

# THE WHOLE TRUTH? EXPERTS, EVIDENCE, AND THE BLINDFOLDING OF THE JURY

*Report of the 2006 Forum for  
State Appellate Court Judges*

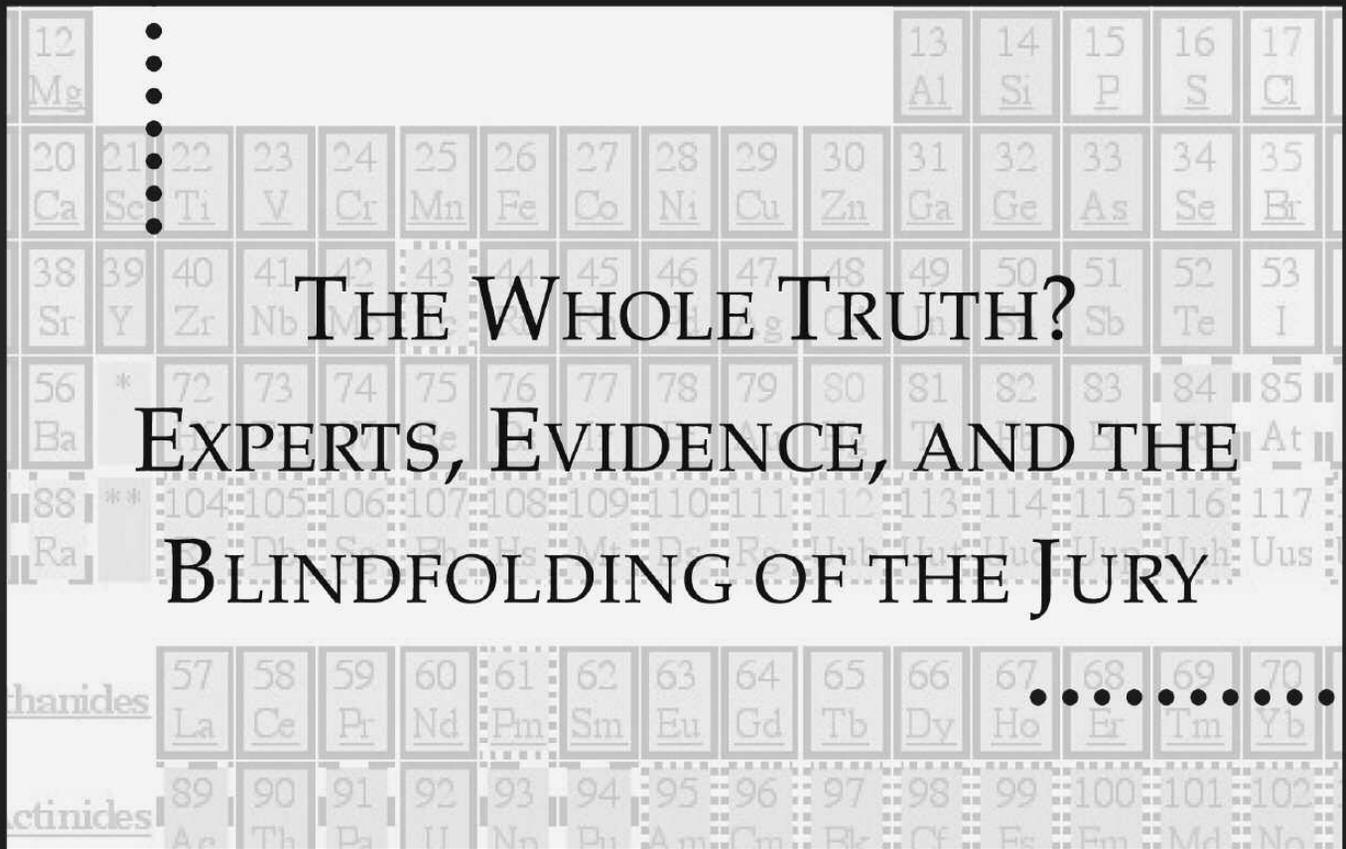


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# Foreword

The Pound Civil Justice Institute's (formerly the Roscoe Pound Institute) fourteenth annual Forum for State Appellate Court Judges was held in July 2006, in Seattle, Washington. Continuing the standard of excellence that has marked our previous Forums, it featured outstanding scholars and panelists who examined the important issue of expert evidence in the aftermath of the *Daubert* line of cases. During the program, judges, scholars, and attorneys explored the nature of scientific evidence and the ability of juries and judges to understand complex expert evidence.

The Pound Civil Justice Institute understands and appreciates the fact that America's state courts lead the administration of justice in the United States and carry, by far, the brunt of the country's judicial workload. We try to support them in their work by offering our annual Forums as a venue where judges, academics, and practitioners can participate in a dialogue devoted to a timely issue, held on a single day. These discussions sometimes lead to consensus, but even when they do not, the exercise is bound to be very fruitful. Our attendees bring with them different points of view, and we make additional efforts to include panelists with outlooks that differ from those of most of the Pound Institute's Fellows. We believe that this diversity of viewpoints emerges in our Forum reports.

Our previous Forums for State Appellate Court Judges have examined such important topics as electronic discovery, the rise of mandatory arbitration, federalism, separation of powers, the jury in civil justice, judicial independence, the scientific evidence controversy, and secrecy in the courts. We are extremely proud of our Forums and are gratified by the increasing attendance we have experienced since their inception, as well as the very positive feedback from attending judges.

The Pound Institute is indebted to many people for the success of the 2006 Forum for State Court Judges:

- Professor Joseph Sanders of the University of Houston School of Law, and Dr. Nicole Waters, of the National Center for State Courts, who delivered the papers that started our discussions;
- Our panelists: Honorable James E. Graves Jr., Honorable T. Michael Putnam, Honorable Juan Ramirez Jr., Bert Black, Richard D. Hailey, Lori E. Iwan, Dr. David Michaels, and Leslie O'Toole;
- The moderators of our small-group discussions, Sharon Arkin, Kathryn Clarke, Lynne Stern Feiges, Bill Gaylord, Betty Morgan, Leslie O'Leary, Wayne Parsons, Ellen Relkin, Larry Tawwater, and John Vail, who kept the groups on track and helped us highlight what experienced state court judges think about the issues we examined; and
- Dr. Richard H. Marshall, the former Executive Director of the Pound Civil Justice Institute, and his staff, Marlene Cohen and LaJuan Campbell, for developing and running the Forum, and publishing and distributing this report.

Finally, we cannot thank enough the distinguished group of jurists who took time from their busy schedules to join us in Seattle during the Pound Institute's 50th Anniversary and share their wisdom and experience so that we might all learn from each other.

We hope you enjoy reviewing this Report of the Forum, and that it gives you a fresh perspective of the use of scientific evidence in litigation, and how different standards of admissibility may impact the pursuit of justice in the real world of the state courts.

**Mary E. Alexander**

President  
Pound Civil Justice Institute  
2005-2006

**Kenneth M. Suggs**

President  
Pound Civil Justice Institute  
2007-2008

# Introduction

One hundred twenty-six judges, representing 35 states, took part in the Pound Institute's 2006 Forum for State Appellate Court Judges, held on July 15, 2006, in Seattle, Washington. They listened to presentations based on original papers written for the Forum by Professor Joseph Sanders of the University of Houston School of Law ("*Daubert, Frye, and the States: Thoughts on the Choice of a Standard*") and Dr. Nicole Waters, of the National Center for State Courts ("*Standing Guard at the Jury's Gate: Daubert's Impact on the State Courts*"). Each presentation was followed by a panel discussion with distinguished commentators, followed by judges breaking into small groups to talk about the issue.

Responding to Professor Sanders' paper were: Bert Black, a plaintiff attorney from Minneapolis, Minnesota; Leslie O'Toole, a defense attorney from Raleigh, North Carolina; the Honorable T. Michael Putnam, a United States Magistrate Judge from Birmingham, Alabama; and the Honorable James E. Graves Jr., an Associate Justice on the Mississippi Supreme Court.

Responding to Dr. Waters' paper were: Richard D. Hailey, a plaintiff attorney from Indianapolis, Indiana; Lori E. Iwan, a defense attorney from Chicago, Illinois; Dr. David Michaels, an epidemiologist from the George Washington University School of Public Health and Health Service in Washington, D.C.; and the Honorable Juan Ramirez Jr., an appellate judge from Miami, Florida. For biographies of the paper writers, panelists, and group moderators, please go to the Appendix of this report at page 137.

After each paper presentation and commentary, the judges separated into small groups to discuss the issues raised in the papers, with Fellows of the Pound Institute serving as group moderators. The paper presenters and commentators visited the groups to share in the discussion and respond to questions. The discussions were recorded on audio tape and transcribed by court reporters, but under ground rules set in advance of the discussions, comments by the judges were not made for attribution in the published report of the Forum. A selection of the judges' comments appears later in this report. Judges, when identified, are only identified at the level of specificity of the region of the country they were from, i.e., "a Mid-western state" or a "southern state."

At the concluding plenary session, the judges' views of the issues under discussion were summarized based upon the moderator's reports of their groups, and all participants in the Forum had a final opportunity to make comments and ask questions. The points of agreement from the discussion groups and closing comments can be found starting on page 131.

This report is based on the papers written and presented by Professor Sanders and Dr. Waters and on the transcripts of the plenary sessions and group discussions.

**Richard H. Marshall, Ph.D.**  
**Editor**



# Papers, Oral Remarks, and Comments

## DAUBERT, FRYE, AND THE STATES: THOUGHTS ON THE CHOICE OF A STANDARD

**Joseph Sanders**

Professor Joseph Sanders begins his paper by observing that the Daubert revolution is in its second decade and although it is relatively settled law in the federal courts, the state courts have taken different approaches to the admissibility of expert evidence. Noting that 31 states might be considered “Daubert jurisdictions,” while other states use the Frye standard of admissibility, or some hybrid thereof, he then focuses on two states, Texas and Illinois, and the standards their courts have chosen. Texas comes close to a complete adoption of the Daubert standard, while Illinois comes close to being a pure Frye state. (A brief review of the Frye and the Daubert trilogy case law is found in the addendum to this paper.) He next addresses the issues that tend to separate Daubert states from Frye states, identifying five issues that separate the two approaches: 1) Whether general acceptance should be the cornerstone of admissibility; 2) Whether admissibility decisions should be restricted to novel scientific evidence and if so, what test should be used for non-novel evidence; 3) Whether the admissibility analysis should be at a general level or should be case specific; 4) Whether there is a distinction between scientific evidence and other types of expert testimony and, if so, what test should be employed for experience testimony; and 5) Whether admissibility decisions should be reviewed under an abuse of discretion or a *de novo* standard.

Next, Professor Sanders examines the considerations underlying states’ choice of which admissibility standard to adopt. He first addresses whether the Daubert standard is more conservative than Frye in letting expert testimony into court. He then asks whether trial judges are capable of distinguishing between reliable and unreliable expert opinions. One study suggests that, in the federal courts, trial judges do not have a good understanding of the Daubert standard of testability and error rate, but Professor Sanders’ reading of federal district court opinions leads him to a more positive view. He also points out that we do not have a great understanding of how well trial judges do with judging expert evidence under the Frye test.

Professor Sanders then briefly looks at the question of jury competence in understanding complex cases, and whether the traditional tools of the adversary process are effective ways of assisting juries in sorting out the merits of competing expert testimony. He also asks whether a heightened admissibility standard improves the quality of expert testimony offered at trial and what impact these different standards might have on the cost of litigation. As he notes at the beginning of this section, many of the questions that he raises are empirical ones that we unfortunately do not have enough information to satisfactorily answer.

Finally, he asks a question that is largely normative in nature, and that is, what is the proper trade-off between the accuracy of judicial outcomes and the litigating parties’ perceptions of procedural justice? This is, according to Professor Sanders, a question of balance, and achieving the proper balance between the two is the key normative consideration in choosing admissibility standards.

## I. Introduction

The *Daubert* revolution is in its second decade. It is fair to say that in the federal courts things are settling down. The three cases—*Daubert*,<sup>1</sup> *Joiner*,<sup>2</sup> and *Kumho Tire*<sup>3</sup>—that comprise the *Daubert* trilogy have addressed most of the central questions about the admissibility of expert evidence. Federal Rules of Evidence 702<sup>4</sup> and 703<sup>5</sup> have been revised to reflect these three rulings.<sup>6</sup> Whether or not one thinks the *Daubert* trilogy is, on balance, a good thing, it does have the virtue of getting all of the federal courts to follow the same rules with respect to admissibility of expert evidence. The same cannot be said for the states. Some have wholeheartedly embraced *Daubert*. Others have rejected it with almost zealot-like fervor. Many have taken some middle ground. In this paper, I offer some thoughts about the considerations that cause states to adopt their current position. [For your convenience, I give a brief background of *Frye* and the *Daubert* trilogy in the addendum. If you are familiar with this case law, please proceed to Section II.] Section II begins with a brief discussion of the case law in two states that have reached opposite positions with respect to the choice between *Frye* and *Daubert*: Texas and Illinois. The paper then turns to a discussion of the particular issues that tend to separate *Daubert* and *Frye* states. Finally, Section III sets forth a number of considerations underlying the choice of admissibility standards and offers some thoughts on the normative trade-off between liberal and conservative admissibility standards.

## II. The Position Taken in the States

How have the states responded to *Daubert*? One way to answer that question is to count noses. Several articles and an ALR have done so.<sup>7</sup> The most recent of these compilations by John Conley and Scott Gaylord,<sup>8</sup> published in 2005, lists 31 states as “*Daubert* jurisdictions.” Thirteen states and the District of Columbia continue to follow some form of the *Frye* rule. However, as Conley and Gaylord note, a number of these *Frye* states have modified their admissibility rule to permit some form of a *Daubert*-like analysis, and many *Daubert* states have not followed the federal lead in every respect.<sup>9</sup> The remaining states have an admissibility standard that cannot be fit easily under either *Daubert* or *Frye*.<sup>10</sup>

A few states could be said to be pure *Frye* or pure *Daubert* states in the sense that they have either almost completely adopted the federal courts’ position on admissibility or they have remained true to their traditional *Frye* position. Two such states are Texas and Illinois.

### A. Two Extremes: Texas and Illinois

#### 1. Texas – A *Daubert* State

Texas is a state that comes close to a complete adoption of the federal position.<sup>11</sup> In *Du Pont v. Robinson*,<sup>12</sup> the Texas Supreme Court acknowledged that it was persuaded by the reasoning in *Daubert*. Embellishing on *Daubert*, the court listed six nonexclusive factors a trial court might consider in assessing admissibility: (1) the extent to which the theory has been or can be tested; (2) the extent to which the technique relies upon the subjective interpretation of the expert; (3) whether the theory has been subjected to peer review and/or publication; (4) the technique’s potential error rate; (5) whether the underlying theory or technique has been generally accepted as valid by the relevant scientific community; and (6) the non-judicial uses that have been made of the theory or technique.<sup>13</sup>

Using this standard, the Texas Supreme Court affirmed the exclusion of plaintiff’s expert testimony

that damage to the plaintiff's pecan orchard was caused by contamination in defendant's fungicide. It found the trial court did not abuse its discretion in concluding the expert's methodology (comparative symptomology, a type of differential diagnosis) failed on several of the *Robinson/Daubert* factors (error rate, peer review and publication, and general acceptance) and also noted that his research and opinions were prepared for purposes of litigation.<sup>14</sup>

A second Texas opinion, *Gamill v. Jack Williams Chevrolet, Inc.*,<sup>15</sup> confronted the issue that was central to *Kumho Tire*, that is, whether different types of expert testimony should be governed by different standards. The *Gamill* court assumed the expert testimony in the case was scientific. The plaintiffs argued, however, that because some of the expert testimony was based on the witness's individual skill and experience, it did not have to meet the *Robinson* reliability requirement, or must meet it in a fundamentally different way than scientific testimony. The court recognized the complexity of the issue,<sup>16</sup> and reviewed the conflicting federal cases on this question, including the Eleventh Circuit's opinion in *Kumho Tire*.<sup>17</sup> It sided with those circuits holding that Rule 702's fundamental requirements of reliability and relevance are applicable to all expert testimony. As did the United States Supreme Court in *Kumho Tire*, the Texas Supreme Court recognized that the *Robinson* factors are not always useful in assessing the reliability of other types of expert testimony and left to the trial court the task of determining how the reliability of particular testimony is to be assessed.

**As did the United States Supreme Court in *Kumho Tire*, the Texas Supreme Court recognized that the *Robinson* factors are not always useful in assessing the reliability of other types of expert testimony.**

In *Gamill*, the court characterized the trial judge's ruling as one based on "fit." That is, there was too great an analytical gap between the data and the opinion of the expert. The plaintiff's expert employed techniques similar to those employed by defense experts. However, in the court's eyes, he failed "to show how his observations, assuming they were valid, supported his conclusions that [the defendant] was wearing her seat belt or that it was defective." The district court was not required, in *Joiner's* words, "to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert."<sup>18</sup>

In a separate part of its opinion, the *Gamill* court rejected the argument that admissibility determinations are reserved for novel scientific evidence. "The problems presented in determining whether or not a particular type of evidence would be considered 'novel' are daunting enough to reject application of a dual standard."<sup>19</sup>

## 2. Illinois – A *Frye* State<sup>20</sup>

Illinois is a state that comes close to being a pure *Frye* state.<sup>21</sup> As the Illinois Supreme Court said in *Donaldson v. Central Ill. Pub. Serv. Co.*,<sup>22</sup> "Illinois law is unequivocal: the exclusive test for the admission of expert testimony is governed by the standard first expressed in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923)."<sup>23</sup>

The court specifically rejected a "*Frye*-plus-reliability" test, under which a court would first assess whether a technique or methodology is generally accepted and, upon determining that it is, would further determine whether the opinion is reliable by considering *Daubert*-like factors.<sup>24</sup> The court argued that the determination of reliability of an expert's methodology is subsumed by the inquiry into general acceptance and, moreover, the *Frye*-plus-reliability test "impermissibly examines the data from which the opinion flows, while the technique remains generally accepted. Questions concerning underlying data, and an

expert's *application* of generally accepted techniques, go to the weight of the evidence rather than its admissibility."<sup>25</sup>

Throughout the opinion, the court emphasized that the general acceptance test only addresses techniques and methodologies. Specifically, it does not concern the expert's ultimate conclusion and the factfinder may consider the expert's opinion despite the novelty of the conclusion. For example, "The medical community may entertain diverse opinions regarding causal relationships, but this diversity of opinion does not preclude the admission of testimony that a causal relationship exists if the expert used generally accepted methodology to develop the conclusion."<sup>26</sup>

In *Donaldson*, the Illinois Supreme Court adopted an abuse-of-discretion standard for reviewing trial court admissibility decisions. However, in *In re Commitment of Simons*,<sup>27</sup> the court adopted a dual standard of review. The trial court's decisions as to whether the expert was qualified and whether the testimony is relevant to a particular case remain in the sound discretion of the court. The trial court's *Frye* analysis is subject to de novo review.<sup>28</sup> Justifying this position, the court noted that:

Application of less than a de novo standard of review to an issue that transcends individual cases invariably leads to inconsistent treatment of similarly situated claims. . . .

Under the *Frye* standard, the trial court is not asked to determine the validity of a particular scientific technique. Rather, the court's responsibility is to determine the existence, or nonexistence, of general consensus in the relevant scientific community regarding the reliability of that technique. "Accordingly, because the focus is primarily on counting scientists' votes, rather than on verifying the soundness of a scientific conclusion, there will not be the concerns about witness credibility and hearsay normally associated with citations to empirical or scientific studies whose authors cannot be observed or cross-examined."<sup>29</sup>

## B. The issues that tend to separate *Daubert* and *Frye* states

There is a substantial gulf between the Texas and Illinois admissibility rules and many states reside somewhere in between. Rather than discuss the position of individual states, I think it might be more helpful and more conducive to a discussion to examine the issues that separate Illinois and Texas and, by analogy, often separate *Frye* from *Daubert* as approaches to admissibility.

Among the issues that separate the Illinois and Texas approach are the following:

1. Whether general acceptance should be the cornerstone of admissibility.
2. Whether admissibility decisions should be restricted to novel scientific evidence and if so, what test should be used for non-novel evidence.
3. Whether the admissibility analysis should be at a general level or should be case specific.
4. Whether there is a distinction between scientific evidence and other types of expert testimony and, if so, what test should be employed for experience testimony.
5. Whether admissibility decisions should be reviewed under an abuse of discretion or a de novo standard.

## 1. Whether general acceptance should be the cornerstone of admissibility.

This is the most fundamental question posed by *Daubert*. At bottom, the *Daubert* revolution is about the relationship between judges and experts, between law and science. *Frye* asked judges to acquiesce to the judgment of the relevant scientific community. *Daubert*, on the other hand, invites the trial court to make an independent inquiry. The judge should determine whether the proffered evidence is reliable by examining the reasoning and methodology underlying the expert's testimony.<sup>30</sup> As Michael Saks notes, "Perhaps the purpose of the rules is simply to hold up a target to the courts; call one the *Frye* target and the other the *Daubert* target. The *Frye* ideal says: Do whatever the experts tell you to do. The *Daubert* ideal says: Figure out the science yourself."<sup>31</sup>

An interesting question is whether state court trial judges have the resources to do what *Daubert* asks.<sup>32</sup> Many state trial judges have few resources with which to undertake the types of Rule 104A hearings that frequently occur in the federal courts. Courts that have rejected the *Daubert* approach sometimes offer this as a reason.<sup>33</sup> On the other hand, the parties themselves, and other resources such as the Federal Judicial Center Handbook on Scientific Evidence, are available to assist trial courts with many types of expert evidence. Moreover, it is not entirely clear that state court judges have the resources to do what *Frye*

asks either. Few *Frye* opinions actually address the general acceptance question in any detail and, as the *Donaldson* court notes, something less than general acceptance is required for admissibility.

***What is most noteworthy in this regard is that courts have justified sticking with Frye both because it is a more conservative test and because it is a more liberal test.***

The problem of judicial resources is not the sole reason given by courts that have refused to abandon *Frye* for *Daubert*. Many courts justify remaining with *Frye* based on their judgment about the overall effect of the two rules on the ease with which expert testimony will be admitted. What is most noteworthy in this regard is that courts have justified sticking with *Frye* both because it is a more conservative test and because it is a more liberal test.

Courts that early on chose to remain with the *Frye* test often expressed concerns that the *Daubert* approach would be too liberal. Perhaps beguiled by the *Daubert* description of *Frye* as an austere standard incompatible with the liberal admissibility thrust of the federal rules of evidence, some state courts were reluctant to adopt a rule that might lead to the introduction of more questionable expert opinions. The California Supreme Court's 1994 opinion, *People v. Leahy*<sup>34</sup> is a case in point. One of the virtues of the *Frye* test in the court's eyes was its "essentially conservative nature."<sup>35</sup> Similarly, the Florida Supreme Court in *Brim v. State* noted, "Despite the federal adoption of a more lenient standard in [*Daubert*], we have maintained the higher standard of reliability as dictated by *Frye*."<sup>36</sup>

Contrast these opinions with the recent 2004 North Carolina Supreme Court decision in *Howerton v. Arai Helmet, Ltd.*<sup>37</sup> Between 1994 and 2004, a general consensus emerged, supported by some empirical evidence, that the *Daubert* trilogy has, on balance, led to heightened judicial scrutiny of expert opinion in the federal courts.<sup>38</sup> Thus, in 2004 the North Carolina court could say, "While these and other North Carolina cases share obvious similarities with the principles underlying *Daubert*, application of the North Carolina approach is decidedly less mechanistic and rigorous than the 'exacting standards of reliability' demanded by the federal approach."<sup>39</sup>

## 2. Whether admissibility decisions should be restricted to novel scientific evidence and if so, what test should be used for non-novel evidence.

The justifications for restricting admissibility decisions to novel scientific evidence under the *Frye* test are partly historical and partly practical. *Frye* itself concerned a novel technique and perhaps at the time of *Frye* it did not seem necessary to engage in an admissibility analysis with respect to most scientific evidence. As Faigman, Porter, and Saks note,<sup>40</sup> in the nineteenth and early twentieth century almost all experts sold their expertise in a marketplace other than the courtroom, and this marketplace determined whether valid knowledge existed by endowing it with commercial value.

The more practical justification is that it would be a waste of judicial resources to relitigate the admissibility question with respect to well-settled techniques and methods. This consideration has caused at least one *Daubert* jurisdiction to restrict admissibility analyses to novel evidence.<sup>41</sup> In jurisdictions that do not distinguish between novel and non-novel scientific evidence,<sup>42</sup> successful challenges are theoretically possible. For example, in the Texas case of *Hartman v. State*,<sup>43</sup> the court reversed an appellate court decision to admit the results of an Intoxilyzer test without conducting an admissibility hearing as required by *Kelly v. State*.<sup>44</sup> However, the difference between these two positions may have relatively little practical significance in areas such as alcohol testing. As a concurring opinion in the *Hartman* case notes, some scientific theories are so well accepted that they are entitled to judicial notice of their admissibility.<sup>45</sup> Even when tests fall short of this level, a theory or technique may warrant admissibility as a matter of course. Trial courts that apply their admissibility test to all evidence are rarely embroiled in determining the admissibility of scientific theories and techniques that have already been well established.<sup>46</sup>

**The more practical justification is that it would be a waste of judicial resources to relitigate the admissibility question with respect to well-settled techniques and methods.**

An argument for applying a reliability filter to all evidence is that admissibility challenges sometimes do not involve the merits of a general method or technique but the application of the technique in a particular case. In his seminal article on *Frye*, Professor Paul Giannelli divided the question of scientific validity into “(1) the validity of the underlying principle, (2) the validity of the technique applying the principle, and (3) the proper application of the technique on a particular occasion.”<sup>47</sup> When a challenge is to the application of a technique, the merits of that challenge must be decided on a case-by-case basis.<sup>48</sup>

## 3. Whether the admissibility analysis should be at a general level or should be case specific.

The distinction between the validity of a general technique and the proper application of the technique is related to the question of whether the admissibility analysis should be couched at a general or a case-specific level. The holding in *Kumho Tire* is not that visual and tactile inspection of tires is an invalid technique but rather that the expert’s analysis in “the case at hand” was inadequate. Theoretically, there is nothing in the *Frye* test that prohibits a court from holding such testimony inadmissible.

