

DISTRICT COURT OF APPEAL OF THE STATE OF FLORIDA
FOURTH DISTRICT

**CRANE CO., R.J. REYNOLDS TOBACCO CO., and HOLLINGSWORTH
& VOSE CO.,**
Appellants,

v.

RICHARD DELISLE and ALINE DELISLE, his wife,
Appellees.

Nos. 4D13-4351 and 4D14-146

[November 9, 2016]

Consolidated appeals and cross-appeal from the Circuit Court for the Seventeenth Judicial Circuit, Broward County; John Murphy, III, Judge; L.T. Case No. CACE12025722.

Rebecca C. Kibbe of K&L Gates LLP, Miami, for appellant Crane Co.

Elliot H. Scherker, Sabrina R. Ferris, Julissa Rodriguez, Brigid F. Cech Samole, and Stephanie L. Varela of Greenberg Traurig, P.A., Miami, for appellants R.J. Reynolds Tobacco Company and Hollingsworth & Vose Co.

Gary M. Farmer, Sr. of Farmer Jaffe Weissing Edwards Fistos & Lehrman P.L., Fort Lauderdale, and David A. Jagolinzer of The Ferraro Law Firm, Miami, for appellees.

ON MOTION FOR REHEARING

WARNER, J.

We deny appellant's motion for rehearing, withdraw our previously issued opinion and substitute the following in its place.

Crane Co. and R.J. Reynolds Tobacco Co. appeal from an adverse jury verdict in favor of Richard DeLisle in which the jury found that both appellants' products containing asbestos were substantial contributing causes to appellee DeLisle's mesothelioma and awarded substantial damages. Crane primarily argues that the court erred in not excluding expert causation testimony, in denying its motion for directed verdict, and

in excluding *Fabre*¹ defendants from the verdict form. R.J. Reynolds argues that the court erred in admitting expert testimony and in refusing a non-standard jury instruction. Both Crane and R.J. Reynolds argue that the court abused its discretion in failing to grant a remittitur. DeLisle cross-appeals the inclusion of a *Fabre* defendant on the verdict form. We hold that the court abused its discretion in admitting expert testimony and thus reverse for a new trial for R.J. Reynolds and for entry of a directed verdict for Crane. We also address, for the purposes of new trial, the jury instruction issue and the damage award.

After developing mesothelioma, DeLisle filed a personal injury action against sixteen defendants, claiming that each caused him to be exposed to asbestos. He alleged negligence and strict liability under failure-to-warn and design-defect theories. Of these defendants, DeLisle proceeded to trial only against Crane, Lorillard Tobacco Co., and Hollingsworth & Vose Co. (“H&V”).²

At trial, DeLisle presented evidence that he was exposed to asbestos fibers from sheet gaskets while working at Brightwater Paper Co. between 1962 and 1966. Crane, a valve and pump manufacturer, used “Cranite” sheet gaskets containing chrysotile asbestos fibers. DeLisle also testified that he smoked Original Kent cigarettes with asbestos-containing “Micronite” filters from 1952 to 1956. These cigarettes were produced by Lorillard’s predecessor, and the filters were supplied by a former subsidiary of H&V. The filters contained crocidolite asbestos.³ In addition to Cranite gaskets and Kent cigarettes, DeLisle testified that he was exposed to asbestos-containing products from the following nonparty defendants: Garlock Sealing Technologies, LLC; A.W. Chesterton Co.; Ford Motor Co.; Honeywell International, Inc., f/k/a Allied Signal, as successor in interest to Allied Corp., as successor in interest to The Bendix Corp.; Georgia-Pacific LLC, f/k/a Georgia-Pacific Corp.; Goulds Pumps, Inc.; Union Carbide Corp.; Brightwater; and Owens-Corning Fiberglass.

Lorillard contested DeLisle’s use of Kent cigarettes. DeLisle testified that he smoked on average a pack of Kent cigarettes a day from junior high school until he enlisted in the army in 1957. Two of his high school friends, however, did not recall him smoking, and his former wife testified that by the late 1960’s, DeLisle was only smoking unfiltered cigarettes.

¹ *Fabre v. Marin*, 623 So. 2d 1182 (Fla. 1993).

² R.J. Reynolds is the successor by merger to both Lorillard and H&V.

³ Crocidolite is a type of asbestos. There are various types of asbestos, including, as relevant to this case, chrysotile asbestos. The toxicity of different types was debated by the expert witnesses during the trial.

The parties hotly disputed causation, and even DeLisle's own experts did not agree on which products produced sufficient exposure to asbestos to constitute a substantial contributing factor to DeLisle's disease. Although all of DeLisle's experts agreed that the crocidolite asbestos in the Kent filters was a causative factor, they disagreed as to whether the other products were substantial contributing factors.

Appellees challenged each expert's opinions under section 90.702, Florida Statutes, which adopted the *Daubert*⁴ test for expert testimony. DeLisle introduced the causation expert opinions of Drs. James Dahlgren, James Millette, James Crapo, and James Rasmuson. Lorillard and H&V unsuccessfully moved to exclude their testimony, as well as any testimony regarding experiments conducted by Dr. William Longo.⁵ Dr. Dahlgren is a toxicologist who testified as to causation. Dr. Millette is an environmental scientist who tested asbestos-containing products for fiber release. Dr. Crapo, a pulmonologist, reviewed studies by both Dr. Longo and Dr. Millette to determine that Kent cigarettes would be a substantial contributing factor to mesothelioma. Dr. Rasmuson, an industrial hygienist, relied on Dr. Longo's testing to opine on DeLisle's exposure. Following *Daubert* hearings, the trial court admitted each expert's testimony.

