

Anonymous sperm donor traced on internet

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LATE last year, a 15-year-old boy rubbed a swab along the inside of his cheek, popped it into a vial and sent it off to an online genealogy DNA-testing service. But unlike most people who contact the service, he was not interested in sketching the far reaches of his family tree. His mother had conceived using donor sperm and he wanted to track down his genetic father.

That the boy succeeded using only the DNA test, genealogical records and some internet searches has huge implications for the hundreds of thousands of people who were conceived using donor sperm. With the explosion of information about genetic inheritance, any man who has donated sperm could potentially be found by his biological offspring. Absent and unknown fathers will also become easier to trace.

The teenager tracked down his father from his Y chromosome. The Y is passed from father to son virtually unchanged, like a surname. So the pattern of gene variants it carries can help identify which paternal line an individual has descended from and can also be linked to a man's surname.

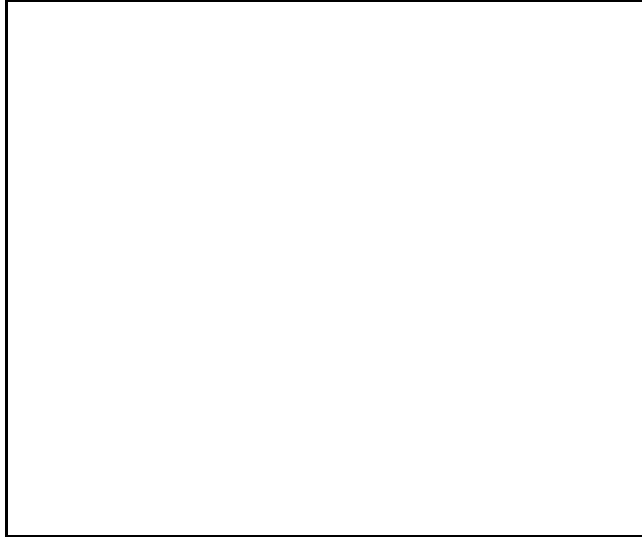
The boy paid [FamilyTreeDNA.com](#) \$289 for the service. His genetic father had never supplied his DNA to the site, but all that was needed was for someone in the same paternal line to be on file. After nine months of waiting and having agreed to have his contact details available to other clients, the boy was contacted by two men with Y chromosomes closely matching his own. The two did not know each other, but the similarity between their Y chromosomes suggested there was a 50 per cent chance that all three had the same father, grandfather or great-grandfather.

Importantly, the men both had the same last name, albeit with different spellings. This was the vital clue the boy needed to start his search in earnest. Though his donor had been anonymous, his mother had been told the man's date and place of birth and his college degree. Using another online service, [Omnitrace.com](#), he purchased the names of everyone that had been born in the same place on the same day. Only one man had the surname he was looking for, and within 10 days he had made contact.

"This is the first time that I know of it being done," says Bryan Sykes, a geneticist at the University of Oxford and chairman of [OxfordAncestors.com](#), a genetic genealogy service. The case raises serious questions about whether past promises of anonymity can be honoured, he says.

Around 1 in 800 births in 2002 and 2003 in the UK were the product of donor sperm, according to the Human Fertilisation and Embryology Authority, a public body that regulates fertility technologies. And an estimated 25,000 people have been born from donated sperm in the UK in the past 15 years. Also, around 90,000 donor inseminations take place in the US annually, although not all result in pregnancies.

In the UK and various other countries, sperm donors must now allow their identity to be revealed to their children once they reach a certain age, but in the US most sperm donors are still anonymous. "Sperm banks are recruiting donors and promising them anonymity," says Wendy Kramer, the mother of a donor child and founder of [DonorSiblingRegistry.com](#), an online service



that matches donor offspring with their half-siblings. "I don't think that's a valid promise any more."

As more genetic information becomes available online, finding a donor father can only get easier. [FamilyTreeDNA.com](http://www.familytreedna.com) is running 2400 projects to trace particular surnames and has a database of over 45,000 Y chromosome signatures. The Sorenson Molecular Genealogy Foundation, based in Salt Lake City, Utah, promises to go even further. It is recruiting people from around the world and hopes to compile a database of about 500,000 representative individuals, with confirmed pedigrees going back at least four generations. The foundation will keep a database of information on Y chromosome markers, mitochondrial DNA (passed down through the maternal line) and 170 other genetic markers.

The news will be especially unsettling for men who donated anonymously before the power of genetics was fully appreciated. Donors were often college students who traded their sperm for beer money. Many have not told their wives or children and have never considered the implications of having a dozen offspring suddenly wanting to meet them. "The case shows that there are ethical and social concerns about assisted reproduction that we did not think about," says Trudo Lemmens, a bioethicist at the University of Toronto, Canada.

And the implications go beyond offspring searching for their genetic fathers. "The DNA could have come from a crime scene," says Sykes. Police could perform similar searches to identify a criminal's surname, giving vital leads in a case. "There are tremendous forensic ramifications," he adds.

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