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FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: _____
 Bill Version: SB 99
 () Publish Date: _____

Revision Date/Time (Note if correction): _____ Dept. Affected: Dept. of Public Safety
 Title: An Act relating to the DNA identification BRU: AST-Detachments
registration system Component: AST-Detachments
 Sponsor: Senator Halford
 Requester: Senate Judiciary Committee Component Number: 2325

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES ()	0.0	0.0	0.0	0.0	0.0	0.0
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FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2001) cost: 0.0

Check this box (X) if funding for this bill is included in the Governor's FY 2002 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

This bill is not expected to have a fiscal impact.

Prepared by: Lt. Steve Dunnagan Phone (907)269-4532
 Division: Alaska State Troopers Date/Time 2/26/01 12:00 AM
 Approved by: Commissioner Glenn G. Godfrey Date 2/26/01
 Agency: Department of Public Safety

For distribution information, call the Governor's Legislative Office

FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: _____
 Bill Version: SB 99
 () Publish Date: _____

Revision Date/Time (Note if correction): _____ Dept. Affected: Administration
 Title: "An Act relating to the DNA identification registration system." BRU: Legal and Advocacy
 Sponsor: Senator Halford Component: Public Defender
 Requester: (S) Judiciary Component Number: 1631

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services	**	**	**	**	**	**
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	**	**	**	**	**	**

CAPITAL EXPENDITURES	**	**	**	**	**	**
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CHANGE IN REVENUES ()	**	**	**	**	**	**
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FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	**	**	**	**	**	**
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	**	**	**	**	**	**

Estimate of any current year (FY2001) cost: 0.0

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

See attached sheet.

Prepared by: Barbara Brink, Director Phone (907) 334-4414
 Division: Public Defender Agency Date/Time _____
 Approved by: Jim Duncan, Commissioner Date _____
 Agency: Department of Administration

For distribution information, call the Governor's Legislative Office

This bill adds burglary or a felony attempt to commit burglary to the list of crimes for which, after conviction, a defendant can be required to give a DNA sample. This bill will most likely have fiscal impact on the Public Defender Agency. Failing to comply with a valid request to provide a DNA sample is already a Class A misdemeanor. See A.S. 11.56.760. The Agency is likely to be appointed to represent people accused of this crime.

Currently the Public Defender Agency has few of these cases. If the sampling program becomes more widespread with the inclusion of additional crimes and more samples being requested, more refusals will undoubtedly be prosecuted. In that case there could be a significant fiscal impact on the Public Defender Agency. Over 680 people were arrested for burglary in Alaska in 1999 (Crime Reported in Alaska, 1999, Department of Public Safety).

Although out of state research purportedly claims many sex offenders have prior burglaries on their records, burglary is a property crime. Many youthful offenders commit burglaries, are successfully rehabilitated and do not commit further offenses. It is unclear that such a serious invasion of privacy required by this bill is warranted.



ALASKA STATE LEGISLATURE

Senator Rick Halford

President of the Senate

Sponsor Statement

Senate Bill 99

While in Session:
State Capitol
Juneau, AK 99801-1182
907-465-4958

While in Interim:
P.O. Box 670190
Chugiak, AK 99567
907-694-4958

"An Act relating to the DNA identification registration system."

In 1996, Alaska passed House Bill 27, establishing a DNA database as a tool to help the law enforcement community identify perpetrators of violent crimes, especially sexual offenders. DNA evidence has proven to be very effective for identifying, capturing and convicting repeat criminals. All 50 states have laws requiring DNA testing of convicted sex offenders, and sharing information with other states has helped Alaska make convictions on cases which have not been solved for years.

Alaska's current statute requires testing of anyone convicted of a felony against a person. During debate on the original legislation, there was discussion of including burglary. At the time, there were no definitive studies showing a connection between burglary and consequent violent offenses, so House Bill 27 did not require testing for burglars.

As the databases expanded, statistics have shown there is a relationship between burglary and violent crimes. A recent Florida study shows that 52% of murderers and sex offenders had a previous burglary conviction. In Virginia, the first state to establish a DNA database, a study showed that more than half of the DNA matches from crime scenes of rapes and murders are from samples of convicted burglars. At this time, 24 states have included convicted burglars in their DNA registries.

By testing convicted burglars, we will allow law enforcement officials to stop a violent criminal the first time, before other innocent people are victimized. I appreciate your support of this legislation.