Before the jury, Dr. Dahlgren opined that "every exposure" above background levels to friable,⁶ inhaled asbestos—regardless of product, fiber type, and dose—would be considered a substantial contributing factor to DeLisle's mesothelioma. In contrast, Dr. Rasmuson testified that low-level exposures to chrysotile asbestos would not increase the risk of mesothelioma. Dr. Crapo testified similarly to Dr. Rasmuson as to low-level chrysotile asbestos.

Crane, Lorillard, H&V, and DeLisle all moved for directed verdicts, and DeLisle sought to exclude any *Fabre* defendants from the verdict form. The court denied the motions for directed verdict and determined that Brightwater, DeLisle's former employer, and Owens-Corning, which manufactured asbestos-containing products that DeLisle had worked with

⁴ *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).

⁵ DeLisle did not, however, seek to introduce Dr. Longo as an expert witness.

⁶ "Friable" is defined as "[e]asily crumbled or broken into small pieces." BLACK'S LAW DICTIONARY (10th ed. 2014). In the context of the materials involved in this case, friable or dust-producing materials are the opposite of materials in which the asbestos remains encapsulated or encased.

at Brightwater, should be included on the verdict form. The court excluded the remaining nonparty defendants as *Fabre* defendants.

During the jury charge conference, Lorillard and H&V asked the trial court to instruct the jury on the threshold issue of whether DeLisle ever smoked Kent cigarettes. DeLisle opposed the instruction. The court denied the proposed instruction, reasoning that the issue was “subsumed in the [standard] instruction.”

Following three days of deliberation, the jury awarded DeLisle \$8 million in damages and apportioned fault as follows:

- Crane: 16%
- Lorillard: 22%
- H&V: 22%
- Brightwater: 20%
- Owens-Corning: 20%

After trial, Crane, Lorillard, and H&V variously moved for a judgment notwithstanding the verdict, judgment in accordance with their motions for directed verdict, a new trial, or, in the alternative, for a remittitur. The trial court denied the motions. The court then entered a final judgment awarding DeLisle \$8 million in past and future non-economic compensatory damages, apportioned to Crane, Lorillard, and H&V based on the jury’s distribution of fault.

Crane now appeals the trial court’s denial of its motions for directed verdict and judgment notwithstanding the verdict, and the court’s failure to exclude expert causation testimony. It also appeals the denial of its motion for new trial based on the trial court’s exclusion of *Fabre* defendants. R.J. Reynolds (for Lorillard and H&V) appeals the admissibility of expert testimony following the *Daubert* hearings as well as the failure to give a jury instruction on product use. Crane and R.J. Reynolds jointly challenge the \$8 million award as excessive. DeLisle cross-appeals regarding the inclusion of Owens-Corning as a *Fabre* defendant.

Admission of Expert Testimony

Crane contends that Dr. James Dahlgren’s opinions as to its liability were not properly admitted, and R.J. Reynolds argues that the trial court abused its discretion by finding the testimony of Drs. Millette, Crapo, and

Rasmuson admissible under *Daubert*.⁷ We find that the court failed to properly exercise its gatekeeping function as to Drs. Dahlgren, Crapo, and Rasmuson.

“The standard of review for trial court decisions concerning the qualifications of expert witnesses and the scope of their testimony is abuse of discretion.” *Tengbergen v. State*, 9 So. 3d 729, 736 (Fla. 4th DCA 2009). “Further, a trial court ‘has broad discretion in determining the range of the subjects on which an expert can testify, and the trial judge’s ruling will be upheld absent a clear error.’” *Davis v. State*, 142 So. 3d 867, 872 (Fla. 2014) (quoting *Penalver v. State*, 926 So. 2d 1118, 1134 (Fla. 2006)).

Since 2013, Florida has applied “the standards for expert testimony in the courts of this state as provided in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), *General Electric Co. v. Joiner*, 522 U.S. 136 (1997), and *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999).” 2013 Fla. Sess. Law Serv. Ch. 2013-107 (H.B. 7015) (WEST). Section 90.702 codifies the standard:

If scientific, technical, or other specialized knowledge will assist the trier of fact in understanding the evidence or in determining a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify about it in the form of an opinion or otherwise, if:

- (1) The testimony is based upon sufficient facts or data;
- (2) The testimony is the product of reliable principles and methods; and

⁷ DeLisle also argues that this court lacks the authority to apply *Daubert*, as incorporated through section 90.702, Florida Statutes (2015), which was adopted in 2013 prior to the trial in this case, because it is a legislative change to the evidence code that has not yet been approved by the Florida Supreme Court. However, statutes are presumed to be constitutional and are to be given effect until declared otherwise. *Mallory v. State*, 866 So. 2d 127, 128 (Fla. 4th DCA 2004). Further, we, and other Florida appellate courts, have applied the statute to the admission of testimony. *Bunin v. Matrixx Initiatives, Inc.*, 41 Fla. L. Weekly D1308 (Fla. 4th DCA June 1, 2016); *Booker v. Sumter Cty. Sheriff's Office/N. Am. Risk Servs.*, 166 So. 3d 189 (Fla. 1st DCA 2015); *Perez v. Bell S. Commc'ns, Inc.*, 138 So. 3d 492 (Fla. 3d DCA 2014); *R.C. v. State*, 192 So. 3d 606 (Fla. 2d DCA 2016). We therefore find that this argument lacks merit. Moreover, if the *Frye* standard applied, most of the expert testimony clearly would be inadmissible as the experts failed to show that the methodology was generally accepted in the scientific community.

