Daubert Motions in Construction Litigation: Making and Defending Challenges
Navigating Daubert Standards for Expert Witnesses in Design and Construction Defect Claims

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DAUBERT CHALLENGES IN CONSTRUCTION LITIGATION

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I. INTRODUCTION

In order to understand the use of Daubert expert challenges in construction litigation, a lawyer requires a broader understanding of the United States Supreme Court’s landmark decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), which addressed the standards for admissibility of expert testimony in federal courts. We will further analyze the Supreme Court’s expansion of Daubert in its subsequent decisions, including its more recent pronouncements on the meaning, effect, and scope of Daubert’s application. We will also discuss the practical effects of a Daubert challenge, including statistical probabilities of success and how such a challenge can be used in a cost effective manner in conjunction with motions for summary judgment. We also illustrate and discuss the use of such challenges in construction litigation.

The danger of “junk science” to litigants is greater than ever. There are increasing expectations from jurors that parties will present scientific evidence at trial. Expert witnesses, by virtue of their designation as “experts,” can have significant influence on jurors. Extensive research on juror evaluation of scientific testimony has concluded that generally:

(a) lay jurors have considerable difficulty evaluating the quality of scientific evidence;
(b) as the scientific evidence becomes more complex jurors tend to turn to more superficial cues to determine its validity;
(c) fact finders are more persuaded by storytelling and clinical testimony than by quantitative science;
(d) jurors are prone to give more credence to expert testimony provided at trial than they would have otherwise outside of court; and
(e) cross-examination is often ineffective in undoing the impact of erroneous or misleading scientific evidence.1

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There is substantial evidence that federal district and appellate courts have been more willing to exclude expert testimony since the Supreme Court handed down its decision in *Daubert*. There is also evidence that litigants may use *Daubert* challenges to increase their chances of success on summary judgment.

As one scholar recently commented regarding the far reaching impact of *Daubert*:

History will one day record definitively the revolutionary character of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*. Daubert fundamentally altered the perspective by which courts evaluate the admissibility of expert testimony. Under the Ancien Regime of *Frye v. United States*, courts merely assessed whether the basis for scientific evidence was generally accepted in the particular field from which it came. This test demanded little scientific sophistication, and courts rarely evidenced any sophistication in applying it. *Daubert*, in contrast, requires courts to assess the methods and principles underlying proffered expertise. The validity test of *Daubert* thus places a considerable onus on trial court judges to understand basic principles of statistics and scientific research methods.3

Thus, it is critical for a litigant to evaluate whether an effective pre-trial *Daubert* challenge to the admissibility of its opponent’s proffered expert can be asserted, the chances of success of such a challenge, and the potential costs. Prevailing on a *Daubert* challenge can effectively end the case, or substantially damage your opponent’s position at trial.

II. **THE DAUBERT TRILOGY AND THE EXTENSION OF DAUBERT IN MORE RECENT SUPREME COURT RULINGS**


Interestingly, the federal decision most influential in setting the standard for expert admissibility in federal courts pre-*Daubert* was not a Supreme Court decision. In *Frye*, the defendant was charged with second-degree murder. He sought to present an expert witness at trial to testify as to the results of a lie-detector test that he had passed. The defendant argued the test measures the systolic blood pressure of the subject, and “scientific experiments . . . have demonstrated that fear, rage, and pain always produce a rise of systolic blood pressure, and that conscious deception or falsehood, concealment of facts, or guilt of crime, accompanied by fear of detection when the person is under examination, raises the systolic blood pressure in a curve, which corresponds exactly to the struggle going on the subject’s mind[.]” 293 F. at 1013. The government objected to the introduction of the lie detector test and also objected to the defendant’s offer to conduct the test in the presence of the jury. The trial court sustained the objection, and the defendant was ultimately found guilty. *Id.*

On appeal, the defendant argued that “the opinions of experts or skilled witnesses are admissible in evidence in those cases in which the matter of inquiry is such that inexperienced persons are unlikely to prove capable of forming a correct judgment upon it, for the reason that the subject-matter so far partakes of a science, art, or trade as to require a previous habit or experience or study in it, in order to acquire a knowledge of it. Thus, when the question involved is not within the range of common experience or knowledge, but requires special expertise, the opinions of witnesses skilled in that expertise are admissible.” *Id.* at 1014. The court of appeals agreed with the defendant’s statement of the law, but held the lie detector test was properly excluded because it was not generally accepted within the scientific community:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.

We think the systolic blood pressure deception test has not yet gained such standing and scientific recognition among physiological and psychological authorities as would justify the courts in admitting expert testimony deduced from the discovery, development, and experiments thus far made.

*Id.* Accordingly, the court of appeals affirmed the judgment of the trial court.

In applying *Frye*, courts focused on the expert’s credentials and left evaluating the quality of the expert’s opinions to the jury.\(^4\) Courts simply looked to see if the expert’s methods were “generally accepted” within his field of expertise. For most of the twentieth century, courts evaluated the reliability of scientific evidence under *Frye*’s “general acceptance” test.\(^5\)


The question presented in *Daubert* was essentially whether the *Frye* test had been superseded by Federal Rule of Evidence 702, which makes no mention of whether a methodology is “generally accepted” as a prerequisite for admissibility. The Supreme Court noted that *Frye* was not mentioned in the drafting history of Rule 702 and that a rigid “general acceptance” requirement “would be at odds with the ‘liberal thrust’ of the Federal Rules and their general approach of relaxing the traditional barriers to opinion testimony.” 509 U.S. at 588. The *Daubert* court rejected the *Frye* test, and in its place charged trial courts with the responsibility of acting as “gatekeepers” to exclude unreliable expert testimony. Because the

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Court considered *Frye* to be too conservative and vague, it vested trial courts with considerable discretion to rigorously analyze an expert’s methodology in determining whether to admit the expert testimony.

The Daubert plaintiffs, minor children born with serious birth defects and their parents, sued alleging that birth defects were caused by the mothers’ ingestion of Bendectin, a prescription anti-nausea drug manufactured by the defendant. After discovery, the defendant moved for summary judgment, contending that the drug does not cause birth defects in humans and that the plaintiffs could not proffer any admissible evidence that it does. The defendant relied upon an affidavit of an expert physician and epidemiologist stating that none of the 30 studies analyzing Bendectin use in 130,000 patients found any link between the drug and birth defects. The defendant’s expert concluded that maternal use of Bendectin during the first trimester of pregnancy has not been shown to be a risk factor for human birth defects.

The plaintiffs countered with the testimony of eight experts who concluded that Bendectin can cause birth defects. Plaintiffs’ experts relied upon animal studies linking Bendectin to birth defects; pharmacological studies of the chemical structure of Bendectin that showed similarities between the drug with other substances known to cause birth defects; and re-analysis of previously published epidemiological studies in humans.

The district court granted the defendant’s motion, holding that the plaintiffs’ expert evidence was not “sufficiently established to have general acceptance in the field to which it belongs.” 727 F.Supp. 570, 572 (S.D. Cal. 1989). The district court held that, given the vast body of epidemiological data concerning Bendectin, plaintiff’s experts’ opinion were not admissible to show causation. The district court further held that the plaintiff’s re-analysis of the epidemiological studies was inadmissible because it had not been published or subjected to peer review. *Id.* at 575. The Ninth Circuit Court of Appeals affirmed, citing *Frye*, holding that an expert opinion based on a scientific technique is inadmissible unless the technique is “generally accepted” as reliable in the scientific community. 951 F.2d at 1129-30. The Supreme Court granted certiorari given a split in the circuits regarding the proper standard applicable in determining the admissibility of expert testimony.

The Supreme Court ruled that “under the Rules the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” 509 U.S. at 589. Rule 702 requires that theories offered by the expert must be *scientific* or *specialized* in nature:

“[I]n order to qualify as “scientific knowledge,” an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation—*i.e.*, “good grounds,” based on what is known. In short, the requirement that an expert's testimony pertain to “scientific knowledge” establishes a standard of evidentiary reliability.” 509 U.S. at 590.

The Supreme Court further held that Rule 702 requires that the evidence or testimony be *relevant*: It must “assist the trier of fact to understand the evidence or to determine a fact in issue,” because “[e]xpert testimony which does not relate to any issue in the case is not relevant
and, ergo, non-helpful.” 509 U.S. at 591, citing 3 Weinstein & Berger ¶ 702-[02]. This is what is described as “fit,” which “is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes.” Id.