Subject: Halford Bills Enforce Victims' Rights, Expand DNA Registry

Date: Tue, 20 Feb 2001 11:50:48 -0900

From: Laura Achee <Laura_Achee@legis.state.ak.us>

Organization: Alaska State Legislature

To: staff <lsnclaa+staff@legis.state.ak.us>, senators <lsnclaa+senators@legis.state.ak.us>, media <lsnclaa+media@legis.state.ak.us>, people <lsnclaa+people@legis.state.ak.us>

Alaska State Legislature

Senator Rick Halford

District M

For Immediate Release: Feb. 20, 2001

Contact: Sen. Rick Halford, 465-4958

Halford Bills Enforce Victims' Rights, Expand DNA Registry

(JUNEAU) – Sen. Rick Halford (R-Chugiak) introduced two bills on Tuesday that will increase the chance of finding violent criminals through DNA registries, and ensure that victims of crime are informed and able to assert the rights guaranteed to them in Alaska's Constitution.

Senate Bill 99 would expand the state's convicted offender DNA registry to include samples from those convicted of burglary. DNA samples are now taken only from those convicted of a violent felony offense. Law enforcement officers search the registry when they have DNA evidence from violent crimes, but no clear suspect. Twenty-four states have expanded their registry to include burglary. Since many burglars go on to commit violent offenses, studies have shown that expanding the DNA registry would significantly increase the state's chances of catching violent criminals.

Senate Bill 105 would create an Office of Victims' Rights and a Victims' Advocate, designed to help guide crime victims through the legal process in the aftermath of a violent crime. The office would keep victims informed of their rights, could testify on their behalf in court, and could investigate cases where victims feel their rights have been denied.

"In 1994 voters approved an amendment to Alaska's Constitution that guarantees victims' rights, but simply passing an amendment is not enough," said Halford. "It is difficult for the victim of a violent crime to wade through our judicial system, which is full of technicalities and legal jargon. Many feel victimized twice – first by the criminal, then by the system. This office would ensure that victims' rights are protected."

Funding for the office would come from Permanent Fund Dividends forfeited by repeat criminals. The bill lowers the forfeiture requirement for misdemeanor offenders from three crimes to two, if one of the prior crimes is a felony. This would generate approximately half a million dollars each year in additional general fund revenue, more than enough to run the Office of Victim's Rights, said Halford.

SB 105 is similar to Halford's Office of Victims' Rights bill that unanimously passed the 21st Legislature, only to be vetoed by Governor Tony Knowles.

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Alaska Civil Liberties Union

An Affiliate of the American Civil Liberties Union

P. O. Box 201844, Anchorage, AK 99520-1844

Phone: (907) 258-0044 Fax: (907) 258-0288 Email: akclu@alaska.net

To: Senate Judiciary Committee

From: Jennifer Rudinger, Executive Director

Date: Wednesday, February 21, 2001



Re: SB 99: DNA collection from persons convicted of burglary

The Alaska Civil Liberties Union opposes SB 99 and respectfully urges this Committee to put an end to the progressive expansion of DNA collection by the government. DNA collected from one person not only reveals personal information about that person (much of which has nothing to do with serving the needs of law enforcement), but it also reveals very personal information about that person's blood relatives. Unlike fingerprinting, which *only* reveals information that can be used for identification purposes, DNA gives the government control over a great deal of personal, private information about anyone related to the sample source. Therefore, expansion of the government's power to collect DNA from its citizens – even people convicted of crimes – should not be taken lightly. SB 99 proposes to invade the privacy of innocent people, and the government's only justification is that burglars *might* later commit violent crimes in which they leave DNA evidence at the crime scene.

To give the Committee some background, DNA testing and profiling are becoming increasingly more common. States across the country and the federal government are expanding the scope of their DNA data banks as scientific knowledge about the content of this genetic material is growing by leaps and bounds.

In October 1998, the FBI opened a national database that brings together the DNA records from all 50 states and the federal government into one centralized system, known as CODIS (Combined DNA Index System). If this trend is allowed to continue, the most intimate and personal information about each individual could routinely become a matter of public record, to be used and abused at the state's discretion.

Initially, these DNA stores were created to house information about convicted sex offenders exclusively. The argument was that sex offenders were especially prone to recidivism, typically left DNA evidence at the crime scene, and hence, were important to identify. Whether or not that argument was sufficient, we were assured at the time that only convicted sex offenders would be tested, and the information gleaned from these tests would be used by law enforcement officials strictly for identification purposes.

But it is often the case that information initially collected for one, limited purpose is before long used for many other purposes. Slowly and inexorably, the pool of people being tested, and the range of uses for the data, has been expanding, raising grave concerns for personal privacy. In less than a decade, law enforcement officials across the country have gone from advocating collection of DNA from only convicted sex

offenders, to all violent offenders, to all burglars, to all persons convicted of any crime, to all juvenile offenders. In many states, the DNA record is maintained even if a conviction is overturned.