(3) The witness has applied the principles and methods reliably to the facts of the case.

§ 90.702, Fla. Stat. (2015).

Under section 90.702 and *Daubert*, 509 U.S. at 597, the trial courts must “act as gatekeepers, excluding evidence unless is it reliable and relevant.” *Hughes v. Kia Motors Corp.*, 766 F.3d 1317, 1328 (11th Cir. 2014). The trial courts “are charged with this gatekeeping function ‘to ensure that speculative, unreliable expert testimony does not reach the jury’ under the mantle of reliability that accompanies the appellation ‘expert testimony.’” *Id.* at 1328-29 (quoting *Rink v. Cheminova, Inc.*, 400 F.3d 1286, 1291 (11th Cir. 2005)). “Whether an expert’s testimony is reliable depends on ‘the particular facts and circumstances of the particular case.’” *Id.* at 1329 (quoting *Kumho Tire*, 526 U.S. at 158).

To properly perform its gatekeeping function, the court must first determine that the expert is “qualified on the matter about which he [or she] intends to testify”; second, that the expert is employing “reliable methodology”; and third, that the expert’s testimony can “assist the trier of fact through the application of expertise to understand the evidence or fact in issue.” *Id.* In assessing whether an expert’s methodology is reliable, the court should consider the following factors: (1) whether the theory “can be (and has been) tested”; (2) whether it “has been subjected to peer review and publication”; (3) “the known or potential rate of error” for “a particular scientific technique”; and (4) whether the “theory or technique has been generally accepted by the relevant scientific community.” *Daubert*, 509 U.S. at 593-94.

However, “[t]he court’s gatekeeping function requires more than simply ‘taking the expert’s word for it.’” *United States v. Frazier*, 387 F.3d 1244, 1265 (11th Cir. 2004) (en banc) (quoting Fed. R. Evid. 702 advisory committee’s note (2000 amends.)). “[S]omething doesn’t become scientific knowledge just because it’s uttered by a scientist; nor can an expert’s self-serving assertion that his conclusions were derived by the scientific method be deemed conclusive.” *Hughes*, 766 F.3d at 1331 (quoting *McDowell v. Brown*, 392 F.3d 1283, 1299 (11th Cir. 2004)) (alteration in original). As the Supreme Court explained in *Joiner*,

[t]rained experts commonly extrapolate from existing data. But nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the ipse dixit of the

expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.

Joiner, 522 U.S. at 146. Thus, “an expert opinion is inadmissible when the only connection between the conclusion and the existing data is the expert’s own assertions[.]” *McDowell*, 392 F.3d at 1300. Additionally, where an expert relies solely or primarily on their experience, the proponent of the testimony has the burden “to explain how that experience led to the conclusion [the expert] reached, why that experience was a sufficient basis for the opinion, and just how that experience was reliably applied to the facts of the case.” *Frazier*, 387 F.3d at 1265.

In *Frazier*, the defendant in a sexual assault case sought to introduce expert testimony that no hair or bodily fluids were discovered at the crime scene, and therefore it was unlikely he had assaulted the victim. *Id.* at 1252. In upholding the exclusion of this testimony, the appellate court found the expert’s methodology unreliable and his opinion unhelpful to the jury. *Id.* at 1265. Although the expert relied on his experience and various tests, he never explained how they supported his opinion. *Id.* He failed to offer “any hard information” or show that “his opinions had been subjected to peer review or, even, the percentage of cases in which his opinion had been erroneous.” *Id.* The court stated,

While the expert’s statement that the recovery of hair or seminal fluid “would be expected” expresses an intrinsically probabilistic or quantitative idea, the probability it expresses is unclear, imprecise and ill-defined. . . . Without knowing how frequently hair or seminal fluid is transferred during sexual conduct in similar cases—whether derived from reliable studies or based on some quantification derived from his own experience—it would be very difficult indeed for the district court (or for that matter the jury) to make even an informed assessment, let alone to verify that the recovery of hair or fluid evidence in this case “would be expected.”

Id. The expert’s “imprecise and unspecific” opinion meant that “the jury could not readily determine whether the ‘expectation’ . . . was a virtual certainty, a strong probability, a possibility more likely than not, or perhaps even just a possibility.” *Id.* at 1266. Thus, the opinion “easily could serve to confuse the jury, and might well have misled it.” *Id.*

Similarly, in *Hughes*, 766 F.3d at 1331, involving an automobile accident, the exclusion of expert testimony was upheld where the expert’s “leap from data to opinion was too great[.]” The expert in *Hughes* opined

that the plaintiff would not have sustained the fatal injury had the vehicle been equipped with a shut-off switch, based on the evidence, his experience, and relevant literature. *Id.* at 1330.

He explained in his report that he reached his conclusion based on the scientific method, without further explaining how he tested his hypothesis to support his conclusions. During his deposition, he explained a bit more—declaring that the amount of intrusion and the velocity of the adjacent door were the most important factors to his evaluation—but even then, his explanation went no further. He did not explain how those two variables were relevant, nor did he explain how he used those factors to reach his conclusion.

