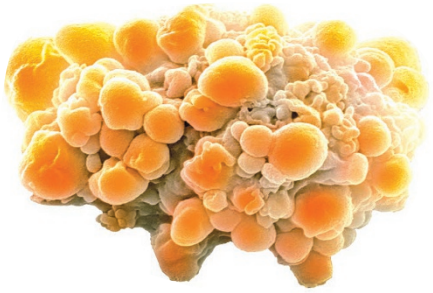
used in countless investigations that have yielded around 2,000 scientific papers.

The enthusiasm for U87 initially puzzled Bengt Westermark, a tumour biologist at Uppsala. As a graduate student in the 1970s, he studied eight different brain-cancer cell lines. U87 was "hopeless to work with", he says, because it grew much more slowly than the others.

Years later, Westermark got his hands on the version of U87 that is distributed by the American Type Culture Collection (ATCC), a cell repository in Manassas, Virginia. He could see from the cells' growth properties that this U87 was clearly different from the cells that gave him so much grief in graduate school. Westermark decided to do a formal comparison.

Fortunately, Uppsala had preserved the tumour tissue that spawned the original cell line. This enabled Westermark's team to verify the identity of the archival U87 sample in their freezer. The researchers then used DNA-fingerprinting techniques to show that the ATCC's U87 was different — and that it didn't match any other cell lines created at Uppsala.

Mindy Goldsborough, ATCC's chief science and technology officer, says the repository acquired its U87 line in 1982 from the Memorial Sloan Kettering Cancer Center in New York City, which itself received the cell line from Uppsala in 1973. By the time it arrived at the ATCC, U87 had a Y chromosome — even though it was said to have come from a woman. This suggests that the mix-up probably happened at Sloan Kettering or during one of the hand-overs.



STEVE GSCHMEISSNER/SPL

The cell line U87 came from a glioma similar to this tumour, but beyond that its origin is unknown.

In light of these revelations, the ATCC plans to update the background details in its listing for U87, which it describes as male. But the origin of the U87 line remains a mystery.

Westermark's team has conducted a comparison of gene-expression profiles that suggests that the ATCC cell line came from a brain tumour. "It's bad news that it's not what it should be," he says, "but it's good news that it's probably a glioblastoma." This means that studies of U87 still reflect brain-cancer biology and don't need to be tossed out, he adds.

Still, many cancer researchers think that it is time to move beyond U87 and other 'classical' cell lines — regardless of their origins — because the culture conditions historically used to grow the cells change their biological nature. Westermark and others now favour newer cell lines that have been propagated on the types of growth medium that ensure genetic and epigenetic stability. Through its Human Glioma Cell Culture biobank, Uppsala provides these sorts of cell to other researchers for a small processing fee.

"What we've historically used is so poorly representative of the human disease," says Howard Fine, a neuro-oncologist at the Weill Cornell Brain Tumor Center in New York City. "So, any time someone can shoot down the [U87] cell line, I'm happy." ■

CORRECTIONS

The News story 'Who will build the next LHC?' (*Nature* **536,** 383–384; 2016) should have said that souping up the current LHC would take it to an energy of 28 TeV, not 20 TeV. And the News Feature 'Digital DNA' (*Nature* **537,** 22–24; 2016) gave an incorrect size for the 2013 EBI files. The correct figure is 739 kilobytes, not 739 kilobases.