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2 labs, 2 cases, 2 goofs

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By PAMELA GOULD

It's been four years, yet not a day passes that the head of Virginia's crime lab isn't reminded of the error that linked an innocent man to the killing of Spotsylvania County teen-ager Sofia Silva.

But that's not necessarily bad, said Paul B. Ferrara, director of the state Division of Forensic Science.

He said Virginia's crime lab is stronger for the experience. And he believes the same will one day be said of the lab in Oklahoma City where a police chemist's work is being scrutinized after errors were found in her work.

"What doesn't kill you, makes you stronger, and I hope that's the case for them," Ferrara said recently.

The errors involving Oklahoma City chemist Joyce Gilchrist grabbed national headlines this month when a man was freed after serving nearly 15 years in prison for a rape he had steadfastly denied.

DNA tests conducted by a California lab on evidence found at the crime scene showed it did not come from 39-year-old Jeffrey Todd Pierce.

Gilchrist had testified at Pierce's 1986 trial that hair she examined from the crime scene was "microscopically consistent" with a sample provided by Pierce, according to The Associated Press.

Gilchrist, who in 1993 was promoted to an administrative post, has been placed on paid leave while the FBI and five other law enforcement agencies in Oklahoma review nearly 1,700 cases in which she was involved.

Gilchrist's examinations were part of 23 death-penalty cases, including 11 in which the defendant has been executed. Gilchrist has denied any wrongdoing.

In the Virginia crime-lab case, a suspect was indicted in the September 1996 killing of Sofia Silva but never tried.

The deaths of sisters Kristin and Kati Lisk in May 1997 helped exonerate him when detectives found similarities in the Silva and Lisk slayings. He was in jail when the Lisk girls were abducted and killed.

An FBI review of the evidence revealed that state forensic examiner Robin G. McLaughlin erroneously linked fibers found with Sofia's body to fibers taken during a search of the suspect's vehicle.

The discovery of that error sent shock waves through the state crime lab's Richmond headquarters that still reverberate today.

Ferrara said the case comes up routinely when lab workers discuss the importance of diligence in conducting examinations. It also spawned changes in how evidence is reviewed.

For Ferrara, the discovery of the error was a devastating blow personally and professionally.

He prided himself in running one of the nation's premier forensic labs—one that was at the forefront of accreditation, a measure designed to ensure high standards and quality control.

Accreditation is one step the Oklahoma City lab should undertake to restore its credibility in the justice system and with the public, he said. It requires such safeguards as a peer review in which one examiner checks another's work for verification of the results.

But even that isn't always enough. Virginia's lab has been accredited since 1989, but its forensic error still went undetected until another crime—the Lisk sisters' slayings—took place.

To this day, Ferrara puzzles over what went wrong.

"I still, for the life of me, don't know what the hell she did," he said of McLaughlin.

But Ferrara does see one problem that could have contributed to McLaughlin erroneously tying Roush to Silva's killing—the examiner's link to law enforcement.

While it is impossible for forensic examiners to isolate themselves from detectives, they must guard against letting investigators' leads prejudice their scientific review of the evidence.

That, according to Ferrara, could have been especially difficult for McLaughlin since she spent about three years as a state trooper before joining the crime lab and is married to a sheriff's deputy.

The blurring of that line is one issue being raised in the Oklahoma City cases because, as is true in dozens of jurisdictions around the country, the crime lab there is part of the city Police Department.

As he confronted the fallout from the 1997 error, Ferrara instituted more stringent oversight of examiners' work. He implemented a peer review of every forensic examination and now requires that all reports be looked over by a staff member before being sent to police departments.

He also upgraded the equipment available to the scientists engaged in fiber examinations, accepted McLaughlin's resignation and demoted her supervisor.

Since then, he said, the pace of analyses is slower because of the reviews, but it's a price he's willing to pay.

"You have to accept backlogs as an inevitable consequence," he said.

As is being done now with Gilchrist's work in Oklahoma, Ferrara ordered McLaughlin's examinations reviewed—a measure that took countless hours as examiners pored over 12 years of work.

In the end, Ferrara said the review had no impact on cases that already had gone to trial. But he said his http://www.fredericksburg.com/News/FLS/2001/052001/05292001/288205/printer_friendly 6/24/2005

office contacted prosecutors to provide reports by different examiners in pending cases. He also requested a re-review of evidence in "two or three" cases, as a safeguard.

Ferrara said no lab is ever immune from problems, but if suspicions exist, they need to be addressed.

In forensic work, where peoples' lives and futures are at stake, he said the only standard must be "zero tolerance" for mistakes.

It's a stressful way to work, he said, but it's far better than dealing with the fallout when an error goes undetected.

"I'm still not over that," Ferrara said of his lab's error. "I never will be. But maybe that's a good thing."

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Critical Audit Prompts Va. to Review DNA Evidence

By Chris L. Jenkins
Washington Post Staff Writer
Tuesday, June 21, 2005; B05

RICHMOND, June 20 -- Virginia has begun a review of DNA evidence used in at least 160 cases by the state's Division of Forensic Science following a study critical of the crime laboratory.

Robert J. Humphreys, a Virginia Court of Appeals judge, is leading the effort, which will review evidence in cases that date from 1994. About two dozen are death row cases, and the analysis marks the first time a state has volunteered to revisit the cases of executed felons on a large scale.