Id. (footnote omitted). Moreover, the expert admitted that he was unable to rule out other impacts as the cause of the injury, and was unable to explain how they would have affected the plaintiff. *Id.* The *Hughes* court noted that, like in *Frazier*, the expert “offered precious little in the way of a reliable foundation or basis for his opinion.” *Id.* at 1329 (quoting *Frazier*, 387 F.3d at 1265).

In sum, the trial court’s gatekeeping role is not a passive role. The court should affirmatively prevent imprecise, untested scientific opinion from being admitted. The expert must explain his or her methodology and how it is applied to the data relevant to the case. Further, when relying on other studies, the expert must identify those studies and explain how they support the application of the methodology used. We evaluate the various challenged experts and the trial court’s rulings on the admissibility of their opinions with the foregoing principle in mind.

i. Dr. James Dahlgren

Dr. James Dahlgren is a medical doctor, specializing since 1977 in occupational and environmental medicine, with a subspecialty in toxicology. He is not a scientist, but has studied and worked in the field of treating workers exposed to industrial chemicals, including asbestos. At trial, he was the sole witness to testify that exposure to low levels of chrysotile asbestos through Crane products was a substantial cause of DeLisle’s mesothelioma.

In arriving at his opinion on causation, Dr. Dahlgren followed a two-step process, first determining general causation, i.e. the ability of the substance to cause the disease, then determining whether the particular

individual had sufficient exposure to the substance to have that health effect.

In analyzing whether a particular substance caused DeLisle's disease, Dr. Dahlgren stated that he had relied on the Bradford Hill criteria⁸ for determining causation based upon epidemiology studies, animal studies, experimental studies, and other studies. These criteria are "strength, consistency, specificity, temporality, biological gradient, plausibility, coherence, experiment[,] and analogy[.]" Dr. Dahlgren was not asked to explain what the factors mean or how he used them to analyze causation. He also stated that he had applied his training and experience, but he was not asked and did not explain how his experience provided a sufficient basis for his conclusions.

Based upon his review and collection of the literature on the disease, Dr. Dahlgren testified that both chrysotile and crocidolite asbestos can cause mesothelioma. When asked on cross-examination whether all commercial types of asbestos were similar in terms of their potency, he said, "*Probably*. I know that there's some dispute about that, but, in my opinion, based on animal studies, I believe they're pretty comparable in potency." (Emphasis added). He did not provide nor discuss the results of the animal studies on which he relied, except for admitting that the view that the potency of chrysotile fibers were equivalent to amphibole asbestos was contrary to pathology studies on human lung tissue (as opposed to animal studies). Dr. Dahlgren rejected the human studies because he did not believe that they took into account that chrysotile was the most common form of asbestos in the world, and he considered the controlled animal studies to be more legitimate.

Dr. Dahlgren relied on one study by a South African doctor, Dr. Wagner, but that study was of crocidolite, not chrysotile asbestos. And, although he was aware that Dr. Wagner had later concluded that there was no clear evidence that chrysotile asbestosis caused mesothelioma tumors, Dr. Dahlgren indicated he relied on Dr. Wagner's prior work.

Apart from the Wagner study, Dr. Dahlgren could not recall the names of other papers on which he relied. But then he admitted that there were many papers which showed that amphibole asbestos was many times more potent (some studies showing a hundred times more potent) than chrysotile fibers. He could not point to any study involving chrysotile alone which showed that the different fibers were similar in potency. The one

⁸ The Bradford Hill criteria refers to a list of criteria developed by epidemiologist Dr. Bradford Hill in the 1960s.

paper he did rely on regarding studies of asbestos doses involved mixed types of asbestos. Unfortunately, none of the papers were provided to the trial court. He had not done any research himself to determine the amount of asbestos required to cause mesothelioma.

Dr. Dahlgren maintained that “every exposure” to asbestos of any kind above background level would be a substantial contributing cause of mesothelioma. He stated that “background level is pretty well accepted to be .0002 fibers per CC, a little higher in some studies, a little lower in others[.]” Although there is a gap between the background level and those levels at which there is an increased risk of disease, the studies he relied on had been unable to establish the threshold. He did not know of any study which supported his “every exposure” conclusion, nor did he think that such a study could be done. He did refer generally to several studies finding increased mesothelioma rates from “very low levels” of exposure. However, he conceded that “none of those studies actually said that each and every exposure above background contribute[d] to . . . mesothelioma risk[.]”

Based on this, the trial court accepted Dr. Dahlgren as an expert and found that his opinions were supported by sufficient data and peer-reviewed studies, and were based upon reliable principles and methods.

We cannot find that the trial court properly exercised its discretion in admitting Dr. Dahlgren’s opinions. Although Dr. Dahlgren may be an expert in the field of occupational medicine and evaluation of mesothelioma, the record does not in any way support a finding that his opinions were supported by sufficient data or based upon reliable principles and methods under a proper *Daubert* analysis. While Dr. Dahlgren stated that he relied on accepted methodology in reaching his opinions, i.e. the Bradford Hill criteria, he did not explain that methodology at all. The Bradford Hill criteria are used to evaluate the strength of an association between two factors (such as asbestos and mesothelioma) from epidemiological studies. *Milward v. Acuity Specialty Products Group, Inc.*, 639 F.3d 11 (1st Cir. 2011), provides an explanation of the criteria and how they are applied:

Dr. Smith’s opinion was based on a “weight of the evidence” methodology in which he followed the guidelines articulated by world-renowned epidemiologist Sir Arthur Bradford Hill in his seminal methodological article on inferences of causality. See Arthur Bradford Hill, *The Environment and Disease: Association or Causation?*, 58 Proc. Royal Soc’y Med. 295 (1965).