Thus, the Supreme Court held trial judges must determine at the outset, pursuant to Rule 104(a), whether an expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to determine a fact in issue. “This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.” 509 U.S. at 592.

The Supreme Court did not set forth a “definitive checklist or test” to determine whether expert testimony is both scientifically reliable and relevant to the case, but the Court did articulate some factors to consider:

- **Whether the proffered theory or technique can be (and has been) empirically tested** – The Supreme Court, citing treatises of philosophy of science, noted that valid scientific methods must be capable of empirical testing.

- **Whether the proffered theory or technique has been subjected to peer review and publication** – The Supreme Court was careful to state that publication is not per se a sign of reliability or admissibility, since some well-grounded but novel theories will not have been published. The key thing is that the method has been submitted to the scrutiny of the scientific community.

- **The known or potential rate of error for the proffered theory or technique and the existence and maintenance of standards controlling the technique’s operation (for example a scientific organization’s standards or best practices concerning a given technique).**

- **Whether the proffered theory or technique has found “general acceptance” in the relevant scientific or technical community** – Here the Supreme Court incorporated the Frye test into the overall analysis of the reliability of a scientific methodology, noting that “widespread acceptance can be an important factor in ruling particular evidence admissible, and “a known technique which has been able to attract only minimal support within the community,” may properly be viewed with skepticism.

509 U.S. at 593-94.

The Court emphasized that the Rule 702 inquiry is a “flexible one,” with its overarching subject the scientific validity and thus the evidentiary relevance and reliability of the proposed methodology. “The focus, of course, must be solely on principles and methodology, not on the conclusions that they generate.” 509 U.S. at 595. In addition to the flexibility of the standard, the Supreme Court stated that the trial court retains its ability to direct a judgment if it concludes that the “scintilla” of evidence presented supporting a position is not sufficient to allow a
reasonable juror to conclude that the position is more likely true than not. *Id.* at 596. Accordingly, the Supreme Court reversed and the district court and remanded the case.


Joiner worked for a municipal power company and made repairs to electrical transformers which contained a liquid coolant that would get onto his hands and splash into his eyes and mouth. In 1983, the municipality discovered that the coolant in some of the transformers was contaminated with polychlorinated biphenyls (PCBs), which are hazardous to human health.

In 1991, Joiner was diagnosed with small-cell lung cancer. He filed suit against the PCB manufacturer, and General Electric and Westinghouse Electric, which manufactured transformers and the liquid coolant. Joiner linked his cancer to his exposure to PCBs and their derivatives. Joiner was also a smoker, and there was a history of lung cancer in his family. The lawsuit alleged that his exposure to PCBs “promoted” his cancer—i.e. had it not been for his exposure to these substances, his cancer would not have developed for many years, if at all.

The defendants moved for summary judgment, arguing there was no evidence Joiner suffered significant exposure to PCBs and also that there was no admissible scientific evidence that PCBs promoted Joiner’s cancer. Joiner relied largely on expert witnesses, who testified that PCBs can promote cancer generally. They opined that, since Joiner had been exposed to these substances, such exposure was likely responsible for Joiner’s cancer.

The district court ruled that the testimony of Joiner’s experts failed to demonstrate a link between exposure to PCBs and Joiner's cancer. The district court held that the testimony of the experts did not rise above "subjective belief or unsupported speculation" and was therefore inadmissible. *Joiner v. General Electric Co.*, 864 F.Supp. 1310, 1326 (N.D. Ga. 1994). The district court granted summary judgment in favor of the defendants.

The Eleventh Circuit Court of Appeals reversed, holding that "[b]ecause the Federal Rules of Evidence governing expert testimony display a preference for admissibility, we apply a particularly stringent standard of review to the trial judge's exclusion of expert testimony." *Joiner v. General Electric Co.*, 78 F.3d 524, 529 (11th Cir. 1996). Applying that "stringent" standard, the Eleventh Circuit held the district court erred in excluding the testimony of Joiner's experts because it "drew different conclusions from the research than did each of the experts" going beyond the district court's role in determining only "the legal reliability of proffered expert testimony" and "leaving the jury to decide the correctness of competing expert opinions." *Id.*

The Supreme Court reversed. Observing that the standard of review for evidentiary rulings is an ordinary, abuse of discretion standard, the Supreme Court held that the Eleventh Circuit erred in applying an "overly stringent" review of the exclusion of Joiner's experts' testimony and failing to give the trial court the deference afforded under an abuse of discretion review. 522 U.S. at 143. Prior to the *Joiner* Court’s holding that the appropriate standard of review for a *Daubert* ruling is an ordinary, abuse of discretion standard, there was a split among
the circuits: Some applied an abuse of discretion standard, others applied a *de novo* standard, affording no deference to the trial court.

Using the more deferential standard of review, the Supreme Court found the district court did not abuse its discretion in excluding the experts' testimony, which testimony was based entirely on extrapolation from animal studies which the district court found did not directly support the experts' theory that exposure to PCBs caused Joiner's small-cell cancer, or indeed small-cell cancer in humans at all. The Supreme Court rejected Joiner’s argument that the district court erred in that it merely disagreed with the conclusions the experts drew from the studies rather than focusing on the methodology as required by Daubert. The Court held:

"[C]onclusions and methodology are not entirely distinct from one another. Trained 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." 522 U.S. at 146.


The *Kumho Tire* case is the last of the so-called *Daubert* Trilogy, although it does not represent the Supreme Court’s final pronouncement on the effect of *Daubert*. In *Kumho Tire*, a tire on the vehicle driven by Carmichael blew out and the vehicle overturned, killing one passenger and injuring others. Carmichael's representative and survivors brought a suit against the tire maker and distributor, alleging the tire that failed was defective. Carmichael relied on an expert tire failure analyst, who intended to testify that a defect in the tire's manufacture or design caused the blowout because the symptoms of "tire abuse" were not present.

Kumho Tire moved to exclude the testimony, arguing it was not reliable under Rule 702 and *Daubert*. The district court agreed and entered summary judgment in favor of Kumho Tire, finding that the expert's theories concerning the absence of the signs of "tire abuse" were undermined by evidence of tire abuse the expert attempted to explain away as insignificant, and because the expert's method did not take into account that the tire was bald in some places and had at least two punctures prior to the blowout that had been improperly repaired. The district court held that, even though the expert was not a "scientific" expert and employed a chiefly visual inspection, it nonetheless was charged under *Daubert* to act as a "gatekeeper" for the technical evidence. *Carmichael*, 923 F.Supp. 1514, 1522 (S.D. Ala. 1996)

The Eleventh Circuit Court of Appeals reversed, holding that the district court improperly applied *Daubert* because in its view *Daubert* applied only where an expert relies "on the application of scientific principles" rather than "on skill or experience based observation." *Carmichael v. Samyang Tire Inc.*, 131 F.3d 1433, 1435-36 (11th Cir. 1997). The Eleventh Circuit concluded that the expert's testimony, which relied on experience, fell outside the scope of *Daubert* and remanded for the district court to apply a different evaluation.
Kumho Tire petitioned for certiorari, which the Supreme Court granted "in light of uncertainty among the lower courts about whether, or how, Daubert applies to expert testimony that might be characterized as based not upon 'scientific knowledge' but rather upon 'technical' or 'other specialized' knowledge." 526 U.S. 137, 146-47. The Supreme Court clarified that the gatekeeper function of the trial court under Rule 702 applies to all expert testimony, not just "scientific testimony." The Court noted that, because there is no clear line between "scientific," "technical," or "other specialized" knowledge, trial courts must evaluate the testimony offered by experts from a great variety of expertises or fields by examining the methods by which those experts approach the subject, whether derived from rigorous experimental tests or daily experience with the subject. Thus, the Court concluded that a court needs to make certain that "an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Id.


Bonnie Weisgram died of carbon monoxide poisoning during a fire in her home. Her son brought a wrongful death action against the Marley Company, which manufactured a heater located in Weisgram’s home that allegedly caused the fire and her death. Over the defendant’s objection, the district court admitted expert’s testimony that the heater was defective and caused the fire. The plaintiff later prevailed at trial. 528 U.S. at 445.

On appeal, the Eighth Circuit Court of Appeals reversed, holding it was an abuse of discretion for the trial court to admit the evidence because it was speculative and not scientifically sound. The Eighth Circuit then considered the remaining evidence and found that, without the expert evidence, it was insufficient to support the jury verdict and directed the district court to enter judgment for the defendant. *Id.* at 445-46.