Louisiana has gone a step further. A new state law will collect DNA data from everyone *arrested* for a felony crime -- before they have been convicted. In Louisiana, the record can be kept even if the person is found innocent. Former U.S. Attorney General Janet Reno asked the National Commission on the Future of DNA Evidence to look into the possibility of applying this concept across the country. In December 1998, New York City Police Commissioner Howard Safir jumped on the bandwagon, proposing the same idea. And New York's Mayor Rudy Giuliani not only voiced his support for the proposal, but went so far as to say that he would support the collection of DNA samples from all babies at birth, giving the city a genetic database of all its citizens.

The collection of DNA samples and the creation of DNA data banks have legitimate and vital medical, scientific and forensic purposes. Research can lead to treatments and even cures for many genetic diseases. DNA can prove that an individual was at the scene of a crime. It can also prove the innocence of a suspect, preventing terrible miscarriages of justice. DNA can even be used to correct wrongful convictions based upon an erroneous identification (although law enforcement and prosecutors are decidedly less enthusiastic about this use).

But it is equally clear that there is tremendous potential for abuse. The vast amount of information to be gleaned, the incredible longevity of DNA samples, and the ease with which DNA databases can be shared and accessed raise grave privacy, equality and due process concerns. Though DNA has been touted as a high-tech equivalent to fingerprints, this comparison is dangerously misleading. Where fingerprints can be used for identification purposes only, DNA can provide insight into a breathtaking wealth of singularly private information -- information about a person's ethnicity, family relationships, family history and the likelihood of getting some 4,000 genetic conditions and diseases. This information belongs to each individual, not the government. Further, geneticists are constantly increasing the database of information that can be gleaned from DNA -- some even claim that there are genetic markers for "criminal tendencies," sexual orientation, substance abuse, etc. The possibilities -- and thus the dangers -- are endless.

Today, the growing law enforcement databases raise the immediate specter of widespread discrimination. Given the over-targeting of Alaska Natives, African Americans, Latinos and other minorities within the criminal justice system nationwide, the government will have the disproportionate power to track millions of people of color.

Now the sponsor of SB 99 wants the Alaska Legislature to expand DNA sampling to include convicted burglars. It will help identify more violent criminals in the future, proponents say. Claiming that this is a minor and necessary expansion of the present system, proponents ask, "What's the harm?"

Because genetic information pertains not only to the individual whose DNA is sampled, but to everyone who shares in that person's blood line, potential threats to genetic privacy posed by their collection extend well beyond the millions of Americans whose samples are currently on file. Moreover, there is no requirement in SB 99 or in the Alaska Statutes that the DNA sample from which genetic information is taken be destroyed. This allows for the future possibility that all of the information could be used in other ways that we cannot even anticipate.

There is a long and unfortunate history of despicable behavior by governments toward people whose genetic composition has been considered "abnormal" under the prevailing societal standards of the day. While the FBI states that this information will be used for limited forensic purposes, the history in our country is that information compiled for one purpose will be used for another. For example, Social Security numbers were initially intended only for use as an aid tracking social security payments but are now a universal identifier. Another example, Census records created for general statistical purposes were used to round up innocent Japanese Americans and place them in internment camps during World War II.

Your constituents throughout Alaska are concerned about the government's ever-increasing control over their personal information, and their concerns cross party and ideological lines. The Alaska Civil Liberties Union fields inquiries virtually every week regarding the government's demand for personal information – Social Security numbers, Census information, background checks, DNA and genetic information, etc. Almost every week, Alaskans voice concerns that the government cannot be trusted to keep this information confidential or to limit its use to the initial purpose for which it is given. And we agree. Your constituents are right.

In conclusion, SB 99 does not "only" affect burglars – it affects their relatives, who are law-abiding citizens innocent of any crime. And the government's proposed justification for collecting DNA from burglars just doesn't fly in Alaska – we do not take DNA from people who have never committed a violent crime on the theory that someday they *might* commit a violent crime. If so, where will this end?

Please end it here and now. Please do not pass SB 99 out of Committee.

Dogged detective work, DNA crack 5-year-old killing

By Sheila Toomey
Daily News Reporter

(Published October 31, 2000)

They found her body on a Sunday morning five years ago, wearing a purple tank top and silver necklace, dumped at the edge of Ship Creek where it runs through the warehouse district near Yakutat Street.

They identified her from her tattoos and her jail record: Doris Ann Hainta, 34, a longtime street hooker carrying a double load of drug and alcohol addiction. Everybody called her Sunny, but someone strangled her.

Homicide investigators worked the slim leads they had as hard as they could. A witness saw a blue van backing to the edge of the creek and a man dumping something there. Police took plaster casts of tire tracks and crawled around on their hands and knees taking paint scrapings from a post and hoping to pick a bit of evidence from the muddy ground.

They spent weeks talking to prostitutes and their customers, checking alibis and stopping blue vans. After a while, the investigation lagged. She was probably killed by someone who bought her services, police figured, someone with no other connection to her, the toughest kind of homicide to solve.

