

Medicine

ON THE MIDWAY



What
makes
US
human?

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**Geneticist
Rick Kittles,
co-founder
of African
Ancestry Inc.**
*Photo by
Dan Dry*

“I wanted to know where I came from”

Searching for genetic origins

by Suzanne Wilder

Like many African Americans whose ancestors came to the Americas during slave trade, Rick Kittles wondered for years about his genetic origins. But the University of Chicago professor and researcher had more tools than most people for tracking down his ethnic origins: Kittles has a PhD in biology and specializes in genetic research.

Using genetic databases with samples taken across modern Africa, Kittles cross-referenced a sample from himself and found that his ancestors shared genes with Africans who now live in Nigeria. He also found genetic lines that connected with other parts of Africa and Europe.

“My ancestry isn’t that much different from other African Americans,” he said, noting that about 30 percent of men who

are tested find European lines in their paternal DNA.

With a personal curiosity about his ancestors, Kittles co-founded African Ancestry Inc. in 2003 to provide answers for people exploring their roots. Kittles, 41, is clear about why he started the company: “It was for selfish reasons,” he said. “I wanted to know where I came from.”

The business uses a DNA sample from the client—obtained with a simple swipe inside the cheek—to find genetic matches in a database of more than 11,000 paternal and 13,000 maternal genetic lines. A match indicates that an individual shares a common ancestor with people in Africa; the results show the countries and even specific tribes with those connections.

Kittles now serves as scientific consultant for the company, which charges customers \$349 to trace ancestral lines on either the maternal mitochondrial DNA or the y-chromosome DNA, possible only for men. The y-chromosome and mitochondrial DNA pass down identically from generation to generation.

Media mogul Oprah Winfrey and scholar Henry Louis Gates are among the company's high-profile customers, although African Ancestry Inc. attracts a wide-ranging clientele.

"I had been searching for DNA labs for two or three years before I found African Ancestry," said Barbara Morrison-Rodriguez, PhD, a 59-year-old consultant in Tampa Bay, Fla. In early 2005, she used samples from several relatives to trace six of her eight great-grandparents.

"It was like opening an Academy Award envelope," she said of receiving the results, which showed she had connections to two tribes in Sierra Leone and others in Nigeria and Mozambique. "I was thrilled. I was absolutely thrilled."

Since then, Morrison-Rodriguez has visited Sierra Leone and connected with a village that shares her Mende tribe roots. She's also started a nonprofit organization that helps provide education and nurses in the village of Senehun Ngola, Sierra Leone.

"It's been an interesting journey," she said. "I'm hoping more people will take the test."

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Kittles worked with ancestry and lineage before starting African Ancestry. His PhD thesis at George Washington University analyzed genetic population clusters in Finland based on databases available to him at the time. Later, at Howard University, he helped with the African Burial Ground Project, which tested DNA samples from skeletons at a New York City cemetery to verify that the site was used for Africans or their descendants.

For Kittles, the company is a sideline. His primary work is research on the genetic markers of prostate cancer. His bachelor's and master's degrees, from Rochester Institute of Technology and State University of New York-Brockport, respectively, are in biology.

The University of Chicago, where he started working in August 2006, held a particular draw for him because his research focuses on African-American men and the rates of prostate cancer in that population. The demographics of Chicago provided more research data than did Columbus, where he previously worked at Ohio State University.

As he continues his research, Kittles sees great potential for growth in the field of human genetics, particularly as it ties to prostate cancer. "I think there will be major advancement in the next 10 years," he said. "The technology is rapidly advancing."