The Supreme Court upheld the Eighth Circuit’s ruling, holding under F.R.C.P. 50 “that the authority of courts of appeals to direct the entry of judgment as a matter of law extends to cases in which, on excision of testimony erroneously admitted, there remains insufficient evidence to support a jury's verdict.” 528 U.S. at 547. Thus, once the Eighth Circuit properly found that the plaintiff’s expert testimony was inadmissible, it was proper to evaluate the evidence presented at trial in the light most favorable to the plaintiff and find it insufficient to support the verdict as a matter of law.


For years, there has been a split in the circuit courts as to whether to apply Daubert to expert testimony at the class certification stage of a putative class action, or whether a less rigorous approach was warranted. See e.g., *American Honda Motor Co., Inc. v. Allen*, 600 F.3d 813, 816 (7th Cir. 2010)( holding that Daubert must be applied when an expert’s “testimony is critical to class certification” and “a district court must conclusively rule on any challenge to the
expert’s qualifications or submissions prior to ruling on a class certification motion.”); In re Zurn Pex Plumbing Products Litigation, 644 F.3d 604 (8th Cir. 2011)(rejecting need for a district court to apply an exhaustive Daubert analysis at the class certification stage). Courts that have rejected applying Daubert at the class certification stage have instead evaluated whether “the expert evidence is sufficiently probative to be useful in evaluating whether class certification requirements have been met.” Dukes v. Wal-Mart, Inc., 222 F.R.D. 189, 191 (N.D. Cal. 2004). Instead of a full “Daubert gatekeeper” analysis, at the class certification stage courts examine whether the expert testimony comports with basic scientific or technical principles, has any probative value, and uses evidence that is common to all members of the proposed class. Id., citing In re Polypropylene Carpet Antitrust Litigation, 996 F.Supp. 18, 26 (N.D. Ga. 1997).

But when the Dukes case went up to the Supreme Court, the high court intimated that this may not be appropriate. Though it did not explicitly rule on the question, Justice Scalia, writing for the majority, states: “The District Court concluded that Daubert did not apply to expert testimony at the certification stage of class-action proceedings. We doubt that is so[.]” Wal-Mart Stores, Inc. v. Dukes, 564 U.S. ---, 131 S.Ct. 2541, 2553-54 (2011). The Supreme Court then held that the plaintiffs’ expert proffered at class certification wholly failed to support the commonality element of class certification and thus should not be considered. The question of Daubert applicability at the class certification stage is still unsettled as the Supreme Court recently failed to reach the issue in another recent class-action certification case. Comcast Corp. v. Behrend, 133 S.Ct. 1426 (2013) (reversing the district court’s class certification on grounds that no commonality of damages were presented based on expert’s damage model).

District courts appear to be following the Supreme Court’s prompt in Dukes and are employing a full Daubert gatekeeper analysis at the class certification stage. See Floyd v. City of New York, 283 F.R.D. 153, 166-67 (S.D.N.Y. 2012) (admitting expert testimony and certifying class); Keegan v. American Honda Motor Co., Inc., 284 F.R.D. 504, 514 (C.D. Cal. 2012) (excluding expert testimony in part but certifying class).

g. Federal Rules of Evidence Related to the Admission of Expert Witnesses

Challenges to expert evidence, like any other type of evidence, are encompassed within the general framework of the Federal Rules of Evidence. For evidence to be permitted into a case, it must be both relevant and admissible. FRE 401-402.

i. FRE 702: Testimony by Expert Witnesses

FRE 702 was amended in 2000 to codify the principles set forth in Daubert and its progeny. It provides that a witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
(b) the testimony is based on sufficient facts or data;
(c) the testimony is the product of reliable principles and methods; and
(d) the expert has reliably applied the principles and methods to the facts of the case.

Advisory Committee Notes:

“Nothing in this amendment is intended to suggest that experience alone--or experience in conjunction with other knowledge, skill, training or education--may not provide a sufficient foundation for expert testimony. To the contrary, the text of Rule 702 expressly contemplates that an expert may be qualified on the basis of experience. In certain fields, experience is the predominant, if not sole, basis for a great deal of reliable expert testimony. See, e.g., United States v. Jones, 107 F.3d 1147 (6th Cir. 1997) (no abuse of discretion in admitting the testimony of a handwriting examiner who had years of practical experience and extensive training, and who explained his methodology in detail); See also Kumho Tire Co. v. Carmichael, 119 S.Ct. 1167, 1178 (1999) (stating that “no one denies that an expert might draw a conclusion from a set of observations based on extensive and specialized experience.”).

If the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts. The trial court's gatekeeping function requires more than simply “taking the expert's word for it.” See Daubert v. Merrell Dow Pharmaceuticals, Inc., 43 F.3d 1311, 1319 (9th Cir. 1995) (“We've been presented with only the experts' qualifications, their conclusions and their assurances of reliability. Under Daubert, that's not enough.”). The more subjective and controversial the expert's inquiry, the more likely the testimony should be excluded as unreliable. See O'Conner v. Commonwealth Edison Co., 13 F.3d 1090 (7th Cir. 1994) (expert testimony based on a completely subjective methodology held properly excluded). See also Kumho Tire Co. v. Carmichael, 119 S.Ct. 1167, 1176 (1999) (“[I]t will at times be useful to ask even of a witness whose expertise is based purely on experience, say, a perfume tester able to distinguish among 140 odors at a sniff, whether his preparation is of a kind that others in the field would recognize as acceptable.”).

FRE 702, Advisory Committee notes.

ii. FRE 703: Bases of an Expert’s Opinion Testimony

An expert may base an opinion on facts or data in the case, of which the expert has been made aware or personally observed. If experts in the particular field would reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admitted. But if the facts or data would otherwise be inadmissible, the proponent of the opinion may disclose them to the jury only if their probative value in helping the jury evaluate the opinion substantially outweighs their prejudicial effect.
“There has been some confusion over the relationship between Rules 702 and 703. The amendment makes clear that the sufficiency of the basis of an expert’s testimony is to be decided under Rule 702. Rule 702 sets forth the overarching requirement of reliability, and an analysis of the sufficiency of the expert's basis cannot be divorced from the ultimate reliability of the expert's opinion. In contrast, the “reasonable reliance” requirement of Rule 703 is a relatively narrow inquiry. When an expert relies on inadmissible information, Rule 703 requires the trial court to determine whether that information is of a type reasonably relied on by other experts in the field. If so, the expert can rely on the information in reaching an opinion. However, the question whether the expert is relying on a sufficient basis of information—whether admissible information or not—is governed by the requirements of Rule 702.”

FRE 702, 2000 Advisory Committee Notes.

III. THE USE OF DAUBERT IN CONSTRUCTION LITIGATION

a. Practical Considerations.

1. Cost.
2. Timing.
3. Likelihood of Success.
4. Requisite Knowledge or Expertise.

b. Tactical or Strategic Considerations.

1. Ability to Use Cumulative or Potentially Inadmissible Evidence.
2. Impact on Case Value.
3. Relationship to Summary Judgment.
5. Setting the Stage for a Challenge.
6. Executing the Challenge.
7. Maximizing the Benefits.

The following examples are provided to illustrate these concepts. In one case involving very significant monetary claims, a district court in Colorado struck both a hydrologist’s groundwater study and future predictions of subsurface water beneath two adjacent subdivisions and also struck the designation of the hydrologist to testify as an expert on any topic. Qualifications per se did not fuel the challenge, because the hydrologist was with a national engineering firm and had numerous publications to his credit, as well as many instances in which he had testified as an expert witness. However, there was no demonstrable error rate for the model’s future predictions. In addition, there was demonstrated error because existing groundwater measurements in wells and piezometers at the site were measured at higher levels than shown in his groundwater model as representing current conditions. If fact, defense experts testified the groundwater model’s current groundwater levels were off by an average of 12 feet, much greater than considered permissible in hydrology for a well-designed groundwater model.
The court ultimately found that the groundwater model did not reliably demonstrate or reflect existing or future groundwater conditions at the site. The success of this challenge was intertwined with the proposed opinions of plaintiff’s primary liability expert. Within days of the expert being stricken, the claims in the two cases, estimated at nearly $70 million, settled for $500,000, which was approved at a public good faith hearing.

