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QUESTIONING THE JUDICIAL ROLE IN DEALING WITH EXPERT TESTIMONY IN COMPLEX AND NON-COMPLEX CASES

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THE IMPORTANCE OF EXPERTS

It is difficult to imagine now that it was not so long ago that expert testimony was not offered in virtually every case that went to trial. Indeed, it was difficult for many litigants to find experts to testify on some subjects, and often litigants went to trial without expert help. To prove life expectancy, plaintiffs in wrongful death cases relied upon mortality tables. To prove damages, they relied upon simple mathematics. In some instances, the absence of expert testimony prevented potential litigants from getting to trial.

The "conspiracy of silence" alleged to exist among doctors in various communities presented real problems for patients seeking to bring malpractice claims. Without expert help, they could not establish a breach of a standard of care or causation, and thus they could not survive a motion for summary judgment or a motion for a directed verdict.

Today, the world of litigation is different. It is the rare case in which there is no expert testimony. Although it still can be difficult for some litigants to find experts, in many places "forensic" experts on a wide variety of subjects have emerged. Many advertise themselves and their services. There is somewhat greater willingness, for better or worse, of doctors to testify against their fellow doctors, lawyers against their fellow lawyers, etc.

The reduction in cost of computer hardware and software has enabled experts to generate statistical models, to do regression analyses, to manipulate data, and to manage massive amounts of information quickly and at a reasonable cost. The result is that expert testimony is frequently available, and litigants often can afford it.

JUDICIAL CONCERNS–*DAUBERT* AND ITS PROGENY

As the availability of expert testimony has increased, courts have become increasingly skeptical about its value. Ironically, reforms in the law of evidence that were intended to liberalize the admission of expert testimony have now been interpreted to constrict the flow of expert opinion in trials. The single most important illustration of this point is the United States Supreme Court's opinion in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), which interpreted Rule 702 of the Federal Rules of Evidence.

The Federal Rules of Evidence were enacted by Congress into law in 1975. Congress left Rule 702 in the same form in which it was approved by the Supreme Court and drafted by the Advisory Committee, which existed while the Federal Rules of Evidence

were being prepared and disappeared upon their adoption. The Advisory Committee's Note accompanying Rule 702 indicates that the Committee knew that "[t]he rule is broadly phrased," and that the Committee believed that there was no better test of admissibility than to ask whether the testimony could assist the trier of fact. The Advisory Committee's Note consisted of four short paragraphs.

For more than fifteen years, the Supreme Court kept its distance from the expert testimony rules. But, during the presidency of Geoge H.W. Bush, Vice-President's Quayle's efforts at tort reform and litigation reform focused particular attention on claims that courts were being flooded with "junk science." The concerns about expert testimony were clearly heard by the United States Supreme Court.

It granted review in *Daubert* to consider whether the United States Court of Appeals for the Ninth Circuit properly affirmed summary judgment for Merrell Dow in two suits alleging that mothers bore children with birth defects as a result of taking Merrell Dow's drug Bendectin during their pregnancies. Justice Blackmun, writing for the Court's majority, explained what had happened in the lower courts:

> After extensive discovery, respondent moved for summary judgment, contending that Bendectin does not cause birth defects in humans and that petitioners would be unable to come forward with any admissible evidence that it does. In support of its motion, respondent submitted an affidavit of Steven H. Lamm, physician and epidemiologist, who is a well-credentialed expert on the risks from exposure to various chemical substances. Doctor Lamm stated that he had reviewed all the literature on Bendectin and human birth defects — more than 30 published studies involving over 130,000 patients. No study had found Bendectin to be a human teratogen (*i.e.*, a substance capable of causing malformations in fetuses). On the basis of this review, Doctor Lamm 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. * * *
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> The District Court granted respondent's motion for summary judgment. The court stated that scientific evidence is admissible only if the principle upon which it is based is "'sufficiently established to have general acceptance in the field to which it belongs.'" 727 F. Supp. 570, 572 (SD Cal. 1989), *quoting United States v. Kilgus*, 571 F.2d 508, 510 (CA9 1978). The court concluded that petitioners' evidence did not meet this standard. Given the vast body of epidemiological data concerning Bendectin, the court held, expert opinion which is not based on epidemiological evidence is not admissible to establish causation. 727 F. Supp. at 575. Thus, the animal-cell studies, live-animal studies, and chemical-structure analyses on which petitioners had relied could not raise by themselves a reasonably disputable jury issue regarding causation. *Ibid.* Petitioners' epidemiological analyses, based as they were on recalculations of data in previously published studies that had found no causal link between the drug and birth defects, were ruled to be inadmissible because they had not been published or subjected to peer review. *Ibid.*
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> The United States Court of Appeals for the Ninth Circuit affirmed. 951 F.2d 1128 (1991). Citing *Frye v. United States*, 54 App. D.C. 46, 47, 293 F. 1013, 1014 (1923), the court stated that expert opinion based on a

