FRANCE

Thrust and Parry Over Nuclear Risks

PARIS—Claims about the health risks posed by nuclear-power installations are always controversial, but nowhere more so than in France, where some 75% of the nation's electricity is generated from nuclear energy. So, it was no surprise that publication of a study by two French epidemiologists earlier this month claiming to show a link between cases of childhood leukemia and the nuclear-waste reprocessing plant at La Hague on the Normandy coast sparked fireworks in the French press. Several French epidemiologists sharply criticized the study's methodology and conclusions. Their attacks have now drawn an unusual response from the *British Medical Journal* (*BMJ*), in which the paper appeared.

The paper, published in the 11 January issue of the *BMJ*, was written by Jean-François Viel and Dominique Pobel at the University of the Franche-Comté in Besançon, eastern France. They carried out a case-control study of 27 cases of leukemia in young people aged 25 years or less who lived within a 35-kilometer radius of the plant. These cases were then matched with controls of similar age and background to see whether differences in risk factors emerged.

Viel and Pobel identified several factors that appeared to be associated with a statistically significant increase in the risk of leukemia. For example, the children of mothers who had frequented local beaches more than once a month during their pregnancies had a risk of leukemia 4.5 times that of the offspring of mothers who went less than once a month. Similar risks were found for children who had played on the beach or who had eaten local seafood.

Among the most vocal critics was epidemiologist Jacqueline Clavel of INSERM, France's main biomedical research agency. In press interviews, Clavel questioned the validity of the control group, which was recruited by general practitioners in the study area. This method of recruitment is "highly questionable," Clavel told *Science*, because it is not rigorous enough to ensure that cases and controls are closely matched. Clavel also suggested that the apparent association between leukemia cases and use of local beaches might simply reflect coincidental variation in how close the children lived to the beach.

The recruitment of controls was also questioned by epidemiologist Catherine Hill of the Gustave Roussy Institute near Paris, who suggested that Viel and Pobel should have used birth certificates to find children born at the same time as the leukemia cases. Nevertheless, Hill says that overall the study "followed fairly standard procedure," although she adds that she is not convinced that the higher risk of leukemia can be attributed directly to the nuclear plant. The scientific council of France's Office of Protection Against Ionizing Radiation was less guarded: Last week, it attacked the study as "not plausible and not scientifically founded."

All this was too much for the *BMJ*. In an interview with the French newspaper *Le Monde*, *BMJ* Editor Richard Smith defended the integrity of the paper, which, according to a *BMJ* spokesperson, had been anonymously peer-reviewed by 6 specialists. Smith suggested that the French press might be overly influenced in the debate by France's dependence on nuclear energy. And in an unusual step, the journal published last week a response from Viel to some of Clavel's public criticisms. Viel presented calculations showing that the geographic distribution of leukemia victims could not explain away his results.

The public controversy is about to move into a more scientific realm. In response to the *BMJ* paper, the French government has appointed a committee of seven experts to conduct a further study into the possible risks at La Hague. Among its members: Jean-François Viel.

–Michael Balter

SCIENTIFIC MISCONDUCT

$1.6 Million Fraud Award Overturned

Universities are breathing a sigh of relief after a federal appeals court last week threw out a lower court's award of $1.6 million in a case brought by a former graduate student who had claimed that the University of Alabama, Birmingham (UAB), defrauded the government by wrongly taking credit for her work in grant applications. On 22 January, the appeals court firmly rejected charges brought by the plaintiff, nutritionist Pamela Berge, easing fears of a wave of similar lawsuits against universities.

Berge's legal tactics concerned UAB because she went beyond the government's internal system for appealing scientific fraud decisions and instead went directly to the courts. When a federal jury in Baltimore gave her an unprecedented victory 2 years ago, university groups hit the alarm button. UAB appealed, and other universities and academic lobby organizations filed amicus curiae briefs arguing that the lower court's ruling threatened to undermine schools' procedures for dealing with scientific misconduct and force them to pour scarce resources into defending against lawsuits.

The suit stemmed from Berge's work as a Cornell University doctoral student on cytomegalovirus (CMV), a cause of birth defects. With approval from UAB pediatrician Sergio Stagno and his colleagues, Berge spent 6 months in 1987 using UAB's extensive CMV database to prepare a thesis on links between CMV and low birth weight. In 1990, Berge claims, she was shocked when UAB graduate student Karen Fowler presented a talk that seemed to echo Berge's own work, and she accused Fowler of plagiarism. UAB conducted two investigations but found no misconduct.

When the Department of Health and Human Services didn't take up the case, Berge filed a lawsuit in 1993 under the False Claims Act—which allows "qui tam" lawsuits by citizens who allege fraud in government contracts—claiming that UAB and four of its researchers made false claims in grant proposals to the National Institutes of Health (NIH), which funded the CMV work. In 1995, a federal court jury in Baltimore ruled in Berge's favor, and the court ordered UAB to pay $1.65 million and the researchers, $10,000, 30% of which went to Berge (*Science*, 26 May 1995, p. 1125).

The 4th Circuit Court of Appeals, however, was not persuaded by Berge's claims. It found that the alleged false statements "were not material to [NIH's] funding decisions, and ... indeed, are not even false." The court also found that "once the surface is scratched, there is nothing to Berge's claim [of plagiarism by Fowler] except her complaint that Fowler did not give Berge's work the notice she felt she deserved." The judges found Berge had overestimated the value of her contributions: "The hubris of any graduate student to think that such grants depend on the results of her work is beyond belief. That is not the way Big Science works." One of Berge's attorneys, Alexander T. Bok of Boston, says the court "made a serious error" in ignoring evidence in the case, and that Berge will appeal.

University groups believe the court's scathing language will discourage other qui tam suits. "I'm hoping that this will stem the tide," says Washington, D.C., attorney Barbara Mishkin, who represented UAB. The decision is narrower than some had hoped, however: The judges did not address whether the False Claims Act should be used to resolve scientific disputes. "It would have been nice to have a broader decision," says Washington, D.C., attorney Robert Burgoyne, who filed an amicus brief for the American Association of Medical Colleges. But Mishkin says the decision sends the message that this type of dispute among co-authors "is not a federal case."

–Jocelyn Kaiser