Supreme Court: Scientists Can't Patent Naturally Occurring DNA

BY ALEX FITZPATRICK JUN 13, 2013

Scientists can't patent naturally occurring DNA, the Supreme Court ruled Thursday in a crucial case that will define the legal limits of the emerging biotech industry. However, the court decided that patents can be filed for synthetically created DNA, or cDNA.

The Supreme Court's decision is rooted in a long-upheld bedrock of American patent law: naturally occurring phenomena cannot be patented.

"...we hold that a naturally occurring DNA segment is a product of nature and not patent eligible merely because it has been isolated, but that cDNA is patent eligible because it is not naturally occurring," Justice Clarence Thomas wrote in the court's unanimous decision.

The case, Association for Molecular Pathology v. Myriad Genetics, pitted a combination of researchers and activists against Myriad Genetics, a research and testing company that developed a genetic test to help women better understand their risk of developing breast or ovarian cancer.

Myriad developed the procedure after isolating two parts of the human gene sequence, in which mutations are indications that a woman is more likely to develop those cancers. The company registered patents on those genes, named BRCA 1 and BRCA 2.

Myriad said its ability to patent its genetic discoveries incentivized the company's ongoing development of new genetic tests and other work. However, the researchers and activists that

sued Myriad argued patenting the very essence of humans' biological code prevents medical patients from seeking second opinions and blocks scientists outside Myriad from studying the company's discoveries in the interest of contributing to our larger public understanding of genetics.

Myriad downplayed those claims, but its arguments ultimately did little to affect the court's decision.

"It is undisputed that Myriad did not create or alter any of the genetic information encoded in the BRCA1 and BRCA2 genes," Thomas wrote.

"The location and order of the nucleotides existed in nature before Myriad found them."

"The location and order of the nucleotides existed in nature before Myriad found them."

The case will likely serve to guide the biotechnology industry for years to come: Companies like Myriad will not be able to patent their discoveries in the human genome itself, but will be allowed to protect modified synthetic DNA based on natural DNA.