One case involves Robin Lovitt, an inmate on death row who is scheduled to be executed July 11. State officials have said that other evidence was used to convict Lovitt and that his fate will not be affected by Humphreys's review. Emily Lucier, a spokeswoman for Attorney General Judith W. Jagdmann, said the office does not consider Lovitt's conviction a DNA case.

The audit that led to the review criticized the Virginia lab's role in the case of Earl Washington Jr., a former death row inmate who spent 17 years in prison before he was pardoned in 2000. DNA evidence was not gathered for Washington's conviction, but it was used later to determine his innocence.

In its study, the American Society of Crime Laboratory Directors concluded that a chief scientist failed to follow proper procedure when testing a piece of evidence in Washington's case and that his analysis of that evidence was wrong.

The auditors also concluded that an internal review failed to properly identify the errors made by the scientist, Jeffrey Ban.

Humphreys's team of half a dozen national forensics experts began its research last week. The analysis stops short of actually testing or retesting DNA. Instead, experts will determine whether scientists who handled the evidence followed proper procedures. The review should take about eight weeks.

"You need to have impeccable credentials to go into court," said Del. David B. Albo (R-Fairfax), a member of the House Courts of Justice Committee and co-chairman of the Virginia State Crime Commission. "If they can't show that tests were done properly, that hurts prosecuting crimes."

The General Assembly enacted a law this year that makes the Division of Forensic Science, which runs the crime lab, an independent state agency and creates an advisory board to help oversee its work. Several criminal defense lawyers have said that the changes were inadequate because they did not create a watchdog department to review the lab's reports and conclusions.

Humphreys did not respond to phone messages left at his offices in Hampton Roads and Richmond.

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Although the audit did not uncover any systemic problems at the lab, a spokeswoman for Gov. Mark R. Warner (D) said the review could restore confidence in one of the nation's most respected crime laboratories and lead to changes in laboratory policy.

"Even in this review, we've sought to have a very independent process," said Ellen Qualls, Warner's director of communications, adding that three cases from each examiner in the department will be reviewed. "At every step of the way, Virginia has sought to go above and beyond what was requested."

Legal experts said the review must determine whether the Earl Washington case was an isolated incident or an example of long-standing problems within the lab.

A successful analysis by the investigators "would look at the errors that happened in the Earl Washington case and determine the source of those errors and figure out whether they are systemic," said Betty Layne DesPortes, a criminal defense lawyer in Richmond who heads a legal panel for the American Academy of Forensic Science.

"One of the overriding themes of the errors was a lack of strict adherence to scientific protocol. A full investigation of the errors is crucial to maintain our integrity in the results," she said.

She added that so far, she has been impressed by the methodology and approach Humphreys has taken with the review.

The review will include not only all death row cases since 1994 that hung on DNA evidence but also more routine testing done by Ban and others, state officials said.

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Death Row Defender

UC Irvine? s William Thompson exposes the soft underbelly of ironclad DNA evidence

by Bobbi Murray

William Thompson is thinking about the troubles of a man he? s never met, and it won? t be the first time. Curtis McCarty sits on death row in Oklahoma, convicted of the 1982 murder of Pamela Willis, the 18-year-old daughter of a police officer.

Thompson doesn? t know McCarty but is intimately acquainted with his DNA profile. McCarty was convicted before DNA testing was available and when forensic blood typing was state-of-the-art. McCarty? s tests, as it turns out, were performed by a now-notorious crime-lab technician, Joyce Gilchrist, currently facing charges of scientific fraud in cases other than McCarty? s.

There is some suspicion she may have spun her findings against McCarty in his case.

But even that possible malfeasance isn? t why Thompson? s involved. The New York-based Innocence Project, famous for its DNA-based exonerations in 151 cases, called him in to review DNA results from a test long after McCarty was convicted. Only two clear genetic markers in the DNA test are consistent with McCarty? s, removing the results from the realm of slam-dunk certainty. State attorneys argued the evidence was still enough to include McCarty as a suspect, but in Thompson? s eyes, it was a bad match.

"It? s an absurd case," Thompson exclaims, discussing the case on a breezy, golden, late-September day in his home office in Irvine. He? s miles from Oklahoma, but that doesn? t make the stakes of McCarty? s case any less remote to him.

"I'm organizing a team of experts from all over the country to review this case," he explains energetically, "and state the opinion that the profile is more consistent with its NOT being the guy? s that they? re fixing to kill . . . something that hopefully the courts in Oklahoma take into account before they ? needle the guy,? as they like to put it."

In early October, an Oklahoma judge agreed with Thompson and his team of experts, concluding that the DNA evidence excludes McCarty. It? s not yet over? the next legal issue is whether other evidence is enough for the state to execute him anyway, but the finding was a definite victory for the defense.

McCarty? s case is one of hundreds that Thompson, a professor at the UC Irvine Department of Criminology, Law and Society, has scrutinized and gotten deeply involved in since 1988, when he first began studying and writing about forensic DNA. His specialty is the study of human judgment and decision-making, especially in the interpretation of scientific evidence. As DNA analysis began its rapid evolution in the late 1980s, Thompson became increasingly involved in looking at the ways in which forensics experts, lawyers and juries reached conclusions about the DNA results? sometimes the wrong ones.

