ROBERT F. BUKATY/AP

Transgenic mice were the subject of a recent patent-licensing fight in the United States.

POLICY

Congress seeks to quash patent trolls

Revised legislation would spare universities from being penalized in the same way as unscrupulous companies.

BY HEIDI LEDFORD

Predatory 'patent trolls' could soon find it harder to operate in the United States. Legislation to curb frivolous patent lawsuits has regained momentum after lawmakers in the US Senate added a provision to stop university patent holders from being penalized along with the trolls.

The process is moving quickly. The Senate Judiciary Committee plans to vote on the bill by the end of the month, readying it for a final Senate vote this summer, and the House of Representatives' Judiciary Committee is likely to vote this week on a similar measure. That gives observers optimism that Congress will finally enact patent-troll legislation after a failed effort last year. "The Senate version really does seem to be hitting some sort of sweet spot," says Arti Rai, co-director of the Duke Law Center for Innovation Policy in Durham, North Carolina.

Patent trolls are 'non-practising entities' that accumulate patents with no intention of turning the inventions into marketable products. Many of these firms exist solely to enforce their patents, threatening other companies with lawsuits if they are not paid handsome licensing fees. The legal strategy is often a low-risk endeavour, because many patent trolls are shell corporations that are only loosely affiliated with larger firms — and so do not have the financial assets that would support large awards to opponents should they lose a suit.

Congress, urged on by lawsuit-weary high-technology companies and the administration of US President Barack Obama, is trying to fight these kinds of trolls. Non-practising entities filed 63% of all US patent-infringement lawsuits in 2014, and cost operating companies an estimated US$12.2 billion in legal fees, settlements and judgments, according to RPX, a consultancy in San Francisco, California.

To fight the shell corporations, in February, several members of the House introduced a bill that would hold all owners of a patent liable for opponents' legal fees if the owners lose a patent-enforcement suit. That would mean that the parent firm could be compelled to pay, making nuisance lawsuits more costly — and a higher risk — for trolls.

But the requirement would also have extended to universities, and could have threatened their ability to defend their own patents. Universities, too, are non-practising entities because they patent inventions but often do not directly commercialize them. Instead, they charge other companies for the right to turn those patents into products. The Senate is addressing that problem by introducing a bill that exempts institutions of higher education.

But some legal scholars have raised eyebrows at the carve-out. "Universities aren't exactly coming to this argument with clean hands," says Tania Bubela, who analyses health and biotechnology law at the University of Alberta in Edmonton, Canada. Universities sometimes license their patents to other non-practising entities, including some that are widely considered to be trolls (see *Nature* **501,** 471–472; 2013). But, she says, the Senate legislation only skims the surface of the problem. "They're not addressing the root issue, and that is the mess that is patent examination at the US Patent and Trademark Office," she says.

The US patent office is often criticized for granting patents too readily, resulting in a gnarly — and growing — thicket of patents (see 'Patent pile-up'). The result is that

E. TRINKAUS *ET AL. PROC. NATL ACAD. SCI. USA* **100,** 11231–11236 (2003).

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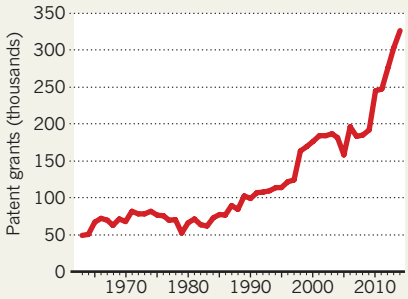
companies often struggle to discern when they are infringing intellectual property (see *Nature* **458,** 952–953; 2009). A series of court decisions has begun to address the problem, says Nicholson Price, a legal scholar at the University of New Hampshire in Concord. Foremost among them is a Supreme Court decision last year to limit patents on software, which has yielded a steady stream of district-court decisions to invalidate questionable patents (see *Nature* **507,** 410–411; 2014). The patent office has also created a process by which outside parties can challenge recently granted patents without resorting to litigation, which has helped to tighten patent standards (see *Nature* **472,** 149; 2011).

DROP IN THE OCEAN

Even so, says Robin Feldman, director of Institute for Innovation Law in San Francisco, California, there is a need for Congress to enact further patent reforms. "All of these measures are needed," she says. "There is no silver bullet."