Hill's article explains that one should not conclude that an observed association between a disease and a feature of the environment (e.g., a chemical) is causal without first considering a variety of "viewpoints" on the issue. These viewpoints include: the strength or frequency of the association; the consistency of the association in varied circumstances; the specificity of the association; the temporal relationship between the disease and the posited cause; the dose response curve between them; the biological plausibility of the causal explanation given existing scientific knowledge; the coherence of the explanation with generally known facts about the disease; the experimental data that relates to it; and the existence of analogous causal relationships. *See id.* at 295-99.

Although Hill identified nine viewpoints, it is generally agreed that this list is not exhaustive and that no one type of evidence must be present before causality may be inferred.

Id. at 17 (footnote omitted). These criteria are usually applied by epidemiologists in evaluating causation. "Several courts that have considered the question have held that it is not proper methodology for an epidemiologist to apply the Bradford Hill factors without data from controlled studies showing an association." *In re Fosamax Prods. Liab. Litig.*, 645 F. Supp. 2d 164, 188 (S.D.N.Y. 2009).

Not only did Dr. Dahlgren fail to explain the Bradford Hill criteria or how they applied, he did not provide any data or studies of the association between mesothelioma and chrysotile asbestos at low levels. All of the studies upon which he relied were studies of mixed types of asbestos, even though he was giving opinions on causation from products containing only chrysotile asbestos.⁹ And his assumptions on the equivalency of the potency of all types of asbestos were also unsupported by any reliable data. Instead, they were based upon his thinking that all commercial types of asbestos were *probably* of the same potency. As well, he thought that his opinion that levels of exposure "significantly" above background level could cause disease were "fair." Thus, even if the methodology was appropriate, it was not supported by any data.

⁹ It is unclear from the record which type(s) of asbestos were involved in the animal studies.

The opinion that every asbestos exposure level above background level is a substantial contributing factor has been rejected repeatedly by courts as insufficiently supported by data or testing to satisfy *Daubert*.

The “every exposure” theory has been advanced by plaintiffs and their experts in a number of recent cases. See Joseph Sanders, *The “Every Exposure” Cases and the Beginning of the Asbestos Endgame*, 88 Tul. L.Rev. 1153, 1157 (2014). The “every exposure” theory “represents the viewpoint that, because science has failed to establish that any specific dosage of asbestos causes injury, every exposure to asbestos should be considered a cause of injury.” *Yates v. Ford Motor Co.*, 113 F.Supp.3d 841, 846 (E.D.N.C. 2015); see also *Krik v. Crane Co.*, 76 F.Supp.3d 747, 750–51 (N.D.Ill. 2014). The judicial reception to this theory has been largely negative. Numerous courts have excluded expert testimony or evidence grounded in this theory, reasoning that it lacks sufficient support in facts and data. See, e.g., *Yates*, 113 F.Supp.3d at 846–47; *Comardelle v. Pa. Gen. Ins. Co.*, 76 F.Supp.3d 628, 633–35 (E.D.La. 2015); *Krik*, 76 F.Supp.3d at 752–53; *Davidson v. Ga. Pac. LLC*, No. 12–1463, 2014 WL 3510268, at *5 (W.D.La. July 14, 2014); *Anderson v. Ford Motor Co.*, 950 F.Supp.2d 1217, 1225 (D.Utah 2013); *Sclafani v. Air & Liquid Sys. Corp.*, No. 12–3013, 2013 WL 2477077, at *5 (C.D.Cal. May 9, 2013); *Smith v. Ford Motor Co.*, No. 8–630, 2013 WL 214378, at *2 (D.Utah Jan. 18, 2013). Likewise, applying the *Daubert* factors, courts have found that the theory cannot be tested, has not been published in peer-reviewed works, and has no known error rate. E.g., *Yates*, 113 F.Supp.3d at 846–47.

Vedros v. Northrop Grumman Shipbuilding, Inc., 119 F. Supp. 3d 556, 562–63 (E.D. La. 2015). *Vedros* also rejected the claim that “every exposure above background level” was any different than the “every exposure” theory. *Id.*

Similarly, Dr. Dahlgren’s theory is not supported by any studies, as it has not been tested. There was no data presented at the hearing showing that chrysotile asbestos in low levels is associated with mesothelioma. Indeed, the other experts testifying for DeLisle all rejected such an association. Dr. Dahlgren’s testimony was more of the nature of ipse dixit, i.e. that it should be reliable merely because he is an expert. This is insufficient to satisfy *Daubert*. Therefore, we conclude the court abused

its discretion in admitting Dr. Dahlgren's testimony on the "every exposure" theory.¹⁰

ii. Dr. William Longo

A substantial issue in reviewing the expert testimony was the reliability of studies conducted by Dr. William Longo. In 1995, Dr. Longo published an article in the publication *Cancer Research*, based on his work in 1991 for a plaintiff in a similar action against Lorillard and H&V. In this first set of experiments, Dr. Longo "smoked" forty-year-old Kent cigarettes utilizing a hand-held syringe to smoke the cigarettes in an upright position. The 1995 article was not subjected to formal peer review and was published in a section titled "Advances in Brief" and marked "Advertisement." Although *Cancer Research* is a peer-reviewed journal, Dr. Longo's short article, under the journal's policies, would have "receive[d] an accelerated review," unlike the peer review to which other articles are subject. Additionally, Dr. Longo failed to mention that when he performed a second round of tests, the results were dramatically different.

