

CRIME LABORATORY SYSTEM - 2011 INTERESTING CASES

Biological Sciences

- ▶ A forensic scientist gave court testimony, based on a DNA analysis that was performed in the DNA Databank, that convicted a man 10 years after he raped a 12-year-old girl.

In 2002, the rapist followed a 12-year-old Brooklyn girl into her apartment complex, lured her to the roof and raped her. After raping her, he allowed her to get dressed and then raped her again. He was not identified at the time.

In 2007 the same man's DNA sample was submitted to the DNA Databank fulfilling a collection owed for a separate offense.

When, in January 2008, his DNA profile was entered into the Combined DNA Index System (CODIS), his DNA profile "hit" against the DNA evidence from the crime scene linking him to the rape of the 12-year-old.

The rapist was brought to trial and was convicted on four counts of rape, two counts of Criminal Sexual Act, two counts of Assault and Endangering the Welfare of a Child. He sentenced to 47 years in prison.

- ▶ Forensic scientists assisted in bringing a murderer to justice.

On December 3rd, 2008, a young woman left a New York City nightclub with two men. She stayed with the driver after they dropped off the other man at a mall.

After the woman was reported missing by a friend, investigators began with a search of the driver's apartment and areas along Rte 84 for evidence.

Forensic scientists:

- Performed serology exams on 247 items from the driver's apartment and along Rte 84. She found biological material on a carpet and many other items.
- Performed DNA analysis on 143 items including cuttings from a carpet found along Rte 84, a carpet knife found in driver's apartment and skeletal remains found near Scranton, PA. The carpet had DNA profiles on it matching the woman, the carpet knife had profiles on it consistent with both the man and the woman and the skeletal remains matched those of the woman's personal effects.
- Conducted biological testing and performed a fracture match on six sections of the carpet from Rte 84 and the driver's apartment and found that the carpet found along Rte 84 was cut from the one in the driver's apartment.

Based on the findings, the grand jury indicted the driver on charges of Murder 2nd, Manslaughter and Tampering with Physical Evidence. The man was sentenced to 23 years in prison.

DRUG CHEMISTRY - CLANDESTINE LABS

- ▶ A forensic investigator processed and developed an identifiable latent print on the shotgun used in a robbery. This lead to the three robbers pleading guilty.

With their faces covered, the three men forcibly entered an Ulster residence, forced the resident to the floor, bound his hands with duct tape and held a loaded shotgun to his head while they stole property from the home.

Investigating officers from the Ulster PD submitted items of evidence, including a 12 gauge shotgun, for latent fingerprint processing.

When the latent print was compared to the fingerprint card of one of the robbery suspects and a positive identification was made.

The three men pled guilty to Burglary 1st.

- ▶ Laboratory personnel responded to a clandestine laboratory where hash oil and hash were being extracted and processed.

When analyzed, laboratory personnel found marihuana and the presence of mitragynine—the primary alkaloid in Kratom—a non-controlled vegetative substance.

Kratom (*Miragyna speciosa*) is a tree native to Southeast Asia and is in the same family as the coffee tree (*Rubiaceas*).

Illegal in Australia, Malaysia and Thailand, the kratom leaves have been used as an herbal drug. The dried leaves are be made into tea or powdered and put into capsules that can be eaten.

Dependant upon the size of the dose, the active ingredient can be either a stimulant or a sedative.

Laboratory staff has only seen Kratom a few times and this was the first time it was ever submitted in conjunction with a grow operation.



KRATOM

Illegal in Australia, Malaysia and Thailand



Kratom found in Grow Operation: The rarely seen Kratom was submitted, for the first time, as part of a investigation into a clandestine laboratory where hash and marihuana were being processed. The active ingredient in Kratom can be either a stimulant or a sedative based on dosage.

Clandestine Drug Laboratories

- Forensic scientists, trained to assess, dismantle and evaluate items of an evidentiary nature, collected, secured and processed liquid and powder samples after CCSERT discovered a clandestine laboratory in Salamanca.

The samples were sent to the NYSP Western Regional Crime Laboratory where a full analytical examination was performed.

After one of the submitted liquids was analyzed, using a series of tests including color tests, chromatographic screening tests and a structural confirmation using the GC/MS, it was determined that the liquid contained a significant amount of Dimethyltryptamine (DMT).

This determination validated that the clandestine lab was an active DMT extraction laboratory.

Firearms/Tool Marks

- An armed robbery occurred at a Utica bank where a man armed with a semi-automatic handgun entered the bank shortly after 9 a.m.

He fired one round while inside the bank and made off with an undisclosed amount of money.

Two month later, another armed robbery occurred at a bank in Rome. The robber charged into the bank, pointed a semi-automatic handgun at a teller and demanded money.

He jumped up onto the counter and pointed a gun at a teller's head while she was gathering cash and fired one shot into the ceiling.

Again, the suspect fled the bank with an undisclosed amount of money in a vehicle that was waiting outside.

Police stopped the vehicle and, while officers were recovering a gun and taking the driver into custody, the robber jumped into the driver's seat and took off.

When the vehicle was stopped by police a second time. This time as the robber fled he shot an Oneida County Sheriff's Deputy in the leg.