> scientific technique is inadmissible unless the technique is "generally accepted" as reliable in the relevant scientific community. 951 F.2d at 1129-1130. The court declared that expert opinion based on a methodology that diverges "significantly from the procedures accepted by recognized authorities in the field . . . cannot be shown to be 'generally accepted as a reliable technique.'" *Id.*, at 1130, *quoting United States v. Solomon*, 753 F.2d 1522, 1526 (CA9 1985).

509 U.S. at 582-84.

As Chief Justice Rehnquist observed in his opinion concurring in part and dissenting in part in *Daubert* (joined by Justice Stevens), the only issues before the Court were whether the so-called *Frye* general acceptance test for "novel" scientific evidence survived the Federal Rules of Evidence, and if it did whether an expert's methodology must have been subjected to peer review to satisfy the standard. *Id*. at 598. Justice Blackmun was not content simply to answer the questions presented. Instead, he wrote for the Court its first statement of general principles to govern the admissibility of expert testimony. As odd as it might seem, the only explanation of why the Court went beyond the questions presented appears to have been confined to the first sentence of footnote 11: "Although the *Frye* decision itself focused exclusively on 'novel' scientific techniques, we do not read the requirements of Rule 702 to apply specially or exclusively to unconventional evidence." *Id.* at 593. With this cryptic explanation, the Court moved on to a discussion of expert testimony generally. The key paragraph in the opinion is probably the following one:

> Faced with a proffer of expert scientific testimony, then, the trial judge must determine at the outset, pursuant to Rule 104(a), whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or 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. We are confident that federal judges possess the capacity to undertake this review. Many factors will bear on the inquiry, and we do not presume to set out a definitive checklist or test. But some general observations are appropriate.

Id. at 592-93 (footnotes omitted).

The general observations led the Court to suggest that the following "nonexclusive factors" warrant consideration by a judge seeking to determine whether to admit expert testimony: whether the expert's technique or theory can be or has been tested; whether the technique or theory has been subject to publication and peer review; what the rate of error associated with the technique is; whether standards and controls were maintained; and to what extent the technique or theory is generally accepted in the scientific community.

Although Justice Blackmun's opinion commanded seven votes, Chief Justice Rehnquist, joined by Justice Stevens, raised serious questions about the wisdom of the Court's leap beyond the questions presented. Since the Court unanimously concluded that *Frye* did not survive the enactment of the Federal Rules of Evidence, the Chief Justice concluded that the peer review issue was moot and expressed doubts that the Court was adequately prepared or informed to offer general observations about expert testimony, in response to the 21 amicus curiae briefs that were submitted in the case. One can read the Chief Justice's opinion as suggesting that the Court might have said more than it had the expertise to say (i.e., it might have failed its own test):

> The various briefs filed in this case are markedly different from typical briefs, in that large parts of them do not deal with decided cases or statutory language — the sort of material we customarily interpret. Instead, they deal with definitions of scientific knowledge, scientific method, scientific validity, and peer review — in short, matters far afield from the expertise of judges. This is not to say that such materials are not useful or even necessary in deciding how Rule 702 should be applied; but it is to say that the unusual subject matter should cause us to proceed with great caution in deciding more than we have to, because our reach can so easily exceed our grasp.

Id. at 599.