Thompson? s Ph.D. in psychology from Stanford and law degree from UC Berkeley are not the "hard science" credentials one would associate with the interpretation of DNA test results, but those who know and appreciate Thompson? s work have no doubt of his abilities. "He certainly has a good grasp of what? s going on. He understands the technology and how powerful it is," says Dr. Robert Shaler, director of forensic biology with New York City? s Chief Medical Examiner Office. Shaler, the forensic scientist who moved the New York lab? s DNA capacity from a horse-and-buggy level to among the foremost in the nation, calls Thompson "a skeptic by nature," a characteristic considered an asset in scientific analysis.

Thompson has analyzed DNA labs around the nation and world. He reviewed the DNA evidence for the defense in the O.J. Simpson trial, the case that put forensic DNA on the public? s radar screen. In perhaps his most spectacular enterprise, Thompson was central in blowing open one of the biggest DNA scandals in the country after he scrutinized the DNA evidence in eight cases

handled by the Houston Police Department Crime Laboratory and found sloppy science, fudged test interpretations, skipped steps and bad records. The lab serves Harris County, Texas, which produces more death-penalty cases than any other county in the U.S. A state audit triggered by Thompson's investigation, which was instigated by local television station KHOU after years of rumors, led to the shutdown of the crime lab's DNA unit in December 2002.

Other state crime labs in Texas have come under investigation as evidence mounts that the Houston lab was not alone in foisting shoddy science. The problem also extends beyond the Lone Star state: an Oklahoma forensics specialist was found to have cooked her findings, and an FBI staffer admitted to having testified to findings for tests she hadn't even conducted. She was ultimately found to have used spurious methods in more than 100 cases.

And yet despite those failures, DNA evidence still enjoys iconic status. The idea permeates our culture that DNA technology is science and science can't be wrong. "Because of the science," Thompson says, "people want to believe in it. It would be so convenient if it were true, if you could trust the technology. Maybe that's the secret of the success of [television's] *CSI*? that you know for certain."

Californians may find Thompson's experience and perspective all the more interesting as they ponder a DNA-related measure on the November ballot. Proposition 69, called the DNA Fingerprint, Unsolved Crime and Innocence Protection Act, proposes to expand California's DNA database, the collection of genetic profiles now collected only from violent felons. The law here already mandates that DNA samples be collected from felony offenders convicted of murder, rape, child molestation and other serious crimes.

Contra Costa Times called Prop. 69 a "no-brainer." But Thompson is concerned there are risks involved that voters need to understand before making a decision. For example, Thompson says there is a distinct possibility that expansion of the DNA database will disproportionately include the poor and minorities, "an outcome that Prop. 69 guarantees."

Many of us feel we know a fair bit about forensics? the perp leaves DNA at a crime scene, the cops and/or roaming forensic scientists collect it and pop it into a system, and out comes an identification. And sometimes? many times, in fact? that happens. No, the results don? t come in the 40 minutes (or occasionally, 40 seconds) implied on TV, but technicians can produce a clear enough DNA profile that identification can be indisputable, clear-cut, open and shut, sealed by science.

But sometimes? lots of times, in fact? results are ambiguous, open to interpretation: there can be extra genetic markers in an evidence sample that are difficult to account for or maybe there isn? t enough material to come up with a complete genetic profile; then again, there could be a mixture of DNA from many people on an item of evidence, so that technicians have to piece together possible DNA profiles of all the people who left the DNA evidence.

The way lab people and law enforcement interpret those shades of gray is Thompson? s area of expertise. "There? s a strong human tendency to look at something ambiguous to interpret it to supporting your theory, either the ambiguities or uncertainties," he says. "There tends to be such a mindset about here? s the guilty guy and here? s the evidence that they don? t even think that there? s a number of alternative interpretations."

That attitude has made him a well-respected and welcome ally for some. Peter Neufeld is founder, with Barry Scheck, of the Innocence Project at Benjamin N. Cardozo School of Law in New York, an institution famed for using DNA evidence to exonerate 151 people wrongfully convicted of capital crimes. "We? re living in a time when crime-lab scandals are the reality and *CSI* is the myth," Neufeld says. "Bill is one of the key players in unmaking that myth."

And that makes him anathema to much of the tight-knit national forensic community? and a lightning rod for an acrimonious debate about forensic DNA that tends to split along the lines of prosecution and defense

Dr. Paul Ferrara runs the forensic crime lab for the state of Virginia, considered by many to be the forensic gold standard. He is among the nation? s forensic DNA leaders, a scientist who pried \$69,000 out of the Virginia Legislature in 1989 to launch the country? s first state crime lab and who has pioneered the use of DNA in

criminal investigations and prosecutions in the U.S. Cops from all over Virginia enthusiastically send Ferrara's state crime lab everything from blood and semen samples to identify rapists to cigarette butts that help identify car thieves.

Ferrara calls Thompson a naysayer and adds that in forensics, "there are two camps more or less? my camp, which recognizes the tremendous power of this technology, and the other camp that tries to undermine it in the minds of the general public." He puts Thompson squarely in the latter.

He differs with Thompson philosophically, but Ferrara may also be miffed on a personal level: Thompson and two other experts? one of them New York's Robert Shaler? independently of one another, reviewed DNA evidence from a notorious Virginia murder case and concluded that it was flawed. Thompson's withering quote in the *Virginian-Pilot* newspaper called the lab work "a mess" and "an enormous botched job." Ferrara has said that he stands by the results and refers to the criticisms as "chewing on my staff."