The man eluded police for more than 24 hours before he was arrested in Utica, NY.

A weapon and some of the stolen money was recovered in his possession at the time of arrest.

Evidence from the various crime scenes and the arrest was submitted for analysis.

Firearms Identification Section staff linked the expended .40 caliber cartridge cases from the two bank robberies and the shootout with police to the pistol that was recovered during the arrest.

The driver pleaded guilty to his role in robbing the Bank and leading police on a chase. He was sentenced to 30 years in prison in Oneida County Court.

The robber was charged with 12 charges including attempted murder, robbery, aggravated assault, and

criminal possession of a weapon. He was found guilty on all charges.

FORENSIC IDENTIFICATION

- ▶ Investigators positively identified a latent palm print taken at the scene of a donut shop robbery in September 2010 to an inked left palm impression of a man who had been arrested previously for a similar robbery.

When a man robbed a Colonie donut shop, the security video showed that he was wearing light-colored disposable gloves.

The Colonie Police Department officers investigating the incident recovered a pair of latex gloves located behind a building in the vicinity where the robbery took place.

They submitted the gloves to the FIU for latent fingerprint processing and DNA analysis. A senior investigator developed a partial identifiable palm print from the interior of one of the disposable gloves.

Based on information from the Rotterdam Police Department about a similar robbery in which an arrest was made, the Colonie Police obtained the arrestee's inked palm print impressions and submitted it to the FIC for comparison.

When the result of the comparison revealed a positive identification, the man pled guilty to the Colonie robbery.

- ▶ An investigator processed a weapon used in a robbery for latent prints and developed an identifiable latent on the shotgun.

With their faces covered, three men forcibly entered an Ulster residence, forced the resident to the floor, bound his hands with duct tape and held a loaded shotgun to his head while they stole property from home.

Investigating officers from the Ulster Police Department submitted items of evidence, including a 12 gauge shotgun, for latent fingerprint processing.

When the latent print found was compared to the fingerprint card of one of the robbery suspects and a positive identification was made, the three men pled guilty to Burglary 1st.

Toxicology

- ▶ A toxicologist was able to perform calculations that proved a driver, who drove off the side of the road causing serious personal injury to his passenger, was Driving While Intoxicated.

At the time of the crash - around midnight on a Saturday evening - the driver refused to provide a sample for testing.

A court order was obtained and the blood sample that was collected six hours after the crash.

The sample showed that the driver had a BAC of 0.05% by weight and tested positive for delta-9-tetrahydrocannabinol (the psychoactive component of marijuana).

Because the driver had been drinking until shortly before the crash, a simple back extrapolation of the BAC results from the blood drawn to the time of the crash was not applicable.

However, the calculations performed by the toxicologist accounted for both the time delay and the potentially unabsorbed alcohol and provided proof that the driver was above the 0.08% by weight legal limit at the time of the crash and responsible for the injury to the his passenger.

TRACE EVIDENCE

- ▶ The T-shirt and shorts of a three-year-old boy who had been seriously injured when struck by a car were submitted to the investigators in the Western Regional Crime Laboratory, in Olean, along with tires from the left side of the suspect vehicle.

Initial examination of the clothing showed there to be a partial tire impression with a tread pattern that appeared different when compared to the surface tread pattern of either of the submitted tires.

However, upon closer examination the analyst saw partial lettering in the impression on the clothing indicating contact with the top edge of the sidewall of a tire rather than being directly run over.

Since the tires were different makes, the examination of the tires for the possible lettering eliminated the front tire, but, showed lettering in two places on the side of the rear tire that should be compared to the impression on the clothing.

Examination of the impression on the child's clothing showed the trademark logo of the manufacturer of the rear tire and defined the location on the tire to be examined.

Knowing the area of the tire to compare to the partial impression on the clothing, a control was prepared by examiner from the sidewall of the tire.

Using this control as an overlay and measuring by caliper the visible sides of the tread elements and lettering on the tire and impression, it was found that they were identical.

The driver was arrested and plead guilty to Reckelss Endangerment 1st and speeding.

► Trace Evidence staff received the following items:

- A portion of a woman's skull possibly containing a piece of metal.
- Another piece of metal that the medical examiner found in the victim's head.
- A fractured, stainless steel knife that was suspected to be the weapon that killed her.

After carefully shaving the piece of the skull, an examiner extracted a small metal piece—a tip—that was lodged deep within the skull.

This metal tip was "fracture matched" to the piece that the medical examiner found and the suspected weapon—the stainless steel knife that was found at the residence.

There were consistent surface markings across the fractured lines that could be seen microscopically and the fractured edges fit together like a jig-saw puzzle.

Because of these physical matches, the knife was then positively linked to being the weapon used in the crime.

Based on these findings and DNA evidence, the defendant was sentenced to 37 years to life for Murder 2nd, Attempted Murder 1st and Reckless Endangerment 1st.



Microscopic Match: After carefully shaving the victim's skull, Trace Evidence examiners matched the metal tip they located deep within a victim's skull to a piece of metal found by the medical examiner and a stainless steel knife found at the scene of the crime. This evidence combined with DNA evidence helped lead to a murder conviction.