In another example, a federal district court in Kansas struck a geotechnical engineer who offered opinions regarding the premature failure of a concrete parking lot at a commercial refrigeration warehouse. Specifically, the expert proposed to opine that the failure was caused by the use of high slump concrete at the site and that the testing agency breached the standard of care. Once again, the challenge was not driven by the expert’s qualifications, and, in fact, the court ultimately held that the expert was generally well-qualified in his field. However, the expert was unable to demonstrate sufficient basis for his hypothesis and could not demonstrate sufficient testing or knowledge of the site conditions in order for his opinions to meet the admissibility standards of Rule 702. The stricken expert was one of two engineers designated by plaintiff as liability experts. The plaintiff proceeded to trial without their stricken engineering expert, and a defense verdict was obtained. No appeal was taken.

A third example underscores the value even unsuccessful challenges can have. In an action in which $56 million in damages were alleged, one of plaintiff’s key liability and damage experts was a geotechnical engineer with opinions about foundation movement involving expansive soils that are not accepted in the engineering community. More than a dozen engineers submitted affidavits or testified live at the hearing, each rejecting the proferred expert’s claims. Only one Colorado licensed engineer gave supportive testimony. The court ruled that Colorado law is more liberal than federal law regarding the admission of expert testimony, and that while the proferred expert’s opinions were not accepted in the community, they were admissible. The court went on to note on the record, that he would not be inclined to credit the proferred opinions given the weight of evidence from the engineering community to the contrary. The evidence offered at the hearing and likely the court’s comments caused plaintiff to reevaluate its position and the case settled less than ten days later on favorable terms.

So-called allocation of fault experts are becoming increasingly common, but these authors believe no basis exists for the admission of their opinions and we always object to them. No college, engineering, or graduate course exists which instructs as to a reliable, replicable method of allocation of fault with a known or demonstrable error rate. In response to each challenge filed, such experts have been uniformly withdrawn or stricken. For example, in one case last year, the district court struck the allocation of fault experts. The court relied on Rules 702 regarding admission of expert testimony. The court also relied on Rule 403, finding that the proferred expert testimony was more prejudicial than probative, because it would be confusing and misleading to the jury, and would result in a minitrial on the experts’ allocations of fault.
IV. THE EFFECT OF DAUBERT AND ITS PROGENY ON THE ADMISSIBILITY OF EXPERTS IN FEDERAL COURTS

The Eleventh Circuit Court of Appeals commented on its interpretation of the rationale underlying the Daubert decision:

While meticulous Daubert inquiries may bring judges under criticism for donning white coats and making determinations that are outside their field of expertise, the Supreme Court has obviously deemed this less objectionable than dumping a barrage of questionable scientific evidence on a jury, who would be even less equipped than the judge to make reliability and relevance determinations and more likely than the judge to be awestruck by the expert’s mystique.

Allison v. McGhan Med. Corp., 184 F.3d 1300, 1310 (11th Cir. 1999). “The holding of Daubert is the requirement that judges find as a preliminary fact that the methods and principles underlying proffered expert testimony are sufficiently valid to support that testimony. The four ‘Daubert factors’ were offered as guidelines to help courts assess expert testimony.”

The factors courts consider have not been “codified” in the Rule, permitting courts the flexibility to analyze proffered expert evidence according to standards applicable in each particular case.


In general, the federal district and circuit courts have applied the Daubert standard in a similar manner, with certain notable exceptions. In this section, we provide examples of how federal courts address different types of expert challenges under the Daubert factors as well as under additional factors recognized by the various circuits. The proponent of expert testimony bears the burden of showing that its proffered expert's testimony is admissible. Ralston v. Smith & Nephew Richards, Inc., 275 F.3d 965, 970 n. 4 (10th Cir. 2001).

i. Qualifications of the Expert.

Challenges to qualifications standing alone are rarely successful: “[M]ost arguments about an expert’s qualifications relate more to the weight to be given the expert’s testimony rather than its admissibility.” Holbrook v. Lykes Bros. Steamship Co., 80 F.3d 777, 782 (3rd Cir. 1996). Still, “[i]t is critical that the court determine whether the evidence is genuinely scientific, as distinct from being unscientific speculation offered by a genuine scientist. Mitchell v. Gencorp, Inc., 165 F.3d 778, 783 (10th Cir. 1999). Thus, even if the expert is a bona fide expert in some field, he may not be qualified to provide the proffered expert testimony because the testimony is outside the expert’s field of expertise. Moreover, courts commonly review the reliability of an expert’s methods and conclusions through the prism of an expert’s qualifications. A marginally qualified expert will often be given less leeway to offer reliably suspect opinions than a well qualified expert. See e.g., U.S. v. Mitchell, 365 F.3d 215 (3rd Cir. 2004) (“The binary question whether an expert is or is not qualified to testify to a particular subject is

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analytically distinct under Rule 702, from the more timely textured question whether a given expert’s qualifications enhance the reliability of his testimony.”).

In practice, courts give great deference to medical doctors. Thus, most courts permit physicians to testify about any area of medicine regardless of the expert’s specialty. In *Gaydar v. Sociedad Instituto Genico-Quirugico Y Planificacion Familiar*, 345 F.3d 15 (1st Cir. 2003), an abortion clinic patient brought suit against the clinic for injuries allegedly sustained as a result of a procedure and prevailed at trial. The defendant appealed, arguing the district court erroneously admitted the testimony of a general practitioner who was not qualified to opine on issues of obstetrics or gynecology. The First Circuit Court of Appeals affirmed, holding that a “proffered expert physician need not be a specialist in a particular medical discipline to render expert testimony relating to that discipline.” *Id.* at 24. “The mere fact that [the expert] was not a gynecologist does not mean that he was not qualified to give expert testimony regarding [plaintiff’s] pregnancy. . . . In fact, it would have been an abuse of discretion for the court to exclude [the expert’s] testimony on the sole basis that his medical specialty was something other than gynecology or obstetrics.” *Id.* at 24-25. See also *Huss v. Gayden*, 571 F.3d 442 (5th Cir. 2009) (reversing district court’s exclusion of a medical expert certified in internal medicine because he was not certified in radiology or toxicology).

Courts are more receptive to qualification challenges to other types of experts. For instance, in *Nunez v. Allstate Ins. Co.*, 604 F.3d 840, 848 (5th Cir. 2010), a case arising out of damages caused by Hurricane Katrina, the court excluded plaintiff’s damages expert because his expertise consisted of a seven-day training course and an online self-study course, and he lacked training in the software used by Allstate to estimate damage.

In *Hewitt v. Liberty Mutual Group Inc.*, 82 F.R.D. 681, 686-87 (M.D. Fla. 2010), Plaintiffs sought to recover damages under homeowners’ policy for damage to roof sustained during hurricane, and Defendant insurer argued the cause of the roof failure was due to a construction defect and thus not a covered event. Plaintiff’s insurance adjuster expert opined the damage was caused by wind. Defendant challenged the expert on the basis of qualifications, as he admittedly was not an engineer or construction expert and performed no analyses as to whether damage could have been caused by construction defect. Court ruled this went to weight and not admissibility of testimony.

Similarly, in *Johnson v. Inland Steel Co.*, 140 F.R.D. 367, 372-73 (N.D. Ill. 1992), in wrongful death case involving allegations of improper staircase design and construction, physician expert specializing in occupational health was prohibited from offering testimony concerning the design or construction of the staircase but permitted to opine as to environmental hazards at the site; but professional engineer expert was permitted to offer testimony as to design and construction of the staircase.

In *Taylor Pipeline Const. Inc. v. Directional Road Boring, Inc.*, 438 F.Supp.2d 696, 705-706 (E.D. Tex. 2006), the district court precluded construction expert from testifying as to the contractual or common law duties between parties involved in a construction dispute, holding that while expert may have been sufficiently qualified to opine as to quality or methods of
construction, he had no particular qualifications or expertise in construction law; moreover, the court held it was improper subject for expert testimony insofar as it involved conclusions of law.

In *Nichols v. Allstate Texas Lloyd’s*, 2005 WL 2405922, *2 (S.D. Tex. Sept. 29, 2005), which involved a claim concerning mold growth caused by a leaking roof, expert was permitted to discuss general causation issues concerning mold growth, but, as the expert was not an engineer or a contractor, the expert was not qualified to testify as to whether any construction defect or engineering issues may have caused or contributed to the mold.