But Anchorage police had an ace up their sleeve. Hainta had been raped or had consensual sex shortly before she died, so if the police ever identified a suspect, they had a DNA sample.

Last month, technicians at the state crime lab matched the DNA to a man in North Carolina. And on Monday the Anchorage district attorney charged Eugene Poirier, 33, with first-degree murder. An arrest warrant with bail set at \$1 million will be faxed south and served on Poirier at the Nash Correctional Facility, where he is doing 22 years for a murder he committed after leaving Alaska.

Assistant District Attorney Adrienne Bachman said Alaska will seek to extradite Poirier and will try him for Hainta's death. Charging documents filed Monday say he has confessed to strangling her in the back of a blue van he used in his carpet business.

If Poirier is convicted here, he will be returned to North Carolina to serve out his sentence there then returned to do his Alaska time, Bachman said.

In Oklahoma, where Hainta was born, her sister Emma Hainta was surprised to hear that anyone in



Anchorage police detective Scott Jessen traveled to North Carolina to confront Eugene Poirier with evidence against him in the killing of Doris Ann Hainta. Poirier eventually admitted strangling Hainta. (Jim Lavrakas / Anchorage Daily News)

Anchorage still cared about solving her sister's slaying and was pleased someone's been charged in Sunny's death.

The family often tried to talk Sunny into coming home. She became a prostitute in her teens and seemed unable to get out of the life, Emma Hainta said. She came to Alaska in the mid-1980s to start a new life. But it didn't work.

"She had no confidence," Hainta said. "She didn't have the drive to do anything different."

The family, which includes an ex-police chief, didn't approve of her life but they loved and accepted her, Hainta said.

"I always thought it would be AIDS that would get her. I was prepared for that. I knew one day she would be knocking at my door."

The Hainta case, old and cold, was solved because police officers stationed at opposite sides of the continent made an extra effort and because in March the Alaska State Scientific Crime Detection Laboratory began using DNA technology capable of making positive identifications.

The first break was a 1998 computer message from Det. Sgt. Julie Gibson of the Iredell County sheriff's office, a blind query to police departments in cities where Poirier had lived before he showed up in North Carolina in 1997. A 16-year-old girl, Christy Rambo, a neighbor of Poirier and his wife, had been strangled in August of that year, her body dumped by the side of a country road about five miles from the trailer park where she and Poirier both lived. She'd been doused with gasoline and set on fire.

Poirier was one of several suspects. Could Anchorage police check him out? Gibson asked.

Poirier's name had not surfaced in the Hainta investigation, but when Sgt. Mike Grimes, then head of homicide, looked at him, bells rang. He owned a blue van. His uncle had a business close to where Hainta's body was found.

If Anchorage had no suspects in Hainta's death, Iredell County had too many in the Rambo case: her boyfriend, another man she told friend had made threats, and a man she said had raped her and was set to testify against the following week. Poirier and his wife were casual friends with Rambo, and he had been seen talking to her in his driveway before she disappeared. But he wasn't at the top of the list until he started acting "pretty odd," Gibson said. "He pushed himself into the investigation. We had to almost push him away from us. He just stayed in our face ... so we paid him a little more attention."

Then Poirier turned up on a convenience store security video buying gasoline about an hour after Rambo disappeared, less than an hour before someone spotted her still-burning body.

He eventually admitted the killing but refused to give any details, Gibson said. He was charged with first-degree murder, a death penalty case. But questions were raised about the admissibility of the confession, and last October the district attorney accepted a plea to second-degree murder. Because he had no prior record, Poirier got the minimum mandatory sentence, 22 years without parole.

While Poirier was still awaiting trial, Anchorage police detective Larry Arend, who was originally in charge of the Hainta case, asked Iredell sheriffs if they could send a sample of Poirier's blood north. They could.

At the time, Alaska's crime lab was certified only for six-point DNA matches. They got a six-point match on Poirier, Bachman said. But legal identification in criminal cases requires 13 points of match. It cost from \$1,000 to \$2,000 to have the test done in a private lab. Anchorage police don't have the money to do them all, said Anchorage detective Scott Jessen, who took over the case when Arend retired.

Poirier was in prison, not a danger to other women and the test could wait, police reasoned.

By March, the crime lab staff was trained and the DNA operation accredited. And it had a one-year backlog of cases involving violent crimes. Each test takes six weeks, said lab director George Taft. Jessen pushed. In September, the Hainta results were certified: Poirier was a match.

With what looked like a solid case, Chief Duane Udland sent Jessen to North Carolina.

"Gene, howya doing?" Jessen said to Poirier. "I'm from Anchorage."

In an office at the prison, Poirier denied knowing Hainta or even where Yakutat Street was. Jessen laid the DNA report on a table in front of him. "This line is semen from Doris," he said. "This is your blood. They match."