It is difficult to overstate the impact that *Daubert* had on lower federal courts. Despite the Chief Justice's doubts as to the capacity of the Court to speak as it did, it was the Chief Justice himself who wrote the next major opinion for the Court on expert testimony in *General Electric Co. v. Joiner*, 522 U.S. 136 (1997). In *Joiner*, the Court held unanimously that a district judge's ruling on the admissibility of expert testimony under *Daubert* was reviewable only for abuse of discretion. Consider the remarkable change in the law that these two opinions made. First, the Court established that federal trial judges must be "gatekeepers" who screen expert testimony for reliability and relevance and that, whether or not the Court's guidance in *Daubert* was premature (as the Chief Justice wrote in *Daubert* – "I think the Court would be far better advised in this case to decide only the questions presented, and to leave the further development of this important area of the law to future cases"), the gatekeeping judges had little to guide them other than what Justice Blackmun had written. Then, the *Joiner* Court said that whatever trial judges do in employing the *Daubert* standards – which had been offered as general observations rather than standards – appellate courts would affirm unless a trial judge abused his or her discretion. The gatekeeping function and the deferential standard of appellate review were adopted in just four years. Whereas the Chief Justice and Justice Stevens were concerned that *Daubert* was premature and that the general observations might confuse rather than enlighten lower court judges, in just four years they joined in transforming the *Daubert* general observations into standards or guideposts and in assuring that appellate courts would not quickly find that trial judges were confused by *Daubert*, because the deferential standard of review promised not to require a hard look at what trial judges do.

The full impact of *Daubert* became apparent with the third decision by the Court on expert testimony, *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999). Justice Breyer wrote for a unanimous Court as it declared:

> We conclude that *Daubert*'s general holding — setting forth the trial judge's general "gatekeeping" obligation — applies not only to testimony based on "scientific" knowledge, but also to testimony based on "technical" and "other specialized" knowledge. See Fed. Rule Evid. 702. We also conclude that a trial court *may* consider one or more of the more specific factors that *Daubert* mentioned when doing so will help determine that testimony's reliability. But, as the Court stated in *Daubert*, the test of reliability is "flexible," and *Daubert*'s list of specific factors neither necessarily nor exclusively applies to all experts or in every case. Rather, the law grants a district court the same broad latitude when it decides *how* to determine reliability as it enjoys in respect to its ultimate reliability determination. *See General Electric Co. v. Joiner*, 522 U.S. 136,

143 (1997) (courts of appeals are to apply "abuse of discretion" standard when reviewing district court's reliability determination).

Id. at 141-42.

It is now clear that (1) *Daubert* applies to all expert testimony, (2) a federal trial judge always may consider the factors originally offered by Justice Blackmun as general observations. (3) but the judge may choose not to consider them or to consider other factors not specifically identified, and (4) an appellate court will defer not only to the trial judge's ultimate decision on admissibility but also to the judge's determination of how to reach that ultimate decision. In five years, the general observations of *Daubert* now have such force that it is never error for a trial judge to follow some or all of them, or not to follow some or all of them. Appellate courts will defer to trial judges. *Daubert* has made trial judges gatekeepers with almost exclusive keys to the gate.

A Conflict of Interest?

Others may think I exaggerate the impact of *Daubert*, but I believe it is one of the most important evidence decisions rendered in the United States. On its face, it seems reasonable. Trial judges make many evidence decisions in the course of trials or in ruling on pretrial motions, and relevance and reliability are familiar concepts to them. But, *Daubert* raises several questions that are of enormous importance and that differ from most evidence questions that trial judges are called upon to decide. The first of these questions is whether there is a conflict of interest in the judge's role as judicial manager and the judge's role as gatekeeper.

There are few trial lawyers who are unfamiliar with the pressure that federal district judges feel to manage their caseloads and to move cases along. District courts report on dispositive motions that remain undecided for an extended period of time and on the number of pending cases before each judge. Judges with low backlogs are regarded as efficient managers while those who permit cases to mount are seen as the opposite.

When a district judge with a heavy caseload is faced with a *Daubert* motion, the judge is aware that in many cases, unlike other evidentiary rulings, a decision to exclude expert testimony often results in summary judgment. The reality is that plaintiffs need expert testimony in many cases to establish a breach of a duty or causation. If their expert testimony is excluded, they cannot proceed to trial; summary judgment will be granted.

Does this knowledge affect a district court's ruling on expert testimony subconsciously if not consciously? The answer may be "yes." After all, the more complex and time-consuming a case appears to be, the less anxious a busy district judge is likely to be to try it. It may well be tempting to view problems or imperfections (and there always are some) in expert testimony as grounds for excluding the testimony. This temptation may be bolstered by the fact that often a *Daubert* motion is made by a defendant at a time when the district judge knows little or nothing about the defendant's case or experts. Thus, the judge knows that the plaintiff's case is imperfect and that there are problems with the plaintiff's expert and little more. If the judge believes as a result that on the odds the plaintiff will lose, the temptation may be to take a shortcut by excluding the expert testimony of the plaintiff and ending the case. The judge who makes this decision may even convince himself or herself that the decision is in the best interests of all concerned, because it reduces the costs to the parties of a trial and produces the same result that the judge predicts would occur at trial.

