

From web; Technology@ugusta

DNA labs offer new test of family ties

Web posted Mar. 19 at 12:21 AM

Associated Press

SEATTLE - At the GeneLex lab in Seattle, they like the story of Abigail and Richard.

When it begins, Abigail, a 58-year-old California lawyer, has spent her whole life believing she is the only child of a politically important father, now dead. Meanwhile, Richard, a 37-year-old engineering student in Washington state, follows family rumors and contacts Abigail, telling breaking the news that she may be wrong. Much talking, investigating, and tracking down and interviewing of family friends follow. Finally, the two decide to settle the question once and for all - by DNA testing.

To the lab they come, ready to give blood, and bearing a surreptitiously snatched wheezed-and-sneezed-upon tissue discarded by Abigail's mother. Having Abigail's mother's DNA, the lab tells them, will greatly assist in reconstructing her father's genetic profile.

Last month, the story proved to have a happy ending - or maybe a happy beginning. Richard, it turns out, is Abigail's half-brother, sired by a philandering father who kept his secret to the grave. They're both delighted - if stunned - by the revelation, and vow to become real siblings to each other.

Abigail and Richard, for now, have chosen not to reveal their true identities. Like a lot of people who suddenly find their family tree has sprouted a few new branches, they aren't sure yet they want the world to know. Abigail's mother and Richard's stepfather - who believes he's Richard's biological father - are not only elderly but blissfully ignorant of their children's quest. And GeneLex can be trusted to keep the secret - so much so that it won't even tell if someone's been in for testing.

One secret that's fast getting out, though, is that DNA tests aren't just for the O.J. Simpsons of the world. While often a key element of criminal cases, DNA tests also are increasingly being used to sort out family members' kinship issues, and the number of such tests is on the rise nationally. The tests might answer questions about which man fathered a baby, or put an end to family rumors that one sibling was adopted or had a different father.

"We see a lot of middle-aged folks coming in and asking, 'Are we full siblings or half-siblings? Mom won't talk about it, but there are family rumors,'" says GeneLex President Howard Coleman.

DNA testing is not a medical test, and at GeneLex, a physician isn't needed unless the test requires a particular medical procedure such as drawing amniotic fluid.

Some cases just walk in the door. Coleman recalls the elderly couple who brought in their two adult children - in their 50s - for tests. "Mom says, 'You know, we were always kind of wild in our younger days,'" he said. "We did the tests. And neither of these kids were his."

More typically, a father walks in with the child for whom he's been paying support - a test that makes up about 10 percent of the company's business.

Other times, cases come through the state welfare agency, police, prosecutors, doctors, lawyers or insurance companies. For example, there was a case that used a 17-year-old Band-Aid.

It began with the death of a 17-year-old boy in a car crash. After a six-figure insurance settlement, the mother's first husband came forward. The mother was virtually positive another man, whom she later married, was the boy's father. But under the law, the first husband was considered to be the father, and he wanted his share of the money.

None of the boy's blood was available for testing. And the GeneLex sleuths weren't able to get enough DNA from his clothing.

"You know," the mother finally offered, "I have the Band-Aid from baby's first shot."

Bingo! The test proved that, in fact, the boy was the second husband's child.

Paternity tests make up the lion's share of the 10-year-old company's business, Coleman says.

One third of their tests exclude the alleged father from paternity, Coleman says. Statistics from medical genetics labs, where patients go to track genetic diseases, show that between 12 percent and 15 percent of

the fathers of record are not the biological fathers, says Coleman. He says he believes that figure is probably on the low side when applied to the general population.

GeneLex's brochure, which someone like Abigail or Richard might encounter in a lawyer's or doctor's office tells the story. The picture shows a photogenic baby while the caption gets to the point: "Whose child is this? A question that tugs at the heartstrings ... and the purse strings."

In Houston, a DNA-testing company, Identigene, has begun advertising on billboards around the country.

"Who's the father?" the ads read, along with a 1-800 phone number.

While other labs, including GeneLex, aim advertising at lawyers or doctors, Identigene President Caroline Caskey says some people don't want to ask their doctor, their attorney or their friends what to do when they wonder where little Billy got that red hair.

Besides making it easy to ask that question with the toll-free number, Identigene also makes it easy to surrender your DNA. Using a new technology known as PCR (for polymerase chain reaction), Identigene can gather DNA with a cheek swab.

Coleman says GeneLex is in the process of switching over to the PCR testing, which can turn around tests in a week but is more sensitive to contamination. For now, most noncriminal tests are done on blood, using a different method, and take three to six weeks.

A paternity test, involving mother, father and child, costs about \$600. Other more complex tests can cost \$1,500 or more. Welfare cases are typically paid for by the state and federal government, but other cases must be paid out of pocket by clients.