It took awhile, but eventually Poirier said he killed Hainta. He picked her up on Fourth Avenue, near the old Hub Bar, according to the account of his confession in the charging document. After having sex, Hainta "spazzed out" on him, he told Jessen. She wanted more money and tried to hit him with a tack hammer. He took the hammer away from her, wrapped an electric cord around her neck and strangled her.

Jessen isn't finished. Poirier spent a lot of time driving around the country. With two murders known, he wonders, what are the chances of more unsolved cases out there? Both victims were strangled, both were Native American -- Hainta was Kiowa. That's the kind of detail the FBI puts in a computer. Jessen has asked them to check their files.

Reporter Sheila Toomey can be reached at stoomev@adn.com or 257-4341.

Close Window

STATE DNA DATABASE LAWS
QUALIFYING OFFENSES

<i>State</i>	<i>Sex Offenses</i>	<i>Offenses Against Children</i>	<i>Murder</i>	<i>Assault & Battery</i>	<i>Robbery</i>	<i>Kidnapping</i>	<i>Burglary</i>	<i>Attempts</i>	<i>Juveniles</i>	<i>All Felonies</i>
ALABAMA	✓	✓	✓	✓	✓	✓	✓	✓		✓
ALASKA	✓	✓	✓	✓	✓	✓		✓	✓	
ARIZONA	✓	✓	✓	✓	✓		✓	✓	✓	
ARKANSAS	✓	✓	✓	✓	✓	✓			✓	
CALIFORNIA	✓	✓	✓	✓				✓	✓	
COLORADO	✓	✓	✓	✓	✓	✓	✓		✓	
CONNECTICUT	✓	✓				✓				
DELAWARE	✓	✓						✓		
FLORIDA	✓		✓	✓	✓		✓	✓	✓	
GEORGIA	✓	✓	✓	✓	✓	✓	✓	✓		✓
HAWAII	✓	✓	✓							
IDAHO	✓	✓	✓	✓	✓			✓	✓	
ILLINOIS	✓	✓	✓		✓	✓	✓	✓	✓	
INDIANA	✓	✓	✓	✓	✓	✓	✓			
IOWA	✓		✓	✓		✓	✓			
KANSAS	✓	✓	✓					✓	✓	
KENTUCKY	✓									
LOUISIANA	✓	✓	✓	✓		✓		✓	✓	
MAINE	✓	✓	✓	✓	✓	✓	✓	✓	✓	
MARYLAND	✓		✓	✓	✓					
MASSACHUSETTS	✓	✓	✓	✓	✓	✓	✓			

<i>State</i>	<i>Sex Offenses</i>	<i>Offenses Against Children</i>	<i>Murder</i>	<i>Assault & Battery</i>	<i>Robbery</i>	<i>Kidnapping</i>	<i>Burglary</i>	<i>Attempts</i>	<i>Juveniles</i>	<i>All Felonies</i>
MICHIGAN	✓		✓			✓				
MINNESOTA	✓		✓	✓	✓	✓	✓	✓	✓	
MISSISSIPPI	✓	✓								
MISSOURI	✓	✓	✓	✓		✓				
MONTANA	✓	✓	✓	✓	✓	✓		✓	✓	
NEBRASKA	✓	✓	✓							
NEVADA	✓	✓	✓	✓			✓	✓		
NEW HAMPSHIRE	✓								✓	
NEW JERSEY	✓	✓	✓	✓		✓		✓	✓	
NEW MEXICO	✓	✓	✓	✓	✓	✓	✓		✓	✓
NEW YORK	✓		✓	✓	✓	✓	✓			
NORTH CAROLINA	✓		✓	✓	✓	✓				
NORTH DAKOTA	✓	✓						✓		
OHIO	✓	✓	✓			✓		✓	✓	
OKLAHOMA	✓	✓	✓	✓						
OREGON	✓	✓	✓				✓	✓	✓	
PENNSYLVANIA	✓	✓	✓					✓	✓	
RHODE ISLAND	✓	✓	✓							
SOUTH CAROLINA	✓	✓	✓	✓	✓	✓	✓		✓	
SOUTH DAKOTA	✓	✓	✓	✓	✓	✓	✓	✓		
TENNESSEE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TEXAS	✓	✓	✓	✓			✓		✓	
UTAH	✓	✓	✓	✓		✓				

<i>State</i>	<i>Sex Offenses</i>	<i>Offenses Against Children</i>	<i>Murder</i>	<i>Assault & Battery</i>	<i>Robbery</i>	<i>Kidnapping</i>	<i>Burglary</i>	<i>Attempts</i>	<i>Juveniles</i>	<i>All Felonies</i>
VERMONT	✓	✓	✓	✓	✓	✓	✓	✓		
VIRGINIA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WASHINGTON	✓	✓	✓	✓	✓	✓		✓	✓	
WEST VIRGINIA	✓	✓	✓	✓	✓	✓	✓			
WISCONSIN	✓	✓	✓	✓	✓	✓	✓			✓
WYOMING	✓	✓	✓	✓	✓	✓	✓	✓		✓
TOTALS	50	41	44	35	27	30	24	28	23	7