I believe that there is evidence that district courts reason or behave in this way, at least in some cases, and that I am not alone in perceiving an apparent conflict between a judge's role as docket manager and as evidence gatekeeper. The United States Court of Appeals for the Eleventh Circuit may well have shared my view when it decided *Joiner v. General Elec. Co.*, 78 F.3d 524 (11th Cir. 1996), before being reversed by the United States Supreme Court. The Eleventh Circuit wrote as follows:

> A district court's ruling on the admissibility of evidence is reviewed for abuse of discretion. *Ad-Vantage Tel. Directory Consultants, Inc. v. GTE Directories Corp.,* 37 F.3d 1460, 1463 (11th Cir. 1994). Because 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. *See*, *e.g.*, *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, , 113 S. Ct. 2786, 2794, 125 L. Ed. 2d 469 (1993); *In re Paoli R.R. Yard PCB Litigation*, 35 F.3d 717, 750 (3d Cir. 1994). * * *

78 F.3d at 529.

The Eleventh Circuit cites to a part of the Supreme Court's *Daubert* opinion that does not actually appear to say anything about the scope of appellate review, and to a Third Circuit's decision that clearly suggests the need for particularly careful appellate review of the exclusion of expert testimony:

> We acknowledge that there is arguably a tension between the substantial deference normally accorded to rulings where the trial court has a superior vantage point and the preference for admissibility of the Federal Rules of Evidence. We resolve any such tension by holding that when the district court's exclusionary evidentiary rulings with respect to scientific opinion testimony will result in a summary or directed judgment, we will give them a "hard look" (more stringent review, * * * to determine if a district court has abused its discretion in excluding evidence as unreliable.

35 F.3d at 750.

Although neither the Third nor the Eleventh Circuit explicitly stated a concern that district courts might be too willing to rid their dockets of cases by excluding expert testimony, such a concern is consistent with adoption of a stringent standard of appellate review. Simply put, the circuits understood that a *Daubert* ruling excluding expert testimony was more than an evidence ruling; it was the end of a case for many plaintiffs.

Notwithstanding this fact, Chief Justice Rehnquist's opinion for the Court rejected the "hard look" and the stringent standard of review:

> [W]hile the Federal Rules of Evidence allow district courts to admit a somewhat broader range of scientific testimony than would have been admissible under *Frye*, they leave in place the "gatekeeper" role of the trial judge in screening such evidence. A court of appeals applying "abuse of descretion" review to such rulings may not categorically distinguish between rulings allowing expert testimony and rulings which disallow it. *Compare Beech Aircraft Corp v. Rainey*, 488 U.S. 153 (1988) (applying abuse of discretion review to a lower court's decision to exclude evidence)

> *with United States v. Abel* [469 U.S. 45 (1984)], *supra* at 54 (applying abuse of discretion review to a lower court's decision to admit evidence). We likewise reject respondent's argument that because the granting of summary judgment in this case was "outcome determinative," it should have been subjected to a more searching standard of review. On a motion for summary judgment, disputed issues of fact are resolved against the moving party — here, petitioners. But the question of admissibility of expert testimony is not such an issue of fact, and is reviewable under the abuse of discretion standard.
>
> We hold that the Court of Appeals erred in its review of the exclusion of Joiner's experts' testimony. In applying an overly "stringent" review to that ruling, it failed to give the trial court the deference that is the hallmark of abuse of discretion review. *See*, *e.g.*, *Koon v. United States*, 518 U.S. 81, , 135 L. Ed. 2d 392, 116 S. Ct. 2035 (1996)(slip op., at 14-15).

522 U.S. at 142-143.

Thus, the Supreme Court rejected a distinction between rulings excluding and admitting expert testimony, despite the fact that there is an important and obvious difference between the two. A decision excluding expert testimony may end the litigation and deny a litigant the right to a trial. A decision admitting expert testimony permits the litigation to continue but does not immunize the expert testimony from attack or assure that a jury will not reject the testimony as unpersuasive. As a result of *Joiner*, even if I am correct that judges who feel the pressure of their docket may tend when in doubt to grant motions to exclude expert testimony, appellate courts will nonetheless defer to trial judges and affirm exclusionary rulings including those that lead to summary judgment.

WHAT IS THE STANDARD?