In 2012, Dr. Longo conducted more testing on Kent cigarettes. Counsel for a plaintiff sent Dr. Longo four packs of the cigarettes for testing as to whether the smoke contained asbestos from the filter. The cigarettes were nearly sixty years old at the time of testing; it was unclear where they came from, how they had been stored, or whether they sufficiently resisted aging and degradation to give accurate results. The 2012 study showed the release of asbestos into the smoke, but the results again varied widely from the earlier experiments.

Before trial, Lorillard moved to exclude any expert opinion or testimony about the experiments conducted by Dr. Longo on the basis that his work was unreliable and not based on sound scientific theories. DeLisle's counsel agreed that Dr. Longo's testing would not be part of the case. However, Dr. Longo's research came up multiple times during the trial, apparently relied on by several of the expert witnesses.

¹⁰ Were we not concluding that Dr. Dahlgren's testimony was inadmissible, it would have provided a sufficient basis for including at least six *Fabre* defendants on the verdict form, together with DeLisle's testimony of his exposure to each of those products, and we would have reversed for failure to include the *Fabre* defendants.

iii. Dr. James Millette

During Dr. James Millette's *Daubert* hearing, he discussed his background in microscopic analysis and identification of particles. He had published "about 60 or so" articles on asbestos in peer-reviewed journals. This included articles "measuring the potential for asbestos fibers to come out of different products[.]" including gaskets, packing, and dryer felts. None of these articles dealt with cigarette filters.

As to the cigarette filters, Dr. Millette testified that in 2010 and 2011, he received several packs of Kent cigarettes, in their original packaging, from a law firm. They were sent to him in plastic containers and he was unsure of their origin or previous storage conditions. Upon receiving the cigarettes, Dr. Millette tested them for degradation by visually looking for mold and mildew, and testing brittleness of the paper with tweezers. He stated that there was no evidence of degradation and the paper was not brittle.

Dr. Millette then sent a cigarette from each package to Arista Laboratories for "smoking testing," as such testing was outside his area of expertise. He testified that Arista is an accredited, "independent laboratory group that does testing for cigarette companies and the government to determine . . . whether the cigarettes complied with certain regulations[.]" Arista used a "smoking machine" to send each cigarette's smoke through filter pads made of glass fibers. Following an International Standards Organization ("ISO") protocol and a Canadian Health Protocol, Arista performed both an "eight puff" test and a "two puff" test on the cigarettes, as well as a control. The filters were then returned to Dr. Millette for analysis.

Because the filter pads used by Arista were not designed for particle analysis, but for examining organic material, in order to detect asbestos fibers, Dr. Millette took a portion of each filter and dissolved the glass fibers using an acid-base wash, a type of indirect preparation. This involved boiling the filter in acid for an hour, running it through a centrifuge, boiling it in a base, running it back through the centrifuge, and then suspending the remaining materials in water. Dr. Millette then analyzed the solution using a transmission electron microscope.

He did not find any fibers in the filters from the "two puff" test. The detection limit was about 30,000 crocidolite asbestos fibers per cigarette. However, on the four filters from the "eight puff" test, he found between 38,000 to 10 million fibers. He had not calculated the error rate for the individual samples, but "it certainly would be within that range." The

fibers he observed were mostly individual or smaller particles, rather than bundles or clusters. He admitted that the acid wash preparation could have broken up such bundles, but it was unlikely because then he would have been able to see the fibers without the acid wash. He also testified that indirect preparations generally net higher numbers of particles.

Dr. Millette acknowledged that there is no standard method or body of literature for testing asbestos in cigarette smoke, nor did any of his publications cover such testing. His testing of Kent cigarettes had not been published or peer reviewed, but the acid-base method is peer reviewed, with two publications describing the methodology listed in his report. He testified that it is generally accepted in the scientific community among material scientists for this type of testing.

He also testified that his use of the electron microscope to identify asbestos fibers had also appeared in peer-reviewed publications listed in his report. Additionally, he testified that Arista's testing was done pursuant to the two protocols, and although he could not recall any particular publications, they were standard methods that had been peer reviewed.

The trial court then found that Dr. Millette was adequately qualified as an expert, his testimony was based on sufficient data, and was "the product of reliable principles and methods . . . that have been peer reviewed before, and he's applied these principle[s] and methods to the facts of the case," such that his testimony would be allowed. Dr. Millette later testified to his findings before the jury.

The trial court did not abuse its discretion in holding Dr. Millette's testimony admissible. He testified extensively as to his methods, which were simply new applications of generally accepted methodologies. It is not necessary for a particular application of a methodology to have been peer reviewed to satisfy admissibility standards.¹¹ See *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 151 (1999) ("It might not be surprising in a particular case, for example, that a claim made by a scientific witness has never been the subject of peer review, for the particular application at issue may never previously have interested any scientist.").

¹¹ Dr. Millette's methodology in this exact study has been upheld under *Daubert*. See *Quirin v. Lorillard Tobacco Co.*, No. 13 C 2633, 2014 WL 716162, at *4 (N.D. Ill. Feb. 25, 2014).

iv. Dr. James Crapo

Dr. James Crapo was originally deposed as Ford's witness, but his deposition was introduced by DeLisle at trial. In his deposition, Dr. Crapo opined that, based on "the weight of the medical literature," crocidolite and amosite asbestos were "very potent." He did not consider exposure to chrysotile a cause of mesothelioma unless in very high doses. He testified that DeLisle's "smoking Kent Micronite cigarettes [which contained crocidolite asbestos] was a substantial contributing cause for his mesothelioma[.]" rather than his exposures to chrysotile asbestos.