DNA Typing in Action: Databasing in the Commonwealth of Virginia

Editor's Note: To highlight progress in implementation of STR typing and DNA databasing, Profiles in DNA introduces a new feature spotlighting work by various states in the U.S.A. and other countries to solve and prosecute crimes through DNA typing. In this issue, we focus on the tremendous success that the Commonwealth of Virginia has achieved not only in the size of their growing database but also in terms of solving several violent crimes and preventing others through "hits" in that state's DNA database.

In 1989 the Commonwealth of Virginia was the first state in the U.S. to pass a DNA databasing law, which required only certain sex and violent offenders to provide samples for inclusion in a DNA databank. In 1990, the law was expanded to include all felons. However, at that time, funding was granted only to type the samples that fell under the original 1989 statute. Six years later the law was expanded to include juveniles over the age of 14 who were found guilty of any crime that would constitute a felony if that crime were committed by an adult. DNA typing is performed by the Virginia Division of Forensic Science (DFS), which is a nationally accredited forensic laboratory system serving all state and local law enforcement agencies, medical examiners and Commonwealth's Attorneys in Virginia but is not part of any law enforcement agency. To get an inside perspective on the success of Virginia's program, we spoke to three key figures in this state's database implementation: Paul Ferrara, Director of the Virginia DFS; Jeffrey Ban, Forensic Biology Section Chief; and Kevin McElfresh, Vice President of Operations, The Bode Technology Group. Below are excerpts from our conversations with these men.

PAUL FERRARA, DIRECTOR, VIRGINIA DIVISION OF FORENSIC SCIENCE

Paul Ferrara joined the DFS 28 years ago and has been the Director since 1985. Under his leadership, the DNA typing and databasing program in the Commonwealth of Virginia has grown to become the largest database in the U.S.

Could you provide some history of DNA typing in Virginia?

Dr. Ferrara: The Commonwealth of Virginia was the first state to pass a



Figure 1. The new Central Laboratory of the Virginia Division of Forensic Science is located in downtown Richmond, Virginia.

The Commonwealth of Virginia was the first state to pass a DNA databasing law in 1989 because Virginia's General Assembly recognized that DNA databasing would be a powerful technology for prosecutors and a tremendous investigative tool.

DNA databasing law in 1989 because Virginia's General Assembly recognized that DNA databasing would be a powerful technology for prosecutors and a tremendous investigative tool. One year later (in 1990) they expanded the law, and sample collection began in earnest.

In a landmark case, DNA testing led to the conviction of Timothy Spencer for raping and murdering four women during a 10-week period in 1987. The Spencer case is notable for a number of reasons. Spencer was the first criminal convicted of capital murder on the basis of DNA evidence. Prior to committing these rapes and murders, Spencer had been convicted of an earlier burglary charge. Had he been in the database from his burglary charge, he would have been identified after the first rape and murder. Thus, his additional crimes would have been prevented. The case graphically demonstrated the efficacy of DNA typing technology. Further, the case established part of the rationale for the General Assembly to pass a resolution requesting that the Virginia State Crime Commission perform a study to determine whether expansion of the database to include other convicted felons (e.g., burglars) would be a worthwhile effort. Based on the report of the Commission, the statute was expanded to include all felons in the database.

In the early years of the database--from 1989 to July 1998--the database consisted of restriction fragment length polymorphism (RFLP) profiles. The first success of the database came in August 1993 with less than 1,000 profiles in the database. A "cold hit" (i.e., when there is no suspect for a crime, but DNA from biological material taken from the crime scene matches that of a convicted felon in the database) was identified as a known sex offender. This case was the first demonstration of the power of felon databases when there is no suspect known for a given crime.

While that early database topped out with less than 15,000 profiles and 31 cold hits made, more than 180,000 samples were collected over that 9-year period. In July 1998 funding was granted for using STR typing for all of the samples to be entered into the database. A contract was arranged with The Bode Technology Group to work on the large number of samples waiting to be included in the database. From July 1998 to the present, DNA typing using the *GenePrint*[®] PowerPlex[™] 1.1 System has been performed for all samples in the database.

How successful has Virginia's database been?

