

Inside the DNA Labs*By Timothy W. Maier*

Rocked by allegations of deceit, misconduct and incompetence, DNA crime labs across the nation increasingly are finding themselves under both federal and state criminal investigations. Even the FBI's DNA crime lab is under scrutiny by Justice Department Inspector General (IG) Glenn Fine, who ordered a sweeping audit of the bureau's forensic laboratory. But Fine didn't stop there. He was so incensed by the bad science infecting crime labs nationwide that he expanded his probe to review several local police DNA crime labs where errors may have jeopardized thousands of cases and sent innocent people to death row.

The IG probe will be completed in the next few months. Fine ordered the audit after former FBI lab technician Jacquelyn Blake admitted she failed to follow required scientific procedures while analyzing 103 DNA samples during the last few years. Her failures may affect the civil-rights trial of five New Jersey police officers accused of killing a prisoner. The officers are challenging Blake's analysis of blood collected. She has resigned.

Peter Neufeld, director of the Innocence Project, which to date has worked to exonerate 127 wrongfully convicted inmates through DNA testing of evidence, says Blake's errors indicate more serious problems. "The FBI peer-review system never caught the Blake errors," he says. "That tells us that the system is bogus and at least ineffective."

The Blake fiasco also could spell the end for FBI lab director Dwight Adams, says Fred Whitehurst, the chemist turned lawyer who blew the whistle on the FBI crime lab in the mid-1990s. "Dr. Adams is a good man, but what did Blake do under his nose, and how long was she doing it? We depend on DNA as the gold standard in forensics - for both defense [attorneys] and prosecutors. We don't have it now. The gold standard is tarnished. What Dwight needs is a management tool called an independent audit."

Fine's probe comes on the heels of the celebration of the 50th anniversary of the discovery of DNA, or deoxyribonucleic acid. In the simplest terms DNA is a blueprint for how to make a body. It primarily has been used for paternity testing, but it was expanded to criminal trials in the United States in 1987. The IG review overshadows what the FBI had hoped to be a banner day. The bureau recently unveiled its brand-new, \$130 million DNA laboratory complex that houses \$25 million worth of new equipment, and the Bush administration announced a \$1 billion expenditure to help update the national DNA registry. Indeed, for a while this year there was no escape from the onslaught of newspaper, magazine and TV news stories celebrating the greatest crime-fighting tool of the 21st century. A simple cotton swab of the mouth has enabled police to solve cold cases and examine evidence ranging from the Oklahoma City bombing to mass murders in Kosovo. "The science is good," Whitehurst insists. "It's just that we are allowing human beings to do it. The human frailty is attached to it."

While most believe DNA linked O.J. Simpson to double murder, they probably would have been shocked with what USA Today and the Gannett News Service reported in 1994 during the height of the trial. Since 1974, there had been at least 85 instances in which prosecutors used tainted evidence in trials, according to the report. During that same period, 48 people sentenced to death were freed after convictions were found to be based on fabricated evidence or because exonerating or exculpatory evidence was withheld.

What is happening inside the DNA labs appears to be a systemic problem faced by many crime labs, Neufeld says. For example, FBI ballistics expert Kathleen Lundy recently was convicted of perjury after she falsely linked bullet evidence to Shane Ragland in the 1994 sniper murder of a University of Kentucky football player. Ragland's case - and perhaps as many as 80 others - could be overturned because Lundy's credibility is in question.

"The fundamental problem with forensic science in labs - whether it is DNA, hair, handwriting, ballistics - is that unlike clinical labs, forensic labs are unregulated by any government entity," Neufeld says. "Labs set their own standards. I am not a big fan of government regulation, but when you are dealing with life

and death I think you need it, just like if a clinical lab finds a growth under your arm you want to feel assured that the clinical lab went through some rigorous certification and inspection."