The conflict of interest problem identified above is exacerbated by the fact that there is no *Daubert* standard for trial judges to employ. *Daubert* made federal trial judges gatekeepers but it did not tell them how to police gates. This is not to say that the Court gave no advice, for it did offer "general observations." It is to say, however, that one who reads *Daubert*, *Joiner*, and *Kumho Tire* and draws everything available from those opinions cannot articulate what the standard of admissibility is. The Advisory Committee on the Federal Rules of Evidence has attempted to divine what the Supreme Court has in mind and amended Federal Rule of Evidence 702, effective December 1, 2001, to codify the Court's trilogy. The Rule now reads:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto 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 (3) the witness has applied the principles and methods reliably to the facts of the case.

This Rule may seem clear, but a few questions should suffice to show that this is not so. For example, what is the standard by which "sufficient facts or data" is measured? Sufficient for what? Sufficient to whom? The answer is that it must be sufficient in the eyes of the particular district judge who has the case. That is hardly much of a standard.

And how reliable must principles and methods be, and how reliably must they be applied to the facts of a case? We know from *Daubert* that error rates are something a judge may consider and that the presence of absence of peer review may affect a judge's decision. But, we also know that few expert opinions are likely to be based on 100% certainty. They typically involve reasoning and judgment. At what point do opinions become reliable enough to be admitted, and at what point do they fail the reliability test? Neither the cases nor amended Rule 702 provides much of an answer.

But, the most important question of all ought to be this: When dealing with expert testimony, why should we permit some judges to exclude testimony that other judges might admit as reliable when the effect is to prevent a litigant from having a trial? Having alluded to the irony earlier, I return to it explicitly now. There is something bizarre about telling trial judges that they may exclude expert testimony when they are not certain that it is unreliable and should never be admitted in a federal trial. If a judge says to himself or herself, "this is a close call," what justification is there for calling for exclusion rather than admitting the evidence so that it can be fully explored at trial?

Consider how unusual the *Daubert* situation is. When a trial judge is called upon to make relevance and authentication rulings under Federal Rules of Evidence 401 or 901, the judge uses Rule 104 (b) asks whether a reasonable jury could find that the evidence is what the proponent claims and whether it adds something to the case. When a judge makes other evidence rulings, the judge uses Rule 104 (a) and may sit as a fact finder. For example, when a judge decides whether a statement is admissible as a coconspirator statement under Rule 801 (d)(2)(E), the judge finds disputed facts by a preponderance of the evidence standard – *i.e.*, whether the declarant and the party against whom the statement is offered were members of the same conspiracy, the statement was in furtherance of conspiracy, and it was made during the conspiracy. The judge makes these findings under a preponderance of the evidence standard. *See Bourjaily v. United States,* 483 U.S. 171 (1987).

The trial judge knows what he or she must find to make rulings under rules like Rule 801 (d)(2)(E). When the judge is called upon to make a Rule 702 judgment, the judge is also a fact finder and is required to use Rule 104 (a), but the question of what the judge is to find is more complex. Virtually no expert testimony is completely reliable or beyond challenge. If it were, it would not only be admissible; it would be conclusive. So, the question is how reliable must testimony be. The answer is as reliable as an individual judge requires. That is a highly individualistic and personal judgment rather than a standard.

The elusiveness of a genuine standard tends to highlight why the conflict of interest problem identified earlier is a cause for genuine concern.

AN EXAMPLE

A comparison of two cases may help to underscore why the claim is made here that it is difficult to divine the standard that trial judges do use or should use. The first case is *Kennedy v. Collagen Corp.*, 161 F.3d 1226 (9th Cir. 1998). The plaintiff claimed that she used Zyderm, a facial product, and that it caused her to contract lupus. To make her case, she relied upon an expert rheumatologist to testify as to causation. The expert relied upon peer-reviewed articles and clinical trials. He also examined the plaintiff and her lab tests, and focused on the temporal proximity between use of the product and the onset of the disease.

The trial judge excluded the expert's testimony and granted summary judgment because there were no studies showing that bovine collagen, the active ingredient in Zyderm, caused Lupus and there was an absence of scientific consensus on the point. The Ninth Circuit reversed the evidence ruling, finding that the trial judge abused his discretion in excluding the testimony. But, the court observed that on its face the trial judge's ruling had much to commend it:

> It is understandable why litigants and judges could be skeptical about Dr. Spindler's [the rheumatologist's] conclusion. Collagen has been classified by the Food and Drug Administration as a medical device, rather than a drug. The typical medical devices are inert objects such as pacemakers, heart valves and replacement inserts. The substances comprising such devices are not absorbed or metabolized by a person's body. To claim that such inert objects may cause lupus surely would be "junk science." Even the Kennedys recognize that if parts of collagen are not metabolized, then collagen likely is not the cause of Mrs. Kennedy's injuries. Their complaint alleges that collagen is a drug, chemical, or compound.