Also, in *Buddy’s Plant Plus Corp. v. CentiMark Corp.*, --- F.Supp.2d --- (W.D. Penn. Oct. 18, 2013), which was a construction defect case involving installation of roof coating system. Plaintiff challenged Defendant’s engineer expert on the basis that the expert was not qualified to testify as to condensation damage to the roof due to a lack of expertise in condensation issues. The Court found the expert sufficiently qualified, holding: “[W]itnesses may be competent to testify as experts even though they may not ... be the ‘best’ qualified. Who is ‘best’ qualified is [a] matter of weight upon which reasonable jurors may disagree.”

**ii. Expert Bias.**

Both before and after *Daubert* the most frequent problem that federal judges encounter is “experts who abandon objectivity and become advocates for the side that hired them.”7 Scientific bias can be defined as “any systematic error in performing a study that leads to erroneous data.”8 Courts commonly cite to experts “cherry picking” data, or altering an accepted methodology for purposes of litigation, as a basis to find that the expert’s testimony is biased and unreliable. See e.g., *Barber v. United Airlines, Inc.*, 17 Fed.Appx. 433, 437 (7th Cir. 2001) (“selective use of facts fails to satisfy the scientific method and *Daubert*”); *Fail-Safe, L.L.C. v. A.O. Smith Corp.*, 744 F.Supp.2d 870, 891 (E.D.Wi. 2010) (“Mr. Fox is equally guilty of ‘cherry picking’ the evidence he used in formulating his opinion”).9

**iii. Testability of the Expert’s Theory or Method.**

Courts evaluate whether an expert’s opinions and methodologies have been subject to adequate or objective scientific testing and whether the expert’s data has been validated. Data that is not reproducible does not meet the standards of the scientific method. Challenges to an expert’s failure to test his methodology or theory proliferate in products liability cases. Federal courts commonly exclude such experts when they fail to test alternative designs.

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In *Oddi v. Ford Motor Co.*, 234 F.3d 136 (3d Cir. 2000), the plaintiff was severely injured in an accident while driving a commercial truck manufactured by Ford and modified into a bread truck by Grunman. The plaintiff claimed Ford defectively designed the front bumper of the truck so that it allowed the underside of the truck to “ramp” onto a guardrail and strike a bridge abutment. The plaintiff claimed Grunman used defectively designed flooring in its modifications of the truck such that the cab of the truck crumpled on impact and increased the plaintiff’s injuries. The plaintiff designated an expert who opined that the bumper should have included either bracketry or a brace system that would have increased the bumper’s rigidity and prevented it from ramping up over the guardrail. The expert also opined that the flooring of the cab should have been thicker or made of ribbed metal so the integrity of the cab would have been maintained on impact. The expert admitted he had never tested his theories, but that they were based upon his observations of other bread trucks.

The district court found that the expert’s opinions did not satisfy *Daubert* because he had conducted no tests of his safer alternative design, but simply formed his opinions based on his experience as an engineer. The Third Circuit Court of Appeals affirmed, holding that even though in certain circumstances it is permissible to admit expert testimony based on “experience”, this was not sufficient in this case because the plaintiff had to establish that the defendants’ design enhanced injuries the plaintiff would not otherwise sustained. See also *Brown v. Raymond Corp.*, 432 F.3d 640 (6th Cir. 2005) (excluding testimony of plaintiff’s industrial engineer for not providing alternative design or warnings).

Similarly, in *Paz v. Brush Engineered Materials, Inc.*, 555 F.3d 383 (5th Cir. 2009), the plaintiffs claimed injuries caused by exposure to beryllium through their employment at a NASA testing facility, the Fifth Circuit Court of appeals affirmed the exclusion of testimony from one of plaintiff’s medical experts who opined that the presence of certain cells in plaintiff proved she had the disease because that theory had not been tested or peer reviewed but rested upon the “mere assurances” of the expert, which did not satisfy *Daubert*.

iv. **Error Rate.**

Whether the method has a known, or acceptably low, rate of error is another key *Daubert* factor. Lack of an established or known error rate will be valuable in establishing the method has not been sufficiently tested or accepted in the scientific community.

In *McDowell v. Brown*, 392 F.3d 1283, 1301 (11th Cir. 2004), the plaintiff, an inmate in a correctional facility, brought suit against the county, the jail, and his medical providers for failing to timely transfer him to a hospital after he complained of acute back pain, resulting in partial paralysis due to a spinal abscess. The court excluded the testimony of one of the plaintiff’s experts, who testified that more timely treatment would have resulted in a faster and more thorough recovery, in part because the expert had not assigned a rate of error to his methodology. The court entered summary judgment for the defendants, and the Eleventh Circuit affirmed. See also *City of Wichita, Kan. v. Trustees of APCO Oil Corp. Liquidating Trust*, 306 F.Supp.2d 1040, 1110 (D. Kan. 2003) (finding that one of many problems with expert’s computer modeling program created for litigation was that it had no known rate of error).
v. Whether the Expert’s Method or Data has Been Peer Reviewed or Published.

It is important to determine whether an expert’s methods have been subject to peer review. In some areas of practice, such as drug and medical device litigation, there have been scientific journals created whose editorial boards are largely comprised of experts involved in products liability litigation. The fact an article has been peer-reviewed and published is rarely dispositive of a Daubert challenge.

Several of the circuits do not require expert reliance on published studies linking exposure to chemicals to various illnesses, instead, in those circuits an expert may use differential diagnoses to establish causation. See Heller v. Shaw Indus., Inc., 167 F.3d 146, 154-55 (3d Cir. 1999) (holding a medical expert need not always cite published studies on general causation in order to reliably conclude there is causation); Kennedy v. Collagen Corp., 161 F.3d 1226, 1229 (9th Cir. 1998) (finding district court abused its discretion by excluding expert testimony that was otherwise reliable on the basis that no published studies linked defendant’s product to plaintiff’s disease). Even in circuits that permit expert reliance on differential diagnoses that analysis must still be performed properly. Tamraz v. Lincoln Electric Co., 620 F.3d 665, 673 (6th Cir. 2010) (reversing district court for permitting expert testimony where his efforts to “rule out” alternative causes and “rule in” a link to the welding supplies was based on speculation and not a scientifically reliable methodology).

In certain cases, failure by an expert to publish his theory or research may result in exclusion. In Veryzer v. Secretary of Health and Human Services, 2010 WL 2507791 *24-25 (Fed.Cl. June 15, 2010), the federal claims court excluded an expert’s opinion in part based on failure to publish his research to which the court responded: “To this, the Court quoth what the immarcescible Ronald Regan was wont to say, that it will ‘trust, but verify.’” The court went on to explain that the expert’s failure to publish his research was fatal because the expert was espousing a new, unaccepted, view of medical science:

Dr. Moulden chose instead to channel his efforts purely into research, and that may indeed be admirable. However, inasmuch as he has publicly released none of the results of his research, his toil in the laboratory does not bolster the reliability of his opinion either. One is left to assume that his experiments have followed the pattern of hypothesis, testing, theory, duplication of results, and falsifiability. However, the lack of published results leaves this supposition as a mere article of faith. Furthermore, as Respondent pointed out, the absence of publication within the medical field also makes testing, duplication of results, and falsifiability impossible for any others to perform.

vi. General Acceptance in the Scientific Community

The general acceptance of an expert’s methodologies is still considered an important factor in a reliability determination even after Daubert’s displacement of Frye. There are a number of ways to establish that the expert’s method is not accepted within the scientific community, and this will vary according to the particular expertise of the expert including
whether the method used has been approved by the relevant regulatory body, or whether the expert’s practices are in accord with industry standards and professional associations.

In *Summers v. Missouri Pacific R.R. System*, 897 F.Supp. 533 (E.D.Okla. 1995), the district court excluded the plaintiff’s medical expert’s testimony because his diagnosis was not generally accepted in the medical community. Plaintiff proffered expert testimony from a medical doctor, who practiced clinical ecology, that diagnosed plaintiff with multiple chemical sensitivity (MCS), allegedly caused by plaintiff’s exposure to a variety of chemicals working at the railroad. Plaintiff’s expert opined that MCS suppressed the plaintiff’s immune system causing him to be susceptible to a variety of ailments. In excluding the proposed testimony, the court found that “clinical ecology has not been recognized by traditional organizations within the medical community” and that professional organizations had “rejected clinical ecology as an unproven methodology lacking any scientific basis in either fact or theory.” The court determined that “MCS is not a diagnosis that is accepted within the medical community” and is “an unproven hypothesis.” 897 F.Supp. at 535.

vii. The “Fit” of Expert Testimony to the Facts of the Case.