Neufeld continues, "When you buy a steak, it's inspected by the U.S. Department of Agriculture, and they say it's safe. Would you feel the same if it was inspected by the meatpackers association? That's what is happening with crime labs." In fact, many are not even accredited. Of the 400 to 500 labs conducting forensic work, about 240 are accredited, according to the American Society of Crime Laboratory Directors accreditation board in Garner, S.C.

Cynthia Orr, president of the Texas Criminal Defense Lawyers Association, charges that crime-lab directors are the last ones to turn to for accreditation. "We do a better job of testing dog-food labs than forensic labs," she insists. The problem, Orr says, is with the mind-set of technicians. "Many labs are associated with law enforcement," she says. "Their job is not objective science. They are part of the 'cop shop.' They are out to get crooks."

Meanwhile, the nation's crime-lab mess has slowed Attorney General John Ashcroft's plan to build a national DNA registry, similar to the national fingerprinting database, because there is widespread fear that samples collected from some labs could be tainted. In fact the FBI recently said it no longer will collect DNA samples from either Houston or Fort Worth because the cities' crime labs are run so poorly. Texas forensic scientists are said either to have misinterpreted data or outright lied about test results under intense pressure to close cases and win convictions.

"Houston, we have a problem," no longer refers to Apollo 13 but to the mad science of examiners who are not fully trained, according to defense attorneys and prosecutors. The result is that hundreds of cases, dating as far back as 1992, are under review following a report by Houston news station KHOU-TV detailing shoddy practices at the lab. Among those in question are 17 death-row cases. KHOU's report claimed that technicians couldn't perform the simplest of tests, deliberately misinterpreted data and stored evidence in a room where the ceiling leaked so badly that during a severe storm 34 DNA samples were contaminated by rain. It prompted a state grand-jury investigation.

In the meantime the Houston police crime lab that operated untouched for 12 years was shut down in January by the police chief. Fort Worth's crime lab was closed as well and is under investigation following admissions by Karla Carmichael, a senior technician who stands accused of ignoring DNA procedures to help prosecutors. Carmichael was placed on paid administrative leave. Neither lab is accredited, sparking the state House of Representatives to approve a bill that would restrict admission of forensic evidence at trial unless it was examined by an accredited lab.

Texas is not alone. Crime labs nationwide are besieged with problems. Consider the following:

- In Florida, DNA lab worker John Fitzpatrick recently admitted to falsifying DNA data in a test designed to check the quality of work. The state, however, refused to retest any of the cases on which he worked, claiming the falsification was an isolated incident that did not affect criminal cases. Fitzpatrick since has been fired.
- In Arizona, technicians made errors while analyzing DNA evidence in nine criminal cases currently under review. State audits reveal that only 26 percent of 8,000 blood samples from convicted offenders have been analyzed.
- In Baltimore, police are reviewing 480 criminal cases because former chemist Concepcion Bacasnot, who quit in 1987, wrongfully implicated a defendant by failing properly to analyze blood.
- In West Virginia, forensic expert Fred Salem Zain testified in dozens of rape cases about test results he never obtained. He didn't even do the tests. Zain then moved to the Bexar County Medical Examiner's Office in San Antonio, becoming the head of serology there in 1989. Zain again testified about blood evidence when no blood had been found; in other cases he reported performing tests his lab was incapable of doing. At least five men were convicted of rape and murder because of his testimony. Their convictions were overturned; Zain was fired.

