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YOUR genes are the same, whether in a test tube or your body. But the very act of removing them makes them a patentable invention, decreed Australia’s Federal Court last week.

By isolating a human gene, an “artificial state of affairs” has been created, making the gene patentable, said Justice John Nicholas.

The ruling relates specifically to a patent for a series of mutations in the BRCA1 genes, associated with a raised risk of breast and ovarian cancer. Tests for the genes can help determine the likelihood of someone developing the diseases.

The patent, filed by Myriad Genetics in 1994, in principle gives the company exclusive rights to perform such tests in Australia. The firm’s patent was later contested by Cancer Voices Australia, a patient advocacy group, and Yvonne D’Arcy, who had previously had breast cancer.

The decision raised eyebrows. “It is difficult to think of the circumstances where an artificially created state of affairs would not exist whenever there is some form of human intervention,” says Dianne Nicol at the University of Tasmania, Australia.

The ruling comes two months before the US Supreme Court will hear an appeal over a similar case between Myriad and the American Civil Liberties Union, which was awarded in favour of Myriad in a lower court in 2011. AMS launched on the last flight of the space shuttle Endeavour in May 2011, with the goal of catching whiffs of exotic matter. That includes dark matter, which supposedly makes up about 80 per cent of the universe’s matter. According to leading theories, it is made of as-yet-undetected particles called WIMPs, or weakly interacting massive particles.

These WIMPs should collide in space, destroying each other in a puff of electrons and their antimatter partner, positrons. So if AMS picks up more positrons than expected from normal processes, that would suggest the presence of dark matter.

Ting wouldn’t say whether or not AMS has seen such a signal, but did reveal that it has detected 7.7 billion electrons and positrons. That should be enough to suggest, or rule out, a signal at lower energies. “There’s no such thing as disappointing,” said Ting, who plans to submit the work for publication in about two weeks.