

Dan Ravicher

A patent attorney relies on guts, smarts and 'deep throats' to take on what he considers a broken patent system.

Dan Ravicher is determined to protect us all from patents that thwart, rather than advance, the public good. Working alone in his bare bones office of the New York-based Public Patent Foundation (PUBPAT), the nonprofit he established in 2003, the 33-year-old attorney has gone to battle with holders of some of the most influential and potentially lucrative life science patents. Ravicher claims doing public service is in his blood. "There was no 'moment of obligation'; it is just the way I am," he explains.

His most recent triumph involved Foster City, California-based Gilead Sciences, which holds four patents relating to the HIV/AIDS drug tenofovir disoproxil fumarate (TDF; Viread, and a component of Atripla and Truvada). By presenting prior art that had not been disclosed by Gilead during the patent application, Ravicher was able get the US Patent and Trademark Office (USPTO) examiners to reject all four patents in January. Although Gilead has the right to initiate a legal challenge—with the patents remaining in place for the duration—Ravicher has made his point. "We are now well on the way toward ending the harm that's being caused to the public by Gilead's use of the patents to prevent anyone else from offering TDF to HIV/AIDS patients in the United States," he said at the time.

And by "harm," Ravicher is referring to locking out competition, pulling the plug on clinical trials or impeding research. But there is a long line of people who feel Ravicher is meddling with the country's lifeblood. Tom Okarma, CEO of Geron in Menlo Park, California, puts it this way: "Stifle patent protection and you starve innovation."

Ravicher, who has a penchant for learning new technologies, earned a BA in materials science from the University of Florida. Once in law school (he received his law degree from the University of Virginia), he found patent law appealing, but he also felt the patent system had been skewed to benefit private interests. The public needed a champion.

Ravicher's first blow landed nearly four years ago, when he put pressure on New York's Columbia University to abandon assertion for its patent no. 6,455,275 on cotransformation, a process that continues to be used in the development of numerous biotech drugs. The challenge was rewarded in October 2004 when Columbia issued a legal document waiving its rights to recover patent royalties.

Today, Ravicher uses 'deep throats'—sources willing to give him tips, usually disgruntled scientists—to help identify his challenges. And he relies on the wisdom of a like-minded board of directors and several advisors who believe in what PUBPAT does but do not want to be publicly affiliated with it for political and other reasons.

Ravicher was tipped off to his most intriguing case to date by Jeanne Loring, founding director of a newly formed group at Scripps Research Institute in La Jolla, California, called the Center for Regenerative Medicine. With a longtime research focus on the molecular basis of pluripotency and differentiation of human embryonic stem (ES) cells, Loring is particularly well acquainted with three patents owned by the Wisconsin Alumni Research Foundation (WARF) in Madison, Wisconsin. Based on monkey embryonic cells derived by James Thomson at what is now the Wisconsin National Primate Research Center in Madison, the first patent (no. 5,843,780) covers all primate (including human) ES cells. The second patent (no. 6,200,806) was 'divisional'—it claimed only human ES cells. The third patent (no. 7,029,913) was issued in 2006, making WARF's ES

cell monopoly complete. "No matter what you did—research, discovery of cures, analysis, even taking photographs—everything was owned by WARF," Loring laments. "It is an annoyance for academics because you have to obtain a license and you are under obligation to open your lab books to WARF, if requested."

More than that, Loring felt that the arrangement greatly hindered progress on the development of novel applications for human ES cells. That's why she embarked on a crusade of her own, armed only with a slide presentation that she used to demonstrate the enormity of the situation to anyone who would listen. Despite her efforts, nothing changed until she discovered Ravicher.

Ravicher, who hit the ground running, flew out to San Diego to go over the patents. Shortly thereafter, he joined with the Foundation for Taxpayer and Consumer Rights in Santa Monica and they filed requests for reexamination of the three WARF patents in October 2006. After 17 months of deliberation, the USPTO upheld the WARF patents in mid-March, though modified. Both sides for now are claiming victory.

WARF managing director Carl Gulbrandsen, who is also serving a three-year term on the USPTO Patent Public Advisory Committee, "praised and applauded" the decision in a press release. What Gulbrandsen didn't convey was that WARF altered its original claims to

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pass muster. Notes Ravicher, "By modifying their claims, WARF has lost entitlement to current damages and, in accordance with recent Federal Circuit decisions, WARF can't get a preliminary injunction based on these patents while they are undergoing reexamination." Ravicher also notes that, through its new licensing policy, WARF has substantially decreased its aggressiveness in asserting the patents, and thus reduced its chilling effect on research.

Okarma, whose company funded Thomson's research and has an exclusive license for certain WARF IP, says the case is "baloney." He states, "The notion that the WARF patents are stifling research is displaced anger at the [National Institutes of Health] and the White House. It has nothing to do with Wisconsin."

For Ravicher, the battle continues. He and Loring are pressing forward with an appeal and new challenges. He is also urging Congress to consider the public good as they look at patent reform. More specifically, Ravicher believes there should be a fair-use exemption to patent infringement, as there is for copyright and trademark, to protect research and the exercising of civil liberties. He contends, "Those are activities that should never be impeded, that should never be stopped under any circumstances, no matter how valid the patent is."

Crispin Littlehales, Covelo, California