- In Illinois, lab technician Pamela Fish was accused of helping to convict six defendants on false evidence, four of whom have been exonerated. She since has been promoted to oversee biochemistry testing at the Illinois State Police crime laboratory.
- In Montana and Washington state, crime labs find themselves in the midst of accusations of wrongdoing because of Arnold Melnikoff, who worked in both states and is alleged to have made serious errors in dozens of cases. FBI tests proved the chemist had misidentified hair samples that 15 years ago helped convict a man of raping an 8-year-old girl. Melnikoff still is employed in Washington state.
- In Oklahoma, forensic scientist Joyce Gilchrist's work came under scrutiny after evidence indicated she provided allegedly false testimony that led to the wrongful conviction of a death-row inmate who eventually was freed. She had been involved in 3,000 cases, including 23 in which defendants were sentenced to death. Eleven were executed. Defense attorneys are wondering if any of those 11 inmates was innocent. It may be difficult to find out because, in many instances, the technician destroyed or used up all the DNA or blood evidence. Gilchrist was fired in 2001 and since has filed a \$20 million lawsuit.
- In California, tens of thousands of samples sit in refrigerators from which they have yet to be placed in an offender database. The state has released thousands of violent offenders without collecting their DNA, although recently it has improved, nearly doubling the number of convicts it has tested to about 78,000 - far behind Virginia's 123,000 DNA profiles.

Another troubling trend appears to be that forensic scientists who levy charges of incompetence or corruption against their labs often find themselves unemployed. Former FBI forensic expert Whitehurst was suspended, then fired, before settling in 1997 for a \$1.46 million payment in a lawsuit for wrongful discharge. Elizabeth Johnson, former director of a DNA lab in the Harris County Medical Examiner's Office in Texas, now often works as a consultant for criminal-defense teams, but she found herself unemployed in 1997 after failing to be a "team player" and link a murder suspect's blood to the scene of a crime. She was vindicated in a jury trial and settled for \$375,000. When DNA lab worker Laura Schile called attention to serious problems in Oklahoma, she found herself under investigation and resigned in 2001 because of a "hostile work situation."

Perhaps more disturbing is that some prosecutors appear to have been made aware of lab problems but looked the other way to get a conviction. Take for example the case of Josiah Sutton, 25, who was convicted of a brutal rape in Houston. He spent nearly five years in prison before the same DNA used to convict him was retested and used to exonerate him in March. Sutton was the first to be released because of Houston's lab fiascoes. Luckily, a small piece of DNA found at the crime scene had been preserved. This was not the usual practice of the Houston lab, which routinely either destroys leftover DNA or uses it all up in the testing, leaving nothing for attorneys to retest on appeal.

Upon his release earlier this year, Sutton was greeted by family, friends and a sea of reporters. He now awaits a full pardon by the governor to clear his name. "I was a prisoner during the time I went from being a boy to being a man," he told reporters on the day he was released. "It has changed me. Right now I have got to enjoy this and see what this world has to offer me in 2003. God moves mountains. I have known ever since Oct. 30, 1998, that this day would come."

He won't be the only one to be freed, says William C. Thompson, a professor of criminology at the University of California at Irvine, who has studied the Houston police laboratory's work. "I have never seen anything as bad as the Houston lab," says Thompson, who reviewed seven of the DNA cases at the request of KHOU-TV. "There were clear-cut errors in three out of seven cases. They miscomputed statistics that ended up being strongly biased against defendants." In the Sutton case, lab personnel initially testified that the probability Sutton did not commit the crime was one in 694,000, when it reality it was one in a mere 14, Thompson says.

"They used very poor procedures," the professor reports, noting a state audit revealed that the lab failed 13 of 16 sample tests. "The contamination was a comedy of errors, but it's not so funny when an innocent boy is sent to prison for 25 years."

Johnson adds, "One of the symptoms of the problem is that they could not read or report the data

correctly. They don't even know they are lying. They need to run negative controls, sample runs such as putting a blank in and then that blank should come up blank. They weren't doing it. The lab hasn't done proper work for 12 years. They say a test is positive when the data clearly shows it's negative. But they say it is positive because it supports the prosecution charge."

In Houston, Assistant District Attorney Marie Munier attempted to reassure the public by insisting that prosecutors review hundreds of cases to find any material evidence that should be handed over to defense attorneys. Meanwhile the D.A.'s office is under criminal investigation concerning allegations that it tried to cover up shoddy lab reports and pressured lab workers to provide biased and perjured testimony. The D.A.'s office is not commenting on the review. But Johnson, who may be the most vocal critic of Houston's labs, called the D.A.'s decision to review the alleged cases for wrongdoing "incestuously inappropriate. The D.A. shouldn't have anything to do with it."