161 F.3d at 1229.

Moreover, the district judge relied upon the fact that there were no epidemiological studies or animal studies linking collagen to lupus. Notwithstanding this, the Ninth Circuit found that the expert had offered adequate explanations as to why studies did not exist and adequate reasoning to support his opinion.

Compare this case with *Mitchell v. Gencorp.*, 165 F.3d 778 (10th Cir. 1999). There, the plaintiff claimed that exposure to benzene and similar substances caused him to contract myelogenous leukemia. The district court granted summary judgment after excluding the plaintiff's expert testimony.

The plaintiff, Mitchell, worked for five years as a warehouseman and truck driver for a company that required him to stock, organize and fill orders from the company's "flammable room," a room that is twelve feet wide by thirty feet long with a ten-foot ceiling and no forced ventilation. The plaintiff had evidence that some barrels leaked in the room, and that these barrels contained products manufactured by the defendant that contained Toluene, Xylene, Hexane and Haptene. Mitchell's evidence was that he entered the "flammable room" several times each day and remained for periods varying from less than one minute to as many as fifteen minutes.

Notwithstanding the fact that Mitchell worked for five years for the company, that he was in the room every day, and that there was evidence that there were leaks, the district judge and the Tenth Circuit found problems with the plaintiff's expert testimony. One problem was that there was no scientific measure of precisely how much chemical Mitchell was exposed to. The Court of Appeals noted that the only evidence that the plaintiff had on the level of exposure was his own testimony and that of an industrial hygienist, who studied material safety data sheets and pictures showing some chemical spillage in the room. The Court concluded that this evidence was inadequate. What the Court of Appeals did not say was how any expert could possibly measure five years of exposure after the fact.

But, this was not the only deficiency that the Court of Appeals found in the plainiffs' expert testimony. It described Mitchell's expert testimony as follows:

> The physicians called by Plaintiffs testified that exposure to Defendant's chemicals caused Mitchell to develop chronic mylogenous leukemia. The physicians supported their conclusions with various published works indicating a link between exposure to benzene and certain types of leukemia. The physicians, however, had no information suggesting that Mitchell was ever exposed to benzene. To compensate for this, the experts rendered their opinions as follows: (1) Defendant's products are chemically similar to benzene; (2) because Defendant's products and benzene are chemically similar, they should affect the body in similar ways; (3) benzene exposure causes certain types of leukemia; (4) because benzene exposure causes other types of leukemia, it is logical that it could cause chronic mylogenous leukemia as well; (5) therefore, Mitchell's exposure to Defendant's products caused him to develop chronic mylogenous leukemia.

165 F.3d at 782.

The bottom line is that the experts extrapolated in two ways in this case. First, they reasoned that benzene was similar enough to the defendant's products that exposure to the defendant's products could fairly be analogized to benzene exposure, and second, that if benzene exposure is known to cause leukemia it could reasonably be deemed to cause myelogenous leukemia. The Tenth Circuit found that the reasoning involved too great a "gap," and because "[m]issing from this evidence is additional testimony explaining exactly what these similarities are and how the similarities cause the human body to respond to Defendant's chemicals in a manner similar to benzene." *Id.* The Court cited *Joiner* for the proposition that, while trained experts do extrapolate from existing data, "nothing . . . requires a district court to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert." *Id.*

What is the difference between extrapolation and *ipse dixit*? And what did the Court mean when it referred to "additional testimony" being missing? Would additional explanations of the reasoning process have changed the result? The answers to these questions are unclear, as is the answer to a more important question: *i.e.*, if another judge had rejected the challenge to the expert testimony and found that the experts' reasoning was logical and warranted a trial, would the court also have sustained that ruling? If so, is there a genuine standard against which trial judges' decisions can be measured?

TWO WAY STREET?

