DNA Dragnets

The Uses and Abuses of Genetic Information

In his January State of the Union Address, President Bush called for an expansion of the federal government’s efforts to use DNA evidence to solve crime and free the innocent. “In America,” he said, “we must make doubly sure no person is held to account for a crime he or she did not commit—so we are dramatically expanding the use of DNA evidence to prevent wrongful conviction.” Last year, Congress included $110 million in the 2005 budget to ease the backlog of unanalyzed DNA evidence in crime labs nationwide.

Tales of crimes solved and wrongful convictions overturned thanks to DNA evidence now have a mythic status in the public imagination and a prominent place in the crime beat of most newspapers. In January, the state of Louisiana used the federal DNA database, CODIS, to solve a rape committed nearly ten years ago, one of many cold cases solved using DNA evidence. Prosecutors of Saddam Hussein recently announced their intention to use DNA evidence to identify many of the victims of Hussein’s oppressive regime, much like prosecutors in the former Yugoslavia did during Bosnia’s war crimes tribunal. Last fall, Californians passed Proposition 69, which requires law enforcement officials to collect mandatory DNA samples “from every adult and juvenile convicted of a felony in California and from every adult arrested on suspicion of murder or certain sex crimes,” at an estimated cost of $20 million to the state. For now, this new law is slightly less encompassing than the compulsory collection of DNA in Virginia, which takes samples of all adults arrested for a felony. By 2009, however, the California law will also require mandatory DNA samples from every person arrested for a felony and even some misdemeanors.

Privacy and civil liberties advocates continue to raise objections to the expansion of state and federal DNA databases, noting how the inclusion of people arrested, not simply those convicted, violates the presumption of innocence. Moreover, as these expansions of DNA databases continue, so does the increased risk of human error in monitoring the databases. As a representative from the ACLU told the Baltimore Sun, “The more people in a database, the more mistakes are going to crop up.”

Nonetheless, solving brutal crimes and ending wrongful convictions are
universally supported goals, and they remain the major themes of most public discussion about DNA technology at the state and federal levels. But a new technique gaining favor among law enforcement may pose new privacy and civil liberties questions. Increasingly, police are conducting DNA dragnet searches of entire communities to search for criminals. In the process, many of them are also using DNA racial profiling techniques to narrow the range of suspects to certain racial and ethnic groups.

One of the more recent and well-publicized DNA dragnets, in the town of Truro, Massachusetts in early 2005, sought the killer of writer Christa Worthington by asking approximately 800 of the area’s male residents to voluntarily submit their DNA for testing. Law enforcement officials promised that the samples would be destroyed after testing and would not be included in the state’s criminal database, and police officers volunteered their own samples for testing as well. But not every resident of Truro was reassured. “Are they going to chase down everyone who didn’t give a sample?” one man told the New York Times. “It kind of sounds like Stalin’s secret police.”

DNA dragnets have been used with greater frequency in Europe; the first such case, according to the Washington Post, was in 1987, when a man named Colin Pitchfork was found to have murdered two local girls. “Police obtained DNA from about 5,000 people in three small villages,” the paper noted, and “when they found two identical samples, investigators determined that Pitchfork had paid a friend to take his test.”

But there are several potential problems with DNA dragnets, most importantly the question of what happens to the samples of the people who are cleared as suspects. Not every local law enforcement office promises to destroy the samples, as police in Truro did. In Louisiana, for example, after a recent DNA dragnet of 1,200 local men failed to locate a match to the genetic profile of the suspect, law enforcement officers nevertheless entered the men’s DNA profiles into the state’s criminal database, prompting a lawsuit. (Federal law prohibits voluntarily given DNA in state databases to be included in the CODIS database.)

Critics of DNA dragnets note that they are hardly as voluntary as law enforcement likes to claim. In 2001, for example, police in Oklahoma returned to the homes of people who had refused to participate in a DNA dragnet with search warrants. These people were targeted as suspects—and subjected to a great deal of public embarrassment—because of their refusal to cooperate with the “voluntary” dragnet.

And contrary to the claims of law enforcement, DNA dragnets do not have an impressive success rate in catching criminals. The Baltimore Sun recently reported on a study by researchers at the University of Nebraska that focused on eighteen DNA dragnet cases. “Only one—which focused on just 25 nursing home
employees—successfully identified the suspect,” the paper reported. A recent ACLU report, according to USA Today, found similarly low levels of success. “More than 7,000 people have been tested in DNA dragnets nationwide since 1995,” the paper noted, but “only one has identified a suspect.”

Police have also begun to rely on markers for race found in crime-scene DNA in order to construct a profile of a suspect, a practice that geneticists warn can be highly misleading. As two bioethicists writing in a recent issue of Nature Genetics noted, “Attributing racial and ethnic labels to samples, a subject of considerable and still unresolved debate in medical genetics, seems well on its way to acceptance in forensics and the courtroom.”

Civil libertarians and privacy advocates worry that as such profiling increases, law enforcement may develop population-level surveillance of certain racial and ethnic groups, and thus institutionalize a novel form of discrimination. While many who worry are prone to hysteria, there is always the danger of turning this useful tool—DNA forensics—into something perverse, and using genetic information in ways that accomplish limitless trouble rather than limited good.