

In the news

CRISPR PATENT RESULTS

The CRISPR–Cas9 gene-editing technology was developed from prokaryotic defence systems and has been widely adopted for genome editing in eukaryotes. A controversial battle has been waging in the United States between the Broad Institute in Cambridge, Massachusetts, and the University of California, Berkeley, in regard to who owns the intellectual property rights to the technology. Now, the US Patent and Trademark Office (USPTO) has made a landmark ruling ([Nature](#), 15 Feb 2017), upholding a series of patents that were originally awarded to the Broad Institute in 2014.

The dispute began in 2012, when Jennifer Doudna, from the University of California, filed a patent for a CRISPR–Cas9 system that showed it could be used to modify specific regions of bacterial DNA. Later in the same year, Feng Zhang, from the Broad Institute, filed for, and was granted, a patent for the same technology ([Nature](#), 6 Dec 2016). However, this patent was different, as it showed that CRISPR–Cas9 could edit the complex genomes of eukaryotic cells. Berkeley attempted to get the Broad Institute patents thrown out, arguing that their researchers developed the technology first. However, the lawyers representing the Broad Institute successfully argued that the patent filed by Berkeley did not specify how CRISPR–Cas9 could be used in eukaryotic cells.

Eukaryotic gene editing using CRISPR–Cas9 has many potential applications in agriculture and medicine. One controversial use of this technology would be to modify human embryos, thus engineering traits that could be passed on to future generations. Now, a science advisory group formed by the US National Academy of Sciences and the US National Academy of Medicine has endorsed human embryonic genome editing to prevent serious disease and disability ([New York Times](#), 14 Feb 2017). This might pave the way for medical use of CRISPR technology to prevent heritable diseases.

Shimona Starling