Another key aspect of *Daubert* is whether the expert’s opinion “fits” the facts of the case. As the Court stated in *Daubert*, “Fit is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes.” 509 U.S. at 592. The Court used the following example to illustrate “fit”:

The study of the phases of the moon, for example, may provide valid scientific “knowledge” about whether a certain night was dark, and if darkness is a fact in issue, the knowledge will assist the trier of fact. However (absent creditable grounds supporting such a link), evidence that the moon was full on a certain night will not assist the trier of fact in determining whether an individual was unusually likely to have behaved irrationally on that night. Rule 702’s “helpfulness” standard requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility.

On remand in *Daubert*, the Ninth Circuit determined that the evidence the plaintiffs’ proffered that Bendectin caused the claimed birth defects injuries did not “fit” the facts of the case because the evidence did not show causation. The plaintiff’s experts relied upon on studies showing that drugs related to Benedictin caused birth defects in animals. The Ninth Circuit noted that, although modern tort law permits circumstantial proof of causation, the plaintiffs were nonetheless required to prove their injuries were the result of the mothers’ ingestion of Bendectin and not some other, independent factor. The court held that because the expert testimony did not bear upon specific causation of birth defects in the plaintiffs, it did not “fit” the case. 43 F.3d at 1320-22.

As another example of an expert’s opinion not “fitting” the facts of the case, the Third Circuit Court of Appeals excluded a computer simulation of a forklift accident created by an accident investigator proffered as an expert because the simulation differed from the real
accident in a number of important respects. Accordingly, the court found that the simulation did not “fit” the facts of the case and would not have helped the jury determine how the accident had occurred. *Habecker v. Clark Equipment Co.*, 36 F.3d 278, 290 (3rd Cir. 1994).

In *Samaan v. St. Joseph Hosp.*, 670 F.3d 21, 31 (1st Cir. 2012), the plaintiff claimed that the hospital defendant’s failure to provide a t-PA injection during his course of treatment for a stroke resulted in his inability to recover from the stroke. The plaintiff’s expert opined, through the use of odds ratios and efficacy rates which show that more than 50% of patients who receive the injection experience improvements in their stroke-related injuries, that had the plaintiff received a shot, he would have fully recovered from the stroke-related injuries. The district court excluded the expert testimony, finding that the expert did not take into account the number of stroke patients who recovered without the injection and those who received the injection but did not improve. The First Circuit affirmed, emphasizing that “correlation is not causation,” and the methods the expert used and the data he presented were “simply too distant from the conclusions that he drew, thus negating an adequate fit” to the facts in the case. *Id.* at 32.

viii. Other Factors Federal Court’s Consider on *Daubert* Challenges

Other factors courts have found relevant in determining whether expert testimony is sufficiently reliable include:

(1) Whether experts are “proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, or whether they have developed their opinions expressly for purposes of testifying…in determining whether proposed expert testimony amounts to good science, we may not ignore the fact that a scientist’s normal workplace is the lab or the field, not the courtroom or the lawyer’s office.” *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 43 F.3d 1311, 1317 (9th Cir. 1995).

(2) Whether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion. *See General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997) (noting that in some cases a trial court “may conclude that there is simply too great an analytical gap between the data and the opinion proffered”). Courts have dismissed experts’ reliance on animal studies as a basis to show causation of illness in humans from exposure to chemicals, cautioned against extrapolation of dosage levels, and objected to generalization across similar substances. *Newman v. Motorade, Inc.*, 218 F.Supp.2d 769 (D.Md. 2002); *Amorgianos v. National Railroad Passenger Corp.*, 137 F.Supp.2d 147 (E.D.N.Y. 2001); *Mitchell v. Gencorp Inc.*, 165 F.3d 778 (10th Cir. 1999).

(3) Whether the expert has adequately accounted for obvious alternative explanations. *See Claar v. Burlington N.R.R.*, 29 F.3d 499 (9th Cir. 1994) (testimony excluded where expert failed to consider other obvious causes for the plaintiff’s condition).
(4) Whether the expert “is being as careful as he would be in his regular professional work outside his paid litigation consulting.” *Sheehan v. Daily Racing Form, Inc.*, 104 F.3d 940, 942 (7th Cir. 1997).

(5) Whether the field of expertise claimed by the expert is known to reach reliable results for the type of opinion the expert would give. *See Kumho Tire Co. v. Carmichael*, 119 S.Ct.1167, 1175 (1999) (*Daubert’s* general acceptance factor does not “help show that an expert's testimony is reliable where the discipline itself lacks reliability, as for example, do theories grounded in any so-called generally accepted principles of astrology or necromancy.”).

b. The Effect of *Daubert* on Case Management

*Daubert* and its progeny were designed to improve trial courts’ ability to manage cases. One way the decision is designed to improve case management is the *procedural flexibility* in evaluating expert evidence. As the 2000 Advisory Committee states in the comments to Rule 702, the rule “makes no attempt to set forth procedural requirements for exercising the court’s gatekeeping function over expert testimony.” As one commentator has stated, “Trial courts should be allowed substantial discretion in dealing with *Daubert* questions; any attempt to codify procedures will likely give rise to unnecessary changes in practice and create difficult questions for appellate review.”10 Thus, Rule 702 vests courts with broad discretion with how to conduct a *Daubert* analysis. As discussed in *Kumho Tire*:

“The trial court must have the same kind of latitude in deciding how to test an expert's reliability, and to decide whether or when special briefing or other proceedings are needed to investigate reliability, as it enjoys when it decides whether or not that expert's relevant testimony is reliable. Our opinion in *Joiner* makes clear that a court of appeals is to apply an abuse-of-discretion standard when it ‘review[s] a trial court's decision to admit or exclude expert testimony.’ That standard applies as much to the trial court's decisions about how to determine reliability as to its ultimate conclusion. Otherwise, the trial judge would lack the discretionary authority needed both to avoid unnecessary ‘reliability’ proceedings in ordinary cases where the reliability of an expert's methods is properly taken for granted, and to require appropriate proceedings in the less usual or more complex cases where cause for questioning the expert's reliability arises. Indeed, the Rules seek to avoid “unjustifiable expense and delay” as part of their search for ‘truth’ and the ‘just determin[ation]’ of proceedings. Thus, whether *Daubert’s* specific factors are, or are not, reasonable measures of reliability in a particular case is a matter that the law grants the trial judge broad latitude to determine.”

*Kumho Tire Co.*, 526 U.S. at 152-53 (internal citations omitted).

The 2000 Advisory Committee notes cite three examples of how courts have “shown considerable ingenuity and flexibility” in considering Daubert challenges: Cortes-Irizarry v. Corporacion Insular, 111 F.3d 184 (1st Cir. 1997) (discussing the application of Daubert in ruling on a motion for summary judgment); In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 736, 739 (3d Cir. 1994) (discussing the use of in limine hearings); Claar v. Burlington N.R.R., 29 F.3d 499, 502-05 (9th Cir. 1994) (discussing the trial court's technique of ordering experts to submit serial affidavits explaining the reasoning and methods underlying their conclusions).

c. Rule 706 – Court-appointed Experts.

Rule 706 authorizes the court, upon its own motion or that of a party, to appoint a “neutral” expert witness to offer testimony on the disputed scientific or technical issues. Usage of an independent expert appears to be the exception and not the rule. A Rule 706 court-appointed expert will typically analyze the data and draft their own expert report. A service for the identification of court-appointed experts for federal litigation is available through the American Association for the Advancement of Science demonstration project, Court Appointed Science Expert – [http://www.aaas.org/spp/case/case.htm](http://www.aaas.org/spp/case/case.htm).

Requesting a Rule 104 advisor or Rule 706 court-appointed expert can be an effective way to discredit the opposing expert in cases where the expert is clearly utilizing unverified methods that are not accepted in the scientific community or making large leaps between methodology and conclusions. Obviously, this can cut both ways, so carefully analyze whether it is appropriate given the expert testimony in your case. Below are two examples of how courts have used independent appointed experts. The Soldo case, in particular, is an interesting case study as to the wide variance of scientific thought even among independent experts.

In Soldo v. Sandoz Pharmaceuticals Corp., 244 F.Supp.2d 434 (W.D.Pa. 2003), the plaintiff sustained a hemorrhage and stroke soon after giving birth that she claimed was caused by her ingestion of the defendant’s drug, Parlodel. In the absence of meaningful clinical trials or epidemiological studies of Parlodel, the plaintiff’s expert relied upon animal studies, case studies, and clinical reports in concluding that Parlodel caused the plaintiff’s injury.