The Illinois case of *Agnew v. Shaw*<sup>49</sup> offers an instructive example of this point. In *Donaldson*, the court affirmed the admission of extrapolation evidence.<sup>50</sup> It noted that “extrapolation is utilized in the scientific community when the medical inquiry is new or the opportunities to examine a specific cause and effect relationship are limited.”<sup>51</sup> Even if extrapolation is not accepted by all scientists, “the *Frye*

standard does not demand unanimity, consensus, or even a majority to satisfy the general acceptance test, [and] we find that extrapolation is sufficiently established to have gained general acceptance in these limited circumstances.”<sup>52</sup>

In *Agnew*, the plaintiff’s expert wished to use “backward extrapolation” to argue that given the state of development of the plaintiff’s cancer when it was discovered, it existed at a prior time when the defendant failed to detect the disease. The appellate court held that this technique was not generally accepted. As to *Donaldson*, the court said, “In *Donaldson*, the court approved the extrapolation method used *in that case*.... While the extrapolation methodology was approved when used to determine what caused the cancer in the *Donaldson* plaintiffs, that does not mandate that this court must find that the extrapolation methodology is acceptable in every case.”<sup>53</sup>

Although the *Agnew* opinion indicates that a case-specific analysis is compatible with a *Frye* approach to admissibility, it seems fair to say that a *Daubert* jurisdiction that adopts the case-specific “fit” analysis of *Joiner* and *Kumho Tire* will more frequently exclude a particular application of a technique than will a *Frye* jurisdiction. In this regard, it is worth noting that some states have adopted *Daubert*, at least insofar as it rejects general acceptance as the sole test of admissibility, but have not adopted the *Kumho Tire* fit analysis. These states are less likely to rule an expert’s testimony inadmissible based on the specific use of data or a technique.

#### 4. Whether there is a distinction between scientific evidence and other types of expert testimony and, if so, what test should be employed for experience testimony.

The issue that split the federal circuit courts before *Kumho Tire* has been an issue primarily in *Frye* states.<sup>54</sup> Some *Frye* jurisdiction courts have refused to apply the *Frye* test to non-scientific evidence because it does not involve a new scientific technique, device, or procedure. In *Kuhn v. Sandoz Pharmaceuticals*,<sup>55</sup> the Kansas Supreme Court held that the Kansas *Frye* test applies only “when an expert witness reaches a conclusion by deduction from applying a new or novel scientific principle, formula, or procedure developed by others.”<sup>56</sup> Opinions that do not rely on “techniques,” but rather are “developed from inductive reasoning based on the expert’s own experience, observation, or research”<sup>57</sup> are not to be tested by *Frye* or any other admissibility test. Rather, “[t]he validity of pure opinion is tested by cross-examination of the witness.”<sup>58</sup>

***It is worth noting that some states have adopted Daubert, at least insofar as it rejects general acceptance as the sole test of admissibility, but have not adopted the Kumho Tire fit analysis.***

As the court correctly notes, once this exception is created, a critical question is whether the term “technique” is to be given a narrow or broad meaning.<sup>59</sup> The Kansas court adopts a narrow view of the term. According to the court, the plaintiff’s experts’ opinions in

*Kuhn* did not hinge on the validity of a scientific principle, device, test or procedure developed by another, but rather on the accuracy of their observation, the extent of their training and the reliability of their interpretations.<sup>60</sup> None of these are subject to *Frye*.<sup>61</sup> It appears likely that *Kuhn* will remove most, if not all, medical doctor differential diagnosis testimony from any judicial reliability assessment.<sup>62</sup>

The position taken in *Kuhn* and similar cases is noteworthy because it reflects a rejection of any reliability requirement for some types of expert testimony. In this regard, it is similar to the jurisprudence of some of the states that have adopted neither *Daubert* nor *Frye*.<sup>63</sup> The *Kuhn* court justified this position

by arguing that jurors are relatively less confused by expert testimony that does not involve a “technique” such as a lie detector than by expert opinions based on “inductive” reasoning.

### 5. Whether admissibility decisions should be reviewed under an abuse-of-discretion or a de novo standard.

As I noted above, Illinois recently moved from an abuse-of-discretion standard to a de novo standard when trial courts make *Frye* admissibility decisions. Other *Frye* states have adopted the same position.<sup>64</sup> The rejection of an abuse-of-discretion standard is not restricted to *Frye* states. New Hampshire adopted both *Daubert* and *Kumho Tire* in *Baker Valley Lumber, Inc. v. Ingersoll-Rand Co.*<sup>65</sup> However, it rejected *Joiner’s* abuse-of-discretion standard, at least where the reliability of a theory or underlying technique will not vary from case to case.<sup>66</sup>

The problem with an abuse-of-discretion standard is that it may lead to contradictory admissibility decisions with respect to the same evidence. The opportunity for this outcome to occur increases when different courts are considering the same underlying science in drug and toxic tort cases.<sup>67</sup>

## III. Considerations Underlying the Choice of Admissibility Standards

Within the broad decision of whether or not to adopt the *Daubert* approach reside a number of more specific issues. *Daubert* versus *Frye* does not have to be an all-or-nothing proposition, and many states have chosen to “mix-and-match” their approach to suit their particular needs and inclinations. There are, however, several underlying considerations that appear to cause states to go in one general direction or the other. In this final section, I briefly list those considerations with the hope that they will facilitate discussion about the merits of different approaches. Before I do so, however, a word of caution is in order. I should note in advance that several of the considerations involve answers to empirical questions about which we have very little information.

***Daubert versus Frye does not have to be an all-or-nothing proposition.***

### A. Is the *Daubert* standard more conservative?

Most commentators now believe that the *Daubert* test is more conservative. In part, this is because it applies to all expert testimony, whereas the *Frye* test often applies only to novel evidence or to scientific evidence. Even within the arena where the *Frye* test does operate, however, it may be the case that *Daubert* is more conservative. What is unclear, at least to me, is whether this is something inherent in the *Daubert* approach or whether it simply reflects the general reluctance of judges in *Frye* states to exclude expert testimony regardless of the test employed. In either case, if we assume that the *Daubert* approach is more conservative, is that a good or a bad thing? The answer to that question turns on the answer to several other questions.

### B. Are trial judges capable of distinguishing between reliable and unreliable expert opinions?<sup>68</sup>

The question of judicial competence is raised in a number of opinions rejecting *Daubert* and has been a concern for many federal judges as well.<sup>69</sup> The answer to this question is difficult. At least one study indicated that trial judges did not have a good understanding of the *Daubert* factors of testability

and error rate.<sup>70</sup> My own reading of federal district court admissibility decisions causes me to come to a more positive conclusion, but federal district court opinions may be a poor indicator of the quality of state trial court admissibility decisions. Further, state trial court judges only rarely write an opinion justifying their ruling. Unfortunately, we are left with a fair degree of uncertainty concerning state trial judge capability in regards to understanding scientific and other expert evidence. I might add, however, that we are no better informed about trial judge abilities under the *Frye* test.

### **C. Are juries capable of sorting out reliable and unreliable expert opinions?**

Unlike the question of judicial competence, the question of jury competence has been the subject of considerable research. This is not the place to summarize this work. I believe it is fair to say, however, that studies indicate that, at least in the context of laboratory studies, juries do have some trouble with complex cases, especially when they involve statistical evidence.<sup>71</sup>

One finding that is especially worth noting is that, contrary to the statements in many judicial opinions, jury difficulty with expert testimony is not the result of juries “overbelieving” experts or juries being awestruck by some scientific technique. If anything, the data indicate the opposite; juries tend to undervalue certain types of evidence. Assuming this is true for actual juries as well, we are still left with the question of whether excluding the least reliable evidence will in fact improve jury performance and trial outcome accuracy.<sup>72</sup>

### **D. Are the traditional tools of the adversary process effective ways of assisting juries in sorting out the merits of competing expert testimony?**

Some courts have suggested that the traditional adversarial process devices of vigorous cross-examination, presentation of contrary evidence, and judicial instructions are sufficient to guard against jury decisions based on unreliable evidence.<sup>73</sup> While there are some mixed results, I understand the weight of laboratory experiments on this point to suggest that it is easy to overrate the effectiveness of these devices for this purpose.<sup>74</sup>

### **E. Does a heightened admissibility standard improve the overall long range quality of expert testimony offered at trial?**

Recall the Lloyd Dixon and Brian Gill study for RAND indicated that the percentage of cases ruling testimony to be admissible rose in the late 1990s.<sup>75</sup> They argue that this may result from the overall improved quality of expert testimony in federal courts. It does seem logical that lawyers faced with a substantial admissibility threshold will be less likely to bring cases where the scientific evidence is of marginal reliability. People may disagree, of course, as to whether this itself is a good or bad thing.

### **F. Does the admissibility standard affect the cost of litigation?**

Lengthy evidentiary hearings are expensive, and admissibility challenges offer defendants an opportunity to drive up the cost of litigation. That said, I do not know of comparative numbers on the costs of trials in *Daubert* versus *Frye* states. It may well be that, even if there is some difference between the two types of jurisdictions, admissibility standards play a small role in the overall increase in the costs of litigation and the related decline in the proportion of cases going to jury trial.<sup>76</sup>

## G. What is the proper tradeoff between accuracy and perceptions of procedural justice?

All of the preceding considerations have a large empirical component. This last consideration, however, is largely normative. If the objective of a reliability requirement for expert testimony is to improve the overall accuracy of judicial outcomes, how should we balance this objective against another objective of trials, which is to give the parties a sense of procedural justice?

Procedures that are thought to be fair help to produce acquiescence even in the face of perceived outcome unfairness. One well-accepted theory, advanced by Tom Tyler and Allen Lind, points to three factors that are important to the belief that procedures are fair: neutrality (the authority engages in evenhanded treatment), trust (the authority tries to be fair), and status recognition (the authority treats one politely, with dignity, and with respect for one's rights and opinions).<sup>77</sup> Adverse admissibility decisions, especially if they result in a directed verdict for the other party, may well be perceived to be unfair with respect to one or more of these factors. For example, refusal to permit an expert to testify might be perceived as a lack of respect for one's opinion.

Undoubtedly, the plaintiff's personal injury bar feels strongly that cases decided on the basis of the exclusion of expert opinion evidence are less legitimate. Although most explain this position in substantive terms, e.g., jury verdicts are more accurate, it may also be true that their objection is partly procedural. Pushed, they might say that jury judgments are "fairer" and we should prefer them even if, on average,

***Institutions that routinely fail to achieve substantive justice are likely to lose political and social support even if they are perceived to be procedurally just.***

juries reach more erroneous results in the absence of admissibility rules that require reliable expert evidence. The question, of course, is how erroneous? Institutions that routinely fail to achieve substantive justice are likely to lose political and social support even if they are perceived to be procedurally just. The purpose of just procedures is not solely to "cool out" the losers in disputes. It is also to arrange things so as

to maximize the likelihood of achieving substantive justice. The existence of any reliability requirement for expert evidence, be it *Daubert*, *Frye*, or some combination, is a recognition that some tradeoff between substance and procedure is appropriate. Achieving the proper balance between these two concerns is, for me, the key normative consideration in choosing admissibility standards.

## Addendum: Background of *Frye* and the *Daubert* Trilogy

### *Frye*

In *Frye*,<sup>78</sup> the defendant, accused of murder, offered the results of a "systolic blood pressure deception test," a precursor to the polygraph, as evidence of his innocence. Prior to *Frye*, most courts only asked whether the expert was "qualified" before admitting the expert's testimony and, in some jurisdictions, whether the subject matter in issue was beyond the range of knowledge of the average juror.<sup>79</sup> However, *Frye* expert's testimony posed special problems because he proposed to testify about a novel technique and there was no community of experts using this technique. In a brief two-page opinion, Judge Van Orsdel placed an additional hurdle in the path of those who would introduce expert testimony. The key passage established what has come to be called the "general acceptance test."<sup>80</sup> Expert

testimony is admissible when the scientific principle or technique from which it is deduced has gained general acceptance in the particular field in which it belongs.

With the adoption of the Federal Rules of Evidence in the 1970s, the *Frye* test began a slow decline in the federal courts. The test was criticized for being too conservative because it imposes a waiting period while new theories and techniques gain general acceptance. Others criticized it for exactly the opposite reason, that it was too liberal. This is because of the difficulty of defining the relevant field within which general acceptance must be achieved. If the field is narrowly defined to include the proffered expert and other like-minded individuals, little will be excluded.<sup>81</sup>

These criticisms and the fact that the reporter's notes accompanying the Federal Rules of Evidence did not even mention the case when discussing the admissibility of expert testimony caused a number of federal circuits to abandon the test.<sup>82</sup> Other circuits, however, concluded *Frye* did survive the adoption of the rules.<sup>83</sup>

### *Daubert*

In *Daubert*,<sup>84</sup> the Supreme Court officially ended the debate. In a case involving the morning sickness drug Bendectin, it concluded *Frye*'s rigid "general acceptance" standard is contrary to the thrust of the Federal Rules, which were intended to lower barriers to expert opinion testimony.<sup>85</sup> However, *Daubert* agreed that Federal Rule of Evidence 702 does modify Rule 402's directive to admit all relevant evidence. Rule 702 also requires reliability; evidence that is relevant but unreliable is inadmissible.<sup>86</sup>

What constitutes reliability? In this case, where all the experts purported to be scientists, the Court turned to science for an answer. Reliable opinions are those that are arrived at using the "methods and procedures of science."<sup>87</sup> In footnote nine, the court added that, "In a case involving scientific evidence, evidentiary reliability will be based upon scientific validity."<sup>88</sup>

*Daubert* did not offer a systematic presentation of what scientists mean when they inquire about validity, but it did propose four non-exclusive factors courts might consider when making a reliability/validity assessment: 1) Whether the expert's theory or technique is falsifiable and has been tested; 2) the reliability of a procedure and its potential rate of error; 3) whether the theory or technique has been subjected to peer review and whether the results have been published; and 4) in a partial resurrection of the *Frye* test, whether the expert's methods and reasoning enjoy general acceptance in a relevant scientific community.

In addition, the Court noted that Rule 702 requires that the expert evidence "assist the trier of fact to understand the evidence or to determine a fact in issue." Justice Blackmun said that "This condition goes primarily to relevance. . . .The consideration has been aptly described by Judge Becker as one of 'fit.' 'Fit' is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes."<sup>89</sup> The "fit" requirement involves an assessment of whether the expert's chain of reasoning contains an inferential gap that is too wide.

In footnote eight, the Court expressly limited *Daubert* to scientific evidence. It noted that Rule 702 applies to "technical or other specialized knowledge" as well, but added, "Our discussion is limited to the scientific context because that is the nature of the expertise offered here."<sup>90</sup> *Daubert* left two important

***Daubert did not offer a systematic presentation of what scientists mean when they inquire about validity, but it did propose four non-exclusive factors courts might consider when making a reliability/ validity assessment.***

questions for later cases. What standard should an appellate court use in reviewing a trial court's admissibility decision, and how does *Daubert's* reliability requirement apply to nonscientific evidence?<sup>91</sup>

### *Joiner*

The Supreme Court's answer to the first of these questions came in *General Electric Co. v. Joiner*,<sup>92</sup> where the Court concluded that trial court 702 rulings should be reviewed under an abuse-of-discretion standard.

*Joiner* also addressed a question concerning the "fit" requirement discussed in *Daubert*. A trial judge could find a lack of fit when the data relied on by the expert simply fail to support the expert's position. Using the "fit" requirement in this way causes courts to move close to excluding an expert's testimony because of the expert's conclusion. This is something the Supreme Court in *Daubert* specifically cautioned against when it said that the focus of the 702 validity inquiry "must be solely on principles and methodology, not on the conclusions that they generate."<sup>93</sup>

***Some appellate courts downplayed Daubert's methodology-conclusion distinction.***

Some appellate courts downplayed *Daubert's* methodology-conclusion distinction. For example, in the *Paoli* opinion following *Daubert*, Judge Becker, the originator of the concept of "fit," said, "We think that [the distinction between principles and methods versus conclusions] has only limited practical import...a challenge to 'fit' is very close to a challenge to the expert's ultimate conclusion about the particular case, and yet it is part of the judge's admissibility calculus under *Daubert*."<sup>94</sup>

In *Joiner*, the Supreme Court ratified Judge Becker's view. "[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence which 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. That is what the District Court did here and we hold that it did not abuse its discretion in so doing."<sup>95</sup>

### *Kumho Tire*

The second question remaining after *Daubert*, how Rule 702 applies to non-scientific evidence, was addressed in *Kumho Tire Co. v. Carmichael*.<sup>96</sup> The plaintiffs' expert in *Kumho Tire*, Dennis Carlson, was prepared to testify that the tire failure which led to the crash of their minivan resulted from manufacturing or design defect, not abuse. The trial court excluded this testimony after finding that, "none of the four admissibility criteria outlined by the *Daubert* court are satisfied in this case."<sup>97</sup> Because the expert testimony was the plaintiff's only evidence of defect, the district judge then granted the defendant summary judgment.<sup>98</sup> The plaintiff appealed, arguing that the district court should not have applied *Daubert's* reliability framework because the case did not involve a "scientific" expert.<sup>99</sup> The Eleventh Circuit agreed. *Daubert* applies only to scientific testimony.

Whether the expert's testimony was or was not scientific would have little consequence if the court invoked uniformly stringent admissibility criteria. The Eleventh Circuit did assert that it was prepared to affirm a well-reasoned trial court decision to exclude Carlson's testimony on reliability grounds if, upon remand, the trial court did so without invoking the *Daubert* criteria.<sup>100</sup> However, in another part of the opinion the appellate court said, "Thus, the question in this case is whether Carlson's testimony is based

on his application of scientific principles or theories (which we should submit to a *Daubert* analysis) or on his utilization of personal experience and skill with failed tires (which we would usually expect a district court to allow a jury to evaluate).<sup>101</sup> This sentence suggests a more lenient admissibility standard for non-science experts.

The Supreme Court reversed the Eleventh Circuit and held that excluding Carlson’s testimony was not an abuse of discretion.<sup>102</sup> The reliability requirement of Rule 702 applies to all expert testimony.<sup>103</sup> As to the role of the four *Daubert* factors, the court adopted a flexible position.

***It would be a mistake to read Kumho to say that the trial court may simply ignore the Daubert factors in non-science cases.***

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.<sup>104</sup>

It would be a mistake to read *Kumho* to say that the trial court may simply ignore the *Daubert* factors in non-science cases.<sup>105</sup> The Court notes that, “a trial court should consider the specific factors identified in *Daubert* where they are reasonable measures of the reliability of expert testimony.”<sup>106</sup> Implicit in the *Kumho Tire* opinion is the belief that the justifications for restricting expert testimony are as valid when expertise is based on experience as when it is based on science.

Because there are many differences between the old *Frye* test and the *Daubert-Kumho Tire* line of cases, it is easy to lose sight of the fact that they share much in common. Both approaches empower the trial judge to exclude relevant evidence because of its unreliability. Under both rules, the judge serves a gatekeeping function. Their differences are in how the trial judge is to assess reliability and, arguably, the height of the reliability hurdle over which the expert must jump.

## ENDNOTES

<sup>1</sup> *Daubert v. Merrell Dow Pharm. Inc.* 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993).

<sup>2</sup> *General Electric Co. v. Joiner*, 522 U.S. 136, 118 S.Ct. 512, 139 L.Ed.2d 508 (1997).

<sup>3</sup> *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 119 S.Ct. 1167, 143 L.Ed.2d 238 (1999).

<sup>4</sup> Rule 702 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.*

(Changes in italics).

<sup>5</sup> Rules 703 now reads:

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by

or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence *in order for the opinion or inference to be admitted. Facts or data that are otherwise inadmissible shall not be disclosed to the jury by the proponent of the opinion or inference unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweigh their prejudicial effect.*

(Changes in italics)

<sup>6</sup> For a discussion of the amending process by the Reporter the the Judicial Conference Advisor Committee on the Federal Rules of Evidence, see Daniel J. Capra, *The Daubert Puzzle*, 32 GA. L. REV. 699 (1998).

<sup>7</sup> See Heather G. Hamilton, *The Movement from Frye to Daubert: Where Do the States Stand?*, 38 JURIMETRICS J. L. SCI. & TECH. 201 (1999); David E. Bernstein, *Frye, Frye, Again: The Past, Present, and Future of the General Acceptance Test*, 4 JURIMETRICS J. L. SCI. & TECH. 385, 386 (2001); David Owen, *A Decade of Daubert*, 80 DENV. U. L. REV. 345 (2002); Clark Hedger, *Daubert and the States: A Critical Analysis of Emerging Trends*, 49 ST. LOUIS U. L.J. 177 (2004); John M. Conley and Scott W. Gaylord, *Scientific Evidence in the State Courts*, 44 JUDGES J. 6 (2005); Alice B. Lustre, *Post-Daubert Standards for Admissibility of Scientific and Other Expert Evidence in State Courts*, 90 A.L.R.5th 453 (2006).

<sup>8</sup> Conley and Gaylord, *supra* note 7.

<sup>9</sup> A number of recent articles discuss state-specific admissibility standards. See Maime M. Nies, *Say Goodbye to Frye: Missouri Supreme Court Clarifies Standard for Admitting Expert Testimony in Civil and Administrative Cases*, 69 MO. L. REV. 1203 (2004); Debra W. McCormick and Randon J. Grau, *Christian v. Gray: The Oklahoma Supreme Court Accepts the Daubert Standard*, 57 OKLA. L. REV. 787 (2004); Gerald v. Mantese, Mark C. Rossman, Robert J. Cardillo, and Robert A Kaatz, *Novel Scientific or Medical Evidence*, 83 MICH. B.J. 20 (2004); Jamine M. Kern and Scott R. Swier, *Daubert, Kumho, and Its Impact on South Dakota Jurisprudence, An Update*, 49 S.D. L. REV. 217 (2003-04); Robert J. Goodwin, *Fifty Years of Frye in Alabama: The Continuing Debate Over Adopting the Test Established in Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 35 CUMB. L. REV. 231 (2004-2005); David W. Barnes, *General Acceptance Versus Scientific Soundness: Mad Scientists in the Courtroom*, 31 FLA. ST. U. L. REV. 303 (2004); David G. Seely, Charles E. Millsap, and Ron Campbell, *Comparison of Federal and State Court Practice*, 75 J. KAN. B.A. 28 (2006); John Conley and Scott Gaylord, *We Are Not a Daubert State – But What Are We? Scientific Evidence in North Carolina After Howerton*, 6 N.C. J.L. & TECH. 289 (2005).

<sup>10</sup> The states that Conley and Gaylord list as “other” include Georgia, Nevada, North Carolina, North Dakota, Virginia, and Wisconsin. Arguably, Missouri might also be added to this list, but Conley and Gaylord list it as a state with a *Daubert* variation and at least one author agrees, arguing that if anything, Missouri’s test is even more restrictive than *Daubert*. See Maime M. Nies, *Say Goodbye to Frye: Missouri Supreme Court Clarifies Standard for Admitting Expert Testimony in Civil and Administrative Cases*, 69 MO. L. REV. 1203 (2004).

A number of the “other” states, however, have adopted tests that are more liberal than either *Frye* or *Daubert*. For example, in Virginia even evidence of questionable reliability is presented to the jury with instructions to take into account the disputed reliability when determining the weight to be given to the evidence, provided there is “a sufficient foundation to warrant admission.” *Spencer v. Commonwealth*, 393 S.E.2d 609, 621 (Va. 1990). Similarly, in Wisconsin evidence is admissible if the evidence is relevant, the expert is qualified, and the evidence assists the trier of fact. *State v. Walstad*, 351 N.W.2d 469, 486 (Wis. 1984). Georgia requires little more than relevance except when an expert’s opinion is based on a novel scientific procedure or technique. In that situation, the court may inquire whether the procedure or technique has reached “a scientific stage of verifiable certainty.” See *Home Depot U.S.A., Inc. v. Tvrdeich*, 268 Ga.App. 579, 602 S.E.2d 297,301 (Ga. Ct. App. 2004).

<sup>11</sup> Texas, of course, is not alone in this position. See *Commonwealth v. Lanigan*, 641 N.E.2d 1342 (Mass. 1994) (adopting *Daubert*); *Canavan’s Case*, 733 N.E.2d 1042 (Mass. 2000) (adopting *Joiner* and *Kumho Tire*); *Schafersman v. Agland Coop.*, 631 N.W.2d 862 (Neb. 2001) (expressly adopting *Daubert*, *Joiner*, and *Kumho Tire*); *Christian v. Gray*, 65 P.3d 591 (Okla. 2003) (expressly adopting *Daubert*, *Joiner*, and *Kumho Tire*).

<sup>12</sup> 923 S.W.2d 549 (1995). The Texas Court of Criminal Appeals, the highest Texas court in criminal cases, adopted a somewhat different standard in *Kelly v. State*, 824 S.W.2d 568 (Tex. Crim. App.1992).

<sup>13</sup> 923 S.W.2d at 557.

<sup>14</sup> 923 S.W.2d at 559.

<sup>15</sup> 972 S.W.2d 713 (Tex. 1998).

<sup>16</sup> “On the one hand, an exception for evidence based on a witness’s skill and experience would easily swallow the rule.

Any witness qualified to testify as an expert would almost necessarily possess the requisite skill and experience to support such testimony. If that were all Rule 702 required, merely establishing the witness's qualifications would show the relevance and reliability of the testimony every time. On the other hand, there are many instances when the relevance and reliability of an expert witness's testimony *are* shown by the witness's skill and experience. An experienced car mechanic's diagnosis of problems with a car's performance may well be relevant and reliable without resort to engineering principles." 972 S.W.2d at 722.

<sup>17</sup> Carmichael v. Samyang Tire, Inc., 131 F.3d 1433 (11th Cir. 1997), *cert. granted sub nom.* Kumho Tire Co. v. Carmichael, 524 U.S. 936, 118 S.Ct. 2339, 141 L.Ed.2d 711 (1998)

<sup>18</sup> *Gamill*, 972 S.W.2d at 727.

<sup>19</sup> *Gamill*, 972 S.W.2d at 721. Recently, the Texas Supreme Court affirmed both the *Robinson* and *Gamill* analyses in *Volkswagen of Amer., Inc. v. Ramirez*, 159 S.W.3d 897 (Tex. 2005).

<sup>20</sup> For a discussion of admissibility standards in a number of other *Frye* states, see Joseph Ortego and James Weller, *Products Liability and the Elements of Science: Admissibility of Expert Testimony in New York and other Frye States*, 41 TORT TRIAL AND INS. PRACT. L. J. 83 (2005).

<sup>21</sup> See Justin Lee Heather, *The New Illinois Standard for Admissibility of Expert Opinion Testimony*, 94 ILL. B.J. 88 (2006).

<sup>22</sup> 199 Ill.2d 63, 767 N.E.2d 314 (2002).

<sup>23</sup> 767 N.E.2d at 323. The court did note that the parties did not argue, and therefore the court did not consider the adoption of a new standard consistent with *Daubert*. *Id.* at 325, n. 1.

<sup>24</sup> According to the *Donaldson* court, these factors include:

(1) Can the scientific technique or method employed be empirically tested, and if so, has it been? (2) Has the technique or method been subjected to peer review and publication? (3) What is the technique or method's known or potential error rate? (4) Are its underlying data reliable? (5) Is the witness proposing to testify about matters growing naturally and directly out of research she has conducted independently of the litigation, or has the witness developed her opinion solely for the purpose of testifying? and (6) Did the witness form her opinion and then look for reasons to support it, rather than doing research that led her to her conclusion?

