



SCIENTIFIC EVIDENCE

Judge Rejects Cancer Data In Maryland Cell Phone Suit

A Baltimore federal judge has effectively scuttled the arguments behind an \$800 million lawsuit brought by a man who claims he got a brain tumor from using a cell phone. Last week's ruling by U.S. District Judge Catherine Blake is seen as a major setback for those claiming that cell phones can damage health.

The 23-page ruling, the most substantial court review of the cell phone issue to date, provides a textbook example of how federal courts are now taking a closer look at the quality of scientific evidence. It concluded that lawyers for Christopher Newman, the Baltimore neurologist who brought the lawsuit, had provided "no sufficiently reliable and relevant scientific evidence" to support the claim that using an analog mobile phone for 6 years caused his tumor. The judge served notice that she intends to dismiss Newman's claims if she receives no objections before 30 October.

Newman's suit became a leading test of how the federal courts would respond to scientific arguments that underlie pending legal actions against cell phone makers. Newman's legal team, led by the Baltimore firm of Peter Angelos, hoped to establish that Motorola Inc., a group of local wireless service providers, and the Cellular Telecommunications and Internet Association had sold defective and dangerous products without informing consumers about the risks. The lawyers planned to call epidemiologists and experts on the biological effects of radio frequency emissions to support their allegations (*Science*, 16 November 2001, p. 1440).

But a year ago, several industry defendants in the case filed a motion to block Newman's scientific witnesses from testifying. They cited the landmark 1993 U.S. Supreme Court decision, *Daubert v. Merrell Dow Pharmaceuticals Inc.*, which directs

judges to determine whether experts' reasoning is both relevant and scientifically valid before allowing them to appear in a trial. Blake probed the scientific experts during an intense 5-day hearing in February. But it was Newman's experts who were in the hot seat because the burden of proof rests with the party bringing the lawsuit.

Newman's argument relied heavily on the testimony of Swedish oncologist Lennart Hardell of Örebro Medical Center. Hardell is the only scientist to date to report in an epidemiologic study a positive association



Blunt message. A judge's review found no relevant scientific evidence that cell phone use had caused cancer.

between cell phone use and brain tumor risk. In his study, analog (but not digital) cell phone users were 26% more likely to have a brain tumor than nonusers. In contrast, five other epidemiologic studies have failed to find any increased risk.

Industry witnesses said Hardell's conclusions were based on a distortion of the data. Meir Stampfer, chair of the department of epidemiology at the Harvard School of Public Health in Boston, pointed out that the difference in risk appeared only when acoustic neuromas, a benign type of tumor, were included in the analysis. No increase in risk was found for cancerous tumors. The possibility remains, defense ex-

perts admitted, that a larger study over a longer time period might detect a health risk that has so far eluded researchers. But judges cannot wait for all the evidence before reaching a verdict—and Blake did not find Newman's experts persuasive.

Daubert also instructs judges to consider whether the scientific conclusions at issue have been subjected to peer review. In this instance, the judge actually reviewed the confidential notes of peer reviewers after Hardell admitted in a deposition that *The Lancet* had rejected a paper from his study. Defense attorney Thomas Watson, who previously represented biologists Robert Gallo and Thereza Imanishi-Kari against charges of scientific misconduct, demanded to see the anonymous reviewers' reports, which the court ordered Hardell to turn over.

Although the reviewers' comments themselves remain sealed by the court, the judge quoted from the editors' correspondence with Hardell in her opinion. A *Lancet* editor told Hardell that reviewers had said his conclusions were written "much too forcefully." The paper was eventually accepted by the *European Journal of Cancer Prevention* and published in June 2002. Another paper based on the same study is slated to appear in *The International Journal of Radiation Biology*, although the editor cautioned Hardell in his letter of acceptance that "never before have we accepted a paper in the face of such low scores by referees." Hardell could not be reached for comment.

Newman's attorneys plan to challenge Blake's ruling but had no comment on her decision. Meanwhile, several similar cases introduced around the country have been transferred to her courtroom in recent months. Norman Sandler, a spokesperson for Motorola, says that the company and its lawyers will file a motion to have these dismissed on the same grounds as the Newman case. "This particular decision sends a pretty strong message," he says.

Although Blake's ruling on the scientific facts in the Newman case does not bind other courts, other judges will likely be influenced by her thorough review of the evidence. Michael Green, an expert on product liability law and a professor at Wake Forest University School of Law in Winston-Salem, North Carolina, explains that when different judges are considering the same body of scientific information, "decisions like this do get paid attention to."

—MARK PARASCANDOLA

Mark Parascandola is a writer in Washington, D.C.

CREDIT: J. MOGLIA/SCIENCE