Dr. Ferrara: The DNA typing and databasing program in Virginia has been extremely successful. What is truly remarkable is how much was accomplished in the first six months that STR typing was performed. In the time from July 1998 to the end of the year, 30,000 profiles had been generated, and there are over 55,000 profiles at present. In the first four months of 1999, there have been 2 hits in January, 3 in February and 7 each in both March and April. The contractor, The Bode Technology Group, is adding to the database at a rate of approximately 8,000 per month. A best guess, based upon the current rate of expansion of the database and hits generated, is that there may be as many as 100 hits on the database in 1999. The implementation of the database provides tremendous savings in terms of police investigative time and prevention of future crimes. The savings in terms of lives and investigative time are inestimable.

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Have you been surprised by the results with Virginia's database?

Dr. Ferrara: In terms of the number of hits on the database, we are not surprised. The number of hits is strictly a function of the size of the database. What has been fascinating and somewhat remarkable is that greater than sixty percent of the hits from violent offender cases match database samples from convicted burglars--not violent offenders. This points to the fact that many violent offenders have been guilty of earlier nonviolent property crimes. Thus, a database that does not include property crime offenders limits its overall efficacy.

★

To what do you attribute the success of the database?

Dr. Ferrara: Clearly, the success of the database rests on two factors: first, the size of the convicted felon database, and second, concentration on DNA typing of crime scene material from cases where there is no suspect. Although there is a tendency to focus on cases where there are suspects going to trial, we must run biological samples from cold crime scenes. It's a problematic situation. The database has grown, but we must redouble our efforts to run crime scene samples soon after a crime has been committed.

There is a serious problem we must address. The demand for DNA testing is outstripping the ability of the laboratory to perform the tests. With approximately 200 cases received every month, the backlog increases. While the crime rate may be constant or decreasing, the number of samples to be analyzed is increasing.

What explains this increase in the number of samples?

Dr. Ferrara: Cases are much more complex today than ever before. Because the STR technology is so sensitive, we are able to perform testing on a much greater number of samples that the earlier technology could not handle. With STR analysis, a case examiner usually needs to process about ten, and sometimes as many as 20-50, samples per case.

How and when will the capabilities of laboratories in the U.S. meet the

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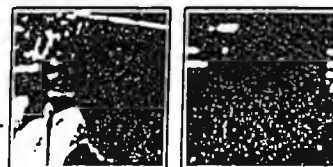
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February 19, 1998

DNA Databanks Giving Police Powerful Weapon: The Instant Hit

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By CAREY GOLDBERG

BOSTON -- Of all the new thrills that DNA analysis offers forensic scientists, nothing seems to beat what they call a "cold hit": when a computer discovers the identity of a killer or rapist by matching DNA from blood, semen or saliva left at a crime scene with a DNA profile in a database. A criminal is fingered by his own genes.

Until now, cold hits have come sporadically, mainly in several states where DNA forensic work is most advanced, totaling about 200 nationwide. But federal and state experts say they will soon be cropping up much more often.

In the last several weeks, they say, two DNA logjams have been broken. The FBI and state laboratories have finally set new technical standards for testing DNA strands, allowing the development of a national system of quicker, cheaper testing to steam ahead. And the links of that system are starting to be hooked up: In December, eight states in the DNA vanguard began using FBI software that lets them pool their data on line for the first time, enabling them to identify criminals across their borders. Within minutes, they scored their first hit, linking a convicted sex offender in Illinois to a 1989 rape and attempted murder in Wisconsin, the bureau said.

"It's starting to grow geometrically," said David Coffman, the DNA database administrator for Florida, which has chalked up nearly half the country's hits. "For the first time, DNA labs are leading the investigators to the right person," as opposed to testing the DNA of known suspects.

The largest hurdle to establishing an American DNA database like the pioneering one in Britain, which holds hundreds of thousands of samples and has scored thousands of hits, is money -- for adding equipment and personnel, gathering hundreds of thousands of samples, analyzing and entering them, plowing through current backlogs and converting existing databases to new technology.

"It comes down to a cost-benefit analysis," said Christopher Asplen, an

assistant U.S. attorney who is executive director of the National Commission on the Future of DNA Evidence, which Attorney General Janet Reno recently created. "How much money are we willing to put into the system to reduce the backlog so that we can use DNA more quickly and more effectively to solve and prevent crimes?"

The mounting momentum behind DNA databases, however, is also pushing forward objections to DNA evidence. Last week in Massachusetts, for example, a judge halted the gathering of blood samples for DNA profiling from thousands of prison inmates, probationers and parolees after several sued the state, arguing that it was an illegal search and seizure performed without proper safeguards.

Although similar challenges in other states have failed, civil liberties questions continue to come up as states move ahead, including issues of who, exactly, must submit to testing, and who can have access to the data.

In the aftermath of the DNA debacle at the O.J. Simpson murder trial, in which the defense accused the Los Angeles Police Department of contaminating DNA evidence, concerns also linger over whether the police and laboratory workers are being properly trained to handle such potentially damning evidence.