767 N.E.2d at 325. This standard had been adopted by some Illinois appellate courts. See *Harris v. Cropmate Co.*, 302 Ill.App.3d 364-65, 706 N.E.2d 55 (1999).

<sup>25</sup> 767 N.E.2d at 325.

<sup>26</sup> 767 N.E.2d at 324.

<sup>27</sup> 213 Ill.2d 523, 821 N.E.2d 1184 (2004).

<sup>28</sup> 821 N.E.2d at 1189.

<sup>29</sup> 821 N.E.2d at 1189-90 (1996) (quoting *People v. Miller*, 173 Ill.2d at 205, 219 Ill.Dec. 43, 670 N.E.2d 721).

<sup>30</sup> To be sure, the opinion allows judges to make use of surrogate indicia of reliability. Peer review and publication and general acceptance in the scientific community are factors judges may consider, but they are secondary to a direct assessment of the testimony's scientific validity.

<sup>31</sup> Michael J. Saks, *Merlin and Solomon: Lessons from the Law's Formative Encounters with Forensic Identification Science*, 49 HASTINGS L.J. 1069, 1139 (1998).

<sup>32</sup> See Cynthia Kent, *Daubert, Readiness of Texas Judiciary: A Study of the Qualifications, Experience, and Capacity of the Members of the Texas Judiciary to Determine the Admissibility of Expert Testimony under the Daubert, Kelly, Robinson, and Havner Tests*, 6 TEX. WESLEYAN L. REV. 1 (1999).

<sup>33</sup> See *Howerton v. Arai Helmet, Ltd.*, 358 N.C. 440, 464-65, 597 S.E.2d 674 (2004) ("One of the most troublesome aspects of the *Daubert* "gatekeeping" approach is that it places trial courts in the onerous and impractical position of passing judgment on the substantive merits of the scientific or technical theories undergirding an expert's opinion. We have great confidence in the skillfulness of the trial courts of this State. However, we are unwilling to impose upon them an obligation to expend the human resources required to delve into complex scientific and technical issues at the level of understanding necessary to generate with any meaningfulness the conclusions required under *Daubert*."); *Goeb v. Tharaldson*, 615 N.W.2d 800, 812-13 (Minn. 2000). An interesting survey of judges asking their understanding of the *Daubert* factors may be found in Sophia

- Gatowski, Shirley Dobbin, James T. Richardson, Gerald Ginsburg, Mara Merlino, and Veronica Dahir, *Asking the Gatekeepers: A National Survey of Judges on Judging Expert Evidence in a Post-Daubert World*, 25 LAW AND HUM. BEHAV. 433 (2001).
- 34 8 Cal.4th 587, 34 Cal.Rptr.2d 663 (1994).
- 35 8 Cal.4th at 595.
- 36 695 So.2d 268, 271-72 (Fla.1997).
- 37 597 S.E.2d 674 (N.C. 2004).
- 38 See Lloyd Dixon and Brian Gill, *Changes in the Standards for Admitting Expert Evidence in Federal Civil Cases Since the Daubert Decision*, 8 PSYCH., PUB. POLY & LAW 251 (2002). Interestingly, the Dixon and Gill study indicates that the early years of *Daubert* led to greater exclusion of testimony, at least on the civil side. However, after 1997 there was a trend toward greater admissibility. The authors note that their data do not let them resolve whether this is a result of somewhat lessened standards on the part of the courts or a general improvement in the quality of expert testimony being proffered to the courts.
- 39 597 S.E.2d at 690. See also *Goeb v. Tharaldson*, 615 N.W.2d 800 (Minn. 2000).
- 40 David L. Faigman, Elise Porter, and Michael J. Saks, *Check Your Crystal Ball at the Courthouse Door, Please: Exploring the Past, Understanding the Present, and Worrying About the Future of Scientific Evidence*, 15 CARDOZO L. REV. 1799 (1994).
- 41 See *State v. Cline*, 275 Mont. 46, 909 P.2d 1171 (1996); *Hulse v. Department of Justice, Motor Vehicle Div.*, 289 Mont. 1, 961 P.2d 75 (Mont. 1998) (a *Daubert* analysis is required only for novel scientific evidence in Montana; the state in future cases no longer needs to introduce evidence proving that a horizontal gaze nystagmus test is scientifically valid).
- 42 See, e.g., *People v. Shreck*, 22 P.3d 68 (Colo. 2001) (declining to limit the applicability of Colo. R. Evid. 702 to only novel scientific evidence).
- 43 946 S.W.2d 60 (Tex. Crim. App. 1997).
- 44 824 S.W.2d 568 (Tex. Crim. App. 1992).
- 45 See *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 592 n. 11, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993). For example, several states have taken judicial notice of the general acceptance or reliability of the horizontal gaze nystagmus tests. In *State v. Taylor*, 694 A.2d 907, 910 (Me. 1997), the court took judicial notice of the reliability of horizontal gaze nystagmus tests in making determinations of probable cause for arrest and for purposes of establishing criminal guilt in DUI cases.
- 46 *Hartman*, 946 S.W.2d at 63. In *State v. Reid*, 254 Conn. 540, 757 A.2d 482 (2000), the Supreme Court held that the technique of microscopic hair analysis is so well-established that a hearing as to the admissibility of such evidence is not required. In *Fugate v. Com.*, 993 S.W.2d 931 (Ky. 1999), the court held that the reliability of DNA comparison analysis using restriction fragment length polymorphism analysis (RFLP) and polymerase chain reaction (PCR) methods has been sufficiently established as to no longer require a pretrial *Daubert* hearing in every case involving the admission of such evidence. The opposing party may question the handling of samples, chain of custody, accuracy of the procedures used, and/or the quality of the training of the particular person or persons who conducted the actual tests.
- 47 Paul Giannelli, *The Admissibility of Novel Scientific Evidence: Frye v. United States, a Half-Century Later*, 80 COLUM. L. REV. 1197, 1201 (1980).
- 48 *Hartman*, 946 S.W.2d at 64.
- 49 355 Ill.App.3d 981, 823 N.E.2d 1046 (2005), *appeal denied* *Agnew v. Shaw*, 215 Ill.2d 593, 833 N.E.2d 1, 295 Ill.Dec. 519 (Ill. May 25, 2005) (TABLE, No. 99828).
- 50 *Donaldson* defined extrapolation as “establishing a cause and effect relationship based upon similar, yet not identical, scientific studies and theories.” *Donaldson*, 767 N.E.2d at 326 n. 2.
- 51 767 N.E.2d at 328.
- 52 767 N.E.2d at 330.
- 53 823 N.E.2d at 1153-54.
- 54 Most *Daubert* jurisdictions do not make this distinction. See, e.g., *Coca-Cola Bottling Co. v. Gill*, 100 S.W.3d 715 (Ark. 2003). *But see* *Collins v. Commonwealth*, 951 S.W.2d 569 (Ky. 1997).
- 55 14 P.3d 1170 (Kan. 2000).

- <sup>56</sup> *Kuhn*, 14 P.3d at 1179. *Kuhn* borrows the test from a Florida appellate court opinion, *Florida Power & Light Co. v. Tursi*, 729 So.2d 995, 997 (Fla. App. 1999).
- <sup>57</sup> *Id.*
- <sup>58</sup> *Id.* Other *Frye* jurisdictions have arrived at similar results. See *Roberti v. Andy's Termite & Pest Control, Inc.*, 6 Cal. Rptr. 3d 827 (Cal. App. 2003). The *Roberti* court came to this conclusion even though the expert testimony did offer a novel medical theory of causation (Dursban causes autism).
- <sup>59</sup> *Id.* at 1180.
- <sup>60</sup> *Id.* at 1182.
- <sup>61</sup> *Logerquist v. McVey*, 1 P.3d 113 (Ariz. 2000) reaches a similar conclusion in a case involving repressed memory testimony. The *Logerquist* court said, "Although compliance with *Frye* is necessary when the scientist reaches a conclusion by applying a scientific theory or process based on the work or discovery of others, under [Arizona Rules of Evidence 702 and 703] experts may testify concerning their own experimentation and observation and opinions based on their own work without first showing general acceptance." *Id.* at 123.
- <sup>62</sup> The plaintiff's three experts offered to testify that the drug Parlodel caused or contributed to the death of the plaintiff's decedent. They arrived at this result through a process of "differential diagnosis," by which they considered and ruled out other causes. *Id.* at 1176-77. Interestingly, at least one *Frye* jurisdiction opinion agreed with the proposition that *Frye* does not apply to non-scientific, non-novel expert testimony but came to a different conclusion about what to do in that circumstance. In *Wahl v. American Honda Motor Co.*, 693 N.Y.S.2d 875, 877 (Sup.Ct. 1999). the court concluded that when expert testimony is based on evidence that is not novel or scientific it will apply the *Daubert/Kumho Tire* test. *Id.* at 877-78.
- <sup>63</sup> See *supra* note 39.
- <sup>64</sup> See *Hadden v. State*, 690 So.2d 573, 579 (Fla.1997).
- <sup>65</sup> 813 A.2d 409 (N.H. 2002).
- <sup>66</sup> *State v. Dahood*, 814 A.2d 159, 161-62 (N.H. 2002).
- <sup>67</sup> For example, the trial court ruled the plaintiff's causation expert testimony inadmissible in the great majority of the cases involving the drug Parlodel. See *Glastetter v. Novartis Pharm. Corp.*, 252 F.3d 986 (8th Cir. 2001); *Hollander v. Sandoz Pharm. Corp.*, 289 F.3d 1193 (10th Cir. 2002); *Rider v. Sandoz Pharm. Corp.*, 295 F.3d 1194 (11th Cir. 2002). But see *Brasher v. Sandoz Pharmaceuticals Corp.*, 160 F. Supp. 2d 1291, 1296 (N.D. Ala. 2001) (magistrate judge admits expert evidence based in part on the structure-activity analysis).
- <sup>68</sup> A related question is one of predisposition. Both the plaintiff and defense bar believe that judicial predisposition influences admissibility outcomes. Given the large political science literature indicating that, at least among appellate court judges, political and social predispositions do influence outcomes, it would not be surprising to find that more conservative judges are less inclined to admit plaintiff expert testimony in tort litigation than are more liberal judges. I do not know of any research directly on point. Assuming there was such an effect, much, of course, would turn on the size of the effect. If it were a large one, it would affect the very question of judicial competence to assess the reliability of evidence. Were it a small effect, it would not pose as serious a problem.
- Richard Marshall [Forum Report editor] raised a similar issue in his comments to an earlier draft of this paper. Are judges more predisposed to admit testimony in criminal than in civil cases? A number of my colleagues would say, Yes they are. Judges permit the state to introduce forensic evidence that might well be excluded were it presented in civil litigation. It is not clear that this predisposition is related to the overall political views of individual judges, however.
- <sup>69</sup> See *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1316 (9th Cir.1995), *cert. denied*, 516 U.S. 869, 116 S. Ct. 189, 133 L.Ed.2d 126 (1995).
- <sup>70</sup> Sophia Gatowski, Shirley Dobbin, James T. Richardson, Gerald Ginsburg, Mara Merlino, and Veronica Dahir, *Asking the Gatekeepers: A National Survey of Judges on Judging Expert Evidence in a Post-Daubert World*, 25 LAW AND HUM. BEHAV. 433 (2001).
- <sup>71</sup> See Joseph Sanders, *The Merits of the Paternalistic Justification for Restrictions on the Admissibility of Expert Evidence*, 33 SETON HALL L. REV. 881 (2003).
- <sup>72</sup> The Nebraska Supreme Court argued that it would in an opinion adopting the *Daubert* test:

We are convinced that by shifting the focus to the kind of reasoning required in science—empirically supported rational explanation—the *Daubert/Joiner/Kumho Tire Co.* trilogy of cases greatly improves the reliability of the information upon which verdicts and other legal decisions are based. Because courts and juries cannot do justice in a factual vacuum, the better information the fact finders have, the more likely that verdicts will be just.

Schafersman v. Agland Coop., 631 N.W.2d 862, 876 (Neb. 2001). For a discussion of this “worst evidence principle” see Dale A. Nance, *Naturalized Epistemology and the Critique of Evidence Theory*, 87 VA. L. REV. 1551, 1555 (2001).

<sup>73</sup> Kuhn v. Sandoz Pharm., 14 P.3d 1170, 1182 (Kan. 2000).

<sup>74</sup> For a review of this research, see Joseph Sanders, *The Merits of the Paternalistic Justification for Restrictions on the Admissibility of Expert Evidence*, 33 SETON HALL L. REV. 881 (2003).

<sup>75</sup> Dixon and Gill, *supra* note 38.

<sup>76</sup> See Marc Galanter, *The Hundred-Year Decline of Trials and the Thirty Years War*, 57 STAN. L. REV. 1255 (2005).

<sup>77</sup> See Tom R. Tyler and E. Allan Lind, *Procedural Justice*, in HANDBOOK OF JUSTICE RESEARCH IN LAW (Joseph Sanders and V. Lee Hamilton eds., 2001).

<sup>78</sup> Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).

<sup>79</sup> DAVID L. FAIGMAN, ET AL., MODERN SCIENTIFIC EVIDENCE (2005). For a general historical overview of the use of expert testimony, see Stephan Landsman, *Of Witches, Madmen, and Products Liability: An Historical Survey of the Use of Expert Testimony*, 13 BEHAV. SCI. & THE LAW 131 (1995); see also David L. Faigman, Elise Porter & Michael J. Saks, *Check Your Crystal Ball at the Courthouse Door, Please: Exploring the Past, Understanding the Present, and Worrying About the Future of Scientific Evidence*, 15 CARDOZO L. REV. 1799, 1803–09 (1994). The classic exploration of this historical question is Learned Hand, *Historical and Practical Considerations Regarding Expert Testimony*, 15 HARV. L. REV. 40 (1901).

<sup>80</sup> “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 the 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.” *Frye*, 293 F. at 1014.

<sup>81</sup> See Paul C. Giannelli, *The Admissibility of Novel Scientific Evidence: Frye v. United States, a Half-Century Later*, 80 COLUM. L. REV. 1197 (1980).

<sup>82</sup> The most influential circuit court opinion rejecting *Frye* is *United States v. Downing*, 753 F.2d 1224 (3d Cir. 1985). In a case involving expert testimony on eyewitness identification, Judge Becker said that in order to be admitted the evidence must survive the trial court’s preliminary inquiry. In an *in limine* proceeding, the judge should balance the reliability of the scientific principles the expert employed against the likelihood that the evidence may overwhelm or mislead the jury. In addition, the trial court should examine the “fit” between the proffered scientific testimony and the contested issues in the case. *Id.* at 1226. Concern with reliability and fit have become cornerstones of post-*Daubert* jurisprudence.

<sup>83</sup> *United States v. Solomon*, 753 F.2d 1522, 1526 (9th Cir. 1985).

<sup>84</sup> 509 U.S. 579, 113 S. Ct. 2786, 2792-93, 125 L.Ed.2d 469 (1993).

<sup>85</sup> 113 S. Ct. at 2794.

<sup>86</sup> 113 S. Ct. at 2795.

<sup>87</sup> *Id.*

<sup>88</sup> 113 S.Ct. at 2795 n. 9.

<sup>89</sup> 113 S.Ct. at 2796. (citing *United States v. Downing*, 753 F.2d 1224,1242 (3d cir. 1985)).

<sup>90</sup> *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. at 590 n. 8.

<sup>91</sup> For conflicting views on this latter question, compare *Compton v. Subaru of Amer., Inc.*, 82 F.3d. 1513, 1518 (10th Cir. 1996). (“The language in *Daubert* makes it clear the factors outlined by the Court are applicable only when a proffered expert relied on some principle or methodology. In other words, application of the *Daubert* factors is unwarranted in cases where expert testimony is based solely upon experience or training.”) with *Watkins v. Telsmith, Inc.*, 121 F.3d 984, 991 (5th Cir. 1997) (“It seems exactly backwards that experts who purport to rely on general engineering principles and practical experience

might escape screening by the district court simply by stating that their conclusions were not reached by any particular method or technique. The moral of this approach would be, the less factual support for an expert's opinion, the better.”).

<sup>92</sup> 522 U.S. 136, 118 S. Ct. 512, 139 L.Ed.2d 508 (1997).

<sup>93</sup> 113 S. Ct. at 2797.

<sup>94</sup> *In Re Paoli*, 35 F.3d 717, 746 (3d Cir. 1994).

<sup>95</sup> 118 S. Ct. at 518.

<sup>96</sup> 526 U.S. 137, 119 S. Ct. 1167, 143 L.Ed.2d 238 (1999). In *General Electric Co. v. Joiner*, 522 U.S. 136, 118 S. Ct. 512, 139 L.Ed.2d 508 (1997), the court concluded, inter alia, that trial court 702 rulings should be reviewed under an abuse-of-discretion standard.

<sup>97</sup> *Carmichael v. Samyang Tire, Inc.*, 923 F. Supp. 1414, 1521 (S.D.Ala. 1996).

<sup>98</sup> 923 F. Supp. at 1524.

<sup>99</sup> *Carmichael v. Samyang Tire, Inc.*, 131 F.3d 1433, 1435 (11th Cir. 1997).

<sup>100</sup> 131 F.3d at 1436 n. 9.

<sup>101</sup> 131 F.3d at 1436.

<sup>102</sup> *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 119 S. Ct. 1167, 1179, 143 L.Ed.2d 238 (1999).

<sup>103</sup> The Court provides four reasons why *Daubert's* general reliability requirement applies to all expert testimony. First, the language of Rule 702 makes no relevant distinction between “scientific” knowledge and “technical” or “other specialized” knowledge. Second, although the *Daubert* opinion did restrict itself to “scientific” knowledge, that was only because the issue presented in the case involved scientific expertise. Third, the evidentiary rationale that underlies the gatekeeping requirement is that Rules 702 and 703 give wide latitude to all experts to offer their opinion, latitude that is unavailable to other witnesses. This latitude is premised on the “assumption that the expert’s opinion will have a reliable basis in the knowledge and experience of his discipline.” 119 S. Ct. at 1174, quoting *Daubert*, 113 S. Ct. at 2786. Because the Rules grant this latitude to all experts, all must meet the reliability standard. Fourth, a rule that distinguishes between scientific and other experts would be very difficult if not impossible to administer.

<sup>104</sup> 119 S. Ct. at 1171.

<sup>105</sup> See *Black v. Food Lion, Inc.*, 171 F.3d 308, 311-12 (5th Cir. 1999) (“In the vast majority of cases, the district court first should decide whether the factors mentioned in *Daubert* are appropriate. Once it considers the *Daubert* factors, the court then can consider whether other factors, not mentioned in *Daubert* are relevant to the case at hand.”)

<sup>106</sup> 119 S. Ct. at 1176.

## ORAL REMARKS OF PROFESSOR SANDERS

I must say I'm intimidated for two reasons. First of all, I was asked to say things about *Daubert* and *Frye* in each state, and I know full well that I don't know very much about *Daubert* and *Frye* in any state—just a little smattering here and there. So I'm sure that much of what I'm going to say really needs to be amended and added to in the discussions and elsewhere.

In any case, let me go directly to what I want to talk about today: where the states are. I thought for a while I might just give a paper sort of talking about the distribution of the states on the issue of *Daubert* and *Frye*, but I decided that's fairly sterile and it's fairly well-covered ground. Moreover, it's a movable target. States continually change their views to some extent. One very recent article by John Conley, a professor at North Carolina, and one of his students, Scott Gaylord, lists 31 states as "*Daubert* jurisdictions." If you read their article, they say that doesn't mean that every one of these states is pure *Daubert*, but nevertheless the underlying arguments in *Daubert* seem to be what's at stake. They list 13 states, along with the District of Columbia, as *Frye* jurisdictions, and six states as neither, although I think it's fair to say these six states are, if anything, more liberal than either *Frye* or *Daubert*. That is, they tend to have very liberal admissibility criteria.

There are two questions I want to talk about today with respect to the decision between adopting *Daubert* or *Frye*. Obviously there is a decision to be made—many states have made it, but even states that have made it continue to evolve. The first question is, what are the specific issues that separate *Frye* and *Daubert*, and the second question is, what considerations underlie this choice?

One of the reasons I wanted to look at specific considerations today is that it has been my experience that *Daubert* tends to be a hot-button topic. It's hard for many people to talk quietly about *Daubert* versus *Frye* in a dispassionate way, and I think by breaking the issue down into a set of component criteria, it is easier for us to think about what we're really trying to achieve and the best way to achieve that. After all, there's no reason a jurisdiction has to be either *Frye* or *Daubert*—it seems to me you can pick and choose what aspects of each you might want to have.

In any case, here's just a word about the trilogy to set up the issue. *Frye* has the general-acceptance test. *Daubert* added three other factors to general acceptance, the most important factor being falsifiability. It also discusses this concept of fit, that is, whether in fact the data the expert is testifying to fits the issue in a case. *Joiner* added a decision on what test is to be used and decided that abuse of discretion rather than de novo review was appropriate. It also undermined substantially something said in *Daubert*, which is that the rule only applies with respect to method and not conclusion. There's language in *Joiner* that suggests a fit analysis may well involve conclusion. Finally, *Kumho Tire* says that these factors, or something like them, apply to all expert testimony and, moreover reemphasizes the idea of fit by saying that the analysis should be about the case at hand.

Perhaps we can see how these work by looking at two states that are "pure" states. I picked them in part because they're pure states, but partly because I'm connected to both—I went to school in Illinois, and I live in Texas. Texas is clearly a *Daubert* state. In an early opinion, *Robinson*, decided in the early 1990s not long after *Daubert* was decided, the court adopted the *Daubert* factors along with a couple of other factors, and also adopted an abuse-of-discretion standard. A few years later in the *Gamill* case, the Texas Supreme Court adopted a fit analysis in a case that involved a seatbelt failure, and also said that the criteria applied to all expert evidence in whatever kind. To this day Texas remains a very *Daubert*-oriented state—many would say too *Daubert*-oriented perhaps.

If anything, Illinois is the opposite. Many jurisdictions that are *Frye* have become “*Frye plus*,” that is they allow some *Daubert* to seep into their jurisprudence, oftentimes in terms of discussing falsifiability. But in the case of *Donaldson*, the Supreme Court of Illinois flatly refused to go down that route. Let me just talk about *Donaldson*. The *Frye* reliability test is the test they want and the Illinois Supreme Court said to add a reliability factor in addition to the pure *Frye* test would impermissibly examine the data from which the opinion flows, while the technique remains generally accepted. Questions concerning underlying data and an expert’s application of a generally accepted technique go to the weight of the evidence rather than its admissibility.

So Illinois remains strongly *Frye*-oriented. The *Simons* case went a step further and said, at least with respect to *Frye*, the test should be de novo, that is, an appellate court has a right to do a de novo review of a trial court’s decision as to whether something has reached general acceptance. You can see those two extremes. Basically what I think are the factors that distinguish between *Frye* and *Daubert* states in Illinois and Texas and in general, are: whether general acceptance should be the cornerstone of admissibility; whether admissibility should be restricted to novel evidence; whether admissibility evidence should be at a general level or should be a case-specific level (that is a case at hand in *Kumbo Tire*); whether scientific evidence is unique or all evidence should be treated the same; and finally, whether the review should be under abuse of discretion.

A couple of words about each of these and then I want to get to my second topic. Which test? Michael Saks, one of my colleagues, says that he thinks the key issue between *Daubert* and *Frye* is this—

***Frye says ask the experts what’s acceptable and Daubert says figure it out for yourself.***

*Frye* says ask the experts what’s acceptable and *Daubert* says figure it out for yourself. You’re the judge, you figure out whether it’s reliable or not. And in some sense I think he’s right—at the bottom, what *Daubert* does is it really asks judges to do that. Which of course immediately raises the question whether judges have the capacity and

the resources to, in fact, make that decision themselves. I think that it’s fair to say that, at least in this regard, federal judges have a lot more capacity and resources in making these kinds of determinations than many state trial judges do, so that becomes an important question.

There’s a second issue and I’ll come back to it later—which is more liberal, *Frye* or *Daubert*? I’ll just note here that some of the early jurisdictions that rejected *Daubert*, including California in the case of *People vs. Leahy*, did so primarily because they thought the *Daubert* test would be too liberal and would let too much testimony in, so they preferred to stick with *Frye*. More recently, some other jurisdictions, like North Carolina in the *Howerton* case, have come to the exact opposite reason for retaining *Frye*. They’ve kept *Frye* because they thought *Daubert* was too conservative with respect to admissibility. So this issue continues to be a hot one.

Now, about novel scientific evidence. I think there are practical considerations for the idea that you should apply the test to novel scientific evidence, otherwise you might reinvent the wheel many times over. However, in *Daubert* states that do allow an analysis in every single case, this becomes a very routine process where we’re talking about the same evidence over and over and over again. I do a little chapter on alcohol testing every year and one of the issues that always comes up is whether a horizontal case and stigma testimony is admissible. And jurisdictions, even jurisdictions that have a *Daubert* test, just don’t engage in that discussion—they decide once and that’s the end of it.

A key question here is what to do about misapplications of valid techniques, and that leads to this next issue. *Kumho Tire* says that the analysis is about the case at hand. In the *Kumho* case, the court says this isn't about whether tactile and vigilant inspections of tires are admissible; it's about whether this expert's tactile and vigilant inspection of this case's particular tire with respect to what he was going to conclude about the failure of this tire was admissible. And so a key issue is this idea of "case at hand." I want to be quick to say that there's nothing in *Frye* that prohibits a case-in-hand analysis. *Frye* isn't on the other side, although the *Donaldson* case that I talked about earlier seems to take the attitude that a case-in-hand analysis is not appropriate.

Is scientific evidence unique? Here I'd just like to say a word about a Kansas case, *Kuhn vs. Sandoz*—a Parlodel case of maybe three years ago—in which the court took the view that experience evidence was different from scientific evidence, and that there really shouldn't be much of a reliability filter at all on experience evidence. Although I'm not sure, I think this is an issue where *Frye* and *Daubert* jurisdictions, if you will, are all over the map. That is, there are several *Frye* states that have basically said it applies to all types of evidence. So simply being a "*Frye* state" does not mean that you're restricting *Frye* only to scientific evidence.

***I think that the body of academic opinion today would say yes, Daubert has led to more exclusion of testimony than the Frye test, at least on the civil side.***

Finally, the abuse-of-discretion question. To go back to Illinois for a moment, earlier I talked about the *Simons* case. That case held that with respect to the *Frye* analysis, there should be a de novo review; on the other hand with respect to the qualifications of the expert or the relevance of the testimony in a particular case you should use abuse of discretion rule. The problem with an abuse-of-discretion test of course is the danger that the very same scientific issues will lead to admissibility in some cases, but lead to exclusion in other cases. Obviously that's something not to be desired at all, so seems to me that the better rule here is something like a de novo review at least with respect to underlying principles. I think *Joiner* was wrongly decided on that issue, but the judges just don't listen to me.