At any one time, three or four of the tests under way at GeneLex involve inheritance disputes, says Coleman.

Typically, a case involves a deceased father with a large estate. "All these people come out of the woodwork saying, 'Gosh, you know, he was my dad, and my mother told me this 30 years ago,'" says Darlene Woodcock, a GeneLex client-service representative.

Some wealthy people think ahead, notes Brian Andreola, GeneLex business development manager. "If someone's ill and older, worth a great amount of money, and the family thinks somebody may come out of the woodwork later, they can have their blood and DNA stored here and they can have testing done later on."

Even if no DNA has been set aside, it's possible to get it from a buried body as much as five years after death, Coleman says. And dried blood is testable much longer than liquid blood, which may stay stable as long as six to eight months if refrigerated, perhaps 10 years if frozen.

Exhumation is often an issue for "war babies" looking for their fathers, Coleman says. One man who asked for testing said he believed he was one of many children fathered by U.S. soldiers in World War II who are now trying to establish paternity, some because they want to immigrate to the United States.

GeneLex has seen a boom in immigration-related testing, says Woodcock. The typical case involves an immigrant family who wants to bring over another family member. The U.S. Immigration and Naturalization Service requires proof that the person is, in fact, a family member, and often records are missing.

Sometimes, the push for testing comes not from the child, but from another family member.

Woodcock recalls a case in which she was contacted by an elderly woman. Her husband, she told Woodcock, had had "a fling" in World War II in France. Now a 50-year-old man was claiming to be her husband's son. Her husband, who was near death, agreed to be tested. If tests proved the man was her husband's son, she said, they would include him in the will. "Everybody makes mistakes," the wife told Woodcock. "If my husband did this, why should the child have to suffer?" Tests showed the husband was the man's father.

Another type of case involves adoption. In the newest twist, people adopting a child are insisting that the alleged father submit to paternity testing so they know that when he signs off on the adoption it will be legal, Coleman says. "They want to know that some guy is not going to come out of the woodwork in the future and say, 'Hey, you know, you folks have my kid.'"

The simplest kind of test involves mom, dad and child. Since each person has two copies of their genetic information, half from each parent, any gene that didn't come from the mother must have come from the father. If the alleged dad doesn't have the gene, he can't be the father.

More difficult cases involve missing or deceased fathers or other family members. Test results are usually expressed as a percentage, and that goes up dramatically if enough family members can be tested, Coleman says. "If there are just two people, we can never absolutely exclude the possibility that they're related" without DNA from other family members, he notes.

In the case of Richard and Abigail, DNA testing worked like this: Because the lab could identify the genes Abigail inherited from her mother (from the saliva on the purloined tissue), it knew that everything else in her genetic profile came from her father. On Richard's side, another half-sister (with the same mother) was tested, so the lab could identify which of Richard's genes came from his mother. The lab found that genes Richard got from his father matched those that came from Abigail's father, which meant there was an extremely high probability - 19 million to one - that the two fathers were the same man.

Tests GeneLex can't do include one requested by a man who wanted his dead cat tested to determine if it was part of a particular litter. He wanted to sue the person who had killed his cat, and he wanted to prove that the cat was a member of an award-winning feline family.

"We don't do animals," says Allison Garrison, another client-service representative. "We refer them out. Way out."

GeneLex's client-service representatives, who work the phone and deal directly with clients, have to be part scientist and part social worker.

Most people need a little soothing when they finally arrive at the lab, the representatives say. Some are still smarting from the fight that produced the memorable and apparently oft-said line: "Well, you know what? You're not the father anyway, so what do you care?"

Often, though, what clients feel at the outset is slight emotion compared with what they feel when they get the results.

The best cases are ones in which people tell them, "You've made my life!" says Woodcock.

Others aren't so easy. Some fathers, says Coleman, won't believe the results no matter how many tests are done, although results are rarely disputed in a court of law.

Do the folks at GeneLex worry about telling a man that he's not the biological father of his child?

"Usually, I tell the client that 'father' is an action word," says Woodcock. "Father vs. sperm donor."

"I think the fundamental premise we operate on here is that we're looking out for the kids," Coleman says. "Because it's very clear to us from getting all these calls from older people, and doing the tests when the kids are growing up and such, that it's something that it's good to get settled early on. It never goes away."

Richard, the happy half-brother of Abigail, could have told them that.

He says he's found the "missing puzzle piece" in his life. "We've got 37 years of catching up to do."

For her part, Abigail is literally re-writing her family history in a book about her newly constituted family. "It's really wonderful," she says.

Now the former only child is trying to learn what being a sibling is all about, "and how you feel about them," she says. "I'm mystified by it all."