"Sure as hell," he declares, "if there's a lab that's performing substandard work, I want to see it revamped because it hurts all of us."

Other Thompson critics are more caustic. "There's a non-laboratory cottage industry of quibblers and debaters, and that's where all the money goes," sneers Rock Harmon, senior deputy district attorney of Alameda County, California, and a prosecutor for some 30 years. He has tangled with Thompson on and off for the past decade.

"He's wrong to characterize Dr. Thompson and the defense in that way," says head deputy public defender for Los Angeles County Mark Windham. "There are real cases where injustice has been done by DNA technology or failure to use the technology. Who else would challenge defective use of DNA?"

Thompson would also argue Harmon's assertion about a lot of money going his way. Other than the occasional consulting fee, Thompson gets nothing out of his expertise other than easing the sense of indignation he feels over the plight of those accused or convicted based on scant or badly handled DNA evidence. That combines with an almost boyish enthusiasm for being part of the

cutting-edge enterprise of making sure a powerful technology is used correctly. His explanations, as he points out discrepancies and inconsistencies in DNA evidence, are punctuated by triumphant chuckles and exclamations of "Isn't that great?"

With his lanky frame and an energetic intellect trained on forensic science, Thompson evokes a 21st-century Sherlock Holmes? and like Holmes, he finds that Scotland Yard isn't overjoyed when his findings prove their theories incorrect.

He seems genuinely puzzled by detractors' suggestions he's a hack or an anti-science naysayer.

"I'm all for DNA evidence, but I also think that forensic scientists will not do the hard work of establishing the validity of their methods unless somebody makes them do it," Thompson says. It's not the science he opposes; it's the *lack* of science, a failure of rigor that he attacks when some labs base conclusions on incomplete DNA analysis. And he's not uniformly for the defendant? in discussing a rapist convicted using DNA evidence that Thompson had reviewed, he recalled that the testing results looked sound. "He belongs locked up," he says of the convicted.

Thompson's work is bound to provoke strong reactions, given the way that the stakes related to forensic DNA have risen over the past decade. The technology has swiftly and dramatically improved? for a comparison, think about the way the room-sized computers of the 1960s evolved into the small, sleek palm-sized technology of today. And now, DNA analysis wears the halo bestowed by *CSI* and other TV dramas and reality shows.

That halo could propel Prop. 69 to victory, thereby widening the DNA net to include all felons, not just those convicted of violent crimes, and individuals arrested for rape or murder. In 2009, all people arrested? not convicted? for any felony would have DNA collected for the database.

Whose DNA profile goes into the system is a critical question because databases are where the rubber hits the road with forensic DNA? they provide the identifying "matches" we hear about. When we watch *CSI* and the cops or forensics guys enter a DNA sample into the "system," that's what they are doing? entering a DNA

profile to see if they get a "hit," a match, against one in the database, one that can identify whose DNA was left at the crime scene.

In real life, the system is made up of local and state DNA databases that link up to the FBI's Combined DNA Index System (CODIS), which concentrates the records of some 1.8 million DNA profiles. That means that biological evidence from a rape in Orange County can be analyzed to generate a genetic profile of the attacker that is then compared to the local, state or national database to see if they can ID a suspect.

If the rapist has a prior conviction for a violent felony, his DNA profile is likely to be on file, and the database turns up what's called a "cold hit," an identifying match. So it makes sense that the bigger the database, the more DNA profiles that get included, the more likelihood there is of a cold hit. In Virginia, at Ferrara's state crime lab, they are up to 2,218 cold hits, compared to 30 in 1998, when the database was much smaller. A law mandating collection of DNA from felony arrest suspects went into effect in January in Virginia, and so far, there have been 117 hits implicating arrestees. "It definitely works," says Ferrara.

And if the guy's profile hasn't made it into the database, the misstep can have ugly results. Last year in Louisiana, a homicidal rapist terrorized Baton Rouge and left his DNA at the site of five rape/murders. Law enforcement got a DNA profile that linked the crimes. But was his profile in the system? Hard to tell; it evidently didn't turn up, and Louisiana at the time had a backlog of some 4,500 evidence kits containing the DNA of men who had raped women but whose profiles had yet to be entered into the database. Then there were the 15,000 felon profiles that underfunded state forensics workers had as yet not uploaded. If the perpetrator's profile was among either backlog and since he was a repeat offender, that's likely it did authorities no good.

Prop. 69 was launched by a Newport Beach lawyer and developer with a personal interest fueled by terrible tragedy. Bruce Harrington's brother and sister-in-law were murdered in Laguna Beach in August 1980 long before there were any DNA databases and, in fact, before there was much ability to type DNA at all. The killer left behind biological evidence that has since been linked to 12 rapes, but he's never been found. The crimes in which his DNA turned up stopped abruptly in 1996, a

sign that he has possibly either died or left the country; presumably, if he had been incarcerated, his DNA would be in the database.

Harrington's rationale is that if the database cast a wider net, the perpetrator of his brother's murder would likely be included and justice would be served. Harrington spent \$1.8 million of his own money to pay signature gatherers, the surest way to qualify a proposition for the ballot in California's money-driven initiative system.