In assessing the reliability of this expert testimony and whether it “fit” the facts of the case, the court appointed three neutral experts—a clinical pharmacologist, a neurologist, and an epidemiologist. The court, reciting an expanded version of the Daubert factors, noted in its order appointing the experts that published studies need not be required as a basis for testimony and that differential diagnosis and temporal analysis, properly performed, would generally meet the factors. The court further instructed that if any of the experts should find that the plaintiff’s expert testimony was not “scientifically reliable,” then the appointed expert should also indicate if the plaintiff’s expert’s views might represent a “legitimate and reasonable” minority view in the profession.

The neurology and epidemiology experts found the plaintiff’s expert testimony was not scientifically reliable, for very different reasons, but the clinical pharmacologist found the testimony to be scientifically reliable. The neurologist also acknowledged that other experts may
have a contrary good faith opinion. The court ultimately dismissed the views of the clinical pharmacologist and the plaintiff’s experts and concluded that the plaintiff’s experts “failed to use a reliable scientific methodology” to demonstrate general and specific causation. The court held that even if the plaintiff’s expert testimony was admissible under Daubert, “such evidence provides but a scintilla of support for plaintiff’s position and would not be sufficient to allow a reasonable jury to find that plaintiff’s [injury] had been caused by Parlodel.” 244 F.Supp.2d at 558. The court granted summary judgment in favor of the defendant.

In In re High Fructose Corn Syrup Antitrust Litigation, 295 F.3d 651 (7th Cir. 2002), the Seventh Circuit reversed the district court’s entry of summary judgment for defendant and Judge Posner specifically suggested that, on remand, the district court appoint its own expert to testify about the complex statistical evidence at issue, “rather than leave himself and the jury completely at the mercy of the parties’ warring experts.” This is one of the rare instances where a circuit court has commented, and actually advised, the use of appointing independent experts.

d. The Rule 104 Preliminary Hearing.

Nothing in Daubert, its progeny, or the Federal Rules mandates that the trial court grant a hearing to a party objecting to the admission of expert evidence. But circuit courts strongly recommend that pretrial Daubert hearings be conducted and have reversed decisions of district court for failing to hold such hearings. For instance, the Second Circuit has noted that, in general, Daubert hearings are “highly desirable” because they allow parties to present expert evidence and conduct cross-examination of the expert, but district courts may determine the admissibility of expert evidence without a hearing. See Borawick v. Shay, 68 F.3d 597, 608 (2d Cir. 1995); but see Rexall Sundown, Inc. v. Perrigo Co., 651 F.Supp.2d 9, 25 (E.D.N.Y. 2009) (finding Daubert hearing not necessary where defendant’s objections were based solely on written materials and thus hearing not required to adjudicate disputed issues). Though a trial court is not obligated to conduct a pretrial Daubert hearing, courts recognize that, in order to exercise their “gatekeeping” function effectively, Daubert rulings should be made before trial begins. See Gier v. Education Service Unit No. 16, 66 F.3d 940, 942 (8th Cir. 1995) (early evidentiary challenge allows trial judge to properly exercise gatekeeping role).

A litigant generally must request a pretrial hearing pursuant to Rule 104 after a motion challenging the admissibility of the expert has been filed. Ideally, a hearing would be held as soon as possible after the close of expert discovery to save costs and provide the court sufficient time to properly evaluate complex scientific or technical issues. The alternative, conducting a voir dire at trial on Daubert issues is not advisable because: (a) in cases involving complex scientific or technical issues are small because the court will not have adequate time during trial to comprehend the information required to render an informed decision, and (b) the considerable costs of gearing up for trial could be avoided with an earlier, successful Daubert challenge.

Since most judges are not schooled in science, counsel will need to educate the court at a pretrial hearing. Under Daubert and Rule 702, “scientific knowledge” means an opinion generated in accordance with the scientific method. Thus, one goal of the hearing is to orient the
judge as to the standards of the scientific method, including forming hypotheses, testing those hypotheses, determining the significance of the data, and whether the data is reproducible.\textsuperscript{11}

The Rules of Evidence are not applicable in a Rule 104 proceeding. This provides lawyers a great deal of freedom to enhance the clarity of their presentations and cross-examinations in ways unavailable at trial. Counsel has considerably greater freedom to use evidence to demonstrate the unreliability of the expert’s testimony. Hearsay is admissible in a \textit{Daubert} hearing. This can include affidavits, letters from non-trial expert witnesses, and excerpts from medical and scientific treatises. In addition, parties are permitted to present cumulative evidence. This includes presenting testimony from multiple experts on the same subject which can be an effective tool to establish that the challenged expert’s methods and conclusions are not generally accepted in the relevant scientific community and are unreliable. Computer presentations and visual exhibits that summarize complex scientific principles are also valuable in assisting judges understand the scientific or technical principles at issue.

Another benefit of a pretrial \textit{Daubert} hearing is that counsel can cross-examine the opposing expert with evidence that may not have been available at the time of the expert’s deposition. Hearings also provide counsel another opportunity to extract admissions from the expert that would be useful at trial if the expert is not stricken.

\textbf{V. \textit{DAUBERT} BY THE NUMBERS AND ITS IMPACT ON SUMMARY JUDGMENT}

\textbf{a. The Type of Experts Designated and Areas of Testimony.}

The impact of \textit{Daubert} can be seen in a number of different ways, including fewer experts being designated by plaintiffs, as well as exponentially greater number of expert challenges and exclusions of expert testimony by courts. The following statistics were gleaned from a number of different studies. The statistics provided should be considered estimates.

Post-\textit{Daubert} there was a significant decline in the average number of experts designated by plaintiffs. Pre-\textit{Daubert}, on average plaintiffs designated over 3 experts per case and post-\textit{Daubert} plaintiffs are designating just over 2 experts per case. Defendants saw no similar drop in the number of experts retained but remained at around two experts per case.\textsuperscript{12}

About forty to fifty percent (40 to 50\%) of all experts who testify at trial are in the medical profession, predominantly medical doctors. Finance or business experts, including accountants and economists, make up approximately twenty-five percent (25\%) of the experts presented at trial. Engineers and other safety or process specialists account for about twenty percent (20\%) of the experts offered at trial. Scientists such as chemists, ballistics experts, and toxicologists, make up a relatively small percentage of expert witnesses at approximately eight


(8%) with the remainder falling into the miscellaneous category. These various experts were primarily offered on issues of the existence, nature, or extent of an injury or damage (68%), the cause of injury or damage (64%), or on the amount of damages (44%). Other issues addressed by experts included the reasonableness of a party’s actions (34%), industry standards or state of the art (30%), standard of care of a professional (25%), design or testing of a product (25%) and knowledge or intent of a party (16%).

b. The Probability for Success of a Daubert Challenge.

Approximately 200 Daubert challenges were being filed yearly by 2000. That number increased by four-hundred percent (400%) to 800 challenges by 2011. However, Daubert challenges are still lodged in less than one percent (1%) of the total number of cases filed in federal court. Alternatively, motions for summary judgment are filed in roughly twenty percent (20%) of all federal cases, upwards of 20,000 such motions are filed every year. Over seventy-five percent (75%) of Daubert challenges are defendants challenging plaintiffs’ experts.

The 2000 Advisory Committee notes to FRE 702 state that “A review of the case law after Daubert shows that the rejection of expert testimony is the exception rather than the rule,” but this conclusion has been contradicted in several more recent and comprehensive studies which demonstrate that the opposite is true. These studies conclude that, post-Daubert, courts are much more likely to exclude or limit challenged expert evidence than they had been before:

- One study found that courts excluded expert evidence from thirty percent (30%) of the time when challenged pre-Daubert, but this increased to over fifty-five percent (55%) post-Daubert.14

- In a study comparing exclusion of plaintiffs’ expert evidence to exclusion of defendants’ expert evidence in civil cases, the authors found that defendants succeeded in excluding or limiting plaintiffs’ experts about two-thirds (66%) of the time, compared to a less than fifty percent (50%) success rate for plaintiffs challenging defense experts—a pattern repeated on appeal.15

- A PricewaterhouseCoopers analysis of expert challenges from 2000-2011 found that approximately forty-five percent (45%) of all expert challenges were at least partly

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successful, but also found that the number of challenges increased dramatically from 2000-2011—indeed, the number of successful Daubert challenges in 2011 exceeded the number of total challenges in 2000.\textsuperscript{16}

- In another study involving a survey of judges pre- and post-\textit{Daubert}, federal judges reported excluding or limiting challenged expert evidence 25\% of the time pre-\textit{Daubert} compared to 41\% of the time post-\textit{Daubert}.\textsuperscript{17} The authors concluded that the actual rate of expert exclusion was higher than reported on the surveys.