Dr. Crapo was familiar with Dr. Longo's study, but testified that Dr. Longo's "laboratory is one that I think often is at the far end of the spectrum on exposures to particles," with results that are "often not reproduced by other industrial hygienists." Dr. Crapo nonetheless relied on the study because Dr. Longo had found crocidolite fibers in cigarette smoke, but admitted that "because of the issues of filter degradation, the time lapse, and the absence of a second validation from a different laboratory, . . . I would not rely on this for exact numbers for the release amount." Dr. Crapo also reviewed Dr. Millette's study, but ultimately relied on the studies "[o]nly to the extent that I recognized that both Millette and Longo found fibers in the airstream coming through a Micronite filter," but not to "establish the dose." He testified that "it would just be expected that a filter would release some of the fibers that are in it," although he has never conducted any tests to verify that expectation. He summed up his testimony by stating, "What I'm trying to tell you is putting crocidolite, a very, very dangerous fiber, into a filter and having a person put that in his mouth and suck on it, . . . that sounds very dangerous to me." Based on this, the trial court found that Dr. Crapo's testimony was reliable under *Daubert*.

Dr. Crapo's testimony is similar to the expert testimony in *United States v. Frazier*, 387 F.3d 1244, 1265 (11th Cir. 2004), where the expert stated that the recovery of hair or seminal fluid from an assault scene "would be expected," but failed to state the basis for the opinion. Like the expert in *Frazier*, Dr. Crapo "offered precious little in the way of a reliable foundation or basis for his opinion." *Id.* Because he left his basis unstated, he did not provide enough for the court to evaluate the reliability of his opinion. Dr. Crapo effectively told the court to take his word for it. Although he relied on the studies by Dr. Longo and Dr. Millette, it was only to assume some level of fiber release. Thus, he did not establish any dose. Otherwise, he relied on his experiences, but did not explain how they applied. Furthermore, he relied on the "weight of medical literature" without identifying any specific literature. Accordingly, we find that Dr. Crapo's

testimony did not demonstrate the reliability of his opinion, nor its helpfulness. This is not to say that he could not have possibly been admitted under *Daubert*; there simply is not enough in the record for the court to have made a proper determination.

v. Dr. James Rasmuson

Dr. James Rasmuson was called by Crane, and the trial court conducted a *Daubert* hearing. He is an industrial hygienist and toxicologist. Dr. Rasmuson opined that DeLisle's mesothelioma risk was increased by even low-level exposure to crocidolite or amosite asbestos (both of which are referred to as types of amphibole asbestos). He explained that he based his opinion on three peer-reviewed case control studies which compared mesothelioma rates with type of asbestos and degree of exposure. He explained the results and noted that the three separate studies had replicated the results. He stated, based on the results, what the background level was for crocidolite fibers.

Dr. Rasmuson also opined that smoking Kent cigarettes would constitute a significant exposure to crocidolite asbestos. Dr. Rasmuson stated that he relied solely on Dr. Longo's studies to come to this conclusion. He did not know whether the methodology that Dr. Longo used was an acceptable methodology, although it sounded "reasonable" to him even though he was not qualified in that area. He testified that "if Dr. Longo's tests are anywhere in the ball park . . . , even if they're higher than what was observed by some significant factor, there still could be some level of risk" from Kent cigarettes. Dr. Rasmuson had assumed, without knowing, that Dr. Longo's article had been peer reviewed. Dr. Rasmuson testified that Dr. Longo's study was "the type of evidence that would be . . . reasonably relied upon by experts" in his field.

With regard to his first opinion of general causation, regarding low-level exposure to crocidolite, Dr. Rasmuson demonstrated the reliability of his opinion and its helpfulness to the jury. He not only cited the studies he had relied on, he also specified that they were peer-reviewed and the results had been replicated. He also explained the findings of the studies and how he had applied them to come to his conclusion.

With regard to his Kent-specific opinions, Dr. Rasmuson concluded that the exposure would have been significant, and he testified that Dr. Longo's study was the sole study that he relied on to form the basis of his opinion. However, he did not know whether the methodology underlying Dr. Longo's study was an accepted methodology, nor did he know whether the published study was peer reviewed, which it was not. The trial court

therefore could not conclude that Dr. Rasmuson's opinions were based upon reliable data, or that his Kent-specific causation opinion was reliable and satisfied the *Daubert* standard.

In sum, Drs. Crapo and Rasmuson failed, at least in part, to demonstrate the reliability of their opinions on this record. Further, they failed to support their opinions with reliable data. Because their opinions should not have been admitted, we reverse for a new trial for R.J. Reynolds.

As for Crane, Dr. Dahlgren's opinion was the sole evidence on causation against Crane regarding the link between its products and DeLisle's mesothelioma. As we find that his testimony did not satisfy the standard of *Daubert* and that his "every exposure" theory was insufficient to establish liability, we reverse the denial of a directed verdict for Crane and direct that a verdict be entered in its favor.¹²

Jury Instruction

R.J. Reynolds next argues that the trial court erred by refusing to instruct the jury and to submit for its consideration the threshold question of whether DeLisle actually used Lorillard and H&V's products. Because we are reversing for a new trial, we address this issue, even though we would not have reversed on this issue alone.