An initiative might seem an immutable, if not ham-handed way, to address the issue; it changes the California Constitution and requires a two-thirds vote by the legislature to override it, making it a serious policy step. But Beth Pendexter, a spokeswoman for the campaign, says Harrington had pursued legislation in Sacramento before resorting to the ballot process. He grew frustrated when it died in committee a few times.

The voter initiative was written as a collaborative effort between district-attorney associations and law-enforcement organizations and is projected to cost \$20 million annually by 2009-2010. Los Angeles County District Attorney Steve Cooley, state Attorney General Bill Lockyer, Governor Arnold Schwarzenegger and most police organizations have endorsed it.

Thompson agrees that expanding the database can be useful, but thinks Prop. 69 goes about it the wrong way. "It's clear that there are dangerous awful people and that DNA testing can help catch them, and it's not only appropriate but also essential that government do that." His problem is that it's not quite fair. "Expansion of government databases will help solve crimes, but it also creates certain risks. It's important that those risks be spread evenly across society and not fall most heavily on the poor and minorities."

Who, Thompson asks, are more likely to be arrested for felonies or for anything else? The statistical answer: young African-American and Latino men. Figures for felony arrests are not available, but in 2000, according to FBI statistics, African-American males constituted 28 percent of all arrests nationally, more than twice the proportion of African-Americans in the population. The California attorney general's office estimates that in 2002, 37.5 percent of arrest subjects were Latino and 17 percent were African-American.

Then there's the issue of sloppy data entered into the database. Thompson says he's begun to see cases in which the person identified by a cold hit wasn't the perpetrator. He was called in on a case where the DNA found at a bloody gangland murder in Auckland was matched with a deacon and family man in Christchurch, New Zealand, hundreds of miles and an entire island away from the crime scene. His DNA profile was in the database because he had given a DNA sample as a crime victim. Turned out his DNA sample had been in the lab with the Auckland crime-scene evidence and somehow there was a mix-up. The accused, lucky for him, had been videotaped by an ATM security camera as he withdrew money at the same time the crime was committed, convincing authorities he wasn't a legitimate suspect.

"It's not that errors will be happening right and left and all the time? I think the probability of these errors is pretty low," Thompson says. "But what I've tried to show is that if it's your case? the fact that in general the rate of errors is very low doesn't mean that we shouldn't look carefully at these cases."

Given that Thompson sees wiggle room in the interpretation of DNA analysis, he's concerned about something else? what he calls inferred mixtures. He cites as an example a robbery case in Virginia.

"The lab did not find a unique profile on the evidence item; they found a mixture," he recalls. "It was a fake beard used in a robbery? and they found a mixture of DNA on this, and they had to sort of go through and infer what the different contributors' profiles might be. They had to search these, and they conducted, like, 18 different searches of all the different possibilities."

The DNA molecule that we see on the Discovery Channel or *Nova* shows us an array of genes arranged like beads along the double helix. Only 9 percent of those beads distinguish us as human from other creatures. "Most human DNA is very much the same from one person to another? yours and mine and everybody's," Thompson explains enthusiastically. "The great majority of the genetic sequence is the same in all humans. That why we all have heads and feet and we don't have hooves and claws and we don't look like sea slugs." Less than 1 percent of those genes distinguish one human from another? hair color and texture, eye color, skin shade. Those are the areas along the double helix that are

essentially "snipped out" to create a DNA profile.

The gene combinations at each location on the double helix twist; a number is assigned to each bead on the string. When there's a mixture of DNA, like the Virginia fake beard, forensic technicians take the numbers of all the genetic markers they find and enter possible combinations into the database in hopes of getting a hit.

But that's very different from entering in one possible profile, with a specific set of markers, to see if you get a match? It's more like a fishing expedition. Thompson, in fact, refers to it as "widening out the net." He finds it especially troubling in view of one of Prop. 69's provisions: even if a person is not convicted, it takes a court order to remove a profile from the database, and then there is no legal requirement to remove it.

"Wealthy people can get court orders; poor people can't," Thompson points out.

The whole time a profile is in the database, Thompson argues, the wrongly accused whose profiles were taken in a felony arrest are vulnerable to the "widening net" searches that try for different combinations.

While some critics attack him as a virtual arm of the criminal lobby, Thompson breaks with the usual civil-liberties suspects on reasons for opposing the measure. The ACLU is concerned about the revelatory nature of DNA. Unlike a fingerprint, a person's DNA can show predisposition to diseases and information that a person may not want in the hands of insurance companies or employers.

But Thompson feels that concern is misplaced. The information in the aggregate is nothing but numbers; the identities of the individuals are not readily available. He and some colleagues have the DNA database from Victoria, Australia, on their computers. It allowed Thompson and his colleagues to discover trends toward double entry of profiles and erroneous data entries. You're not going to see that in California under Prop. 69, he says.

He's more troubled by the initiative's provisions that block the release of information to the public. One section even limits disclosure on how exactly the database works and says flat out that legal proceedings

cannot compel the state Department of Justice or local labs to disclose their methods and how that data-basing software works.

"Even under court order they're not allowed to release about how they run this system? What's that all about?" Thompson asks. "That's not about openness and fairness; that's kind of the fascist approach to science. I really see no need for these secrecy provisions other than to shut down potential critics."

