and Willoughby police after a foot pursuit.

The clothing and shoes of Cunningham, 46, and Wright, 36, were collected and submitted to the Crime Laboratory for examination.

Green found 10 miniscule glass fragments on the shoes and pants of Cunningham, who used a crowbar to break the Giant Eagle window. "But I didn't find any glass on Cunningham's shirt, which was unusual," Green added. "I then learned that he was taken to a hospital immediately after he was captured. He had been wearing two shirts that night. At the hospital, they threw away his outer shirt, which probably had glass fragments on it."

Green then retrieved broken glass from the Giant Eagle window to compare to the glass particles found on Cunningham. Green not only performed tests to determine if the samples matched, but he also studied the ways in which glass breaks and transfers to a suspect.

"I conducted a study in which I broke nearly 20 windowpanes in order to learn how glass sticks to a person's clothing and how long it can stay there," said Green. "The study was (CONTINUED ON PAGE 6)



# Cunningham: A Shattering Discovery

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Green studying how broken glass particles transfer to clothing.

very helpful. I found that small bits of glass are particularly likely to lodge in a suspect's shoelaces and they can remain there for weeks."

Noting that glass can be "great forensic evidence," Green said, "It's not uncommon for people to have glass fragments stuck to the soles of their shoes. But if the fragments are actually on their clothing, then that person had to be present when a window was broken and glass was flying."

During his analysis, Green used a microscope to determine if the Giant Eagle samples and the Cunningham evidence shared similar physical properties. He also compared the refractive index of the samples by measuring how much light is reflected and absorbed.

Green had planned to perform an elemental analysis, which identifies the concentrations of the various chemical elements in the glass, but the fragments were each less than 0.5 millimeters in size, much too small to test. For assistance, he approached an FBI colleague he met through his work with the National Institute of Standards and Technology (NIST), a government agen-

cy that is currently developing new standards and guidelines for the U.S. forensic science community.

The FBI was a valuable resource, said Green. He explained that once he completed the preliminary analysis of the glass, he sent the samples to his FBI contact for advanced testing with the agency's sophisticated laser ablation equipment, which is unavailable in crime labs in the state of Ohio. For glass samples as small as these, this was the only alternative method.

"In the process of comparing the glass samples, I took the first step, and the FBI was able to take additional steps," Green said.

The Crime Laboratory and FBI's testing confirmed that the glass fragments recovered from Cunningham were indistinguishable from the Giant Eagle glass. In November 2005, Cunningham and Wright were indicted on several charges. Wright then pleaded guilty to his role in the break-in and was sentenced to five years in prison.

Cunningham, however, maintained his innocence. He also elected to serve as his own attorney, which placed Green in the unusual position of conversing with Cunningham about (CONTINUED ON NEXT PAGE)



Green utilizing a crowbar to smash glass.

the evidence against him. Green testified for six hours during the lengthy jury trial.

“It was very interesting to learn about the Crime Laboratory’s testing of the glass and the added discrimination provided by the FBI,” said Lisa Neroda, a Lake County assistant prosecutor who tried the case with Karen Kowall, chief assistant in the Criminal Division

textile fibers, paint chips, tape and glass. “Being on a national subcommittee has introduced me to other scientists who are considered the best in the field,” he said. “When I’m working on a case, it’s very helpful for me to be able to call them up and bounce ideas off of them and get their opinions, especially because we see so many different materials in trace evidence.”



Cunningham’s glass embedded pants.



Shards of glass similar to those recovered from Cunningham’s pants.

of the Prosecutor’s Office. “The forensic scientists were able to connect the dots, definitively placing Cunningham at the crime scene.”

Kowall commended Green for his ability to convey the unique properties of glass to the jurors. “To most of us, a window is just a window,” she said. “We see glass and we can tell it’s clear and we look through it and it keeps us warm. Dave Green did a great job of explaining the science of glass and how batches of glass can be differentiated from each other. His testimony helped the jurors feel comfortable relying on the fact that the glass found on Cunningham was consistent with the glass found at the Giant Eagle. That’s what clinched the case for us.”

Cunningham was found guilty of breaking and entering, burglary, receiving stolen property, and other charges. He is currently serving an 11-year sentence.

Green credited the FBI for its assistance, adding that the Cunningham case was an example of the benefits of collaboration among forensic scientists. In 2014, Green greatly expanded his scientific network when he was appointed to the Material (Trace) Subcommittee of NIST. In that role, he works with the nation’s leading trace evidence experts to assess and propose guidelines for the examination of physical evidence such as hair,

As a subcommittee member, Green and his colleagues are charged with defining the standards and quality assurance protocols of their profession. “Basically, we are at the forefront and ahead of the curve,” he said. “We are helping to establish the science of how trace evidence examination should be done in the future.”



After being found guilty of Burglary, Breaking and Entering and Failure to Comply With Order or Signal of Police Officer, Cunningham was sentenced to serve a prison term of 11 years.



# LAKE COUNTY CRIME LABORATORY

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## The Crime Lab Presents: Touch DNA

On December 9, 2015, the Crime Laboratory held a meeting for all Lake County Detectives. Immediately following the meeting Dr. Karen Zavarella gave a presentation regarding touch DNA. Dr. Zavarella highlighted the relevance of touch DNA and gave examples of items of evidence from which the Lab has successfully recovered touch DNA. Additionally, Dr. Zavarella discussed collection techniques that would likely increase the chances of obtaining a DNA hit. After speaking with some of the detectives that attended the meeting, the overall sentiment was that the presentation was both informative and interesting. Detective Pat Hengst of the Wickliffe Police Department stated, "DNA has become part of what we do everyday and this was a good opportunity to get some insights into the science available."


The Crime Laboratory is willing to bring this presentation to your agency so that your officers can have the most updated information regarding collection of this type of evidence. If your agency is interested in learning more about touch DNA and collection techniques, please contact the Crime Laboratory at (440) 350-2793. 📍

**The CRIMESCENE**

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Detectives sharing information.