"Generally, the applicable standard jury instructions are presumed correct and should be given unless such instructions are erroneous or inadequate." *Aubin v. Union Carbide Corp.*, 177 So. 3d 489, 516 (Fla. 2015). A trial court, however, is not inexorably bound to the standard instructions:

A trial court abuses its discretion when it fails to give a proposed instruction that is (1) an accurate statement of the law, (2) supported by the facts of the case, and (3) necessary for the jury to properly resolve the issues, so long as the subject of the proposed instruction is not covered in other instructions given to the jury and the failure to instruct is shown to be prejudicial.

R.J. Reynolds v. Jewett, 106 So. 3d 465, 467 (Fla. 1st DCA 2012).

¹² To the extent that Dr. Dahlgren offered opinions on causation as to Kent cigarettes and as to DeLisle's prognosis and damages, no party has contested these opinions.

The trial court refused to give Lorillard's instruction as to whether DeLisle smoked cigarettes because it was not a standard instruction and the question was inherent in the standard instruction, even though the trial court thought that the standard instructions should include one on product use. The standard instructions do appear to, in some measure, assume product use, and thus we agree that where product use is contested, as it was in this case, a targeted instruction to the jury to determine this issue first would be appropriate.

Nevertheless, given that the issue was hotly contested and thoroughly addressed in preliminary instructions, the testimony, and in closing argument, it is not reasonable to think that the jury was misled and would have or could have found for DeLisle on his claims without also concluding that he smoked Kent cigarettes. But as we are reversing for a new trial on other grounds, the court should consider giving an appropriate instruction on product use in any new trial.

Damage Award

Both R.J. Reynolds and Crane challenge the jury's \$8 million award as excessive and argue that the trial court abused discretion in denying remittitur. They note, in part, that in closing argument, DeLisle's counsel asked the jury to compensate DeLisle based upon the rate the parties compensated their experts. We agree with Judge Wetherell in his dissenting opinion in *R.J. Reynolds Tobacco Co. v. Townsend*, 90 So. 3d 307 (Fla. 1st DCA 2012), that this is an improper analogy because it focuses on the defendant's ability to pay, not the loss to the plaintiff. *Id.* at 318 (Wetherell, J., concurring in part, dissenting in part) (stating that counsel's argument that "the jury could use the annual compensation of one of [defendant's] experts . . . and one of its executives . . . as 'reasonable gauges or measuring sticks' to value the time Appellee lost with her husband as a result of his premature death from lung cancer" was improper because it was "nothing more than a thinly veiled invitation for the jury to lavishly compensate Appellee for the death of her husband simply because [the defendant] could afford to do so").

Section 768.74(3), Florida Statutes (2016), requires the court to subject a damage award to "close scrutiny." One of the criteria that the court must consider is "[w]hether the trier of fact took improper elements of damages into account or arrived at the amount of damages by speculation and conjecture[.]" § 768.74(5)(c), Fla. Stat. In this case, DeLisle's attorney stated the hourly pay rates charged by the experts and provided the jury with calculations that reflected an award of an amount in this range for each hour of each day that DeLisle had been ill. Counsel encouraged the

jury to take into account an improper measure of damage by using the defendants' ability to pay its experts as the gauge for a damage award.

Werneck v. Worrall, 918 So. 2d 383, 388 (Fla. 5th DCA 2006), is instructive. There, in a wrongful death case against a trucking company, the plaintiff's attorney suggested to the jury in closing that it calculate the pain and suffering to the survivors based upon the number of trucks owned by the company. *Id.* The court held that this was an improper basis for an award:

Although, as Appellee points out, the number of trucks and hourly wage of a daycare worker were in evidence, this evidence was introduced for different purposes and had no "logical nexus in deduction or analogy" to the amount of pain and suffering incurred by Appellee. *Wright & Ford Millworks, Inc. v. Long*, 412 So. 2d 892 (Fla. 5th DCA 1982). The fact that counsel could have suggested a wholly arbitrary number to the jury does not give counsel carte blanche to mislead the jury by knowingly urging it to employ specious methodology

....

Id. (footnote omitted). Similarly, in this case, while the hourly rate of the experts was in evidence, it was not for the purpose of establishing DeLisle's damages, and it was a "wholly arbitrary number" to use to establish damages, focused on what the defendants could pay. *Id.* It appears that the jury relied on counsel's suggestions to arrive at its verdict. The appeal to the jury to use this wholly improper and arbitrary means of measuring the damages to DeLisle should have warranted a remittitur or a new trial on damages.

Conclusion

As we are reversing for a new trial for R.J. Reynolds based on the improper admission of the expert testimony, the new trial should include the issue of damages because of the foregoing analysis.

At a new trial, the court should also reconsider the prior inclusion of Owens-Corning on the verdict form as a *Fabre* defendant, as raised on cross-appeal by DeLisle. Dr. Rasmuson testified that DeLisle's exposure to Owens-Corning products containing asbestos would be a substantial contributing factor to DeLisle's mesothelioma, but his testimony on this issue did not meet the test of *Daubert*.

For the foregoing reasons we reverse and remand for entry of a directed verdict for Crane and for a new trial on all issues as to R.J. Reynolds.

CIKLIN, C.J., and KLINGENSMITH, J., concur.

* * *