Even the defendant's attorney is blocked from finding out about what search procedures produced a match: all that is made available is the profile itself, so that the defense would never know about the fishing expeditions sometimes prompted by mixed DNA samples.

"We have things like the Houston crime-lab debacle where crime labs do terrible work for years and it's only exposed by journalists," he says. "The reason we have that is that these are closed systems that aren't open to scrutiny."

Thompson's critiques and the information and analysis that produce them are not common currency in the debate that produces the policy that sets the standards for DNA analysis. Instead, they tend to get shut out or, as nearly happened in the case of some recent federal legislation, shouted down. Attorney General John Ashcroft, flanked by rape victims who had lived in fear until DNA analysis identified their attackers, rolled out the Advancing Justice Through DNA Technology Initiative in March 2003. The House of Representatives approved a bill that would have given money and muscle to the initiative, providing more resources to state and local crime labs for DNA analysis. The legislation sailed through the House on a 357-67 vote.

But a bipartisan embrace didn't assure success in the Senate, where conservative elements moved to strangle the measure in its cradle. Because, like the House legislation, the twin Senate bill included a portion called the Innocence Protection Act. The measure would increase inmates' ability to get post-conviction DNA testing, called for higher standards in defense in capital cases, and would link funding for enhanced DNA capacity in individual states to "reasonable" procedures for proving post conviction DNA analysis and preserving DNA evidence.

The Department of Justice raised a protest against the Innocence Protection section in April, and shortly after that, the legislation was locked up in the Senate Judiciary Committee where Senator Jon Kyl of Arizona eventually offered a total of 21 amendments aimed at gutting it. But the bill was passed over the weekend.

Still, it appears that both Kyl and Ashcroft's Justice Department were willing to scuttle a funding measure to eliminate DNA backlogs rather than see more safeguards built in to ensure integrity in the prosecution of capital cases. It's one example of how politics can creep into the picture of the supposedly "pure science" of forensic DNA.

As the technology evolves, there will be more forensics officials who accept shades of gray. Robert Shaler, New York's DNA guru and a member of the American Bar Association's biological-evidence task force along with Thompson, has such a nuanced view. He observes that the day-to-day pressures on crime labs to complete cases and provide evidence for investigations and prosecutions make mistakes inevitable. But it's how the mistakes are handled that makes the difference.

"It's good for the field that these things get exposure," he says. Experts such as Thompson, he says, "are an important part of the criminal-justice system. They belong."

Thompson couldn't agree more. "The legal system, the criminal-justice system is the strongest when it's wide open." Moves to shut that down, he warns, "reflect a kind of totalitarian mindset that is all too common in forensic science. It's inconsistent with scientific principles."

The New York Times

March 17, 2003

Associated Press, *Errors at F.B.I. May Be Issue In 3,000 Cases*, N.Y. TIMES, Mar 17, 2003

The Justice Department has identified about 3,000 criminal cases that have been affected by flawed procedures and skewed testimony by F.B.I. laboratory technicians before 1997. It is letting prosecutors who handle cases decide whether defendants should be notified.

Government officials said they were aware of 100 to 150 cases in which prosecutors had alerted defendants to problems that might have affected verdicts. None have resulted in overturned convictions, they said.

One of the cases has reached the Florida Supreme Court. The court ruled last week that a convicted murderer, George Trepan, was not entitled to a new trial despite evidence that the F.B.I.'s chief toxicology chemist gave inaccurate testimony.

The inquiry stems from a scandal in the mid-1990's, when Frederic W. Whitehurst*, a senior chemist at the Federal Bureau of Investigation, went public with reports of shoddy work, tainted evidence and skewed testimony. A Justice Department investigation concluded in 1997 that 13 laboratory technicians made scientific errors in cases or slanted testimony to help prosecutors. Several were reprimanded, but none were fired or prosecuted.

F.B.I. and Justice officials say they continue to review cases handled by those technicians. But they say that the laboratory is much different now and that changes have been made to ensure that scientific and forensic analysis is subjected to checks and balances.

The changes, said Dwight Adams, the laboratory director, include a

requirement that all work be reviewed by another technician with the expertise and by a supervisor. In addition, the laboratory has won acclaim from the scientific community every year since 1998.

Despite the changes, some criminal defense lawyers are critical of Justice Department's decision to let federal, state and local prosecutors decide whether to notify defendants of problems.

"That's like asking the fox to guard the henhouse," said a former federal prosecutor, Neal Sonnett.

"If there is a possibility that evidence has been tainted, then the Department of Justice or prosecutors should not be the arbiter of what is material," Mr. Sonnett said.



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Judge to head DNA-test review

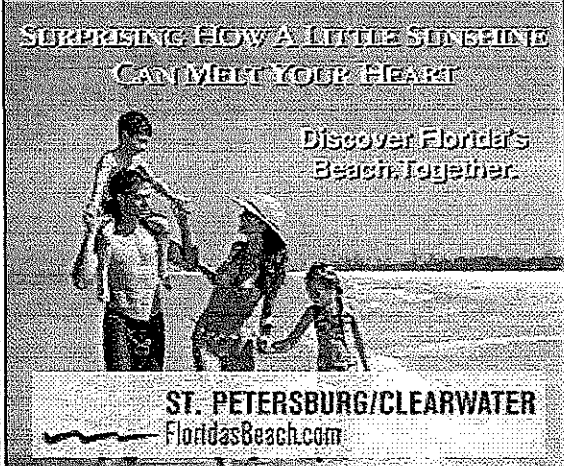
Death sentences that relied on low-level testing at state lab since 1994 to be studied

BY FRANK GREEN
TIMES-DISPATCH STAFF WRITER

Jun 3, 2005

Robert J. Humphreys, a former Virginia Beach prosecutor now a state appeals court judge, will head up a review of the state's DNA testing in more than 160 cases.