I want to go to my second topic here, considerations underlying the choice of admissibility standards. First, is *Daubert* more conservative? I think that the body of academic opinion today would say yes it is; *Daubert* has led to more exclusion of testimony than the *Frye* test, at least on the civil side. There's the interesting question of why that's so and on that I'm a big agnostic—it is not clear to me why the *Frye* rule per se would necessarily be more conservative. Maybe it has something to do with the distribution of judicial opinion with states that are more *Daubert*-like than states that are more *Frye*-like. I really don't know—I think we need more research to understand why *Daubert* produces more conservative results, nevertheless I think most people agree that it does.

How good are trial judges at trying to distinguish these types of testimony? There's been a lot of discussion about judges being any good at using the *Daubert* criteria, and there's at least some survey data that says not many judges understand falsifiability, at least in a way that they could give you an explanation of it, so that does pose a puzzle. On the other hand, it's never been clear to me that judges—trial judges—are particularly good at applying *Frye* either. If applying *Frye* simply means well, "We'll let it all in," I guess we could say that's an application of *Frye*, but it's not really. It's simply saying I'm going to ignore the *Frye* test, too. In fact, a general-acceptance test might be a difficult test to apply as well. So there is this underlying question about which test is better, and I think it's a fundamental question. The test that allows judges to make the best decisions clearly should be preferred over others.

Finally our third question, the jury's ability to sort this all out and whether jurors can do it just as well as judges. I think the evidence would suggest, with respect to statistical and very complex scientific evidence, that jurors have a very tough time. However, cases with that type of evidence comprise one tenth of one percent of jury trials—a very small percentage of possible jury trials. In other cases, the evidence indicates that juries do quite well in sorting evidence out, oftentimes as well as judges. So that argues, I suppose, for a test that allows jurors to decide most cases.

Are the traditional tools of the adversarial process effective ways to assist juries in sorting the task? Here I must report that I think the weight of empirical evidence suggests that the answer is no. Cross-examinations and opposing experts do not seem to always work very well. If, in fact, we think “Well the traditional tools will do it all for us,” the laboratory data on this would suggest maybe a little bit of help would be in order.

Does the heightened standard improve the quality of expert testimony at trial? On that I think we don't have a good answer. I note in the paper that Dixon and a study from RAND hypothesize that perhaps expert testimony has, overall, become of higher quality in the aftermath of *Daubert*. But there are competing findings for that hypothesis, and I think we just don't know.

Finally does the standard or application of the standard affect the cost of litigation? Fortunately I don't have to say too much about that because Nicole this afternoon is going to be able to talk a bit about Delaware and exactly what's happened there.

The last thing I want to mention is an issue which isn't empirical, but is in fact normative. What's the proper tradeoff between accuracy and perceptions of procedural justice? For example, if we were to conclude that a test that was very conservative and took a number of cases from the jury in fact led to more accurate adjudications over a period of time—that's not the end of the discussion it seems to me. We have to balance that against some procedural justice issues of allowing people to have their day in court and having a jury hear the case. At some point, we might find that we have to trade accuracy for certainty and, at that point, I think it's really a normative question for each jurisdiction.

## COMMENTS BY PANELISTS

**Honorable T. Michael Putnam**

**Leslie O’Toole, Esq.**

**Bert Black, Esq.**

**Honorable James E. Graves Jr.**

### **Honorable T. Michael Putnam**

I’m sort of the odd person out, being from the federal court system—this program is generally focused on state courts—but I wanted to give you some thoughts from my perspective in the federal courts. As Professor Sanders says in his paper, we in the federal courts have sort of been down the road a little further on the use of *Daubert* than most state courts, and so we can look back with some perspective of where we’ve come.

There are a number of grounds on which you can criticize *Daubert*, and I criticize *Daubert* myself in a number of ways. I first came to be exposed to the *Daubert* cases in a line of Parlodel cases that I had six or seven years ago. It gave me an opportunity to try to understand the subtleties of *Daubert* and the problems that arise from it. There are a number of grounds that you can criticize *Daubert* on, or more specifically, the way *Daubert* has been applied in federal court. I think ultimately the intended purpose of the *Daubert* opinion, if you look at what the Supreme Court said, was to try to liberalize the admissibility standards over what it perceived to be a more conservative *Frye* standard.

Unfortunately, or fortunately, I guess depending on your perspective, the result has been, I think—and Professor Sanders’s paper supports this—that at least as applied in federal court, *Daubert* has had a more restrictive, more conservative effect than the old *Frye* opinion. And I think there are a number of reasons for that, and I don’t really have time to try to get into all of those this morning. But I want to try to pick up on the last point that Professor Sanders made about the normative choice, the value choice that states have in making a selection between applying a *Daubert* standard and applying a *Frye* standard—or some combination or some third or fourth alternative.

The effect of *Daubert*, as applied in federal court—and assuming that the same would occur in state courts because of the gatekeeping role given to judges—is that it has had a more conservative effect on the admissibility on expert testimony. That has, I think, some profound consequences beyond just legal questions. In making the choice for state courts between whether you want to apply a pure *Daubert* standard or a pure *Frye* standard—or some mixture of the two or some totally different admissibility standard for expert testimony—you need to examine those social outcomes to make a determination in the context of your state whether or not the social outcome of what appears to be just an evidentiary standard is appropriate for your state.

Let me suggest to you that if the *Daubert* standard is applied as conservatively and rigidly as it appears to be applied generally in federal court, it may result in the exclusion mainly of experts offered by plaintiffs—and that's generally the way it's going to fall in most cases. Generally, it's going to be the plaintiff's experts, although *Daubert* theoretically applies to all experts. It is in the nature of the legal process that it is the plaintiff's experts who are put on the chopping block first. And when those plaintiff's experts appear to be excluded more often than they previously were under the *Frye* standard, the result in many cases is the end of the plaintiff's case—the loss of the plaintiff's case. If you can't get your causation experts past a *Daubert* analysis for purposes of then getting to summary judgment, you're going to lose on summary judgment and the case goes out—the jury never hears it.

There are some profound social consequences if that goes too far, if that becomes the routine. First, tort law traditionally, in the United States at least, has been an engine for social change. I remember talking to a plaintiff's lawyer years ago who made the offhand comment that tort lawsuits did more to bring about airbags in automobiles than any governmental regulation. And you start thinking about how the threat of litigation over products, over toxic substances, and how that tends to operate as an engine for change. That is, manufacturers tend to try to explore better, safer alternatives than they otherwise would if the danger of litigation is reduced.

I'm not suggesting to you that that's necessarily an efficient way of going about trying to improve products or improve substances that are put into the marketplace, but it's the way that our system operates. One of the things that tort litigation does is to create incentives for manufacturers and other potential

***If Daubert is applied in much too rigid a manner, much too conservative a manner, you tip the balance in that social change.***

defendants to try to avoid that litigation—that exposure—by making safer products, by making safer substances, by testing better, or by doing any number of things along those lines.

The point being that if *Daubert* is applied in much too rigid a manner, much too conservative a manner, you tip the balance in that social change.

You reduce to some marginal extent the level of exposure—the level of threat—that manufacturers feel, and reduce the incentive for them to explore better and safer products, better testing, or any number of things that would ultimately, from a larger societal point of view, be a better thing. So the simple choice that you're making about what appears to be purely an evidentiary standard can have a profound societal effect. And so I suggest to you that in making that choice in state courts you should make it carefully because it can have that effect.

A second societal effect that the choice between *Daubert* and *Frye* can have was touched on by Professor Sanders when he mentioned the perception of the justice system. The perception of the justice system is as important as the outcome of justice itself. We frequently, as judges, will say that we have to have not only justice, but the appearance of justice in things being done.

If the appearance in civil justice seems to be that plaintiffs can't get to court because their experts can't survive a *Daubert* challenge, and that that appears to be the routine—that is that plaintiffs simply don't get a fair shake in federal court or in state court because of the application of the *Daubert* standard—that is going to have a profound impact on the perception of the fairness of the justice system. Professor Sanders mentions that in his paper and leaves it up for discussion. I agree with him that it is a value choice, it is a normative choice. It is one that the states themselves are going to have to make in assessing whether the law in its state should move in a direction that makes admissibility of experts more difficult and therefore for plaintiffs' cases to be more difficult, or to loosen the admissibility standards for experts in state court because of the possible effects.

***If the appearance in civil justice seems to be that plaintiffs can't get to court because their experts can't survive a Daubert challenge, and that that appears to be the routine, that is going to have a profound impact on the perception of the fairness of the justice system.***

Either decision you make is going to have profound societal effects, so I suggest to you that it's an important decision that you make. It will go beyond simply being an evidence rule—it's going to have an effect on the substantive application of tort law in your courts.

### **Leslie O'Toole, Esq.**

I'd like to thank the Pound Civil Justice Institute for inviting me in particular, since I am here as a defense lawyer who practices in the areas involving *Daubert* and *Frye*—I do a lot of pharmaceutical litigation and medical malpractice. I think I'm supposed to provide the balance part of the program, and that's quite a daunting challenge with such a distinguished panel. I'd also like to compliment Professor Sanders on his paper, which I found to be very balanced and also very thoughtful and thought provoking.

I wanted to start out by talking a little bit about the role of the jury since I think that's really what is at issue here. I noticed that the title of this program refers to blindfolding of the jury, and there were references in some of the papers—and the papers that were cited in the papers—to a rigorous application of an evidentiary standard, whether *Daubert* or some other standard, taking away the role of the jury and showing lack of confidence in the jury—being a paternalistic approach towards the jury. So I wanted to just step back for a minute and look at the role of the jury in our system. Of course this is fundamental, but juries don't get to hear whatever the parties want to throw at them. Our system is set up so that there are rules of evidence and we have a trial judge who decides what is relevant—even relevant evidence the jury may not get to hear if its prejudicial effect is deemed too great. The jury doesn't get to hear hearsay unless it falls under exception. There are all kinds of things that the litigants might wish to present to the jury that our system doesn't permit for very good reasons.

When we talk about scientific evidence, it gets a little trickier because it's not the same as say, eyewitness testimony about a red light versus a green light. A jury is able to make a very good determination about what is the most credible evidence in situations like that. They're dealing with issues that they confront in their day-to-day life and the traditional tools of cross-examination and presentation of opposing evidence I think are quite effective. An eyewitness can be impeached about how far away they were, the opportunity to see, to hear, was the witness impaired, etc. Jurors are very capable of making excellent decisions about which testimony they believe.

But when you get into the realm of scientific evidence and you're looking at an expert coming into court—not just the evidence itself but an expert coming into court—let's just say in a toxic tort case—and saying, "I'm a scientist. I'm an expert, I have an opinion and my opinion is that this exposure to this substance caused the plaintiff's illness." The jury doesn't necessarily have the background or tools to evaluate that particular evidence, nor necessarily does the trial judge. I think there's jury research that certainly I've been involved in that shows clearly that the way that lay people, non-scientists, typically react to that type of evidence is this. If you come in and you say, "I'm a plaintiff and I was feeling fine. I was great. I was healthy. I had my silicone breast implants put in and a year later I was achy, I was tired, and I was forgetful." And then you have an expert come in and say that the silicone is what's causing her problems. That's a very logical conclusion and jurors are very receptive to that type of evidence as well as all non-scientists, including judges and lawyers. But the problem is that is not the way that scientists evaluate that type of evidence.

Scientists would say in that situation—and did say in that very situation—well that's an interesting association, we need to look at that. That generates the hypothesis that silicone can be causing systemic disease, and it's something that should be studied, but it doesn't prove that silicone causes disease, even if it generates an interesting hypothesis. What we need to do now is a large-scale epidemiological study, and more than one of them, and we need controls, and once we've done all of that then we, the scientific community, will be able to opine to our degree of certainty that yes, there is an association, or no, there is not an association, there are other factors that are explaining what seems to be going on here.

***The jury doesn't necessarily have the background or tools to evaluate that particular evidence, nor necessarily does the trial judge.***

So I think when the litigants want to rely on scientists to provide that causal link or whatever it is they're trying to prove, whether it's causation or some other fundamental component of their case, then it makes sense to evaluate the scientific evidence based on the standards that the scientists impose on themselves. And to me that is what *Daubert* does. *Daubert* says there has to be an initial evaluation of whether this testimony is reliable, and in assessing reliability we're going to look at what that particular field says it looks at in assessing reliability. And in *Daubert* the field was epidemiology and medical evidence, and so they look at whether the theory has been peer-reviewed and that type of thing—in another field it may be a different set of standards.

The reason I think that you have to look a little bit deeper than *Frye* is because *Frye* simply allows the expert to come in and say, "Trust me, I'm in this field, my methodology is reliable, it's generally accepted and everybody thinks so." Which allows for a bit of bootstrapping. When you have a field like handwriting expertise, all the people who come in are in that field, they say it's generally accepted—no one else has an opinion on whether it's generally accepted because no one else practices that specialty. And that's why I think you need to look a little bit beyond just general acceptance.

But the key to me is that the trial judge does need to act as a gatekeeper in making an initial assessment because we're not asking the trial judge to be an amateur scientist, as has been suggested by Justice Rehnquist and others. We're asking the trial judge to do what a trial judge is trained to do and the jury is not, which is to evaluate the evidence that's being offered against an established evidentiary standard—it is an evidentiary standard fundamentally that is at issue—and then to decide okay this evidence meets the standard and the jury can consider it, or this evidence doesn't meet the standard and the jury doesn't get it to hear it, just as the jury doesn't get to hear other inadmissible evidence.

I think that another area where this can be examined is in the area of differential diagnosis, which was commented on in the paper. That's another area where jurors are used to hearing evidence in a different context. You're used to going to a doctor and your doctor says, "Well, I think you might have this or you might have that, but a broad-spectrum antibiotic is going to take care of it so it really doesn't matter precisely what you have because I know how to treat it." And that's how doctors operate in their ordinary course of medical practice.

But then you have a situation where that same type of evidence is being offered to show causation. You have a medical witness coming in and saying, "I think that the plaintiff has X disease and it was caused

***In terms of Daubert versus Frye or any other standard, I don't believe that the appropriate analysis should be which is more liberal and which is more restrictive.***

by Y exposure, and the basis for my opinion is I have excluded the other possible factors." Well that may be a very good way to treat people because it may not make a difference in the treatment, but it's not a very good way to say I know—to a reasonable degree of medical certainty or whatever the standard is in your state—what is causing your illness, because you can never exclude in most situations that it's

simply an idiopathic condition. It's not the way that doctors or medical professionals draw conclusions for establishing causation in the medical literature—it's simply the way they operate to diagnosis their patients.

In terms of *Daubert* versus *Frye* or any other standard, I don't believe that the appropriate analysis should be which is more liberal and which is more restrictive. To me, it should be which makes most sense and leads to the best evidence being presented to the jury. It may well be that more plaintiff's experts are excluded than defense experts, but I would suggest that's simply because the plaintiff has the burden of proof and has to come in and establish an injury and a cause of the injury. And that that would be the reason for what might be perceived as an uneven application.

There are a couple of other factors mentioned in the papers, including cost—whether *Daubert* increases the cost of proceedings when you have *Daubert* hearings. I would suggest that if the ultimate outcome is that plaintiffs and the plaintiff's bar pursue only the good cases, the ones where they can really meet the burden of proof, that that has an overall effect of saving judicial resources. And if questionable cases are taken from the jury, that also has an effect of saving judicial resources. I do think there is a systemic issue here about the public perception of our civil justice system, and I do think it's important that the individual litigants feel that they had their day in court.

But I think you'll never satisfy all the individual litigants, and it's more important that the public at large has confidence in our court system, and there is a public perception that how do some of these crazy lawsuits even get to a jury, so the public perception kind of goes both ways. The role of the trial judge initially is to sort out the balls and strikes, but that's really where the appellate courts come in is to review what's been done, make sure it's being done consistently with some established standard, so that the public can have confidence that, over the long haul, the system is fair.

## Bert Black, Esq.

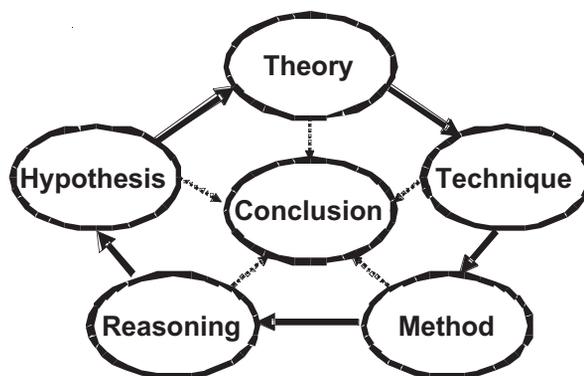
I'd certainly like to thank the Pound Institute for inviting me to speak—this is something I would pay to come and see—and I'd like to thank Professor Sanders, and Professor Waters, too, but in particular Professor Sanders since I'm commenting on his paper, for really an excellent job. This is not so much a critique as a presentation of some thoughts that his paper generated when I read it. And I've titled my comments "A Problem of Fractured Factors?" because I think we in the legal profession have tried to reduce science to a set of factors, and I think that creates a different set of problems than we had before. I will go into that in a little bit here.

What Joe has done is told us what kind of doctrinal diversity there is in dealing with scientific evidence, either under *Frye* or *Daubert*—different views of the relative role of judge and jury, different views on the appropriate depth of inquiry, different views on the nature of the inquiry. We could list all sorts of things where you have differences. I think one of the most important things that comes out of all this is that you have these differences because there's a lot of confusion over terminology, just what the standard might be.

What is being reviewed? Let's take a look at Figure One. You start off with some kind of a theory. Now, theory right away—is that the hypothesis or is that like the theory of relativity, which is a well-established body of scientific facts? Right away we got a word that is a little bit confusing as to what it means. But we go from our theory and from the theory we develop a technique—maybe it's a chemistry technique for measuring the density of an object or something like that. Then maybe we put some techniques together to come up with a method for dealing with a certain question—but then if you look in the dictionary, technique and method may be the same thing so just exactly what it is that we're reviewing gets to be complicated. And then you go through some reasoning, from the results of your method—but maybe the reasoning is actually these arrows that I've got connected to things, maybe that's where the reasoning is. Then we come up with a conclusion, and the conclusion is what gets presented in court, and you as judges are supposed to evaluate this and decide whether it meets some kind of scientific standard or not.

**Figure One**

**What's Being Reviewed?**



Well, maybe what happens that the reasoning leads to a hypothesis, but maybe you started off with a hypothesis in the first place, because theory could be hypothesis, but you come up with a hypothesis and then you go and you test the hypothesis and maybe that leads you back to a theory which leads to a technique. And I put these elements into a circle in the figure, or some sort of a pentagon, because I want to dispel the idea that there's some sort of a linear pattern that you go through—that scientists go through a linear pattern in coming up with conclusions—and that we should evaluate this against some kind of standard that's based on linearity.

What you really have is probably something like this. By the way, you could put other words here, other things that get reviewed. *Frye* used the term “the thing from which the decision is based, which generates the conclusion.” Here are five or six things that could generate conclusions—if I had room for more ovals I could probably put more things there that are the subject to review. And a technique might generate the conclusion right away. For example, what is this person's blood alcohol? I use a technique, do the test, and I come up with a blood alcohol and that's what the testimony is—there's no further reasoning, that's all there is, that's the evidence that comes in.

But maybe you have to go through some kind of a methodology and you got results from a number of tests—maybe groundwater tests—and how does all that fit together to tell you where contamination originated and how it might have reached a house or not. That gets into some complicated reasoning, and is there a standard for doing that? Maybe there is, and maybe there isn't.

Well to this mix of things being evaluated we're going to apply factors, testing, peer review, error rate, the existence of standards, general acceptance, falsifiability—which is related to testing, and there's other things, but these are the five as I read them from the *Daubert* decision. The original *Daubert* court, the 9th Circuit, added a couple more on remand. Before *Daubert* there was some poor kid who did a comment—I forget the law review, this is probably 20 years ago—and he collected all the factors that had been used to evaluate scientific evidence, and I think

***Where is the book of scientific standards? I think we're writing it in court now—we're writing the standards for the scientists and then applying them. Is that scientific?***

he came up with something like 18. I was researching an article right after *Daubert* was decided, and I think we came up with four more, and if you kept on researching you could come up with still other factors that are used to evaluate scientific evidence. You could probably get the number somewhere up into the 30s.

In any event, if you take all these factors and you could come up with a framework for analysis, you could list the different factors, which I've got going across the top in Figure Two, and you could list the things being evaluated, and you could determine which factor applied to which thing. But of course this could expand out forever and I wonder at this point is a matrix like this, does this really give us a rational standard that's going to be applied uniformly? Is there really any such thing as a scientific standard? Are there scientific standards? I don't think there are, and I'm going to go through an example in a minute, but scientists don't adhere to a book of standards like the Code of Federal Regulations. Where is the book of scientific standards? I think we're writing it in court now—we're writing the standards for the scientists and then applying them. Is that scientific? Is that the way we want to evaluate scientific evidence or any other kind of expert testimony?

Let me go through an example and show you how I think all this could be confusing and why I don't think the effort—the judicial or legal effort—to impose scientific standards on scientists is really going to be very successful in the long run. And I start with “Forensics”—that's actually an ink stain—and look at that and you see the stuff trailing off. In a lot of ink stains you notice the color will change in different parts along the stain. [Editor's Note: Mr. Black is referring to a color slide of the word FORENSICS that we are unable to reproduce here.]

About 60 years ago, a couple of scientists looked at this and they said the colors are changing because you've got this mix of chemicals in the ink, and different chemicals are traveling at different rates of speed in the paper. And that would become a way of separating chemicals called filter paper chromatography. What you do is you let the chemicals separate out then you cut the paper up and dissolve the chemical back out

and you've separated the mixture into different components. For developing this process, the scientists won a Nobel Prize. What standard applies to that kind of reasoning, that kind of recognition of something that is obvious and hits all of us in the face, but you didn't think of it before?

That process has evolved, and now we have things like a gas chromatograph mass spectrograph (GCMS). Some of you probably have had GCMS evidence show up in some of your cases. This is what happened to develop this process. They figured, well if we entrain a chemical, a mix of chemicals in gas, we could do something like

chromatography, and we can separate them out so that peaks that represent a separate chemical are charted on a graph showing what has come through the chromatograph. And then, starting to apply some physics principles, they said if we bombard these molecules with electrons, or put them in an electronic field, we can split the molecules up and then we get a bunch of fragments of molecules that are going to come out at different speeds, too. And so you get a different kind of graph that is pretty much a fingerprint of a chemical that was in the mix. Scientists can go to a library of how standard chemicals—standard in the chemical sense—show up on a GCMS and they can tell you with some accuracy what chemical it was in the mixture.

Now that shows up in your cases in all kinds of different ways, and how are you supposed to evaluate something like this? You go from observations to a practical theory to a technique, which was paper chromatography, to some hypotheses applying other principles, saying we could do more. We might even be able to determine what's in each of these peaks coming out, to other techniques and then all sorts of things happen in between, and then it comes to your expert witness and the expert witness has some kind of a hypothesis about the individual case applying all this and arrives at some conclusions, wherein lies the standards. I think we're trying to write standards for the scientists where there is no such thing as a scientific standard, and I think that is a real problem.

**Figure Two**

**An Ill-Defined Analytical Framework**

	Testing	Peer Review	Error Rate	Standards	General Accept.
Theory	Yes	Yes	No	No	Yes
Technique	Yes	Maybe	Yes	Yes	Yes
Method	Yes	Maybe	Yes	Yes	Yes
Reasoning	No	Yes	No	No	Yes
Conclusion	No	Yes	No	No	Yes
Hypothesis	Yes	Yes	No	No	No

I think also that the question is not so much whether we're getting things more accurate with *Daubert* or *Frye* or some other standard. I think what's really going on here is that there's a bias one way or another, and I don't mean bias in the pejorative sense—we have biases all the time. We would like—and it's not happening anymore—but we'd like our FDA to be biased on the side of safety so that if you're going to tip the balance one way or another, we're going to limit drugs in the market to make sure that they're safe. I think we'd like to do that. So bias is sometimes a good thing and maybe we want to be biased in a way to make sure that we don't have decisions based on evidence—scientific evidence or other expert evidence—which in the end proves to be wrong and, therefore, in some sense discredits the system. Maybe we want to do that.

***Are we killing justice with things like Daubert? I think that's what we have to be worried about.***

But I'd like to leave you with this kind of a thought. I'm assuming that no one here really would be looking forward to dying of cancer, but I could propose a solution that will make sure that no one in this room dies of cancer ever. And you know how we do it? We'll pump this room full of poison gas and kill everybody and no one will die of cancer because the poison gas killed you—that's a bias. Are we killing justice with things like *Daubert*? I think that's what we have to be worried about.

### **Honorable James E. Graves Jr.**

I wish I could tell you that they saved the best for last, but they didn't and I have been, as have all the other panelists, profoundly intimidated by the prospect of having to present before an audience like this.

And I wanted to share something with you at the beginning of my presentation in order to lower your expectations about the quality of my presentation, and then I remembered that I am in Seattle talking to a group of judges from all over the country—I am from Mississippi, and so I know that immediately in “your anywhere but Mississippi” air of superiority, everybody in the audience feels intellectually superior to me. Except maybe those from Mississippi, and they're saying to themselves, “Well I'm from Mississippi and I know you and I know I'm intellectually superior to you.” And so everyone out there feels intellectually superior to me, therefore you don't expect very much from me, and I'm going to be timely in trying to give the comments that I have this morning.

I bring a perspective as having served as a trial judge in a court of general jurisdiction for ten years and I've served on our state supreme court for almost five years. The ten years of course that I served as a trial judge would have been when *Frye* was the standard in Mississippi. In 2003, Mississippi determined they would adopt some modified *Daubert* standard in terms of the admissibility of expert opinion testimony. And so our rules of evidence were amended to reflect the amendments that were made to the Federal Rules of Evidence in 2000. Mississippi's rules of evidence were amended to track almost word-for-word the changes that were made to the federal rules. That happened in 2003 and since then, our supreme court has handed down about six decisions where we applied or interpreted this modified *Daubert*-like standard that's been adopted in Mississippi.

I guess I'm probably going to be guilty of oversimplifying the whole discussion, but with any discussion of any rule of law I think the first question to be answered is, what is the purpose or the reason for the rule? If we look at *Daubert*, and if we look at the rule as it existed prior to *Daubert*—of course the federal rules were amended in light of the *Daubert* trilogy that Professor Sanders referred to—but if you look at the rule originally, I think it was designed to tell us under what circumstances an expert could testify in a given case.

