

Genetic test for toxic exposures tapped to fight workers comp suits

By LOUISE ESOLA
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New DNA technology could help reduce baseless lawsuits aiming to collect money for alleged toxic exposure, especially in the workers compensation arena, according to one of its developers.

Los Angeles-based Cytokine Institute, a genomics consulting group, is now boasting DNA tests that can prove whether a person has been exposed to a chemical agent—anything from asbestos to mold—and whether a chemical agent caused an illness.

The test could be beneficial for insurance companies and industries that have faced numerous lawsuits seeking huge amounts of damages for injuries that were allegedly caused by toxic exposures that for the most part haven't actually been proven, according to Dr. Bruce Gillis, chief executive officer of the Cytokine Institute.

So far the test has been peer-reviewed in two journals: *Genomics and Environmental and Molecular Mutagenesis*.

"It should eliminate frivolous lawsuits and for the insurance companies, that's going to be a huge savings. (Personal injury) attorneys who've made a living churning out these cases for fees won't like this (technology) because it provides a definitive answer."

Essentially, the tests can determine whether a harmful chemical substance is present in a person's DNA strands, which can act as the body's record-keeper for illnesses and exposures to substances, Dr. Gillis said. Cytokine's test works by tracking the release of cytokines, or proteins that are shed by DNA when cells are exposed to toxic substances. Dr. Gillis claims the test can determine whether a specific illness or even chronic pain has been caused by exposure to a toxic substance.

For example, if someone claims that their cancer was caused by exposure to mold, the Cytokine test can determine with 99.9 % accuracy whether that person was exposed to mold and whether that mold caused injury, he said.

Cytokine's tests, which were developed over two years at the University of Illinois College of Medicine in Chicago, cost between \$6,250 and \$12,500, depending on the test given.

Changing the platform for injury and workers comp lawsuits, however, was a byproduct of Cytokine's tests, according to Dr. Gillis. "We wanted to give people accurate diagnoses for proper treatment," he said. "We never intended to get involved in litigation."

The technology, which was made public in mid-2007, is already at work in two dozen workers comp cases, according to Dr. Gillis, who is scheduled to present his work to the American Bar Assn. in March 2008. Dr. Gillis said the tests exceed all the statute requirements for DNA evidence in court.

At least one of the cases has been dramatically affected by Cytokine's test, according to Neal Jardine, an attorney with the Los Angeles-based firm of Zurawski Jardine & Houston hired by Boston-based Liberty Mutual Group Inc. to fight a workers comp case in which an employee who worked as a tire retreader for more than 20 years claimed his cancer was caused by exposure to benzene, a colorless toxic liquid used in the manufacture of industrial chemicals, dyes and polymers.

According to Mr. Jardine, the worker's attorney dropped the suit after the Cytokine test showed the employee's cancer was not caused by benzene.

Still early in its use in the courts, Cytokine's test "has the potential to change workers comp claims forever," he said. "These tests provide a more appropriate standard of proof. They are not anecdotal; (results) are objective."

Dr. Gillis added that the test could help validate claims and furthermore, alter material safety data sheets, or information sheets designed to provide workers with the protocol for working with hazardous materials. The sheets include information on the toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill/leak procedures of various chemicals.

"If there is any new information about hazards companies are facing, this would be important data to add to those sheets," said Dr. Gillis. "If you are a legitimate, honest company, I think that (DNA testing) is something you may want to pursue to add to those sheets."

From a law perspective, the MSDS sheets have long been used in court battles, said Mr. Jardine. And the problem has long been that the health hazards and concerns listed on those sheets are often the result of animal studies, he said.

"While these sheets have always been informative, they have never served as a real causal analysis," he said. "DNA tests are a world apart from MSDS testing."

As for privacy issues that stem from collecting a worker's DNA, Dr. Gillis said Cytokine does not disclose a person's genome or DNA.