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Audio: Bob Humphreys talks about the panel he will head up to review DNA testing done by the VA Division of Forensic Science.



Humphreys, appointed special master by Gov. Mark R. Warner, has selected five experts -- all of them outside Virginia to be on the review team. There may be one other appointment, he said.

Humphreys said he hopes the team will be at work by the end of this month. The governor's office expects the final report will be made public.

"I'm certainly aware that this is on the front burner, and we'll get it done as quickly as we can," Humphreys said.

The cases to be reviewed will include all death-sentence cases that relied on low-level DNA testing by the Virginia Division of Forensic Science since 1994, Humphreys said. Warner requested the reviews.

Generally, low-level DNA testing involves evidence with amounts of DNA at or below normal detection limits and is a type of testing more vulnerable to error.

In addition, all low-level DNA tests performed by analyst Jeffrey D. Ban will be reviewed along with a sampling of the work by the state lab's other examiners.

While he was commonwealth's attorney, his office successfully fought the retesting of DNA evidence in the Joseph Roger O'Dell case. O'Dell was executed in 1997 for a 1985 rape and murder. O'Dell's supporters sought the new testing after his execution.

However, one of Humphreys' assistants opposed retesting, arguing there was evidence it may have been tampered with. It was destroyed by court order in March 2000.

The five experts selected for the review thus far are:

- Carl Sobieralski, the DNA supervisor for the Indiana State Police lab, who is also an accreditation inspector for the accreditation board;
- Arthur Eisenberg, a molecular biologist at the University of North Texas's DNA Identification Laboratory;
- Demris Lee, supervisor of the Armed Forces DNA Identification Laboratory;
- Stephen Lambert, a supervisor with the South Carolina Law Enforcement Division's forensic lab and an inspector and accreditor for the accreditation board; and
- Christine Tomsey, the forensics DNA manager at the Pennsylvania State Police DNA lab and an inspector and accreditor for the accreditation board.

Humphreys said he selected the team members from among experts suggested by the accreditation board and the Virginia lab. Two staff members of the Virginia lab will assist the team, he said.

Washington was nearly executed for the 1982 capital murder of a Culpeper woman who was raped and stabbed to death. In 1993, DNA testing by Ban cast doubt on Washington's guilt but did not clear him.

Then-Gov. L. Douglas Wilder spared Washington the death penalty, but Washington remained in prison. Ban did more testing in the case in 2000, which led to Washington's pardon and release but left a cloud of suspicion over his head.

The accreditation board's audit faulted Ban's conclusions in the case.

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Errors made by Ban and the state lab in the Earl Washington case were brought to light by an audit performed by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board made public last month.

Among the accreditation board's seven recommendations was a wider review of the lab's DNA work to determine whether there is a widespread problem. That review, of 160 to 180 cases, will now be headed by Humphreys.

"I think it's important that both sides feel that there's not going to be a witch hunt or a whitewash here, and I'm certainly not going to be party to anything like that," Humphreys said.

"The entire criminal-justice system depends on the integrity of these DNA labs, and ours is certainly no exception to that."

Peter Neufeld, one of Washington's lawyers whose persistence helped prompt the board's audit, said yesterday that "I applaud the decision of the governor to appoint an outside master."

"It ensures that the review will not only be independent and unbiased, but will be conducted professionally," he said.

Timothy W. Spencer, the "Southside Strangler," was the first killer executed on the basis of DNA evidence. He was put to death in the electric chair in 1994.

It is not known how many of the roughly 70 men executed since 1994, or the 22 men and one woman now on death row, were sentenced to death with the help of low-level DNA evidence.

One of the cases to be reviewed, however, will apparently be that of Robin Lovitt, who is set to be executed July 11. While the prosecution's cases against Lovitt primarily relied on other evidence, some low-level DNA testing was involved.

Lovitt was convicted of stabbing a man to death with a pair of scissors during a 1998 robbery.

The evidence that underwent DNA testing in his case was erroneously destroyed by the Arlington County Circuit Court clerk's office in 2001, just weeks after a new law went into effect ordering the safekeeping of all such evidence in death cases.

The current review of 160 to 180 cases will not involve any retesting. At this point, Humphreys said, the process will involve going back through files making sure proper procedures were followed and valid conclusions reached.

If any of Humphreys' cases are examined, he said, "the science is the science, and the chips will fall where they may on that. It certainly wouldn't impact my current job."

Humphreys said that as far as he is aware, the only death case he prosecuted that involved DNA evidence was that of Russel Burket, who pleaded guilty in 1994 to the murders of a Virginia Beach woman and her 5-year-old daughter. He was executed in 2000.

Humphreys became commonwealth's attorney for Virginia Beach in 1989. He served until joining the Virginia Court of Appeals in April 2000.