PATENT PILE-UP

The number of patents granted in the United States has risen sharply over the past few decades.



SOURCE: USPTO

Universities might even benefit from the added protections. Although patent lawsuits against academic researchers are rare, they are legal. In 2010, a non-practising entity called the Alzheimer's Institute of America (AIA) in Sarasota, Florida, sued several institutions for infringing its patents on some transgenic mice used to study Alzheimer's disease. One of the defendants was the University of Pennsylvania in Philadelphia, which had spun off a company to commercialize discoveries made using the mice. The AIA also sued the Jackson Laboratory, a widely used non-profit repository of research mice in Bar Harbor, Maine, and pressured the laboratory to relinquish a list of all researchers who had ordered the mice in question.

The case was dismissed in 2011 without the list being released, but the lawsuit's legacy still lingers. Some researchers hesitate to share their transgenic mice for fear of putting themselves at risk, says Michael Sasner, who was in charge of the Jackson Laboratory's Alzheimer's resources at the time of the lawsuit. "The effect is that these mice aren't being used to help develop drugs," he says. "There's got to be a better way." ■

POLICY

UK slack on misconduct reports

Few universities follow guidelines to publish their records of investigations.

BY ELIZABETH GIBNEY

Just a fraction of universities in the United Kingdom have made public the extent of their investigations into research misconduct — even though all have been told that they should do so.

Since 2013, the United Kingdom's major research funders have said that to receive grants, universities must adhere to a set of guidelines that recommend publishing annual summaries of their formal investigations into research misconduct.

But a survey on behalf of the UK Research Integrity Office (UKRIO, a national advisory body with no regulatory powers) has found that universities are falling short on this recommendation. It was presented at the UKRIO's annual conference in London on 13 May.

The integrity guidelines are laid out in a document called *The Concordat to Support Research Integrity*, which was created in 2012 to counteract claims that the United Kingdom, which has no regulatory body covering research integrity, had an inadequate system of oversight to deal with research misconduct.

The survey contacted 44 universities that contribute funding to the UKRIO, and found that of 27 who responded, only one-third had published summaries of their investigations into research misconduct for 2013–14. Among another 44 randomly chosen institutions who do not subscribe to the UKRIO, the figure was 7% — just 3 institutions. The UKRIO plans to publish the survey at a later date.

The 12 reports that had been published outlined a total of 21 investigations, of which 4 upheld the allegations of misconduct and 3 were ongoing. Of the 11 cases in which a type of misconduct was specified, 5 cases were investigations into plagiarism, 2 into falsification, 2 into questions of authorship, 1 into fabrication and 1 into breach of confidentiality.

"Properly conducted misconduct investigations should be seen as a badge of honour."

It became clear at the conference that not every university had the same understanding of the concordat's wording that institutions 'should' make their reports public. Not all took it to mean that reporting was mandatory; those that did included the University of Cambridge. "We didn't know we were an outlier," said Peter Hedges, head of the university's research-operations office and a member of the UKRIO advisory board.

THE MEANING OF 'SHOULD'

Survey author Elizabeth Wager, a freelance consultant and a member of the UKRIO's advisory board, said that she too interprets the recommendation as a requirement. But she understands universities' reluctance to publish their data, she added. "Properly conducted misconduct investigations should be seen as a badge of honour, not something you're embarrassed about. If there's an increase in them, that might be a good thing. However that's not always how the public perceives it, or the way it's written up, so I can understand the caution," she told the conference.

Institutions may also worry that their definitions of misconduct and formal investigation differ from those of other institutions, she said, so more guidance to ensure that universities are counting the same things would be helpful.

Even for the 12 reports that were published, finding information was not always easy, said Wager. In one case, she needed a login to access the published report; in another, the number of investigations was not stated.

Four universities' reports stated that they had no formal investigations — which probably stemmed from differing definitions of what counts as an investigation, Wager said. "I think it's completely improbable for big, research-intensive universities to say we have had no cases. It's just not credible."

Wager added that many universities she spoke to as part of the research said that they were in the process of putting together these reports, or were planning to do so next year. ■ SEE EDITORIAL P.259