Gene Codes Daunting Task

Company Charged With Identifying Victims From DNA

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ANN ARBOR, Mich. (AP)

An Ann Arbor software company has had the daunting task of identifying victims from the Sept. 11 attacks on the World Trade Center.

The city of New York hired Gene Codes Corp. to match DNA extracted from 20,000 pieces of human bone and tissue at Ground Zero to the list of 2,801 missing persons.

``We had the software working for the first time,'' owner Howard Cash told the Detroit Free Press for a Wednesday story. ``I can remember being in front of the computer, matching 40 pieces of one person to the DNA from his toothbrush."

``That was a very emotional moment for me. I suddenly realized I had 40 pieces of the same guy here, the same man, and I know who it is, and at this particular moment in time, I'm the only person in the world who knows that.''

The collapse of the towers a year ago had burned bodies so badly that most could not be identified by dental records or other typical means. However, New York officials vowed to identify and return as many human remains as possible to the families of victims.

As of Tuesday, the New York medical examiner had identified 1,402 Ground Zero victims. Most identifications had been made by matching DNA from Ground Zero remains to DNA from victims' relatives or from victims' personal effects such as toothbrushes and razors.

With the assistance of Cash's software and advances in chemical extraction of DNA from tiny samples, the medical examiner hoped to ultimately identify 600 more victims.

The computer program sorts and compares data from three different types of DNA tests on 20,000 partial human remains, to DNA from 3,000 cheek swabs of victims' kin and 8,000 personal effects.

Last October, Dr. Robert Shaler, director of forensic biology for the Chief Medical Examiner's Office in New York, challenged Gene Codes to take on the identification project.

Cash hired a dozen new people and put nearly the entire company on the project. They delivered the first version of the system, called MFISys, on Dec. 13. The New York medical examiner made 55 positive identifications from DNA matches that day.

Shaler and his staff continue to identify a few more victims each day using the software provided by Gene Codes. Every week Cash flies to New York with a new software update and trains Shaler's staff on the new tweaks. They are currently using the 37th version of the software.

Before the Sept. 11 disaster, Gene Codes software products had been used by the U.S. Army and the FBI, for testing old war remains and helping law enforcement match DNA samples taken from crime scenes against the DNA of known criminals.
The attitude at Gene Codes has shifted from laid-back to high-intensity. They still don't wear ties at Gene Codes, but the place is very much all business.

``If the computer system crashes, we can fix that,'' Cash said. ``But if we make a wrong ID and someone has to go to a family and say, 'I'm sorry, that wasn't your mother or your son' and ask for the remains back, there's a family that will never get over that, and will hate us and curse us until the day we die.

``So, there's a level of fanaticism about quality control here.''

Gene Codes has a 3-year, $10-million contract with New York, but Cash said he expected to bill only $3.5- to $4-million. His staff of 29 is salaried, and only in the past couple of months have they received extra pay for the extraordinary hours.

``We'll cover our costs and maybe a little beyond, but the real hit is in taking resources away from the rest of our business,'' Cash said.

Cash said he was not sure what was in store for Gene Codes when the project was completed. Nine countries have asked about ordering the system.

``This is the most important thing I'll ever do in my professional life,'' Cash said.