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Virginia Governor Orders Review of 150 DNA Cases by Lab

New York Times
By James Dao
May 6, 2005

WASHINGTON, May 6 - A sharply critical independent audit found Friday that Virginia's nationally recognized central crime laboratory had botched DNA tests in a leading murder case. The findings prompted Gov. Mark Warner to order a review of the lab's testing in 150 other cases as well.

Among the auditors' eight recommendations, all of which were accepted by Mr. Warner, was that the governor restrict the work of the lab's chief DNA scientist, Jeffrey Ban; review cases that Mr. Ban has handled in recent years, along with a sample totaling 110 other cases; and develop procedures to insulate the lab from any outside political pressure.

Experts said the findings could lead to a re-examination of scores of past prosecutions including those involving some of the nearly two dozen inmates on Virginia's death row who might also throw into turmoil many current prosecutions in which the lab's work helped or rule out suspects.

"You have to have doubts about the reliability of any case coming out of there," said Layne DesPortes, a criminal defense lawyer from Richmond who heads a legal panel at the American Academy of Forensic Science. "How can we be sure that this case was handled properly when she said of the handling of evidence in the prosecution of Earl Washington Jr."

The governor called for the independent audit of the lab last fall in response to the case of Earl Washington, a retarded man who came within days of execution for a rape and killing. DNA evidence, though not resolving the case, did raise doubts about his guilt.

The audit's findings come at a time when DNA is growing in importance in implicating and exonerating suspects. Forensic labs in several states, including Oklahoma and Texas, come under intense scrutiny for their mishandling of that and other evidence.

The outside auditors, from the American Society of Crime Laboratory Directors, found that Virginia lab's internal review process was flawed. They also raised concerns that the lab had felt pressured by their superiors as well as the office of Jim Gilmore, who was then governor. When a flawed test of newly discovered DNA was conducted in 2000, to produce conclusive reports in the Washington case, even when the evidence was muddled.

"Pressures from outside the laboratory and excessive managerial influence from within the laboratory," the report said, "had a detrimental effect on the analyst's decisions, examinations and reports in this case."

In an interview, Mr. Gilmore, a death penalty supporter now in private law practice, while he had "demanded all the proper evidence we could get," he had never asked to reach any particular conclusion.

Virginia has executed more people, 94, than any other state except Texas since the Supreme Court allowed reinstatement of the death penalty 29 years ago. Mr. Washington was sentenced to death for the 1982 rape and fatal stabbing of Rebecca Williams, a 19-year-old mother from Culpepper, Va., but the sentence was commuted by Gov. Douglas Wilder in 1994. He was then pardoned by Mr. Gilmore in 2000 because of DNA evidence that raised doubts about his guilt.

But because of mistakes in the DNA tests by the crime lab in 1993, his lawyers assiduously stayed on death row seven years longer than necessary. And additional botched tests in 2000, they say, is the reason he has never been fully exonerated.

"This laboratory touts itself as the best state lab in the country, yet it generated the best test results in a capital case twice," said Peter Neufeld, a lawyer for Mr. Washington and co-director of the Innocence Project. "This case raises very serious questions about the legitimacy of the capital justice system."

Mr. Washington, 45, is living in a home for the mentally retarded on Virginia's Eastern Shore. When he was told Friday afternoon about the audit's findings, he said he hoped he would be officially declared innocent in the Williams murder, Mr. Neufeld said.

Mr. Ban, a nationally recognized forensic scientist who has helped other states develop policies, trained many members of the Virginia lab's staff. As a result, the auditors recommended that independent experts review tests by other analysts there involving levels of DNA - the type of evidence used in the Williams case - to ensure that similar problems were not rampant at the lab.

The audit found an array of problems in the way Mr. Ban had conducted and analyzed DNA tests in the Williams case. Those mistakes caused him to conclude incorrectly that a convicted serial rapist named Kenneth Tinsley was not the source of semen found on Williams, even though he had been found to be the source of DNA on a blanket at the scene.

But a test commissioned by Mr. Washington's lawyers in 2004 pointed to Mr. Tinsley as the likely sole source of the DNA found in Ms. Williams. Had the state lab come to that conclusion, Mr. Washington's lawyers claim, Mr. Tinsley would have been prosecuted for the Williams murder years ago. He never has been, though Mr. Neufeld said he was not imprisoned in an unrelated rape case.

The Virginia legislature enacted a law this year that makes the Division of Forensic Science, which runs the central crime lab, an independent state agency and creates an advisory board made up in part by division employees, to help oversee its work. But Mr. Neufeld said the legislation did not go far enough because it did not create an entirely independent review of the lab's work.

"The audit provides compelling evidence that crime labs can't police themselves," he said.

Paul B. Ferrara, the director of the Division of Forensic Science, who in the past rarely acknowledges any errors in the Washington case, declined to be interviewed. But in a written statement, he said the audit "belies the major body of other work" by Mr. Ban that led to Mr. Washington's pardon.

Ms. DesPortes, of the forensic science academy, criticized Mr. Ferrara for what she

as his failure to shield Mr. Ban from "typical" political pressure on crime labs. She s
response to the audit suggested that he would not vigorously carry out its recomme

"He seems to think a perfect lab is one where errors never occur," she said. "But ei
going to occur. A perfect system is one that is able to catch its mistakes, and corre

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