The most recent data demonstrate that the affirmance rate for \textit{Daubert} challenges on appeal is approximately eighty-seven percent (87\%). For comparison purposes, the affirmance rate for rulings where summary judgment was granted has historically been between seventy percent (70\%) and seventy-eight percent (78\%).\textsuperscript{18} Similarly, the affirmance rate for defense jury verdicts is also eighty-seven percent (87\%) across all circuits.\textsuperscript{19} Thus, a party who wins a \textit{Daubert} challenge in the district court has the same level of success getting that ruling affirmed on appeal as a party who wins at trial.

After \textit{Daubert}, federal courts scrutinized the reliability of an expert’s opinions more carefully and applied stricter standards in deciding whether to admit the expert. Challenges to expert testimony occur more frequently in product liability, medical malpractice, and intellectual property cases than in other types of cases. Reliability is the most common attack on an expert at around half of all challenges. When reliability was addressed in the challenge, courts excluded expert testimony over sixty percent (60\%) of the time. Qualifications are attacked around twenty percent (20\%) of the time with a success rate of twenty percent (20\%). Lack of expert peer review and publication is attacked about one-third of the time and is successful about thirty percent (30\%) of the time.

General acceptance is attacked about a quarter of the time. After \textit{Daubert}, courts excluded even generally accepted expert evidence in ten percent (10\%) of cases. Courts excluded up to ninety percent (90\%) of expert opinions that were not generally accepted within the relevant field. Thus, general acceptance of an expert’s opinions appears to still be a powerful factor in admissibility.

The testability of an expert’s opinions has been attacked on average a quarter of the time. The error rate of an expert’s methods has been attacked about a quarter of the time. Lack of

\begin{footnotesize}
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  \item \textsuperscript{16} L. Ranallo & D. Branch, \textit{Daubert Challenges to Financial Experts}, 2012.
  \item \textsuperscript{19} Clermont, K., et al., \textit{Appeal from Jury or Judge Trial: Defendants’ Advantage}, Amer. L. and Econ. Assoc. Vol. 3 (2001).
\end{itemize}
\end{footnotesize}
standards governing an expert’s methods has been attacked on average about thirty percent (30%) of the time. Proper extrapolation, reliance on verifiable data, and other factors, are attacked roughly twenty percent (20%) of the time. Each of these factors has a success rate of about twenty-five percent (25%). Relevance, which is often encompasses the “fit” factor, is raised approximately thirty percent (30%) of the time and testimony is found irrelevant about forty percent (40%) of the time when challenged.20

c. Maximizing Your Chances on Summary Judgment Through Use of Daubert Challenges.

Summary judgment motions are filed in approximately seventeen to twenty percent (17-20%) of all civil cases in federal court (typically exceeding 100,000 cases filed per year). Omnibus motions for summary judgment are the rule. Only nine percent (9%) of such motions are for partial summary judgment. Approximately one-third (33%) to one-half (50%) of all summary judgment motions are granted, in whole, or in part, excluding employment discrimination and prisoner cases.21 22

Daubert challenges increasingly resulted in summary judgment being granted.23 Daubert itself, along with a long list of cases applying it, “make it clear that the trial judge should not be afraid of summary judgment as a way to control junk science.”24

Although the practical effects of Daubert were initially ambiguous, the enduring legacy of the Daubert decision is now relatively clear. In federal courts, where the decision is legally binding, Daubert has become a potent weapon of tort reform by causing judges to scrutinize scientific evidence more closely. Tort reform efforts often focus on medical malpractice, products liability, and toxic torts – all cases in which scientific evidence is likely to play a decisive or at least highly influential role. The resulting effects of Daubert have been decidedly pro-defendant. In the civil context, Daubert has empowered defendants to exclude certain types of scientific evidence, substantially improving their chances of

22 Summary judgment is granted at a much higher rate in employment discrimination and prisoner cases. In the employment context, the higher rate (70%) is likely due, in part, to the inclusion of social security cases which are always resolved on summary judgment.
obtaining summary judgment and thereby avoiding what are perceived to be unpredictable and often plaintiff friendly juries.\textsuperscript{25}

Each of the \textit{Daubert} trilogy plus the \textit{Weisgram} case were ultimately disposed of by summary disposition further demonstrating \textit{Daubert}’s impact on summary judgment.

Using a \textit{Daubert} challenge in conjunction with a dispositive motion has advantages in the standard of review. As discussed above, a \textit{Daubert} challenge is resolved on a preponderance of the evidence standard in the trial court. Appellate courts afford great deference by applying an abuse of discretion standard to the trial court decisions on \textit{Daubert} challenges. Alternatively, trial courts typically assume all facts and evidence in a light most favorable to a non-movant on a Motion for Summary Judgment and do not grant such a motion unless the evidence demonstrates that there is no dispute of any material fact at issue such that no reasonable jury could find for the non-movant at trial. FRCP 56. Unlike in a \textit{Daubert} challenge, a judge is not to weigh the evidence on a dispositive motion. Similarly, appellate courts review a district court’s summary judgment rulings \textit{de novo}, meaning they review the arguments and evidence independently without deference to the trial court’s ruling. \textit{Celotex Corp. v. Catrett}, 477 U.S. 574 (1986).

Plaintiffs commonly present expert testimony to establish a necessary element of one or more of their claims. For instance, experts are often needed to establish causation when a plaintiff claims to have been injured by exposure to an allegedly toxic chemical. A defendant may move to exclude the testimony of the plaintiff’s expert under \textit{Daubert} and Rule 702. Summary judgment may also be appropriate if the court grants the \textit{Daubert} challenge since excluding this expert’s testimony at trial would leave the plaintiff without sufficient evidence to establish an element of its claim as a matter of law. Since the grant of summary judgment hinges on the judge’s exclusion of expert testimony under \textit{Daubert} the effective standard of appellate review in such instances is the more deferential abuse of discretion standard.

d. Allocating Resources Between \textit{Daubert} Challenges and Motions for Summary Judgment.

In this paper we have provided substantial evidence to the benefits of filing well supported \textit{Daubert} challenges. Such challenges mounted by defendants are often granted at the same or higher rate than motions for summary judgment outside of employment claims. There is also substantial evidence that linking \textit{Daubert} motions to motions for summary judgment increases the efficacy of the dispositive motion. It also appears that if won in the trial court a defendant has a greater chance of getting a ruling excluding expert evidence affirmed on appeal than a grant of summary judgment.

The traditional method of defending a claim involves filing an omnibus motion for summary judgment. Such a motion typically addresses every element of every claim asserted by a plaintiff in a case. The vast majority of motions for summary judgment filed in federal court are made up of such omnibus motions. Filing such an all encompassing motion necessarily

involves large expenditures in time and money. It has been estimated that up to eighty percent (80%) of judicial resources in federal courts are spent addressing dispositive motions and that such motions account for up to twenty-five percent (25%) of litigation costs in civil actions.26

A more focused streamlined motion for summary judgment in place of an omnibus motion and diverting the resources that would otherwise be spent on summary judgment to a well supported Daubert challenge may maximize the return on a client’s litigation expenditures. We acknowledge that every case is different and it may not be possible to mount a cogent Daubert challenge in certain cases. Alternatively, there may be great legal reasons for you to file an omnibus motion for summary judgment. Some claims will require both omnibus motions for summary judgment and Daubert challenges because of the size and nature of the claim. Attorneys, and clients, should use a flexible in allocating resources based on the applicable facts and law, as well as the jurisdiction, and the client’s needs and goals.

VI. CONCLUSION

The Daubert decision clearly marked a departure from prior practice in federal courts regarding the admissibility of experts. Daubert was the beginning of that revolution but certainly not the end. In every instance that the U.S. Supreme Court has addressed Daubert since it was first decided, it has expanded the reach and scope of the decision, dramatically heightening federal courts’ review of the admissibility of expert testimony. Most recently, the U.S. Supreme Court indicated that it may further expand the application of Daubert to the class certification process in class actions. Daubert, and its progeny, has led to a proliferation of expert challenges and increased the ability of defendants to win on summary judgment. The trend continues to be greater screening of expert testimony by courts over time. The impact, and import, of Daubert has grown over time and will continue to do so in the future.