While Munier has not released the names of those involved in the cases under review, Judge Debbie Mantooth Stricklin has proposed a teleconference call between a judge and 72 prison inmates, who will hear without their attorneys present that DNA evidence used against them may have been compromised. Defense attorneys have objected vehemently, and others want all the names released rather than just the ones picked by Munier.

Whitehurst, who kickstarted a Justice Department investigation after he blew the whistle on the FBI crime labs in the mid-1990s, says its troubling when prosecutors choose to withhold names. For example, he helped the Justice Department uncover misconduct, error-riddled reports, false testimony and prosecutorial bias in the FBI labs, but the names of 3,000 defendants whose cases may have been compromised were never released. "I have 3,000 cases from 1972 to 1997, and we want the defendants to have that information," Whitehurst says. "But prosecutors say they haven't found anything material, and the defendants don't even know that there were mistakes in their cases." Insight has filed a Freedom of Information Act request for those records.

What needs to be done not just in Houston but across the nation is to develop a transparent system for evaluating DNA, Johnson says. "Full disclosure for the defense" is needed, "and funding for the defense to take on these cases so they can review documents," she exclaims. But Neufeld says judges are reluctant to pay for DNA testing for the defendant lest they be called soft on crime at re-election time.

While *Brady v. Maryland* requires prosecutors to turn over all evidence that is material, defense attorneys argue that prosecutors interpret the rule as applying only when an undisclosed piece of evidence completely clears someone. According to retired Maryland Circuit Court judge Vince Femia, a highly respected legal analyst, "The Brady law is clear but the application is not," and defense attorneys dealing with old case files are at the mercy of prosecutors. "I know of nothing other than to trust the public official," he says. "This is not an issue in a modern trial and modern cases because any defense attorney worth his salt is going to ask for the DNA file." The only other way to get the information is to ask for a court of inquiry but, unless defense attorneys are told the names of the clients known to have been impacted by faulty lab work, they are in essence on a fishing expedition, Femia says.

Also upsetting to defense attorneys is that despite the availability of DNA testing and known errors in such testing in capital cases, most states (Illinois is an exception) have not put a moratorium on executions. Considering that Houston has sent more people to death row than any other city in the nation, there is great fear that one of the 17 convicts awaiting execution could be innocent, Neufeld says. Prosecutors maintained they would review the pending cases and had assured the public that none of the 68 cases of executed prisoners used DNA work at the lab.

In fact, however, Houston prosecutors eventually provided critical information in the Miguel Martinez case. He was two days shy of being executed for a triple homicide before Cynthia Orr, his defense attorney, was able to get the crime-scene evidence retested. The results raised enough doubt in prosecutors' minds to move him off of death row. "The state embraces the idea he is not guilty, but he's still in prison," Orr says. "They don't want to shake him loose."

That's not unusual, she laments, citing the case of Roy Criner, who sat in prison for almost three more years after DNA testing proved him innocent of a Texas rape. "Actual innocence is not a basis to secure

your release from prison," Orr explains. Femia says that's one of the reasons he testified in Annapolis, Md., last year to prevent the state General Assembly from doing away with reconsideration hearings. It's the only method judges can use to get wrongfully convicted inmates out of prison immediately. Otherwise, they must wait for a full pardon from the governor.

James Bolding, the criminologist who oversaw the DNA sections in the Houston police lab, blames an overworked staff with insufficient funding. He says there are only two analysts for Houston, and they're working in a department that has not been provided funds for necessary training. Similarly, in Massachusetts, the crime labs have been forced to operate on the same budget as in 1983.

"This wasn't a lack of funding or training. They were not competent and don't want to be," Johnson says. "There are a lot of cash-strapped labs, and none have done this bad a job. They have an attitude that they don't want to hear about their problems and they don't want to learn to do better. They could have asked for help but never did."

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