Any temptation on the part of trial judges to lean towards excluding expert testimony may be increased if the judges examine only the expert testimony offered by one side, typically the plaintiff, and the challenges to it made by the opponent. Although plaintiffs may move to exclude defense experts on *Daubert* grounds, this is not the usual scenario, and even if a plaintiff succeeds in excluding a defendant's expert testimony, there still will be a trial in which a jury may choose not to find the plaintiff's experts persuasive. So, the only scenario in which the trial judge's decision on evidence is the final decision on the case is where the judge excludes the plaintiff's experts and they are necessary to get to trial. A fair question to ask is this: Should a trial judge ever exclude a plaintiff's experts without looking to see who the defendants' experts are and what they have done in preparing for trial?

There is a strong argument that "no" is the correct answer here. Although it is true that a defendant may genuinely believe that expert testimony by both sides fails under *Daubert* and that the defense is only generating such testimony in the event that the trial judge mistakenly permits the plaintiff to go forward, it is also true that a defendant and the defendant's experts may make *Daubert* challenges in the hope that they will benefit from the conflict of interest identified above. There is no reason why a trial judge should not ask the defendant's experts whether they believe that their own work is reliable and be able to compare their work to the plaintiffs' experts' work before making a decision to exclude the plaintiff's experts and end a case. A look back at the *Kennedy* case reveals that the Ninth Circuit may well have been influenced to reverse the trial judge by the fact that the defendant's own experts provided some validation of what the plaintiff's expert witness had done. (*E.g.*, "[a] scientist for defendant Collagen, Dr. Frank DeLustro, validated Dr. Spindler's methodology"; "the defendant ran laboratory tests that showed such a reaction, as have other researchers, who have concluded that, after multiple injections, collagen can induce autoantibodies," and "[t]hus, the analogy between 'drug-induced lupus' and collagen-induced lupus is a close one").

OPPORTUNITY TO CURE?

Another question that arises is whether a plaintiff should have an opportunity to cure a defect in expert testimony. Once a *Daubert* challenge is made and a defendant has identified gaps or weaknesses in a plaintiff's expert testimony, should the plaintiff be given an opportunity to fill the gaps or shore up the weaknesses? For example, in *Mitchell*, to the extent that the problem was that "[m]issing from this evidence is additional testimony explaining exactly what these similarities are and how the similarities cause the human body to respond to Defendant's chemicals in a manner similar to benzene," should Mitchell have been given an opportunity to offer additional testimony?

Again, the conflict between the judge as judicial manager and evidence gatekeeper arises. Judges adopt scheduling orders, and those orders dictate that various tasks will be completed by assigned dates. Arguably, the failure to produce adequate expert reports by the date set forth in the scheduling orders should be disqualifying. But, in the real world it is not possible to anticipate all *Daubert* challenges, to know what defects an adversary will see in expert testimony, or whether a trial judge will find gaps where the proponent saw none. Some opportunity to cure mistakes and to supplement an expert offering may promote fairness. Such an opportunity need not be inconsistent with sound judicial case management. Judges could build into their scheduling orders an opportunity to respond to attacks on expert witnesses.

The point made here has been recognized albeit in a slightly different form. In *Padillas v. Stork-Gamco, Inc.*, 186 F.3d 412 (3d Cir. 1999), the Third Circuit reversed a trial judge's exclusion of a plaintiff's expert and concomitant grant of summary judgment and remanded for an *in limine* hearing. The Court expressed its confidence that an *in limine* hearing may be important, even in the absence of a request for such a hearing by the proponent of the expert testimony. The Court explained that the plaintiff "need[s] an opportunity to be heard" on the critical issues of scientific reliability and validity, *id*. at 417, and that this opportunity provides the plaintiff's expert with a chance to explain the "good grounds" upon which the expert evidence rests. *Id*. at 418.

There ought to be limits to any opportunity to cure. As the Third Circuit noted in *In re TMI Litig.*, 193 F.3d 613, *amended* 199 F.3d 158 (3d Cir. 2000), "Padillas certainly does not establish that a District court must provide a plaintiff with an open-ended and

never-ending opportunity to meet a *Daubert* challenge until plaintiff 'gets it right' and it certainly does not establish that a plaintiff must be given the opportunity to meet a *Daubert* challenge with an expert's submission that is based on a new methodology completely different from the one the expert originally engaged in." 193 F.3d at 666.

DOES EXPENSE MATTER?

The law is very clear that a litigant need not hire the best expert, even if he or she could afford to do so. See G. Joseph & S. Saltzburg, Evidence in America § 51.3. An expert also need not have encyclopedic knowledge of the subject matter of testimony. *See*, *e.g.*, *Ellis v. K-Lan Co.*, 695 F.2d 157 (5th Cir. 1983). But, must an expert conduct all possible tests and exclude all alternative theories in offering an opinion? And does it matter that additional tests or expert work may be costly?

