

Patent Awards Give Berkeley a Needed Gene-Edit Boost

By Greg Langlois

Posted June 21, 2018, 9:00 AM

- California university had been shut out of CRISPR patent, court victories
- Gene-editing technology seen as potentially transformative, lucrative

The University of California, Berkeley, is on the board in the ongoing U.S. patent contest over CRISPR-Cas9 gene-editing technology, but it's still behind and it's not clear it can catch up.

The U.S. Patent and Trademark Office awarded the school two patents on the technology, one June 19 and one June 12—the first ones it has secured on a technology it asserts its researchers invented. But winning a court battle with the Broad Institute, a Massachusetts Institute of Technology and Harvard University joint venture, likely remains the best way for Berkeley and its partners to find success in the U.S. CRISPR market.

CRISPR, or clustered regularly interspaced short palindromic repeats, allows scientists to splice targeted genes, disabling or removing them and potentially leading to cures for inherited diseases and cancer, among other applications. Analysts call it one of the most important inventions in recorded history and cite a potential value of billions of dollars.

Legal Fight

Berkeley says its team of scientists, led by Jennifer Doudna, first detailed in a 2012 article how CRISPR-Cas9 can make precise alterations in the DNA of bacteria, plants, and animals. The school hadn't, until now, secured a patent on the technology, but it has been engaged in a legal fight with Broad over patents MIT, Harvard, and Broad have obtained. The patents awarded to Berkeley likely aren't as valuable as what Broad has at the moment, Brent Babcock, an intellectual property partner with Knobbe Martens in Irvine, Calif., told Bloomberg Law in an interview.

"From my read, these have some commercial value but they're not the broad patents that are being fought about in the interference and up in the Federal Circuit," Babcock said. Interference proceedings are patent disputes heard by the PTO's Patent Trial and Appeal Board.

In the interference proceeding, Berkeley argued it was the first to invent the technology a Broad patent covers and therefore should have priority rights to it over Broad. Under the law at the time, the first to invent, not the first inventor to file a patent application, received first priority. UC Berkeley's team submitted a patent application in March 2013. An MIT inventor filed an application later that resulted in a patent first, in April 2014, which was licensed to MIT and Broad. Numerous other patents have been awarded based off of that one.

The PTO's patent appeal board said it didn't have to decide who was the first inventor because the technology the Broad team's patent covered didn't simply overlap with Berkeley's CRISPR invention as laid out in the California university's patent application. Berkeley appealed the decision, but the Federal Circuit generally doesn't disturb the patent appeal board's factual determinations.

"I think there's going to be more interferences coming because a lot of these patents are going to overlap," Babcock said. "I think that first interference that's up on appeal right now is going to be the first of several that'll be taking place as companies look to not only obtain their patents but knock out their competitors' patents."

Better Position

The patent awarded to Berkeley June 19, U.S. Patent No. 10,000,772, is a continuation of its patent application involved in the Federal Circuit case, but the new patent won't impact how that case gets resolved. Regardless of how valuable the new patents Berkeley now has turn out to be, "[at] the end of the day, it's always good to get the patent issued," Mayer Brown intellectual property partner Brian Nolan told Bloomberg Law in an interview.

"That has at least put UC Berkeley in a better position than it was before the patent was issued," he said. "It strengthens their position and it puts them in a position to potentially negotiate."

"I think everyone believes that it's going to be a transforming technology," he added. "And so it's always helpful to have some of the foundational patents if it really becomes the technology by which a lot of these disease states are treated."

Berkeley and its partners, like other players in the CRISPR field, are working to "stake their claim and get as much as they can covered" by patent protection, Babcock said.

"When we're developing a patent strategy for clients, you try to build this impenetrable wall where you have different bricks, some big, some small, to make it really hard to practice without stepping on one or more patents," he said.

Expect more patents to issue and to make the CRISPR landscape "more complicated for people to practice in that field," Babcock said.

"It's really a very very hot and competitive area for protection," he said. "I think everybody's trying to build their domain, and so to practice this technology you might end up having to license multiple entities depending on what the scope of the protection is."

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