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# Rejecting Milward: A "Weight of the Evidence" Methodology is No Methodology At All

**By Apryl Underwood**

**Barnes & Thornburg *Toxic Tort Practice Update***

In a seemingly misguided interpretation of *Daubert* and its federal progeny, the First Circuit Court of Appeals appears to have arrested the judicial gate-keeping role of determining the scientific reliability of expert testimony under Federal Rule of Evidence 702. In *Milward v. Acuity Specialty Products Group, Inc.*, 639 F.3d 11 (1st Cir. 2011), the First Circuit held that the "weight of the evidence" methodology employed by plaintiff's general causation expert was sufficiently reliable for purposes of admissibility.

As the First Circuit explained, the weight of the evidence methodology involves various considerations including the strength or frequency of association between exposure and disease, the temporal connection between exposure and disease, and the biological plausibility of the causal explanation given scientific knowledge. However, the methodology also involves an "inference to the best explanation," in which the conclusion is not guaranteed by the premises. 639 F.3d at 19. Further, the methodology heavily relies on an expert's judgment rather than scientific evidence. Nevertheless, the First Circuit discounted these factors and held that the weight of the evidence methodology could in fact constitute a reliable "methodology."

In *Milward*, the First Circuit also concluded that the expert reliably applied the "weight of the evidence" methodology to deduce that benzene was capable of causing plaintiff's cancer and held that the district court erred in its evaluation of the expert's scientific premises. The Circuit claimed that the "district court read too much into the paucity of statistically significant epidemiological studies," as the rarity of the cancer at issue precluded performance of statistically significant studies. *Id*. at 24. The inability to point to statistically significant epidemiology studies weighs heavily against reliability, a consideration given short shrift by the First Circuit.

The preeminent issue with the weight of evidence methodology used in *Milward* is that it produces highly speculative results that amount to untested hypotheses. It also leaves too much discretion to the expert about what data to weigh. This is particularly problematic when the expert relies on studies that are unsupported or where the expert is being paid to give an opinion; the soil is tilted for bias. Further, the expert's "professional judgment" can easily elude the scrutiny of the scientific community. These are exactly the type of unintended consequences *Daubert* sought to avoid in offering a non-exhaustive list of determinations the court, as gate-keeper, should make in assessing the reliability and admissibility of expert testimony—factors such as whether the theory or technique has been tested, whether it has been subject to review and publication, consideration of the technique's known or potential rate of error, and the level of the theory or technique's acceptance within the relevant scientific community.

Given the fact that the Supreme Court denied certiorari, defendants will have to navigate the First Circuit's decision. Plaintiffs will inevitably cite the decision for the proposition that courts should err on the side of admitting expert testimony and leaving it to the jury to decide the scientific reliability, rather than the court making this determination upfront. Defendants, however, should limit *Milward* to its facts and argue that it involved a very rare and understudied form of cancer. Ultimately, defendants will have to wield *Daubert* as a powerful weapon against the admission of junk science that fails to "employ in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field."

For more information about this topic and the issues in this article, please contact Apryl Underwood at (317) 231-6406 or apryl.underwood@btlaw.com.

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