Clear answers are difficult to find, but there is little apparent attention in the decided cases after *Daubert* to whether litigants are able to afford to hire experts and to have the experts do various work. Generally, American courts render evidence decisions without regard to the wealth of litigants. Thus, it would not be surprising for a trial judge to exclude expert testimony because of perceived problems that might have been cured were there sufficient funds to pay the expert or other experts to do additional work. The question remains, however, whether a trial judge should consider whether any defect in expert testimony is attributable to a lack of resources as opposed to sloppy work in deciding whether to exclude the testimony altogether.

JUDICIAL HELP?

Justice Breyer wrote a concurring opinion in *Joiner* in which he suggested that trial judges might benefit from having scientific help in performing their gatekeeper function. He wrote as follows:

> In the present case, the New England Journal of Medicine has filed an amici brief "in support of neither petitioners nor respondents" in which the Journal writes:
>
> > "[A] judge could better fulfill this gatekeeper function if he or she had help from scientists. Judges should be strongly encouraged to make greater use of their inherent authority . . . to appoint experts . . . . Reputable experts could be recommended to courts by established scientific organizations, such as the National Academy of Sciences or the American Association for the Advancement of Science."
>
> Brief for The New England Journal of Medicine 18-19; *cf.* Fed. Rule Evid. 706 (court may "on its own motion or on the motion of any party" appoint an expert to serve on behalf of the court, and this expert may be selected as "agreed upon by the parties" or chosen by the court); *see also* Weinstein, *supra*, at 116 (a court should sometimes "go beyond the experts proffered by the parties" and "utilize its powers to appoint independent experts under Rule 706 of the Federal Rules of Evidence"). Given this kind of offer of cooperative effort, from the scientific to the legal community, and given the various Rules-authorized methods for facilitating the courts' task, it seems to me that *Daubert*'s gatekeeping

> requirement will not prove inordinately difficult to implement; and that it will help secure the basic objectives of the Federal Rules of Evidence; which are, to repeat, the ascertainment of truth and the just determination of proceedings. Fed. Rule Evid. 102.

522 U.S. at 149-150.

Whatever reservations a judge may have in appointing a court-appointed expert to testify at trial, the use of expert help in performing the gatekeeper function warrants attention. A court-appointed expert might afford some guarantee that the conflict of interest between the judge as case manager and evidence gatekeeper does not drive the decision to exclude evidence. It also might suggest to the trial judge whether problems with expert testimony could and should be cured. Use of court-appointed experts might even assist less wealthy litigants in avoiding summary judgment because of a lack of sufficient resources to develop adequate expert testimony.

Justice Breyer suggested that the range of options available to trial judges made him confident that they would be able to bear the gatekeeping burden and produce fair results. The fact is that few judges are using the options. Thus, the question is what this means for the quality of justice. Does it mean that the confidence that otherwise would be generated does not exist?

CONCLUSION

The question that ends the previous paragraph is the last among the many that have been asked in this essay. Since *Daubert*, federal courts have not only acted as gatekeepers, but they have been active gatekeepers. One need only read the advance sheets weekly to see the number of cases in which expert testimony is excluded and summary judgment is granted, and these are only the reported cases. Whether it was intended to do so or not, *Daubert* has been read by trial judges and appellate courts as approving a skeptical judicial eye on expert testimony.

Judges are now gatekeepers using a standard that is difficult if not impossible to apply. One can invoke reliability as a concept rather easily, but deciding how reliable is enough is not something that comes naturally to judges who are not scientists or universal experts. There is something odd about the turn the law has taken with respect to expert testimony. When judges approach most evidence, their tendency is not to exclude evidence with probative value when that evidence is necessary to make a case and no substitute is readily available. Federal Rule of Evidence 403 states the general principle: "Although relevant, evidence may be excluded if its probative value is **substantially outweighed** by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence." (Emphasis added).

There is no similar standard applicable to expert testimony. A judge can exclude it if it is not reliable enough, although it is not entirely unreliable. There is no presumption that relevant expert evidence with some reliability should be admitted. The Supreme Court's "general observations" in *Daubert* are now commandments, despite the fact that they establish no readily articulable standard to guide a judge in gatekeeping. This is where *Daubert* has left us, and that is why the questions set forth herein need to be asked.