While it may not have seemed simple at the time when you look at the additions that have been made in light of the *Daubert* trilogy, I now long for the simplicity of that pre-*Daubert* rule because it said when an expert could testify, and that was whenever it will assist the trier of fact to understand the evidence or to determine a fact in issue. And then it also told us who could testify as an expert because it said anyone who was qualified by way of knowledge, skill, experience, training, or education. So while that may have been problematic for us as trial judges at the time, it seems terribly simple now that all of these standards have been added to that very same rule as a result of *Daubert*.

When you look at the addition of the standards, the next question for me is why then were these other things added to the rule? If the rule generally existed to let us know who could testify and under what circumstances, then why were all of these other criteria added? It seems to me that there was some concern about protecting juries from scientific or other technical evidence that they either would not be able to understand, or would give undue weight or consideration to, or would be misled or confused by the presentation of that evidence in court. I will just share that in my ten years of experience as a trial judge, I tried over 200 cases and that I talked to every jury after trial in every one of those cases—with the exception of about three cases where I could not believe that 12 people of that limited amount of intelligence could actually end up in the same room at the same time—so with the exception of those three cases, I talked to every jury after every case in every trial that I had as a trial judge.

***If this Daubert standard was born out of some concern about protecting unsuspecting and unaware and unprepared and incapable jurors, then I think it was just unfounded, based on my experience.***

And what I was impressed with is that they were conscientious, that they were capable, that they were very good at discerning what weight and worth ought to be given to the testimony that was presented to them. So if this *Daubert* standard was born out of some concern about protecting unsuspecting and unaware and unprepared and

incapable jurors, then I think it was just unfounded, based on my experience. Because I think that jurors demonstrated over all those years that they were very, very capable of listening to evidence and of making determinations about how much weight ought to be given even to expert testimony and opinion in cases. While I concede that there were things that may be beyond the ken of an ordinary juror, and so some expert testimony would be required, I think a great deal of deference ought to be given to jury decisions. I have to confess that I have a deep and abiding respect for the ability of juries to make determinations about the weight and the credibility of evidence and testimony, both lay and expert.

And in light of that, if I could offer some practical advice, I think as trial judges, if it seems close, and your concern is that the jury can't understand it or won't be able to figure it out or is going to be misled or confused by it—if that's your concern, then I'd probably err on the side of admissibility because frankly, I think that they can handle that. I explained my experience as a trial judge was pre-*Daubert* in Mississippi and so one of the things that they talked about was the cost of the litigation and how the process may be lengthened by these hearings. I can't imagine how that would unfold to serve to add great length to proceedings because I would imagine that these hearings are not going to be very long—the judge is going to listen, make some determination.

As a practical matter, I would advise trial judges that when you have those hearings, they certainly ought to be on-the-record hearings where the judge ought to make on-the-record findings about that scientific evidence or testimony, particularly when you recognize that those matters when they come up on appeal are going to be before an appellate court who won't have the benefit of sitting there and listening to the testimony, listening to witnesses, or maybe having examined the trial in the context of all of the other expert witnesses who may be testifying. You may make a determination that this testimony, it could be cumulative, you may not say that, or if you think it is then you probably ought to say that.

One of the things about *Daubert* is that—and it's just what Bert Black just said about all of these other factors—*Daubert* started and they listed some factors and then they said it is a non-exhaustive list, it is not an exclusive list, it is not a comprehensive list. So if you sit and hear a proffer about the testimony of some expert witness I think—and I'm trying to determine how to say this in a circumspect kind of way—but I think you can justify your

***As a practical matter, I would advise trial judges that when you have those hearings, they certainly ought to be on-the-record hearings where the judge ought to make on-the-record findings about that scientific evidence or testimony.***

decision, whatever it is, if you make a record, cite to the factors that are to be considered. First cite to the factors that the rule says you're supposed to cite to, and I would cite to those factors when I'm making that determination and then make my ruling with regard to those factors on the record.

And then if there are some other factors that you intend to consider or incorporate or bring in—and I want to suggest to you that there are tons of other factors out there—what *Daubert* says is you can consider these factors. Even if one of them is not met by this expert, you may determine that there's some other reason that the evidence ought to be admissible. Since it is not exclusive and it is non-exhaustive and it is not comprehensive, I think that leaves you room to have this expert witness testimony admitted if you determine that it can assist the trier of fact and that the person who's offering that testimony is qualified to offer it by way of skill, experience, training, or whatever it is.

And so while I understand that clearly the experts agree that *Daubert* is much more conservative and restrictive than *Frye*, the facts are what they are and if you're one of those 31 jurisdictions that have adopted some kind of *Daubert* standard, then unless you are on an appellate court where you may be able to get some things changed, as a trial judge you have to live with the standard.

I think you apply the standards, you look at those factors, you look at other cases and the fact that there are all these factors out there, and I think you can make a fair and just and right determination about what you ought to do. Put it on the record and you have a much less chance of getting it reversed on appeal. And I want to remind the appellate judges that the standard is abuse of discretion—not that I would have done it differently if I were the trial judge—and unless you find that a trial judge actually abused her discretion in making that decision, then you are not free to reverse it or set it aside just because you would have done differently if you had been the trial judge.

## Response by Professor Sanders

I think rather than respond to any particular person, I want to just take a moment to elaborate to some extent on my earlier comments and add a few points in addition that I think this discussion led me at least to take notes about.

The first point that I want to emphasize is that the distinction between *Daubert* and *Frye*, at least as I understand it doctrinally, is not one between relevance and reliability—both of these tests are reliability tests. *Frye* doesn't say let it in if it's relevant; *Frye* says let it in if the scientific community thinks it's generally accepted. Sometimes it seems we hear discussions as if *Frye* really wasn't a test that has anything to do with the reliability, it's simply some sort of a relevance test.

To give an example of that, if we go back to the breast implant litigation, it is inconceivable to me today that any judge could reasonably say that an expert prepared to testify that there was a relationship

***What in the heck is the purpose of procedure if it isn't substantially to try to achieve accuracy?***

between silicone implants and systemic injury is reflecting anything like a consensus in the scientific community; that proposition is generally not accepted and clearly under a *Frye* jurisdiction one could exclude such testimony and never have to go to any of these other factors. So I just want to emphasize that that still leaves me with the question

I raised during the general discussion, why is it then that *Daubert* appears to be more conservative? I still don't have a good answer to that, and I'm hoping to hear from you about what you think on that proposition.

Secondly, on the question of accuracy versus procedural justice that I raised, I want to just add this point—what in the heck is the purpose of procedure if it isn't substantially to try to achieve accuracy? I'm not saying procedure is the only thing, but much of the procedure that is set forth in the rules of civil procedure and in the rules of evidence is designed to attempt to achieve an accurate adjudication. Of course, in all law we recognize the parties disagree about what an accurate outcome would be and I don't pretend to stand up here and say well we all know from on high, from Olympia, what the right decision was—nevertheless what we want obviously is accuracy. We also want, apart from accuracy, some sense on the part of the parties that they had their day in court. I just want to emphasize that these two things are really both very important, and I think every judge, trial judge especially, has to try to weigh the degree to which denying somebody their day in court is justified, because of a perception that any outcome except the outcome that ultimately comes from denying the experts a chance to testify is in fact an accurate outcome.

My third comment really goes to Bert's point. When we have discussions about how people reason about rationality, the psychologists often talk about two separate ways to talk about being rational or irrational. One is what's called, a coherence theory of rationality, which really goes to whether you can coherently describe a set of procedures in a logical procedure that leads to a result. I think it is fair to say that the research suggests that trial judges, at least with respect to survey research cannot very well give coherent discussions of some of the *Daubert* criteria, so coherence does seem to be a problem. And certainly what Bert suggested, if we actually end up with 47 factors, how can we possibly hope for there to be coherence there?

On the other hand, it seems to me that coherence really isn't the question at the end of the day. At the end of the day, the question is what the psychologists would call a correspondence theory—is what the jury said or the judge said, or whoever the decision maker said, in fact the outcome that reflects the reality out in the real world? And insofar as we can do that, that is what we want to get. It seems to me that the decision between *Daubert* and *Frye* at the end of the day must be a decision about correspondence writ large—does the judicial system, using this particular method to accept expert testimony, on average come

closer to achieving correct outcomes, either decided by juries or otherwise? It is a critical question.

***Golly gee, they try very hard; if anybody thinks that jurors are just blowing it off, they just aren't watching.***

Finally, one other point that I thought was appropriate—well, two other points since I have time. One point goes to Bert's comment as well, my reading of the federal cases—which I'm

compelled to do every year for this darn treatise I'm on—suggests that the federal judges have moved with some considerable movement away from the “four factors of *Daubert*” and toward the fit analysis of *Kumho Tire*. More and more federal opinions are really about fit, if you will—then it is about analytical gap and how big the analytical gap is, and fewer and fewer opinions seem to really focus on these *Daubert* factors.

My personal bias is that that's a good thing, and the reason I think that's a good thing is because I agree with Bert fundamentally that insofar as we go through these factors it just produces a totally incoherent body of appellate law that I can't make much sense out of. On the other hand, when I look at some of these opinions that really dwell upon fit, I can say well you know, I think that's right, this guy is just blowing smoke, and so I kind of prefer that. That doesn't go to the issue about how to apply it, but I do think that that's a helpful trend, at least in the federal cases.

And then the final comment I would like to make is on juries. If there's anything I think we know from jury research in this area, it is two things that really seem important to me. One, golly gee, they try very hard; if anybody thinks that jurors are just blowing it off, they just aren't watching. I don't know much about real jury trials but I know a lot about jury trials in the laboratory. I've listened to a lot of tapes and even in that artificial situation, it's unbelievable how committed people become to try to do it right. So whatever the problem—if there is a problem—it certainly isn't because we get a bunch of citizens in there who simply don't care and don't try.

Secondly, I think the research makes quite clear that the problem is not jurors simply over believe experts. This is simply not the case. The juror does not say, “Oh my God, that expert has a Ph.D. from MIT and that settles that,” not at all. In fact, if anything I think the evidence sometimes shows that jurors are unwilling to believe experts—certain kinds of experts—and don’t pay enough attention to their data. I would add, however, regardless of whether they over believe or not, and I do not think they over believe at all, we still have a question about whether they can sort out good versus bad evidence and on that question it seems to me it really does turn on how difficult that testimony really is.

***I would say that in the vast majority of cases it really doesn’t matter that the trial judge gets in the way on expert testimony, because the jury can sort it all out—there’s really not much of an issue.***

So I guess if I could be God at this stage, I would say that in the vast majority of cases it really doesn’t matter that the trial judge gets in the way on expert testimony, because the jury can sort it all out—there’s really not much of an issue. There may be a very small percentage of very difficult cases where the jury would be well served by a review of the reliability of the evidence that helps them by permitting them to set aside, before they even try the case, the evidence that really has very little to do with the case at hand.

## Questions and Comments

**Participant:** When we discuss these cases in the context of expert opinions relating to scientific information, it all makes a lot of sense. But what happens when you have an expert who’s based on experience? Say you have a police officer, or perhaps you have someone testifying about the standard of care. Now we seem to be moving away from, or at least in that area of testimony, we seem to be moving away from *Daubert* and what *Daubert* tells us to look at and suddenly what do we do?

**Bert Black:** That’s a good question, let me respond in two ways. First of all, I have to confess to once having done this sort of thing on the defense side. When *Kumho Tire*—that was the case about the guy who touched the tire and came up with a conclusion—was before the Supreme Court, there were defense lawyers that said we got to show that everything in the world is science. Why? Well, the Supreme Court has given us a standard that applies to science, and we can get that standard to apply to everything if we just call everything science. And so there had been an example from one court about a beekeeper who would testify that “based on my experience of seeing bees when they fly, I know they always take off into the wind.” Well, can a beekeeper testify to that based on experience? I would hope so. Oh no say the defense lawyers, there’s apiary science. After all that you can go study down at the U and so even beekeeping is science, and scientific standards ought to apply. I think that’s silly. We have to recognize that there are things where experience suffices, and if a person has adequate experience that’s sufficient indicia of reliability, and the testimony ought to come in.

I was thinking about using this in my remarks on Professor Sanders’ paper and it wasn’t primarily what I wanted to say, but how many of you are familiar with the Dog Whisperer, Cesar Millan. You can see him on TV—he’s an immigrant from Mexico. I don’t think he has all that much of an education, but that man thinks like a dog. You watch him on TV, and there are dogs that professional trainers can’t bring under control and Cesar has some way, through body language and whatnot, of bringing the dog under control, and he can explain what he’s done.

Now he's not a scientist. He's just had lots of experience with dogs—he's on what is it, National Geographic Channel—and those of you who have not seen the Dog Whisperer ought to watch that and ask yourself now if this is a person I would allow to testify as an expert on dogs and would I apply scientific standards? I hope the answer is yes, he'd be able to testify if there were ever an issue as to why a dog might have behaved the way it did, and that scientific standards would be irrelevant.

**Participant:** That's an excellent observation. In our mid-Western state—we're one of the six states that has not adopted any of this—I think we're smarter, because I think either test is unworkable, and at bottom it really comes down to a question of relevance. I will posture by saying that the fit standard is

**Pauli was once asked by a colleague if a certain paper is right or wrong, and his response was “that paper isn't good enough to be wrong.”**

really relevance because if it fits then it has to be relevant and it's relevant on a case-by-case basis. And I think that's really what fit is all about and so I just wanted to share with folks that in our state, it's really more a question of is it relevant and then is it prejudicial. You perform the typical balancing test, and you have jurors who

are able to work through this stuff and ultimately the test occurs during cross-examination. This is how jurors learn about whether or not a particular theory or a particular method or even the conclusion itself holds water. And in our state, we have determined that that works more than adequately and have clearly determined that it's not necessary to adopt any of these other tests, and I would just like to lobby the other states to maybe take a look at how you're doing your work.

**Mary Alexander:** Thank you. Well, it sort of goes to the weight of the testimony of the expert that the jury can determine. Any comments on getting rid of *Daubert* altogether?

**Bert Black:** Not so much a comment on getting rid of *Daubert*, but I'm not sure that *Daubert* properly interpreted isn't what the judge from my neighboring state just described. And let me give you a citation on this. If you look at the Federal Judicial Center Manual, in the introduction by none other than Justice Breyer, he describes a circumstance involving a very famous physicist by the name of Wolfgang Pauli, who won the Nobel Prize 60 or 70 years ago. This is a true story—I actually researched it. Pauli was once asked by a colleague if a certain paper is right or wrong, and his response was “that paper isn't good enough to be wrong.” In other words it's so bad, it's so far outside of science and physics that we can't even talk about it rationally. And then Justice Breyer says that's the kind of—he doesn't say flat earth but I'll insert that—that's the kind of flat earth nonsense that *Daubert* was meant to exclude.

And if that's what you're focusing on, things that just don't make any sense—flat earth, perpetual-motion machine kind of nonsense—maybe it isn't such a bad rule. It has gone far, far beyond that and as I indicated, I think we've gotten to the point now where some courts are trying to write scientific standards where scientists couldn't write them themselves.

**Participant:** It seems to me that the issue is generally one of causation when *Daubert* is applied and I guess my question is isn't *Daubert* really a natural result of a long trend of plaintiffs coming up with an expert who really would say just about anything? Perhaps I'm being a bit unfair but it is my observation, and I'd like to get particularly Mr. Black's response, that *Daubert* really installs the judge as a gatekeeper to keep a very careful eye on the expert who will come in and say yes, this caused the problem.

**Bert Black:** First of all, somebody else should be responding up here, and I think I sort of just answered that actually. The stuff that just doesn't make any sense is what *Daubert* was meant to keep out, and if that's about causation, then so be it. I will say, and Professor Sanders may want to add some comments on this, that *Daubert* comes up in a surprising number of contexts that are not causation contexts. I mean it shows up in patent cases, it shows up in drunk driving cases, fingerprint cases even, so that may not be a fair characterization that it's predominantly about causation. Maybe it is, and I would ask Professor Sanders to comment further on that.

**Joe Sanders:** Well I think that's right, although I would say the gravamen of *Daubert* and *Kumho* has been causation, so I think you're basically right. But it comes up in other areas as well that really aren't causation it seems to me—there's a lot of damages testimony now with respect to—I don't know what you'd call it but I wouldn't quite call it causation, and yet damage experts are being excluded under kind of *Daubert* grounds. So it's mostly causation but it's true that *Kumho* has been expanding to other parts—other elements of the tort, if you will—over time.

**Leslie O'Toole:** Obviously I agree with you. I think that it's true that *Daubert* is designed to keep out the truly outrageous testimony. But there's an awful lot of testimony that was let in that at the time did not seem truly outrageous that

now we know was unfounded. I keep going back to the silicone gel breast implant litigation. There were a lot of women who got multimillion dollar verdicts for systemic disease because there were scientists who were willing to come into court and say I've looked at the literature, there's a temporal association between getting these implants, there's a plausible physiological explanation for why silicone could cause rheumatoid arthritis or whatever and therefore in my opinion her illness was caused by her breast implants. We now know after the New England Journal article and the Mayo Clinic study that there is no causal relationship, period. That is well established everywhere and I agree with Professor Sanders, no judge today would permit that testimony.

***In the Daubert context we're essentially requiring the plaintiffs to prove their cases beyond a reasonable doubt. We're requiring the plaintiffs to establish almost scientific certainty in order to get their experts admissible.***

But the problem is that the scientific process takes time to evolve and something that may be hypothesized or theorized to have an association today, we won't know within scientific standards perhaps for 10 years. So does that mean some deserving—later proven to be deserving—litigants will not recover? Yes, it does. Does it mean that we won't have any unjustified recoveries? Yes. I suppose it's where you want to err. But there are always people who come into court and are unable to meet their burden of proof for whatever reason, the witness has died, the documents have been destroyed, and that's just an unfortunate byproduct, from my point of view, of making sure that justice is done.

**Michael Putnam:** It seems to me that it is like Leslie says, the question is whether, who's going to bear the burden of the scientific uncertainty. There is going to be scientific uncertainty on many propositions that come up in any kind of litigation. It seems to me that what we need to look at though, or one of the questions that we need to ask, is what is the plaintiff's ultimate burden of proof in the litigation? In most state and federal courts it's by preponderance of the evidence, yet in the *Daubert* context we're essentially requiring the plaintiffs to prove their cases beyond a reasonable doubt. We're requiring the plaintiffs to establish almost scientific certainty in order to get their experts admissible.

It seems to me that—as Bert said—the problem with *Daubert* is not so much the articulation of the rule, but the way it's being applied. A lot of federal court trial judges—and I confess I don't have a lot of exposure to the state court trial judges—in trying to apply the *Daubert* gatekeeping role I think have become too rigid, have required too high a standard of admissibility, and have in effect said to plaintiffs you don't have to prove your case by preponderance anymore, you have to prove your case beyond a reasonable doubt.

And I think that's the question that a lot of state courts ought to look at—what is the level of certainty are you going to require for the plaintiff's expert to come in. Is it true that some women unjustifiably received multimillion dollar verdicts because of breast implants? Yes, no question. The problem though is what about those instances as Leslie points out of deserving plaintiffs not getting their day in court. It seems to me if you have some minimal standard of reliability and you keep in mind the traditional adversarial testing of cross-examination, the jury is going to sort out—as Justice Graves said—the jury is going to sort that out correctly I think 99.9 percent of the time.

**Participant:** I've seen on several occasions where a trial court failed to conduct a *Daubert* hearing, and I couldn't see any research where they were required to conduct a *Daubert* hearing, so I have a two-fold question. Number one, once that motion is filed, is a trial court required to have that hearing? And number two, whatever the outcome, is it then, our standard then is what, one of manifest error in the outcome of having either had that hearing or not had that hearing?

**Michael Putnam:** I'll comment. In federal court, I think *Kumho Tire* and *Joiner* are fairly clear that the process by which the trial judge undertakes to assess the reliability of an expert is pretty much whatever the trial judge says it is, subject to abuse of discretion. In *Daubert*, the Supreme Court set out these four or five factors that you're supposed to look at in addressing the reliability question of experts. They come along then in *Joiner*, and particularly in *Kumho Tire*, and say well forget all of that, basically it is going to be up the trial judge to determine not only whatever non-exclusive, non-exhaustive factors to look at, but also the process by which to look at those factors. Which means you may have a *Daubert* hearing, you may have an in-court hearing, you may review depositions, you may do nothing more than review the paper motions themselves—pretty much subject to a broad area of reasonableness whatever the trial judge comes up with is going to be acceptable.

***As an appellate judge, it's just very important, particularly on an issue like that, for the appellate court to have for its review the reason and the rationale for that particular decision.***

**James Graves:** And I would just add that I agree with that but the only suggestion I would have again would be as a practical matter. If you are not going to have an on-the-record hearing—and I agree that there's no requirement that there is one—I would include in any order what factors I considered, what the basis was for the decision. I would not have an order that simply said the motion to exclude witness so and so is hereby denied. Again as an appellate judge, it's just very important, particularly on an issue like that, for the appellate court to have for its review the reason and the rationale for that particular decision. So I agree that there doesn't necessarily have to be a hearing or an on-the-record finding, but you ought to have a fairly detailed order in support of whatever your decision is.

**Joe Sanders:** I was going to make it in my comments and I have a minute left. I just wanted to add one thing I forgot to mention. I would love to have some discussion on this amongst you and hear what you have to say. As I've suggested, most American jurisdictions have gone down the *Daubert* road, and so a trial judge trying to do his or her job must deal with this. I very much would like to hear your thoughts about the ways that the state judiciary and other parts of the state can facilitate that decision-making process so that trial judges can do their very best. And I hope that part of the discussion can be about how we can help trial judges make decisions that apparently they're going to be required to make in most jurisdictions.



## **STANDING GUARD AT THE JURY'S GATE: DAUBERT'S IMPACT ON THE STATE COURTS**

**Nicole Waters**

**B**eginning her paper by quoting esteemed jurist Learned Hand's observation that the only question about using expert evidence in the law is how to use it best, Dr. Nicole Waters examines the evolving use of Daubert and its progeny when state courts are faced with questions concerning the admissibility of expert evidence. She notes in her introduction that the U.S. Supreme Court's tackling of admissibility rules in the Daubert trilogy elevated the debate over expert witnesses to the forefront of legal policy discussions.

*In the next section, Dr. Waters reviews empirical work addressing the effect that Daubert and its progeny have had in the last decade, especially in the federal courts. She cites several studies that suggest that judges do not necessarily apply Daubert consistently, and often when they do, they still use something akin to the Frye general-acceptance test. Other researchers found that post-Daubert expert testimony was challenged and excluded more often and that the number of summary judgments rose. However, as Dr. Waters points out, many of these studies are based on content review of appellate opinions, a methodology that does have some limitations.*

*Section III of her paper discusses the findings of two National Center for State Court (NCSC) research projects. The NCSC conducted a pilot study in the Delaware Superior Court with a goal to explore, if and how, the Daubert trilogy has altered the ways in which courts admit or exclude expert witness testimony. The study reviewed case files to assess the incidence and use of Daubert motions and/or hearings, and followed up that review with interviews with attorneys and judges involved in those cases. Dr. Waters's discussion of that study examined the impact Daubert has had on the jury, courts, and expert witnesses, including how attorneys have adapted to using experts post-Daubert. Some of the findings she presents reveal a possible increase in the cost of litigation, a decrease in the number of trials, and the emergence of "Daubertized" experts.*

*Dr. Waters next discusses a second NCSC study examining selected appellate courts around the country and presents some preliminary findings from that study that pertain to expert witnesses. Issues on expert evidence addressed in the opinions reviewed aligned into four categories: 1) procedural issues, such as whether experts were disclosed within a proper time frame; 2) procedural issues pertaining to the substance of the evidence, such as whether admitted experts testified within the appropriate scope; 3) whether expert testimony was relevant and accurate when considering the facts; and 4) whether a proffered expert's opinion was reliably reached using appropriate methodology and data (Daubert/Frye admissibility issues). The study found that appellate courts did not rule disproportionately in favor of excluding expert evidence, or ultimately support a verdict in favor of either the plaintiff or the defendant. Products liability and medical malpractice claims, and surprisingly often, automobile tort claims, were common among opinions addressing errors in the substantive testimony of experts.*

*In her concluding section, Dr. Waters offers some recommendations on how, in light of Daubert, to improve case processing, promote justice, and effectively use expert knowledge to inform legal disputes. She suggests that implementing improved case management techniques, encouraging mutual respect among the bench and the bar, and utilizing technology and judicial education programs might help achieve these aims.*

“No one will deny that the law should in some way effectively use expert knowledge wherever it will aid in settling disputes. The only question is as to how it can do so best.”<sup>1</sup>

## I. Introduction

The purpose of this paper is to examine the evolving use of *Daubert* and its progeny<sup>2</sup> in state courts facing questions concerning the admissibility of expert evidence. I will explore the impact of the *Daubert* trilogy in state courts, focusing on some key questions: What do we know about *Daubert* in practice? Is *Daubert* more or less restrictive than other admissibility rules? If judges embrace their role as a gatekeeper, is the jury more secure or too sheltered?

In the next section, I review empirical work addressing the effect that *Daubert* and its progeny has had in the last decade, especially in the federal courts. Section III discusses the findings of two National Center for State Court (NCSC) research projects, specifically addressing the impact on the jury, the courts, and on attorneys and litigants in cases proffering expert evidence. In the final section, I offer some recommendations on how, in light of *Daubert*, to improve case processing, promote justice, and effectively use expert knowledge to inform legal disputes.

Admissibility rules on expert witness testimony dictate how judges should evaluate science, technical, or specialized knowledge presented in court. The U.S. Supreme Court addressed admissibility rules in the *Daubert* trilogy and elevated this discussion to the forefront of legal policy debates. Half of the state courts have adopted *Daubert* and its progeny, while the remaining states have retained the general acceptance rules of *Frye*,<sup>3</sup> or some hybrid of the two.<sup>4</sup>

States' rules on admissibility indeed differ with regard to the specificity and rigor required by the party proffering expert evidence; however, the legal community has not yet agreed whether *Daubert* effectively screens “junk science” and what the implications are for judges as they act as the gatekeeper for the jury.

## II. A Review of Empirical Work Examining *Daubert*

What do we know about the impact of *Daubert* and its progeny? Relatively limited empirical research has explored this question. However, preliminary findings provide important implications for the legal community. Thus far, legal commentators have primarily targeted discussions of *Daubert* in the civil arena, but there are indications, particularly with the increasing popularity of DNA evidence, that *Daubert* is affecting criminal cases as well. Certainly, the reaction immediately after the *Daubert* decision raised concerns about what it means for a judge to scrutinize experts and how the judge should apply the specific criteria spelled out in *Daubert*. Indeed, the plaintiffs bar feared that the impact would present a greater burden on them.