Still, financing is a burning question for DNA overseers like Dr. Paul Ferrara of Virginia's Division of Forensic Science, whose groundbreaking DNA program has been given a \$10 million budget for the next three years and who believes it will take \$500 million to establish a full-fledged national databank.

"We still have backlogs of six months or more before we can get to every case," Ferrara said. "How many crimes that we took a year to solve could have been solved in a week? And how many further offenses, rapes or murders, were committed by that individual in the meantime?"

In Florida, Coffman recalled, a convicted rapist was just eight days away from being paroled in 1995 when his DNA sample was finally entered into the databank. It was found to match evidence left at the horrific rape, mutilation and murder of another woman more than three years earlier.

That is the difference DNA databanks can make, said Walter Rowe, a professor of forensic sciences at George Washington University who has advised the federal government on dispensing some of the \$25 million that Congress allotted to DNA databases in 1994.

A national database, "God knows, may turn out to have an enormous impact," Rowe said, "if you reflect that rapists tend to be repeaters and studies have shown that most of the violent crime is committed by a very small number of criminals. If we're able to identify these guys and send them away, or if, instead of convicting the guy for one sexual assault we get him for 10 and he goes away for the rest of his life, think about the impact that will have on the safety of citizens."

Indeed, no one, not even those who have challenged DNA sample-gathering in court, deny that the databases can be heaven-sent crime-fighting tools. And DNA can work on prisoners' behalf as well. Already, 53 convicts have been exonerated after DNA testing was applied to the evidence in their cases, said Barry C. Scheck, whose Innocence Project at Yeshiva University's Benjamin Cardozo School of Law helped many of them gain freedom.

Rather, the main lingering questions about DNA testing and databases concern who should have to give samples and how those samples are handled.

The very existence of a DNA database smacks more of a Big Brother-ish assault on privacy than the existence of the national computerized network of fingerprints, civil libertarians say. Taking blood is much more invasive than fingerprints, they point out, and DNA carries so much more information -- information subject to abuse by insurance companies or even geneticists seeking the gene for something like pedophilia.

Furthermore, said Benjamin Keehn, a Boston public defender representing some of the inmates who have challenged the DNA collection here, "It's a very dangerous slippery slope" to round up thousands of convicts, probationers and parolees, as Massachusetts was doing, on the argument that they are likelier to commit a crime.

"Why not round up poor people?" Keehn asked. "Poor people are more likely to commit a crime, so shouldn't we have their DNA on file? Of course, there are benefits every time you get a cold hit. There are going to be dramatic success stories. But where does it stop? Why not take DNA samples at birth?"

In South Dakota, DNA samples are taken upon arrest, like fingerprints. Virginia, which has the most comprehensive database nationwide, with 160,000 samples gathered though only 10,000 have been analyzed, now gathers samples from all convicted felons, and even some juveniles.

And that, Ferrara argued, is the way to go. More than half of his cold hits from the crime scenes of rapes and murders came from felons who had previously been convicted only of breaking and entering or burglary, he said.

Scheck, who helped defend O.J. Simpson, advocates that states write into their DNA database laws that the data can be used by law enforcement agencies "for identification purposes only" to avoid abuses. Many states, like Massachusetts, have left their language more vague.

Two states, in fact, have not even passed database laws. But the two, Vermont and Rhode Island, are expected to finally join the other 48 this legislative session. Many other states have simply not allocated much money to their DNA databases, so large backlogs of unanalyzed samples have developed.

Even those that have kept up, however, will now have to start converting their samples from the old technique, known as Restriction Fragment Length Polymorphism, to a new method, Short Tandem Repeat, or STR. That faster, less expensive method looks at areas of the DNA strand that are generally considered something like "junk" DNA and do not determine an individual's traits.

It is a giant conversion task, experts say, but promises a great payoff. Technology has so advanced from the days when testing each DNA sample took weeks and cost several hundred dollars, they say, that in the near future, sample analysis will be largely automated, take only hours and eventually cost as little as \$10.

The technology has also advanced in that it can analyze far tinier quantities of biological evidence -- even the saliva from a cigarette butt or envelope flap and the sweat from a hatband, said Terry Laber, supervisor of the DNA unit of the Minnesota Bureau of Criminal Apprehension.

In some ways, he said, DNA evidence has already surpassed fingerprints in usefulness, and Minnesota's state crime laboratory now does DNA testing at all crime scenes, including mere burglaries.

Whether or not it beats fingerprinting, DNA evidence is especially valuable because of the types of crime scenes where it is usually found, said Harlan Levy, a former New York City prosecutor who wrote "And the Blood Cried Out" (Avon 1997) about the power of DNA evidence.

"They're murder cases and sexual violence cases," he said. "The kinds of cases where people care very dramatically about identifying the people who committed them and getting them off the street. And DNA databanks make that possible."

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