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San Francisco Chronicle

Why can employers fingerprint, but not test workers' DNA?

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When someone defecated on the floor of its grocery warehouse, Atlas Logistics ordered some of its employees to undergo genetic testing in an effort to identify the perpetrator. In response to the testing, two exonerated employees sued Atlas under the Genetic Information Nondiscrimination Act. The lawsuit, artfully dubbed the Case of the Devious Defecator by U.S. District Judge Amy Totenberg, resulted in a Georgia jury awarding the plaintiffs \$2.25 million, including \$1.75 million in punitive damages. So why can an employer fingerprint their employee and test their urine but not their DNA, and will Totenberg's interpretation of the law hurt future developments in genetic testing?

Gina is a landmark legislative effort that helps to protect individuals from being discriminated against on the basis of their genetic information. Possibly equally as important, Gina helps promote further research in genetics by ameliorating patient fears that their donated DNA will prejudice their employment opportunities.

The statute was signed into law by President George W. Bush in 2008. Under the final iteration of Gina, employers and health insurers are prohibited from soliciting or using genetic information to "refuse to hire, or to discharge, any employee, or otherwise to discriminate against any employee ... because of genetic information with respect to the employee; or ... to request, require, or purchase genetic information with respect to an employee or a family member of the employee."

While the specific legal issues in the Georgia case turned on Gina's vague use of the term "genetic information," perhaps a more significant issue raised is that of genetic exceptionalism — i.e., the widely held belief that genetic information is more special than other medical and forensic information and, as such, must be treated differently. A second issue is the mistaken conventional wisdom relating to what exactly a DNA analysis is and what it can tell us.

This conventional wisdom is reflected in the conflating — in this instance, by Congress — of the identifying capacities

of DNA and its separate descriptive abilities. Identifying DNA markers can be used, say by police, to identify a criminal by genetic information unintentionally left at the crime scene without otherwise impinging on the individual's privacy. An analog might be your Social Security number, which identifies you without necessarily disclosing any other private information.

In descriptive ability, sequences of DNA, like those analyzed by many of the consumer-oriented personal genomics services based in the Bay Area, can be used by medical professionals in statistically assessing your physical characteristics and, to some degree, your future health and that of your close relatives — a very private set of information. Here the analog might be your tax records, which can disclose details of your finances and lifestyle.

Under Totenberg's interpretation of Gina, both types of genetic data are off-limits for employers, even though the likelihood of employment- or health-related discrimination based solely on the former would seem to be nearly nonexistent.

Following our analogy, only those few with access to the right databases could cross-reference your Social Security number to obtain your tax records or other personal, private and descriptive information relating to your health or socioeconomic status. Similarly, only those few with access to the right databases could obtain genetic information relating to your health based through cross-referencing your identifying DNA information. While trends in consumer-oriented genetic testing may eventually make such medical databases more accessible to the general public — raising the potential for private descriptive data disclosure — we are still years away from that reality. It is also unlikely that the law is that forward-looking.

Returning to the idea of DNA exceptionalism, there are no federal laws preventing employers from conducting other non-DNA forensic analyses to identify individuals. Furthermore, only a few jurisdictions limit an employer's ability to collect other biometric data, such as retina scans, on their employees, even though they are essentially equivalent to DNA in regard to providing identifying information. In fact, fingerprinting seems de rigueur in many standard employment processes.

Ironically, this judicial expansion of GINA's scope could be self-defeating: In further exceptionalizing DNA and conflating its identifying versus descriptive powers, we run the risk of exacerbating society's uneasiness with groundbreaking DNA technologies — completely counter to the intent of GINA — and perhaps even hampering new developments in these areas.

Dov Greenbaum is a professor in molecular biophysics and biochemistry and Mark Gerstein is the A.L. Williams Professor of biomedical informatics at Yale University. To comment, submit your letter to the editor at www.sfgate.com/submissions.