Interestingly enough, several empirical studies have demonstrated that post-*Daubert*, *Frye*'s general-acceptance test is still widely used even in the federal courts, and *Daubert* has not had a substantial impact on expert testimony or on the rates of admissibility. Sophia Gatowski and her colleagues surveyed state court judges and found that the general acceptance factor was most useful to judges. In fact, judges did not often employ the other *Daubert* factors, in part they note, due to a poor understanding of the error rate and falsifiability factors.<sup>5</sup> Jennifer Groscup et al. analyzed state and federal appellate decisions in criminal cases and found that there was no difference in admissibility rates.<sup>6</sup> Judges apparently cited

*Daubert*, but did not apply the specific criteria stated in the case. Similarly, Edward Cheng and Albert Yoon compared removal rates from state to federal courts as a proxy to measure whether litigants preferred *Frye* or *Daubert*; they found that the adoption of *Daubert* did not affect removal rates in tort cases.<sup>7</sup>

Lloyd Dixon and Brian Gill of the RAND Institute for Civil Justice found that *Daubert* had an impact in civil cases, but again, that the general-acceptance prong was vital in determining admissibility in federal court opinions.<sup>8</sup> The impact *Daubert* did have, compared to the *Frye* era, was that post-*Daubert*, expert testimony was challenged and excluded more often. Furthermore, they noted that the number of summary judgments also rose.

In most empirical studies of *Daubert's* impact, investigators have conducted a content analysis of appellate opinions.<sup>9</sup> A key limitation of this methodology is the introduction of a selection bias. Appellate courts do not review all trial court decisions, and so the review is limited to a select group of trials. Another methodological approach, surveying judges and attorneys on their experiences with *Daubert* motions, provides an additional perspective.<sup>10</sup> Krafka et al. report that *Daubert* has led to an increase in the number of successful challenges, effectively reducing the number of experts allowed to testify. The surveyed judges report that they excluded experts, not necessarily on *Daubert* grounds, but because the testimony was not relevant (47%), or would not assist the trier of fact (40%) or because the expert was not qualified (42%).

The first two reasons address the Rules of Evidence in place during the *Frye* era as grounds for exclusion, while the latter applies to the factors specified in *Daubert*.

***The impact Daubert did have, compared to the Frye era, was that post-Daubert, expert testimony was challenged and excluded more often. Furthermore, they noted that the number of summary judgments also rose.***

The role of the judge as gatekeeper is to, first, identify whether the evidence is relevant, and then to verify the rigor and trustworthiness of the proffered evidence. Has this role of the judge, as described in the *Daubert* trilogy, changed? The U.S. Supreme Court states that through the

trilogy, the role of the judge under the Federal Rules of Evidence was interpreted, not necessarily expanded.<sup>11</sup> Legal commentators, on the other hand, argue that as a gatekeeper, the judge is required to take on a more active role to effectively screen expert opinion before it is considered by the jury.<sup>12</sup> Without acting as a gatekeeper, the judge thereby allows the expert to testify to the jury requiring the jury to evaluate the expert's credibility. Any inconsistency or weakness in the testimony is noted by the opposing counsel during a cross-examination of the expert on the witness stand. Edmond and Mercer note that the pessimism toward the jury's ability to evaluate an expert is expressed through the application of *Daubert* and the assigned gatekeeper role.<sup>13</sup> In *Daubert*, the Court addressed the concerns of the respondent by stating that it "seems to us to be overly pessimistic about the capabilities of the jury and of the adversary system generally," and further suggests that cross-examination and presentation of counter evidence is the appropriate response to "attacking shaky, but admissible evidence."<sup>14</sup>

### III. A Perspective on the Impact of *Daubert* from Two NCSC Studies

Previous empirical work has not explored the impact of *Daubert* at the trial court level. This is, in part, due to the difficulty in collecting data on *Daubert*. In particular, court records do not reliably identify when a *Daubert* motion is filed or when a "*Daubert* hearing" is held. Anecdotal evidence that *Daubert* has introduced unnecessary delay and cost to the courts and litigants and that *Daubert* unfairly advantages

defendants in civil cases, has until recently been just that, anecdotal. Two NCSC projects shed additional light to the body of empirical research. The first study, a pilot study conducted in Delaware, a state that has fully adopted *Daubert*, utilized both case review and survey methods—specifically, targeted interviews—to assess Delaware’s experience since it adopted *Daubert*. The second study examined selected appellate courts around the country where a litigant sought appellate review, and looked at the issues raised in briefs and addressed in opinions.

## A. The Delaware Study

The NCSC conducted a pilot study in the Delaware Superior Court—that state’s trial court of general jurisdiction—with a goal to explore, whether and how, the *Daubert* trilogy has altered the ways in which courts admit or exclude expert witness testimony and in what way it has impacted the courts, judges, and litigants. The design of the pilot-test methodology included gathering empirical evidence on the substantive issues and also testing data collection options for a larger-scale project. The results of the pilot project derive from two phases of data collection: 1) case file review of court files and 2) interviews with targeted judges and attorneys experienced with *Daubert* motions.

In the first phase of the study, NCSC staff reviewed Delaware Superior Court case files to assess the incidence and use of *Daubert* motions and/or hearings. The Delaware Superior Court provided project staff with a complete list of product liability cases from 1989-1993 (pre-*Daubert*) and 1999-2004 (post-*Daubert*), totaling 126 cases.<sup>15</sup> In the second phase, project staff supplemented the case file review by contacting 38 attorneys and all 19 superior court judges.<sup>16</sup> The interviewees represented parties in both civil and criminal cases and included plaintiff and defense attorneys, public defenders, prosecutors, and private criminal defense attorneys. Themes of the interviews included:

- The process by which a *Daubert* motion arose in a case;
- Whether *Daubert* caused more delay, burden, and/or cost;
- Whether the gatekeeping role of judges changed over time;
- Whether *Daubert* differentially impacted particular parties; and
- Whether *Daubert* impacted case outcomes.

The results of the case review and the targeted interviews with judges and attorneys were particularly fascinating. Next, I look at these findings in detail, primarily focusing on the impact *Daubert* has had on the jury, courts, and expert witnesses, including how attorneys have adapted to using experts post-*Daubert*.

### 1. The Jury

Does the gatekeeper standing guard at the jury’s gate, in effect, blindfold the jury to evidence deemed too technical or scientific for jurors to evaluate? Do jurors uncritically accept expert testimony without questioning credibility, placing undue weight on statements by experts? Do juries, therefore, need protection?

At the 2001 Forum for State Appellate Court Judges held by the Roscoe Pound Institute, Stephan Landsman argued that recent trends encroach on trial by jury as an institution and diminish “the jury’s role, influence, and significance.” These trends include the reduction in jury size, blindfolding juries to matters such as liability insurance and the impact of contributory negligence.<sup>17</sup> His concern is valid, as the implications extend beyond the courtroom. Public trust and confidence in the courts has been a significant component of the philosophy and development of trial court performance standards and measurements since 1987.<sup>18</sup> This philosophy acknowledges that the general public is exposed to the workings of the court, for one, often through service on jury duty. Thus, limiting the role of the jury has a greater impact than on simply the litigants in the case at hand.

Before an expert is admitted, the judge must inquire and evaluate the relevance and validity of the expert’s opinion. Does the judge, in her gatekeeping role, then become an amateur scientist while evaluating the data, methodology, and findings? Justice Rehnquist, in his dissenting *Daubert* opinion, raised a concern about whether a judge becomes, or should become, an amateur scientist. He does “not think it imposes on [judges] either the obligation or the authority to become amateur scientists.”<sup>19</sup> If the expert testifies, then the jury must ultimately decide how the expert evidence relates to the facts of the case. Jury researcher, Neil Vidmar examined jury performance, specifically in medical malpractice cases, and argues that “juries carry out their duties well in cases involving expert witnesses with scientific evidence.”<sup>20</sup>

Attorneys interviewed in Delaware asserted that *Daubert* has indeed shifted the trust away from jurors, yet they believe that jurors have the common sense to evaluate experts and their testimony. One attorney commented that, “Jurors are the triers of fact, and decide if it’s bull; jurors have common sense, but now [post-*Daubert*] the jury doesn’t get a chance.” Delaware judges agree that the judicial role, as gatekeeper, has shifted the responsibility away from the jury to the hands of the trial judge. In fact, one judge made a crude analogy that his role was akin to “a rubber sheet” put in place to “prevent the feces from getting to the jury.”

Perhaps the key question in the whole debate is this: Are judges better trained than jurors to evaluate scientific or technical expertise? Although most judges in Delaware conceded that they were not amateur scientists, they believe that *Daubert* required trial judges to take on a more active role. In pre-*Daubert* times (1989-1993), judges let admissibility or credibility issues be sorted out through cross-examination during trial. A Delaware judge explained post-*Daubert*, “Now, the court has an independent duty to be gatekeeper, even if there is no opposition from the other side.

***Neil Vidmar examined jury performance, specifically in medical malpractice cases, and argues that “juries carry out their duties well in cases involving expert witnesses with scientific evidence.”***

The court has the responsibility to make sure the expert does not get in, if not qualified.”

Some judges are more active than others; yet most judges in Delaware claimed to actively participate in the voir dire of the expert witness, acting as the inquisitor. Sheila Jasonoff, in the Report of the 1997 Forum for State Appellate Court Judges, proposed that “judges act as inquisitor” in the context of expanding the gatekeeping powers and appointing neutral experts.<sup>21</sup> Her concept of an inquisitor can also be applied to the judicial duty to voir dire a proffered witness. *Daubert* has bestowed upon trial judges the responsibility to render admissibility decisions. It is a great responsibility that is likely not carried out in a similar manner by all judges, yet appeared to be taken very seriously by the Delaware bench. As, one Delaware judge stated, “I ask questions of the expert because I’m the gatekeeper and must be satisfied.”

Based on interview responses in Delaware, judges, in addition to attorneys, may voir dire an expert without a prompt by a *Daubert* motion. One judge excluded partial testimony of an expert witness in front of the jury and was reversed on appeal; he now believes it is *his* responsibility to ask questions pre-trial to establish the qualifications and relevance of the expert. Another judge says post-*Daubert*, he must, “ask more questions, get more involved—[*Daubert*] has required more decision making on the part of the judge, depositions alone do not suffice.”

## 2. Courts

The Delaware pilot study revealed the unique history of case law on admissibility of expert evidence. How attorneys drafted motions in limine pre-*Daubert* indicated that Delaware’s progress toward a *Daubert* interpretation of the Delaware Rules of Evidence (D.R.E.) occurred prior to the U.S. Supreme Court’s decision in 1993. Delaware’s Rules of Evidence closely followed the Federal Rules of Evidence (F.R.E.) since 1980 and before that, followed *Frye*. In 1989, in the case of *State v. Pennell*, the Delaware Supreme Court stated that: 1) experts must be qualified; 2) evidence offered must be reliable; 3) expert opinion must be reasonably relied upon by those in the field; 4) the knowledge must assist the trier of fact; and 5) evidence must not mislead or prejudice the jury.<sup>22</sup> *Pennell* involved DNA testimony against an accused serial murderer charged with three counts of first-degree murder. In *Pennell*, the Court opined that scientific expert testimony was to be rigorously scrutinized and should adopt the standards set in relevant scientific fields. In its decision, the Court stated, “The State has failed to demonstrate a degree of reliability necessary to admit such statistical probabilities [for DNA matching].”<sup>23</sup>

Reviewing motions in limine filed in the Delaware Superior Court subtly reveals the impact *Daubert* factors had on the court. In the past, judges relied more on credentials, whereas now the emphasis is on the methodology. In pre-*Daubert* times, counsel motioned the courts to exclude the opposing party’s expert on grounds of relevancy or questioned the scope of the testimony as determined by the expert’s qualifications or expertise. Whereas, post-*Daubert*, counsel presented the issues with more specificity, citing *Daubert*, along with other relevant Delaware case law.<sup>24</sup> Counsel addressed *Daubert* factors of testability, error rate, peer review, and additional factors such as general reliability of the methodology and relevance to the case at hand.

**Another judge says post-*Daubert*, he must, “ask more questions, get more involved—[*Daubert*] has required more decision making on the part of the judge, depositions alone do not suffice.”**

With the court’s need to increase scrutiny on the methodology employed by the expert, does *Daubert* impact the cost to the courts or alter timeliness for processing cases? The experience in Delaware Superior Court was twofold. *Daubert*, among other factors, appears to reduce the rate at which cases reach trial. From a standpoint of the court, trials certainly absorb substantial time and resources, but ought to also be weighed against the less objective measure of justice to litigants. In addition, increased scrutiny of experts undoubtedly requires additional time and resources by attorneys and judges to hear and rule on exclusionary motions. *Daubert* motions run the potential of delaying proceedings,<sup>25</sup> but in Delaware, the consensus among judges and attorneys was that a lengthy hearing was rare. Most hearings were less than 30 minutes and were typically held pre-trial. Limits are also set on motions filed. One Delaware judge explained, “The limit on [the length of] motions is 4 pages, with only very few exceptions.”

There was a clear trend in the post-*Daubert* dispositions; cases were less likely to be disposed through a trial. However, the trend in Delaware's data was accompanied by a national trend of declining civil trials, whether *Daubert* was adopted or not. Of course, it should be assumed that factors in addition to *Daubert* influence the decision to go to trial.<sup>26</sup>

Interestingly enough, *Daubert* appears to have a dual effect on the declining number of trials, at least in Delaware. On the one hand, the number of cases that “survive” *Daubert* challenges and result in a summary judgment for the defense seem to have increased. On the other hand, if their challenge is not successful, the defense may want to settle. When a defendant's motion in limine to exclude a plaintiff expert is denied, the defendant must then assess the strength of the case against it and decide whether to proceed to trial. In Delaware, following a defendant's denied motion to exclude an expert pre-*Daubert*, all cases proceeded to trial, albeit with mixed success.<sup>27</sup> After *Daubert*, a defendant's denied motion in limine typically led to an out of court settlement. As one plaintiff attorney in Delaware suggested, “If you survive the *Daubert* motions, the defense wants to settle; that is a positive outcome.”

**As one plaintiff attorney in Delaware suggested, “If you survive the *Daubert* motions, the defense wants to settle; that is a positive outcome.”**

A Delaware Superior Court judge assessed the impact of *Daubert* on his court by likening it to an onion, “The filtering process is like an onion, it has many layers. [Attorneys are] screening [cases] not getting filed.” He cautions that, “What we are *not* seeing is as important as what we are seeing.” *Daubert* effectively screens and filters the evidence, but according to a judge, essentially, juries only see the “Readers’ Digest version” of the story. And what juries do not see, or what does not reach trial is equally important to examine. Therefore, attorneys engaged in discovery and pre-trial activity must undoubtedly adjust in response to *Daubert*.

### 3. Expert Witnesses

The initial response by the plaintiffs bar to the U.S. Supreme Court's decision in *Daubert* was a fear that the impact would be felt most adversely by plaintiffs. In particular, plaintiff attorneys anticipated added cost and delay as a result of *Daubert*. The interviews in Delaware, which targeted attorneys experienced with *Daubert* motions, suggest that these fears were realized. These plaintiff attorneys expressed concern with the additional costs and fees that arise out of the discovery process and depositions of experts in preparation for and in response to a *Daubert* challenge. One attorney stated, “It's so expensive, it cuts off justice. One case, a medical negligence case—the costs and fees were over \$300,000, and so I could not take the case. Essentially you have to fight it twice, once to [the] decision [on the motion], and then get them [experts] to come and testify.”

The Delaware Superior Court promotes rulings based on depositions and avoids oral evidentiary hearings. Delaware plaintiff attorneys voiced concern that the credibility of the expert and the nuances of expert knowledge and proffered testimony are not optimally presented through written reports. As confirmed in other work in this area, expert witnesses do not testify in many cases but are often challenged when proffered. Of the civil cases in Delaware in which an expert was clearly identified, 70% involved motions to challenge. Yet overall, counsel in only 16 percent of all product liability cases in the sample motioned to exclude a proffered expert's testimony. The practice of holding *Daubert* hearings is even less frequent. *Daubert* motions appeared most frequently in mature cases ready for trial, and judges typically rendered a ruling on the expert's deposition and attorneys' briefs. *Daubert* hearings were reserved for

complex civil cases and occasionally entertained during a criminal trial. In fact, a well-respected and now retired judge in Delaware, Judge William Quillen, stated in *Minner v. American Mortgage*, that if requests for hearings were “granted in every case, [it] could cripple the trial calendar. While the matter is always discretionary, absent a special reason and need to have the hearings, requests for them should generally be denied.”<sup>28</sup>

In Delaware, plaintiffs are generally viewed as bearing the disadvantage brought on by *Daubert*, since the burden rests on plaintiffs to identify an expert, investigate the proffered testimony, and ensure that the expert’s theories and methodology will withstand a *Daubert* test. At the same time, the plaintiff attorney is also typically more disadvantaged with regard to resources; it is very expensive to find, evaluate, and hire an expert. One plaintiff attorney claimed “The expense of retaining an expert eliminates meritorious trials.” The attorney cited, for example, a mold case in which \$3.5 million was spent on attorney fees. This is an unusually large sum for any attorney; however, defense attorneys typically have more resources or in-house experts if representing a large corporation.

In addition to concerns about cost, some legal disputes are not conducive to conducting experimental research studies. A key example is that of epidemiological studies, such as in a complex case in Delaware involving the exposure of eight pregnant women to a chemical manufactured by the DuPont Company who subsequently birthed children with severe birth defects. Epidemiology is the study of determinants of disease in populations.<sup>29</sup> However, as Douglas Weed explains, “Epidemiologists do *not* study disease causation in order to assign responsibility for harm caused to individuals.”<sup>30</sup> Carl Cranor explains simply, “Despite the obvious attraction of epidemiologic studies, there are various problems,

***In Delaware, plaintiffs are generally viewed as bearing the disadvantage brought on by Daubert.***

limitations, and shortcomings that affect their usefulness, especially in toxic tort suits. For many substances, epidemiological data simply are unavailable. If deliberate exposure of people would be unethical, then studies must be conducted when adventitious exposures occur, making it difficult to collect accurate exposure

information. And such studies are expensive.”<sup>31</sup> If epidemiology studies do exist, then the question becomes who conducted and paid for the research and whether there was any conflict of interest or bias. For this reason, methodology becomes central to the evaluation of validity, reliability, and rigor.

One of the common threads throughout the interviews was that *Daubert* challenges occur most often in complex cases where the burden of proof cannot be met without the testimony of an expert. Although not exclusively, the most common cases in which *Daubert* issues appear are in product liability or medical malpractice cases where experts must link damages to a specific injury. Indeed, several of the Delaware interviewees, including both judges and attorneys, spoke about the issue of biomechanical engineer experts. The demand for these experts and their testimony has largely increased in recent years. Although the Delaware Supreme Court ruled that biomechanical engineer experts are admissible (assuming they are qualified and their methods are reliable), these experts are limited from testimony that falls within the medical realm; thus, the debate continues as to exactly what limitations can be applied to the testimony of a biomechanical engineer.<sup>32</sup>

Thus far, the discussion has centered on whether *Daubert* has spurred restrictive gatekeeping practices that exclude an expert from testifying. However, data from the Delaware Superior Court indicate that most frequently the judge will grant a *Daubert* motion to partially exclude or limit the scope of admissible testimony, rather than completely exclude an expert. For example, Delaware attorneys

matched, as one attorney said, “duo-experts”—a medical doctor with an engineer—to explain the spectrum of issues in the case. Typically, a plaintiff was injured and the case necessitated a biomechanical engineer to explain the mechanism that allegedly caused the malfunction or accident and a medical expert to explain the plaintiff’s physical injury. The defendant files a motion in limine to limit the scope of the testimony, thereby limiting the medical expert from discussing the cause of the injury and the biomechanical engineer from speculating on the resulting injury.

A similar pairing of experts appeared in a products liability claim in which a malfunctioning product allegedly resulted in a fire. In this case, the plaintiff proffered an engineering expert to testify about product safety testing and a fire expert to testify about the origin of the fire. Such cases involved issues that parallel the original *Daubert* dispute over the proximate cause of the drug, Bendectin, and its effects.

Filing an exclusionary motion has become a tactical strategy pretrial. In Delaware, some defense attorneys admit that they file a motion in limine in every case, as it may prevent a case from reaching trial. Plaintiff attorneys also recognize the need, post-*Daubert*, to challenge defense experts. The impact of bench rulings on the admissibility of experts certainly influences the disposition. For instance, if a plaintiff’s lone expert is excluded, typically the case is resolved by either a summary judgment or a directed verdict. One judge colorfully illustrated this point during a hearing on the joint motion for summary judgment and motion in limine when he said, “The issues in the motion in limine and the motion for summary judgment are so intertwined that they’re not really separate motions—the motion in limine is sort of a belt/suspenders kind of approach.”<sup>33</sup>

**“You need to believe in the guy yourself or you can’t get the jury to believe.”**

In addition to exclusionary examples, Delaware judges and attorneys discussed “*Daubertized*” experts. Such experts have testified in numerous trials so their reputation and credentials are no longer questioned. One attorney explained how some experts begin to testify so much that it is important to find new people; in other words, the experts become “like tires, they lose their tread.” Nonetheless, if an expert has been judged to be qualified in previous cases, it is their opinion about the present case that must be established. Hence, rather than being challenged on the reliability of their testimony, experts’ opinions are judged by relevancy.

One of the reasons why many experts have become “*Daubertized*” is that there is not a large issue of “the wandering expert” or “the blue light expert” in Delaware.<sup>34</sup> As many of the attorneys and judges explained, unlike other jurisdictions, Delaware does not encounter many “junk science” experts. Disreputable or unqualified experts are not often proffered, because as many judges acknowledged, the bar in Delaware is particularly responsible and competent. This was further revealed by how the attorneys choose the experts for their cases. When asked how or where they find their experts, attorneys expressed concern about experts who advertise their services, because they seem to be in it only for the money. Moreover, as one attorney explained, it is important to retain an expert that does not sound crazy—“You need to believe in the guy yourself or you can’t get the jury to believe.”

Because of scheduling orders in place by most judges, filing *Daubert* motions requires more extensive preparation on the part of the attorneys. *Daubert* criteria necessitate higher quality experts (at times drawing on international experts) and expert reports. Thus, attorneys are required to seek experts who are credentialed; yet at the same time, conduct depositions in a timely manner so that they are prepared to file motions when appropriate.

Post-*Daubert*, attorneys are tasked with teaching the judge, through expert depositions and reports, what information is relevant and informative to the case. Therefore, it is critical that the attorney identifies a credible expert who will be able to effectively communicate his or her knowledge. Many Delaware attorneys utilized organizations (e.g., the Defense Research Institute) and/or other experienced attorneys' suggestions to search for experts. Because having a good expert can make or break a case, attorneys explained that they were selective with experts, and, with forethought, considered the *Daubert* factors in the decision to retain an expert and when deciding whether to initiate a challenge to an opposing expert's testimony.

It is important to the outcome of a civil case to have a credible expert. So important, in fact, that *Daubert* challenges are viewed by many as a negotiation tool, or as leverage for a settlement. As one Delaware judge explained, "If the value of the case doesn't warrant a lot of experts, the other side will try to shoot the other's expert out of the water."

## B. The Appeals Study

The second NCSC project in which data lends itself to better understanding the impact of *Daubert* is the *Civil Justice Survey of State Courts, 2001 – Supplemental Study of Civil Appeals* [hereinafter Appeals Study]. The NCSC compiled appellate data on all general civil trials in which a litigant sought appellate review.<sup>35</sup> In total, the data covers 1,234 appeals in 21 states with 33 intermediate appellate courts (IAC) and 13 courts of last resort (COLR) holding jurisdiction over these appeals.

Detailed data on each appeal was compiled, including documentation on what issues were raised in the initial appellant brief and what issues, if any, were addressed in the appellate opinions. Of the 1,234 appeals, 98 appellant briefs raised concerns with admissibility of expert witness testimony, and 68 opinions addressed the issue. Almost one-third of the 98 appeals arose out of medical malpractice disputes and another 9% from claims of product liability. Of the 15 states with jurisdiction over these 98 appeals, five states follow *Daubert* (Connecticut, Massachusetts, Ohio, Texas and Washington).

***It is important to the outcome of a civil case to have a credible expert. So important, in fact, that Daubert challenges are viewed by many as a negotiation tool, or as leverage for a settlement.***

A review of appellate opinions to assess *Daubert's* impact omits any impact pretrial, any alleged trial error that is not appealed, and cases in which the appellate court does not address the issue in an opinion. The Appeals Study included a review of appellant briefs and any corresponding opinions. Thus, it was possible to identify legal issues raised by the appellant that pertained to expert witness evidence. Issues on expert evidence addressed in the opinions aligned into four categories: 1) procedural issues such as whether experts were disclosed within a proper time frame; 2) procedural issues pertaining to the substance of the evidence, such as whether admitted experts testified within the appropriate scope; 3) whether expert testimony was relevant and accurate when considering the facts; and 4) whether a proffered expert's opinion was reliably reached using appropriate methodology and data (*Daubert/Frye* admissibility issues). Twenty-seven opinions did not address the expert evidence issue raised in the appellant brief. In such opinions, typically the opinion resolved another issue on appeal, rendering the remaining issues moot.

Recall that in *Joiner*, the Court directs appellate courts to review trial court rulings under an abuse-of-discretion standard. Thus, as expected, of the appeals in the Appeals Study, 30% were reversed and/or remanded for a new trial; this rate is consistent with general civil appeals of all claim types. Appellate court opinions addressed issues pertaining to expert evidence in 68 of the 98 appeals. Excluding alleged procedural errors, 49 opinions were reviewed for this paper, of which, 15 arose out of *Daubert* jurisdictions.

The issues raised in the Appeals Study cover the scope of the expert's testimony and whether it was proper, whether the admissibility was properly granted or denied, and whether the basis of the opinion was allowable. In the opinions, the appellate courts did not rule disproportionately in favor of excluding expert evidence, or ultimately support a verdict in favor of either the plaintiff or the defendant.

***Of the appeals in the Appeals Study, 30% were reversed and/or remanded for a new trial; this rate is consistent with general civil appeals of all claim types.***

In the Appeals Study, appellate courts infrequently found reversible error in trial court rulings on admissibility but upheld trial court rulings to limit the scope of an expert's testimony. Such trial court rulings avoid wholesale exclusion of an expert yet prevent questionable or inadmissible portions of testimony. Other opinions cited the lack of an appellant to raise an objection at trial, thereby preserving the issue for appeal. In the Appeals Study, 90 percent of those alleging error of expert witness evidence were appeals of a jury verdict. Therefore, the trust bestowed on jurors plays an important role in how judges rule on admissibility.

Appellate courts ruled on whether the basis of expert opinion deemed the testimony admissible. At times, appellate judges reversed a trial court ruling which admitted a written report or reports by experts who did not testify, as the authors of such reports were not available for cross-examination. And in one opinion, the plaintiff in an asbestos trial was allowed to present evidence of remedial measures only to impeach the defense expert witness's testimony, and the appellate court affirmed this decision.

*Daubert* differentially impacts the type of proffered expertise. Somewhat surprisingly, automobile tort claims, in addition to the expected products liability and medical malpractice claims, were commonly among opinions addressing errors in substantive testimony of experts. Of course, claims involving injuries commonly require evidence by a medical expert. As such, medical malpractice claims are commonly plagued by issues of admissibility, requiring an expert opinion on the standard of care.<sup>36</sup> If such a proffered expert is not admitted to present evidence, the case cannot proceed. This offers particular pause for medical malpractice claims in which plaintiff win rates are already markedly lower than other civil claims (28% win rate in medical malpractice compared to 54% for all general civil trials).

Another contentious area of expertise that arose with some regularity was the testimony of psychologists. Social sciences are challenged with the task of sorting through multiple causative factors to explain human behavior. For example, in an appeal in Washington from the Appeals Study, an expert testified to psychological conditions (e.g., post-traumatic stress disorder and the effects of bipolar disorder) of a young plaintiff resulting from an automobile accident and claimed that the conditions necessitated extensive counseling as part of compensation. In the appeal, the appellate court affirmed the trial court's decision to admit the psychological evidence.

In part, psychologists and psychiatrists are bound by shortcomings (e.g., ethical) similar to those faced by epidemiologists. Thus, data such as that collected from case studies are commonly named sources from which

psychologists draw conclusions. In an appeal from El Paso, Texas, a professor of psychopharmacology testified to the specific symptoms reportedly exhibited by a perpetrator to diagnose amphetamine drug use. The perpetrator shot and wounded an off-duty police officer who intervened in a domestic dispute. The police officer sued the perpetrator's employer for negligence in allowing drug use on the job. In this trial, the judge held a *Daubert/Robinson*<sup>37</sup> hearing and deemed that the doctor was qualified and that the methodology (which did not involve direct examination of the defendant) of collateral data from close family members and coworkers was common psychiatric practice. The appeals court affirmed the decision to allow this testimony.<sup>38</sup>

#### IV. Recommendations<sup>39</sup>

What can be done to improve case processing, promote justice, and effectively use expert knowledge to inform legal disputes? In concluding my paper, I would like to highlight several areas where my research suggests that improvements might be adopted to improve the way state courts handle evidence disputes.

**Case Management.** Part of the success of the Delaware Superior Court in avoiding added cost or delay that was feared to accompany the *Daubert* ruling was because the courts developed effective case management strategies to properly address *Daubert* and expert testimony. The Delaware case, *Minner v. American Mortgage*, emphasized the importance of effective pretrial case management and reliance upon the discovery record as a basis for ruling.<sup>40</sup> Of course, plaintiff attorneys in Delaware raised concern that the personal appearance of the expert is important to fully understanding the expert opinion. Nevertheless, judges were able to rule on depositions and expert reports as a general rule, reserving oral hearings when additional information is required.

Case management strategies differed for civil and criminal caseloads. For instance, with civil cases, *Daubert* motions and hearings were primarily conducted pretrial. On the other hand, criminal cases often involved motions and hearings at trial or on the eve of trial. The caseloads differed, not only because judges were more apt to hear *Daubert* motions in criminal cases due to the higher stakes (i.e. a person's liberty), but also because novel scientific evidence is more common in civil cases. Whereas criminal cases often involve "*Daubertized* experts" (i.e., experts that routinely testify in court, such as medical examiners and law enforcement officers), civil cases are more likely to involve new science (e.g., novel prescription medicine).

**Court Culture.** The impact of the *Daubert* trilogy in state courts will undoubtedly depend on the locale and its culture. It is likely that there are differences in large urban courts and in jurisdictions with a local legal culture that diverges from what was discovered in Delaware. Yet, the respect and admiration between the bench and bar in Delaware has cultivated a culture that can be used as a model for other jurisdictions.<sup>41</sup>

**Expert Witnesses.** Regarding using expert witnesses, the task of identifying the best expert is only part of the equation. Obviously, the use of qualified experts will greatly increase not only the efficiency of the court process, by reducing the need for *Daubert* hearings, but will also improve the ability of the fact finder to reach a decision. But the decision to use an expert must be weighed by the cost of taking depositions and live testimony of the expert. Time and travel expenses are particularly costly when the expert is not nearby, or even nationally located. However, technological advancements in courthouses across the nation have offered important solutions. The NCSC, together with the College of William and

Mary, have worked with courts to implement technology such as what exists in Courtroom 21, which is a national demonstration site for judges and court administrators.<sup>42</sup> Remote testimony and live video deposition capabilities in many courts today can accommodate expert witnesses, attorneys, and judges.

**Judicial Training.** In the Appeals Study, judges rigorously evaluated the methodology underlying psychological and psychiatric testimony as well as technical expertise in Delaware, such as that offered by structural engineers and contractors. Methodological techniques to form opinions in social sciences, specialized or technical knowledge, and novel sciences appear to be under the greatest additional scrutiny since *Daubert* and *Kuhmo Tire*. Judges may wish to seek training or education in these areas, along with expertise about causation, particularly to explain injuries or behaviors. Already, there is a demand for increased training and educational programs for judges.<sup>43</sup> Education programs that teach jurists not only necessary methodological skills but also inform judges as to how well juries may or may not deal with complex evidence, and teach judges how to improve the jury's ability to assess such evidence, are clearly needed.

Whether states adopt *Frye*, *Daubert*, or a hybrid of the two admissibility rules, judges and attorneys will undoubtedly face decisions about how best to use experts in settling disputes. It is certain that the legal community will be challenged with adapting to the continual advancements in science and technology that impact legal decisions today and in the future.

## ENDNOTES

<sup>1</sup> Learned Hand, *Historical and Practical Considerations Regarding Expert Testimony*, 15 HARV. L. REV. 40 (1901)(cited in *Minner v. American Mortgage*, 791 A.2d 826, 833).

<sup>2</sup> The *Daubert* trilogy is comprised of three U.S. Supreme Court decisions addressing the rules of evidence in admitting expert witness testimony: *Daubert v. Merrell Dow Pharm., Inc.* 509 U.S. 579 (1993); *General Electric Co. v. Joiner*, 522 S. CT. 136 (1997); and *Kuhmo Tire, Ltd. v. Charmichael*, 526 U.S. 137 (1999).

<sup>3</sup> *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).

<sup>4</sup> See Edward K. Cheng & Albert H. Yoon, *Does Frye or Daubert Matter? A Study of Scientific Admissibility Standards*, 91 Va. L. Rev. 471 (2005); and David E. Bernstein & Jeffrey D. Jackson, *The Daubert Trilogy in the States*, 44 JURIMETRICS J. 1 (2004).

For a brief review of the case law of *Daubert* and its progeny, please see the Appendix in Joseph Sanders's paper, "*Daubert, Frye, and the States: Thoughts on the Choice of a Standard*," presented at this Forum. Sanders also covers in more detail the use of *Daubert* or *Frye* in the respective states, so I will not duplicate his efforts here.

<sup>5</sup> Sophia Gatowski, et al., *Asking the Gatekeepers: A National Study of Judges on Judging Expert Evidence in a Post-Daubert World*, 25 L. & HUM. BEHAV. 433 (2001).

<sup>6</sup> Jennifer L. Groscup, et al., *The Effects of Daubert on the Admissibility of Expert Testimony in State and Federal Criminal Cases*, 8 PSYCH. PUB. POL'Y & L. 339, 344 (2002).

<sup>7</sup> Edward K. Cheng & Albert H. Yoon, *supra* note 4.

<sup>8</sup> Lloyd Dixon & Brian Gill, *CHANGES IN THE STANDARDS FOR ADMITTING EXPERT EVIDENCE IN FEDERAL CIVIL CASES SINCE THE DAUBERT DECISION*, RAND Institute for Civil Justice, Santa Monica, CA (2001).

<sup>9</sup> See Henry F. Fradella, Lauren O'Neill, & Adam Fogarty, *The Impact of Daubert on Forensic Science*, 31 PEPP. L. REV. 323 (2004); Groscup et al. *The Effects of Daubert on the Admissibility of Expert Testimony in State and Federal Criminal Cases*, 8 PSYCH. PUB. POL'Y & L. 339, 344 (2002); D. Michael Risinger, *Navigating Expert Reliability: Are Criminal Standards of Certainty Being Left on the Dock?* 64 ALB. L. REV. 99 (2001); and Rob Robinson, *Does CSI Lie? The New Institutionalism and the Treatment of*

*Forensic Evidence by Federal Courts under Daubert*, [Paper Presented at Midwest Political Science Conference (2005)].

<sup>10</sup> Carol Kraffka et al., *Judge and Attorney Experiences, Practices, and Concerns Regarding Expert Testimony in Federal Civil Trials*, 8 PSYCH. PUB. POL'Y & L. 309 (2002); Gatowski *supra* note 5.

<sup>11</sup> As indicated by the Court's comment in *Daubert*, "We interpret the legislatively enacted Federal Rules of Evidence as we would any statute." *Daubert*, 509 U.S. at 587.

<sup>12</sup> Andrew Taslitz, *Daubert's Guide to the Federal Rules of Evidence: A Not-So-Plain-Meaning Jurisprudence*, 32 HARVARD J. ON LEGISL. 3 (1995).

<sup>13</sup> Gary Edmond & David Mercer, *Daubert and the Exclusionary Ethos: The Convergence of Corporate and Judicial Attitudes towards the Admissibility of Expert Evidence in Tort Litigation*, 26 LAW & POL. 231(2004).

<sup>14</sup> *Daubert*, 509 U.S. at 597.

<sup>15</sup> Project staff complimented the civil sample with a computer-generated random sample of 120 criminal cases, drawn from a database of 1,950 cases with felony rape or murder charges during corresponding time periods.

<sup>16</sup> Thirteen of the nineteen judges had ruled on *Daubert* motions and agreed to participate, while 20 of the 38 attorneys agreed to an interview.

<sup>17</sup> Stephan Landsman, *Appellate Courts and Civil Juries*, in THE JURY AS FACT FINDER AND COMMUNITY PRESENCE IN CIVIL JUSTICE: REPORT OF THE 2001 FORUM FOR STATE APPELLATE COURT JUDGES 62-3 (Richard H. Marshall & James E. Rooks Jr., eds., 2005).

<sup>18</sup> *See generally*, History of the Trial Court Performance Standards on the Web site of the National Center for State Courts, [www.ncsconline.org/D\\_Research/tcps/Introduction.htm#Nature](http://www.ncsconline.org/D_Research/tcps/Introduction.htm#Nature).

<sup>19</sup> *Daubert*, 509 U.S. at 601-02.

<sup>20</sup> Neil Vidmar, *Juries, Judges, and Civil Justice*, in Marshall & Rooks, eds., *supra* note 17 at 62-3.

<sup>21</sup> Shelia Jasanoff, *Scientific Evidence in the Courts: Concepts and Controversies*. REPORT OF THE 1997 FORUM FOR STATE COURT JUDGES 18-25. (James E. Rooks Jr., ed., 1998).

<sup>22</sup> *State v. Pennell*, 584 A.2d 513 (Del. Super. Ct. 1989).

<sup>23</sup> *Id.* at 30.

<sup>24</sup> *See, e.g.*, *Minner v. American Mortgage & Guar. Co.*, 791 A.2d 826 (Del. Super. Ct. 2000); *Ward v. Shoney's Inc.* (Del. Super. Ct. 2000); *Cunningham v. McDonald*, 689 A.2d 1190 (Del. Super. Ct. 1997); *M.G. Bancorporation Inc. v. LeBeau*, 737 A.2d 513 (Del. Super. Ct. 1999); and *Nelson v. State*, 628 A.2d 69 (Del. 1993).

<sup>25</sup> *See, e.g.*, *U.S. v. Katz*, 178 F.3d 368, 371 (5<sup>th</sup> Cir. 1999), in which the Fifth Circuit stated, "In a case capable of being tried start to finish in a day and one half, not only the court but the lawyers were engaged for the better part of five days in a hearing to determine the reliability of testimony...."

<sup>26</sup> *See generally*, 1 J. EMPIRICAL LEG. STUD. 459 (2004) (special issue devoted to the phenomenon of the "vanishing trial").

<sup>27</sup> Of the civil cases pre-*Daubert* with a challenged expert, the jury found for the plaintiff in three cases, for the defendant in two cases, and hung in one case.

<sup>28</sup> *Minner v. American Mortgage & Guar. Co.*, 791 A.2d at 845.

<sup>29</sup> Douglas L. Weed, *Causation: An Epidemic Perspective (in Five Parts)*, 12 J. L. & POL'Y 44 (2003).

<sup>30</sup> *Id.* at 44.

<sup>31</sup> Carl Cranor, *Scientific Inferences in the Lab and the Law*, 95 AM. J. PUB. HEALTH, SA1, S124 (2005).

<sup>32</sup> See, e.g., *Eskin v. Carden*, 842 A.2d 1222 (Del. 2004).

<sup>33</sup> Transcript from the pretrial and oral argument hearing on January 23, 2004, from *McDaniel v. DaimlerChrysler Corp.*, 02C-04-148, p. 16 lines 8-12.

<sup>34</sup> Although not technical terms, an expert identified as a “wandering expert” or a “blue-light expert” is someone who travels from jurisdiction to jurisdiction to testify in cases on numerous topics or primarily for financial incentives, even if they do not have the credentials to do so.

<sup>35</sup> Grant support for the project was provided by the Bureau of Justice Statistics (BJS). Full reports and data are available on the BJS Web Site [www.ojp.usdoj.gov/bjs/abstract/ctcvlc01.htm](http://www.ojp.usdoj.gov/bjs/abstract/ctcvlc01.htm).

<sup>36</sup> Arizona’s civil rules of procedure specify that in all medical malpractice cases, each side shall be entitled to only one independent standard-of-care expert on an issue, except upon a showing of good cause. Arizona Rules of Civil Procedure 26(b)(4)(D). In such states, an exclusionary ruling on an expert can have considerably more impact on plaintiffs. In *Whitney v. Longo*, the court refused to allow more than one expert to testify on standard of care of a medical doctor. On appeal, the court determined that it was an abuse of discretion to not offer this opinion and remanded the case for a new trial. *Whitney v. Longo*, 1 CA-CV 02-0246, (Ariz. Ct. App. Feb. 6, 2003)

This finding reiterates the importance that any inquiry of *Daubert*’s impact on the courts should expansively include pre-trial and out of court activity. For one, case files do not reveal the extent of any such influence. But also, the ability to bring a meritorious case to trial rests on the ability to admit appropriate expert evidence, if needed.

<sup>37</sup> *E. I. du Pont de Nemours and Co. v. Robinson*, 923 S.W.2d 549 (Tex. 1995).

<sup>38</sup> *Loram Maintenance of Way, Inc. v. Ianni*, no. 08-02-00049-CV, unpublished opinion from the 120<sup>th</sup> District Court of El Paso County, Texas.

<sup>39</sup> A lesson from both NCSC studies is that a review of opinions is incomplete to understanding the full impact of the *Daubert* trilogy. While the review of opinions in the Appeals Study substantiated the conclusion that appellate courts generally rule in deference to the discretion of the trial court, it is further clear that litigants in general civil cases infrequently alleged court error in admissibility decisions, particularly which reference *Daubert* factors or an evaluation of the reliability of an expert’s methodology. Nevertheless, these findings underscore the importance of studying the impact of *Daubert* on pretrial activities—namely discovery, pretrial motions and hearings—as well as during trial. As such, while the recommendations I propose are based on the best available evidence, it must be recognized that there is still much we don’t know about how *Daubert* works in practice.

<sup>40</sup> *Minner v. American Mortgage & Guar. Co.* 791 A.2d 826.

<sup>41</sup> For more information on the importance of court culture, see the Court Culture and Performance section of the National Center for State Court’s CourTopics ([www.ncsc.online.org](http://www.ncsc.online.org)).

<sup>42</sup> Lederer, Frederic I. (September 1999). “The World of Courtroom Technology,” presented at the Sixth National Court Technology Conference, Los Angeles, California.

<sup>43</sup> See, e.g., “Science for Judges” program series, hosted by the Brooklyn Law School at [www.brooklaw.edu/centers/scienceforjudges/](http://www.brooklaw.edu/centers/scienceforjudges/).

## ORAL REMARKS OF DR. WATERS

I was thinking this morning that I had the advantage of going second. Now I'm thinking that the first panel has initiated discussions through the breakout sessions and through conversations and I think that everybody is awake and attuned to what these issues are. I hope that these discussions will enliven your debate but also perhaps put a bit more pressure on me. Either way, I think that this is going to be a fun session. The purpose of this is to elicit some discussion, and I hope that some of the data that I present today will do just that.

Learned Hand wrote in 1901, "No one will deny that the law should in some way effectively use expert knowledge wherever it will aid in settling disputes. The only question is as to how it can do so best." Here we are 105 years later still finding that expert knowledge is very valuable to the courts in settling disputes, resolving issues, and informing the fact finder—the decision maker.

But unfortunately, we are still discussing how we can do it best, whether that is through rules such as *Daubert* or *Frye* or some hybrid of the two. I think that is partly what our discussion was about this morning. Have these admissibility rules really allowed judges to winnow the good expertise from the bad—or from what some people call "junk science"—and are we able to identify what is good and what is bad? And can we do that better through *Daubert* and its progeny? I also want to talk about its impact. It goes much further than the litigants. There is also an impact on the courts, the jurors, and the experts. Everybody is impacted by these rules.

I think that Professor Joe Sanders did a great job of explaining some of the different admissibility rules and summarizing what was going on in the different states. I heard some people asking this morning whether or not they could find out whether their state is a *Daubert* or *Frye* state. As we also discussed this morning, the difference between these two is sometimes subjective, because states do not necessarily adopt these rules wholesale.

***Here we are 105 years later still finding that expert knowledge is very valuable to the courts in settling disputes, resolving issues, and informing the fact finder.***

Two of the studies that I want to talk about today will hopefully give you some insight as to what impact, if any, *Daubert* is having on the state courts. The first study I want to talk about is from the Delaware Superior Court. I was sad

to see that there are no Delaware judges here today, but that's okay—maybe that means we can talk about them. I looked at a case file review—this was something that was funded through SKAPP, the Scientific Knowledge of Public Policy—and we looked at a small pilot study of how best to identify when experts testify and what happens in those cases. So far there's still some discussion on the best way to study this and which methodology is best, which is a very suitable discussion considering we're talking about methodology with regard to *Daubert*.

I picked Delaware because it's a small state and I could study the entire state with the amount of funds that I had, and because it follows *Daubert* very rigidly. In fact, I believe that some of the case law in Delaware indicates that it was looking at *Daubert* rules prior to the 1993 decision in the Supreme Court. I looked at products liability cases, 126 of them, in two different times periods to explore the pre-*Daubert* and the post-*Daubert* eras. I also looked at some criminal cases—felony murder and rape cases—but I'm not going to discuss those as we plan to focus on civil cases for today.

After I looked through the case files, I found that it's very difficult to identify when an expert is proffered in a particular case because, as Justice Graves mentioned this morning, it's not always on the record. It's not necessarily listed in the case file when there's a proffered expert, nor is it always recorded as to what the ruling was and why the judge made that particular ruling. So I support him when he said that these rulings should be made on the record because it makes my job as a researcher much easier as well. Through the case file review I also identified attorneys who participated in a *Daubert* motion or hearing, and I also spoke with all of the judges in the Superior Court.

Here are some of the findings that I want to share with you. The judges really did believe very seriously that it is their job to be a gatekeeper—Sheila Jasanoff's term “inquisitor” comes to mind. The judges took this role very seriously. They felt that this gave them the permission to act and to decide whether or not the expert should testify and to rigorously look at the expert's testimony and the methodology that is underlying their conclusions. And in fact some of the judges said that they felt they should be the inquisitor—that they should *voir dire* the expert witness themselves if they didn't feel that the attorneys did a satisfactory job of this. Of course there was variation among the judges in Delaware. Some were more active than others in this pursuit, but that desire to be a gatekeeper certainly came through strongly in my work.

***In fact some of the judges said that they felt they should be the inquisitor—that they should voir dire the expert witness themselves if they didn't feel that the attorneys did a satisfactory job of this.***

I also think that attorneys and judges have scrutinized the experts more so than before. Whether you agree that *Daubert* is a good doctrine or not, I do think that the rule change or the rule clarification in *Daubert* has really brought this issue to the limelight as to whether or not experts should be testifying and, if so, how are we evaluating them—what type of scrutiny should they go through to be able to testify. There certainly was more scrutiny by the attorneys and by the judges. And attorneys are doing this even when they're selecting who will testify on their behalf.

What are some of the implications of this scrutiny? Let me preface these implications by saying there is some question about them. Reduction in trials—I did see a reduction in trials between the first time period and the second time period, however I put a question mark by this because it deserves a caveat. And that caveat is that there are so many other factors involved, that I cannot say with certainty that this scrutiny is *causing* a reduction in trials. We are actually seeing a reduction in trials nationwide in both state and federal courts, so whether it's due to the *Daubert* ruling or not, I'm not confident. Though, I certainly think that it's a contributor.

Reduction in filings—I also think that there's a potential for a reduction in filings. Through some of my anecdotal discussions with the attorneys, they said that because of *Daubert*, they considered the *Daubert* factors when deciding whether or not to use an expert and to move forward on a case. Even if it's a meritorious case, they felt as long as they have a good expert they can go forward, but without that, they sometimes did not take the case, so no filing was made. I would argue that this is an impact that we have not measured well enough. Before a case even gets to the courthouse, before the filing is initiated, I think *Daubert* has an impact even when attorneys are choosing and evaluating the experts for their case.

I also found evidence that it's very costly to hire experts. In fact, there was one in particular where the experts were in, I believe it was England, and the attorneys had to work with the experts as they were the only experts competent about this particular issue. So the attorneys had to bring these experts from England, and it added a considerable amount of cost and time to fly in the experts for the first part of the case where they had a *Daubert* hearing and took depositions and so on. Then they flew them a second time. The attorney had to bring the experts back if the case went to trial. So some of the attorneys, particularly the plaintiffs' attorneys, were telling me that the increased expense due to *Daubert* is due to arranging expert appearances once for the *Daubert* hearing and then again for the trial.

*Daubert* hearings are very rare. In fact, Delaware has some case law about *Daubert*. In *Minner v. American Mortgage & Guaranty Co.*, a decision from 2000, the Delaware Supreme Court emphasized that most of the rulings should be made on the record and through motions—through written motions—and the rulings are made without an oral hearing like you might see in some of these other *Daubert* hearings. When judges held *Daubert* hearings, oral hearings, they were typically for the more complex cases. But when they were held, they were fairly quick—most of the judges and attorneys reported that they lasted about 30 minutes or less—so that they didn't impact the trial by slowing down the process. But of course experts had to appear for the *Daubert* hearing, especially in the complex cases.

I also saw engineers and medical doctors as experts, and this is something that is very common in a products liability case—and those are the cases that I looked at. You see a biomechanical engineer who's paired with a medical doctor, so one can testify on the cause of the accident, the other one on the injury.

And that's another finding of the Delaware project. The scope is often what's at issue, not necessarily whether the expert testimony is going to be kicked out in its entirety so the expert does not testify at all, but more so opposing counsel limited the scope of his or her testimony. If you're an expert as a doctor, you can't tell me what's happening with this particular forklift. And the engineer is not allowed to talk about what kind of an injury was caused because of the incident. So, they were often paired together.

There's also the "*Daubertized*" experts. This was a term that people used in their interviews to indicate that the expert had already gone through a *Daubert* hearing and was accepted in a previous case. If this was so, and the expert had already been "*Daubertized*" then counsel no longer raised challenges. I sure would be interested to hear whether or not this is something that exists outside of Delaware. I also heard the term "*Daubertized*" with regard to criminal cases—medical examiners, police testimony and so on. Some of these experts are not questioned for admissibility as often because they're used in numerous cases.

***When judges held Daubert hearings, oral hearings, they were typically for the more complex cases. But when they were held, they were fairly quick.***

The second study that I want to talk about involves civil appeals. This comes from our [NCSC] *Civil Justice Survey of State Courts*. We conduct this project every four to five years, examining all trials in the 75 most populous counties nationwide. In 2001, there were 8,000 plus general civil trials that occurred, and we followed them through the intermediate appellate court and, if applicable, to the court of last resort. Out of those 8,000 plus trials—we didn't look at interlocutory appeals, these are only appeals after trial—we looked at 1,234 appeals from 21 different states.

One of the benefits of these data is that we collected detailed information about each of the appeals, including what issues were raised on appeal by the appellants. So we reviewed the appellant briefs as well as whether or not *Daubert* issues were addressed in the opinions. There were 98 appeals in which expert testimony issues were raised, and 68 subsequent opinions that addressed those issues.

Here are some findings from this study. *Joiner* was followed—the appellate courts are indeed deferential to the trial court decision, and there were very few reversals. Typically, appeals were from injury cases—anything that involved an injury—medical malpractice, products liability, premises liability—and to my surprise, auto tort cases were frequently appealed and included issues of expert testimony.

I also looked at time delay—how long did it take from the filing of the complaint to the time of disposition at the trial. I’m not able to control for some factors, such as whether or not an expert was proffered, but when there was an issue on appeal related to an expert’s testimony, there was really not a big difference in the *Frye* versus the *Daubert* standards across these appeals.

The expertise that was offered varied. Some of the more contentious types of expertise were with the social sciences with psychological testimony. In one example from Dallas, Texas, the trial court allowed in some psychological testimony—with regard to a medical malpractice case of a botched circumcision, and the psychological trauma from the young boy was offered into evidence. The intermediate appeals court affirmed the jury’s decision. I think that psychological testimony is allowed more often than not—judges let the jury decide these cases. But psychological or social science evidence is, I think, more contentious with regard to admissibility following the *Daubert* standards. This is because it’s not considered a “hard science” and it doesn’t necessarily follow the methodological standards.

**To my surprise, auto tort cases were frequently appealed and included issues of expert testimony.**

I’m going to quickly say that there were some epidemiology expert issues addressed by the appellate courts, as well as engineering expertise, which we see very frequently. The issues raised relevant to engineers that we saw most often was why these experts were limited as to the scope of their testimony.

I have three basic findings. First, there were a lot of procedural issues addressed. About a third questioned the disclosure of the expert—whether it was disclosed on time, the timing of the reports—and the failure to preserve the issue on appeal. Second, there were some substantive issues, and mostly this involved the scope of the testimony. For example, in Arizona there’s a rule, one expert per issue when standard of care is at hand. Third, I looked for the substantive expertise on admissibility. And that is, what do the experts base their opinion on? Was it reliable? Did they rely on data? Did they test their theory? There were about a third that fell into each of these categories. I’d like to look at this more closely.

In my paper, I gave three different recommendations for case management techniques. Delaware strived to have *Daubert* hearings on paper, pretrial, and have hearings pretrial, as opposed to during trial, so it’s not as disruptive. I also recommended exploring the use of technology to help with case management—our technology is currently advancing faster than what we can keep up with. And, of course, you’re here at this forum, so I don’t necessarily need to emphasize my third recommendation, but judicial training on issues of science and the law is really important to understand the impact of *Daubert* and best use the science.

## COMMENTS BY PANELISTS

**Honorable Juan Ramirez Jr.**

**Lori E. Iwan, Esq.**

**Richard D. Hailey Esq.**

**Dr. David Michaels**

### **Honorable Juan Ramirez Jr.**

In response to the paper, I thought it was excellent and I like the fact that we're doing empirical studies as opposed to relying just on anecdotal evidence. I thought that suggested that perhaps what we ought to do is look at how the courts deal with what we know in retrospect to be junk science, like the silicone breast implants, and see whether it was *Daubert* or *Frye* that set the record straight, so to speak, and prevented any more junk science from coming in. But I really don't know—and I've taken a few of these courses—whether *Daubert* really is stricter than *Frye*. I think if you want to cut off bad science it may be that *Daubert* is more useful, but how about the admissibility of something really novel?

Bert Black mentioned the theory of relativity this morning. I was thinking what would happen if Albert Einstein were trying to testify in 1906 about the theory of relativity and he was being offered as an expert witness. He might be asked, "Well, Dr. Einstein, you're a professor, in the Patent Office, is that what you do? How many times have you testified in court as an expert? Oh, this is your first, okay." And I'm wondering whether it would be easier to qualify that kind of evidence under *Frye* or under *Daubert*, I think under *Frye* you're probably dead in the water from the get-go because it has not been generally accepted by anybody, whereas *Daubert* I think gives more tools to the judge to listen further and see if there are other reasons for letting in the evidence.

So let me talk a little bit about the *Ramirez vs. State* case—it was a criminal case. I should point out in Florida when we have this issue, it comes up on de novo review to the appellate courts. So we can basically look at whatever the trial court looked at. In fact, we can have the benefit of any more advances in that area—we can read learned treatises on our own without even letting counsel know that we're doing that according to the case law, believe me. So the *Ramirez* case was a case where the prosecution actually had six experts all backing the testimony of this one expert, saying that the proffered testimony was generally accepted. This expert would examine microscopically the knife wounds that the victim received and would examine the knife under the microscope and he professed that he could match the two just like fingerprints. Thus, in *Ramirez III*—you can tell that the prosecution was successful with this three times and they kept getting reversed—the court finally said that this kind of testimony is not admissible.

And what did they use for their reasons? They said that the methodology was never formally tested or verified, that there was no meaningful peer review, that there was no error rate quantifying, that there was no showing that the method was governed by objective scientific standards, and there was no written authority to uphold the methodology. It sounds to me like *Daubert*—the court is saying basically we're a *Frye* state, but they're applying a lot of the factors that they used in *Daubert*. But then you got to take this with a grain of salt because, after all, it is from the Florida Supreme Court, and if it was up to them, Al Gore would be President.

I'd like to comment briefly on the Delaware judges that you studied. It sounds to me that the judges in Delaware were looking for an excuse to be more of an activist judge. They said "Ah, now with *Daubert*, we can actually do the inquisition ourselves." Having studied history, I don't like inquisitions. When I was a trial attorney, the last thing I wanted was the judge to get involved and ask questions—they always managed to lose my case for me. But the fact that *Daubert* is reputed to have reduced the number of trials, I think has to be examined with the national trend and the fact that mediation has taken a lot of work away from us as well as arbitrations and so forth. I think that *Daubert* may have influenced it, but if you're going to rely on hard empirical evidence—I don't think that it's there yet.

The appellate study that looked at all the different appeals, as the paper points out, that just gives you those cases that were appealed. We don't know really if we have a true representative sample because a lot of cases don't get appealed. I'm surprised, a lot of times when I see a very interesting issue and I keep looking for it in Lexis or Westlaw and it just doesn't go anywhere, because I guess the parties didn't want to finance all this litigation. I can understand that. But as judges we like to string the law out and see that people follow-up, so we certify these questions sometimes from our court to the supreme court only to see that they drop the ball and they don't pursue it.

***It seems to me that if you have junk science, you will be excluded and if you have good science, you won't be.***

But it seems that the study that Nicole did just proves that courts are not disproportionately ruling in favor of excluding evidence. It seems to me that if you have junk science, you will be excluded and if you have good science, you won't be. I don't think *Daubert* really has changed that much—that's my take on it.

As far as the recommendations, I like the fact that you're promoting more educational programs, especially in cities like Seattle.

### **Lori E. Iwan, Esq.**

As you've all heard repeatedly today, Illinois is a pure *Frye* state, yet chaos does not prevail in Illinois. We do not have record filings or silly trials for no apparent reason. We do not have Bozo the Clown coming in as an expert and passing the admissibility standards. Although Illinois in 2005 made the list as having two judicial hell holes—one in the north half of the state, the other in the south—it has nothing to do with the *Frye* test or the admissibility of expert witnesses in Illinois. It is for other reasons supposedly. Quite frankly, practicing in the northern half of the state, I think it is an absolutely incorrect label for Illinois.

In 2005, I happened to try a plaintiff's case—yes, you probably didn't know that when you invited me to speak as a defense representative—with a record verdict; it was a high-stakes personal injury case. I had a reconstruction expert barred during the course of that plaintiff's case. I also tried a very high-stakes defendants case with \$182 million dollars requested for damages, and my defense damages expert was barred. In each case, it was not because we're a *Frye* state. It was because we have other checks and balances in addition to *Frye*, the procedural types of rules that Nicole talked about that causes experts to be excluded.

There are reasons why we don't have chaos and it is because there are other standards and simply because a state follows *Frye* doesn't mean that the state has no checks and balances on the expert admissibility program. And although I advocate for the defense side, what I advocate is don't leave today thinking that if you don't follow *Daubert* therefore it's a free-for-all in your state and anybody can testify. They can put on a clown suit and come in and say whatever they want—that isn't the situation. The point here is simply have a rule of law and follow it. If you're not going to follow *Daubert*, don't just simply come up with just anybody can say whatever they want as the alternative. And I think that the study is suggesting that's not going on out there and we shouldn't leave today thinking it's okay to do it that way if you don't follow *Daubert*.

The other point along those lines that I want to remind you of is, under *Daubert*, there are four criteria. I wanted to start with the fourth one first—the fourth one is, is there general acceptance or reliability of the science? That is the *Frye* test—so the fourth prong of *Daubert* is *Frye*. The first prong of *Daubert* is, can the opinion be tested? Well for it to be generally accepted under *Frye*, you've got to be able to test it—so *Frye* also has that first prong. The second under *Daubert*, is the opinion subject to peer review? Well for there to be general reliability, there's got to be peer review—so *Frye* has now picked up three steps out of the *Daubert* test.

The only step that makes a difference between the two tests, is number three in *Daubert* which is, is there a potential or known error rate? Or has the expert just taken the stand and said “I think it's so because I'm an expert.” That's the only difference between the two tests, the only cases where the outcome is going to be different. Whether you're going to exclude the expert or not exclude the expert, is when it's a

question of the error rate and you haven't been able to test the error rate. *Daubert* says that witness can't testify; *Frye* says if it's a generally accepted methodology, that witness can testify.

***Although I advocate for the defense side, what I advocate is don't leave today thinking that if you don't follow Daubert therefore it's a free-for-all in your state and anybody can testify.***

I do commend Dr. Waters for trying to find data and measure it, but measuring what you can find doesn't necessarily tell you what you need to know, and this is the problem in the area of determining whether there really is a

difference and is the outcome determinative. Whether your state should follow one standard or the other should not be based on a war of anecdotes—and I do agree with Judge Ramirez on this point—because the data really can't explain what is going on in the trenches. There are too many strategic decisions being made about whether you bring an expert motion, whether you bring it on procedural grounds, and whether you take it up on appeal and make a record on appeal, that aren't being accounted for in the ultimate data from a published appellate decision.

For example, in Illinois there were three trials on the topic of whether welding rods give off enough fumes to cause Parkinson's Disease in welders. Three trials. There was absolutely no science whatsoever yet three of those cases went to the jury—they all resulted in defense verdicts. Then one scientific article came out and said there may be a correlation even though the author of the study said you cannot draw any scientific conclusions of causation from the study. That fourth case also went to the jury, it resulted in a plaintiff's verdict of one million dollars. It then immediately was followed by 10,000 welding rod cases being filed—all of which are now in a multi-district litigation filed in Ohio. The first multi-district litigation case just went to the jury two weeks ago and resulted in a defense verdict.

Now under *Frye* we've had that science tested, under *Daubert* we've had that tested, and under no science we've had this welding rod theory tested, and yet there's 10,000 cases filed. What do you do in that situation? What science, what study, what methodology, what do you do when you've got a case out there with 10,000 lawsuits filed, the author of the only scientific study say you can't draw any conclusions from this? And yet our courts are now clogged with 10,000 plaintiffs thinking that they are entitled to some type of relief. Was *Frye* ever followed in the three or four cases that went to trial? In the MDL, you can be sure that in Ohio the trial judge followed *Daubert* because it was a federal trial and it resulted in a defense verdict. What do we now do with the other 9,999 cases that are on file?

***I do agree with my colleague Leslie O'Toole that it is disingenuous to think that setting thresholds for admissibility somehow undermines the faith in the judicial system among the public. Judges draw lines all the time.***

When you look at the two cases I briefly mentioned earlier that I tried in 2005, were my two experts excluded because of *Frye*? Did Nicole's study conclude that had they been in her appellate study? They weren't excluded because of *Frye*. One was excluded because of a very vague disclosure that I purposely made vague because I strategically wanted the court to bar that witness from giving damages testimony, because I knew the plaintiff at some point needed that witness to get in some key financial data to try and prove the damages were worth \$182 million dollars. So I did the reverse bar, it was a strategic move. I wanted him excluded so by the time the plaintiff figured out he needed him, he couldn't put him on the stand. Is that going to show up properly in the studies that are being done? Of course not.

The third point to be made, is anybody studying the record verdicts and asking themselves in those record verdicts was there a junk science expert? Was there a *Frye* or a *Daubert* hearing requested? Was it done by competent counsel with a competent motion, and should we draw any conclusions from record verdicts—bell ringers? Should we draw anything from junk science case verdicts, where there were *Frye* or *Daubert* hearings? Then perhaps we can draw some conclusions as to whether it's the science in the *Frye* or *Daubert* rulings that are making a difference, but I don't believe that there are any studies that have been done on that basis yet.

I do agree with my colleague Leslie O'Toole, who was the lone voice in the defense wilderness this morning, that it is disingenuous to think that setting thresholds for admissibility somehow undermines the faith in the judicial system among the public. Judges draw lines all the time. They dismiss cases on failure to state a cause of action, they grant motions for summary judgment, they conclude before the jury instructions go to the jury what issues are going to be decided or not, they rule on evidentiary foundation, and exclude photographs, videos, and documents all the time. Certainly no judge would let a case be tried in a business contract dispute where a plaintiff alleges the contract was signed on the moon or that the deal was made the night the moon was spinning like a top. There are certain thresholds and realities that we all would agree we're not going to waste the time of the court and the jury deciding when they come up with something ridiculous like that.

Would you seriously let a trial judge say that a case under *Frye* should go to trial when the expert says he received his degree at ATLA's School of Trial Experts? He went to high school, he read a lot of books, and his opinion is such because he says it's so? Would anyone here affirm that that is a qualified expert saying he went to a plaintiff's trial school of experts, would you really believe that that's reliable under either *Daubert* or under *Frye*? I would submit that you would not.

I would submit that it is the quality of counsel and their choice of expert and preparation of the expert that does more to cause the exclusion of the expert than *Frye* or *Daubert*, and that *Daubert* has really become the whipping boy for why experts are being excluded. A lawyer comes away from a trial and says my expert got barred. Somebody asks why and they say it was that *Daubert* case once again. Do you think a plaintiff's lawyer is going to say it was because I blew the disclosure deadline? No one is going to admit they missed a deadline or did a bad disclosure—they're going to blame it on *Daubert*. And I would submit that it is counsel who hires the expert and doesn't send him the whole file, or doesn't have a specific disclosure that meets the rules of that jurisdiction that's causing their experts to be barred. And so again I caution against a war of anecdotes.

This morning the issue of burden of proof came up in the question and answer session and Leslie O'Toole was pressed to say whether you are raising the burden of proof to something of a criminal or absolute standard. I would add this to her remarks. The legislatures and the courts have chosen to implement rules of evidence, and there's certain constitutional presumptions in our judicial system and these pervade over our rules of law. One is that a defendant is entitled to due process before we take away their life, their liberty, or their property, and that's what our civil justice system is about, due process before you take away property.

A defendant is also presumed innocent until they are proven guilty and while the cost to society when a victim has an injury is high, I would submit that before we shift that cost from government to a private person or a private company that we have to remember these constitutional protections. We do have to enforce these laws and these rules of evidence, and we have to be careful before we simply abandon the rules of evidence and let in anything that anybody says because they say it is so. We have to uphold due process and we have to uphold these presumptions—it's not a shifting of the burden of proof, it is simply enforcing the constitutional protections.

### **Richard D. Hailey, Esq.**

Unlike the other speakers, I'm just going to say that I know why I was invited and for those of you who are snoozing, you can wake up now. I was invited because I am brilliant on this subject—I'm going to

***In all due respect to my colleague—we're reading different constitutions. I don't find a constitutional right for presumption of innocence in civil cases in our Constitution.***

clear up all the mess, straighten it out, and you will leave after my talk with guidelines that you can use for the rest of your careers. I hope you're not too disappointed.

First of all I think—in all due respect to my colleague—we're reading different constitutions. I don't find a constitutional right for presumption of innocence in civil cases in our Constitution. I've not searched for it but I can guarantee you it doesn't appear in either case law or in the document itself. But I think it's illustrative of how we got to this debate and this confusion over experts.

If you look at this whole issue from altitude, we're in a phase and an environment where hostility and cynicism towards certain constitutional norms is becoming common—very common. Judges, institutions—they're all attacked. No more so. Jefferson probably put more stock in the right to vote and the right to serve on juries than in any other two rights that he wrote about, and I think that both of these in part have fallen victim to the cynicism of which I speak. If you want to see about cynicism on the right to vote read *Bush v. Gore*, all eight opinions. Look at the maintenance of the electoral college and its history and you get a flavor for what I'm talking about. The service on jury has not gone unscathed. I think that what we're approaching this with is a sort of intellectual paternalism that juries get it wrong and that we need to protect them in some way, that somehow these multimillion dollar verdicts are being gained throughout the nation based upon "junk science."

I always take a poll when speaking to judges—how many of you are trying cases in your jurisdictions or have tried cases either as a judge or a lawyer where you seem to be overrun with multimillion dollar judgments or verdicts, that are based on just ridiculous Howdy Doody-type of testimony? How many, where is that a problem, in how many jurisdictions here? You never get a hand. So I'm questioning what is it that we're trying to fix.

I think that we have a long history of weighing qualifications, and we shouldn't mix up qualifications with any of the tests that we're talking about. Every judge in this room can weigh qualifications. Every lawyer in this room can weigh qualifications, so qualifications are a separate issue. What we're really talking about is what rigor, what analysis are we going to apply for the admission of evidence and what the gatekeeper's role should be.

***I think that we need to watch the degree of intellectual paternalism we bring to this debate.***

I think we have to start off with three basic conclusions. Number one, the legal standard is not easily reconciled with scientific proof, it just isn't.

So we have to decide ab initio whether we're going to maintain that legal standard, or whether we really are going to increase the bar, to something like reasonable doubt or scientific certainty, before we allow the testimony. And who is going to make that determination? We already ask a lot of you for what we pay you. Now what we want you to do is establish scientific norms and then define them and then apply the facts to those norms, and do that in a pretrial environment. Given that all of the staffs that I'm sure all of you have—there's not a judge in here without a dozen law clerks, and not a judge in here without at least one scientist on staff, I'm sure—and given the excess compensation that you're receiving now, that you'll find this new assignment to be one that you'll eagerly seek.

Number two, I don't see all these helpless victim corporations out here losing all this money because of junk science so I would pose the question—what's the problem that we're trying to fix? What has been the flaw? I don't accept that it's your incompetence. I don't accept that it's jury ignorance. I think that we need to watch the degree of intellectual paternalism we bring to this debate.

Indiana is said to be a *Daubert* state. I think we have decisions that make it sort of a modified version of *Daubert*. One of our chief appellate court judges is here today and I think that he would agree we sort of combine the two. I think that the judges are doing a good job most of the time under either standard. I think that *Daubert* should not be used as a case management technique, or that summary judgment be used as a case management technique. I think the courts under our Constitution were meant to be open and I don't think juries get it wrong.

I do want to say that I don't think that judicial efficiency or *Daubert* are impacting the number of cases that are tried. I think that mandatory mediation is probably impacting these things more than anything else. But I do agree that with this uniquely American system that we have, that your paper and your research is a great beginning. I think with computerization we'll be able to modify some of your models and be able to monitor this situation and maybe with this great beginning really analyze this whole issue in more detail.

Lastly, I'd like to say we have a system where the evidence that is presented in our cases is just that—it is evidence based upon qualified experts—and I don't believe that we have to worry about juries being tricked by clown testimony, as some have voiced. I think that what we do see, and from the lack of hands that we had on all these excessive verdicts across the nation happening in your courts based upon junk science, I think that that is an indication that this problem is being overblown and hyped. And I think we all have some sense of why.

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So I would only leave us with this exercise. I think that what we're really talking about at the end of the day is reliability in qualifications in the opposite order. If the witness is one, qualified, which is not a difficult thing to do, and if the evidence is not flat-earth science or something absolutely ridiculous, I think that that should go to the trier of fact. I for one believe that most of the time, even when I lose, I think they get it right and we need to watch the degree of intellectual paternalism that we bring to this exercise.

## **Dr. David Michaels**

First I want to thank Mary and the Pound Institute for inviting me. I'm an epidemiologist, I'm not an attorney, so this is really a treat for me. I've enjoyed meeting so many of you. I'm the head of the project called Scientific Knowledge and Public Policy that Nicole mentioned. We're at George Washington University. Every year and a half or so, we have a conference involving academics and judges, where we present papers and discuss them. We have an issue of law and contemporary problems coming out, I'm told this summer, called *Sequestered Science*. It's all about science that doesn't ever see the light of day and the reasons for it particularly as it relates to regulatory and legal affairs. So I advise you all to look for it—I think it has some great papers.

After we had this conference on *Daubert* a number of years ago, the feeling that all of us came out of and everybody who was at the meeting was that we needed empirical research on *Daubert*. There are tons of anecdotes, and everybody has got these feelings about what's going on, but we had no real evidence, so we funded Nicole's. We have an ongoing grant program, we went to our funders, the Common Benefit Trust, which was set up as a result of one of the silicone breast implant settlements (we get absolutely unfettered money from them, unrestricted, it goes to GW and we can use it as we want). We said to them we think we should be funding research, and they said fine. They gave us some money, we set up an independent panel to review the proposals and we're now in our third round of funded studies. And let

me tell you, it's very hard to figure out how to do empirical research on this, and as you can see I think Nicole has done a great job.

So what do we know and what don't we know? Most of what we think we know about *Daubert* really comes from sort of the looking at the overall picture in sort of this Gestalt, as much as the empirical information. And I'm thinking now about the impact—not so much the process, it's much easier to look at process issues—but what does it mean in terms of justice? And I think there are two conclusions that are in some ways complementary and also conflicting. One is that it seems likely that *Daubert* has eliminated or discouraged claims with limited scientific underpinnings. In other words, it has gotten rid of some bad cases. At the same time, its eliminated or discouraged claims with robust scientific underpinnings. It's done both these things.

The first study that Lloyd Dixon did at RAND showed a pretty big impact at the beginning. The number of cases that went forward that had dropped—there was a much higher rate of exclusions. It probably did have some impact on winnowing what we think are the really questionable science—the cases based on a questionable scientific basis. But it's not clear whether those cases would have actually been successful. *Daubert* itself is a Bendectin case, which was brought on the theory that prenatal exposure to Bendectin increased risk of certain types of birth defects. There was a disagreement among scientists, but this isn't to say that one set of scientists or the other were charlatans—there were respected scientists on both sides. But did the *Daubert* case change the outcome of those cases? For example, there have been numerous Bendectin before and after *Daubert* and there continue to be actually cases in *Frye* jurisdictions. So it's not clear what effect *Daubert* had on that system. The system may have worked fine without *Daubert*.

**Perhaps discouraging those experts from wanting to continue is a strategy.**

The other side of it though, is *Daubert* eliminating or discouraging cases with robust scientific impact? It's also likely to be true, but again, we have no sense of how big this problem is. We know though, to withstand a *Daubert* challenge, attorneys are more likely to use more credentialed, more experienced expert witnesses. These witnesses are likely to cost more than the less credentialed witnesses. More of their time will be required to produce materials that will withstand challenge. This is going to raise the cost to the attorneys who rely on contingent fees to recover their investment, and it is axiomatic that an attorney is not going to invest a large amount of money in a case in which the likely award is not large. So, individuals whose claims don't reach a sufficiently high monetary value will be unable to obtain legal counsel.

Now I've never seen evidence on this, but I've seen a lot of people say this, and it's likely to be true. It would be interesting to be able to figure this out, but how do you actually do that is the question. More commonly I read of well-known scientists and people I'm familiar with from the literature who are challenged and not excluded, thereby raising the cost of the case. And perhaps discouraging those experts from wanting to continue is a strategy. We see a lot of that, and I look at that and say how could this person possibly be excluded, in fact they usually aren't. But there is ample evidence that judges have excluded some credible scientists from providing expert testimony. Now obviously, again, I don't know how much and it's easy for me to say I think that person's testimony is quite credible. Another person obviously would say they're not. So how do you figure out what's right? There are actually some techniques from the medical literature to help you figure this out, which is essentially to look at the same situation in different places.

Parlodel has been raised—I think this is the third time from this podium—and Joe Cecil, who’s at the Federal Judicial Center, has studied some Parlodel cases. There’s actually a big piece in here that he’s written, and there’s one case where a judge asked three independent scientists—a neurologist, a clinical pharmacologist, and an epidemiologist—to examine the same evidence, and they split. They actually gave three different decisions. They split two-to-one in favor of essentially excluding the evidence. And the judge went with the two over the one rather than saying go to the jury, and retired the next week, incidentally. But the same evidence went to judges in many different states with very different responses, so at least we know there’s a great deal of inconsistency, which I think is probably problematic, though I probably don’t need to tell you about that.

I think there are some empirical approaches that could be very useful, but the main thing is that the universe of cases is not the people who file claims but those who could potentially file claims. How do you figure out who’s not getting into the system, and what happens to them? Actually, I think there’s some interesting datasets from medical malpractice research. Harvard has just published a big study funded by the Robert Wood Johnson Foundation, looking at all the cases of medical errors in a certain set of hospitals. It would be interesting to go back and look at those. We know that almost all those cases, the vast majority, never enter the legal system. The question is, why is that? Were people discouraged for good reasons or bad reasons, etc.?

***These are studies that go into the medical literature which are really in fact cooked studies, and they’re produced by these companies that only produce the studies the sponsors want.***

of hospitals. It would be interesting to go back and look at those. We know that almost all those cases, the vast majority, never enter the legal system. The question is, why is that? Were people discouraged for good reasons or bad reasons, etc.?

Let me spend the last couple of minutes I have on some other related issues, which are some of the things I see that make your work even more difficult. Essentially what I see is a new industry that’s come to exist, which is called the product defense industry—that’s actually their phrase rather than mine. There are companies now that provide expert studies, not just testimony—and I see this more in the regulatory world as well—studies that are essentially selected events to come to a conclusion that will be useful to their sponsor.

Now this is not surprising—you see that all the time in cases. You know that an expert is chosen to testify because they’ve come to a certain conclusion. But these are studies that go into the medical literature which are really in fact cooked studies, and they’re produced by these companies that only produce the studies the sponsors want. And they go through peer review in journals that I could call a vanity journal, but they do go through peer review. So you’ll see all of a sudden there are whole journals filled with these peer-review studies that look specifically at a subject that will come up in your court.

What is the exposure of someone in the merchant marine on a certain type of boat to benzene? Well, that’s not a scientifically interesting question—no scientist would do that study except for the fact that it’s going to be used in court. But now it goes into peer review so one side of the case can say this study is peer reviewed. So the idea that peer review itself gives some imprimatur of validity of truth. In the scientific world, it’s always been known as nonsense, but now it’s being used to essentially promote court cases.

The peer review system has come under great scrutiny because we can see its failures. The interesting examples in the last three or four months are the Vioxx studies. The editors of the *New England Journal of Medicine* have published two separate statements of concern—essentially apologies. After they published the study, they discovered that three heart attack cases that should have been in the study weren't there, and that would have changed the result. They felt that they were misled in publishing it. And then three months later, they looked at another Merck Vioxx study and found that the conclusion that heart attacks were only in excess for people who took Vioxx for 18 months, but not for people who took Vioxx for less than 18 months, was statistically not founded.

In fact, when the *New England Journal of Medicine's* own statisticians looked at it they said there was no difference in the rate of heart attack between the people less than 18 months and after 18 months. And those are two studies that went through probably the most rigorous peer-review system in the country, in terms of the *New England Journal of Medicine's* standard.

So you have a real problem with peer review, and it's being essentially exploited by this product defense industry. It's very troublesome to those of us in the academic world who are looking to sort of develop scientific knowledge. But I think it's more troublesome for you, because frankly, it's just going to make it that much harder for you to figure out what's right.

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## **Response by Dr. Waters**

Many of the issues raised today made me think about what was the purpose of *Daubert*. What are the differences between *Daubert* and *Frye*? If I think about it, one of the criticisms of *Frye* is that it did not handle novel scientific evidence very well. It worked fine if the expertise was a well-established science, but how well do the factors apply when proffered expertise relies on novel science? For instance, when DNA testing was first used in court, under general standards, evaluating whether or not DNA was accepted within the field, whether its use was peer-reviewed—would not have passed muster. And that was mentioned by Judge Ramirez. So I wanted to just raise that issue. Oftentimes admissibility decisions are different in terms of how the standards apply to novel evidence versus science that is longstanding.

And on the other side, I would like to discuss forensic sciences from the criminal side of the justice system. Some longstanding forensic sciences have been very well-established, and may not actually be published in a peer-review journal like you would see for "hard sciences." Forensic sciences that have been accepted in court cases are now being questioned as to whether or not they are rigorous enough and closely follow the scientific method, in principle, cited by *Daubert*.

Professor Sanders and a couple other speakers have mentioned the trust in juries and, as a jury researcher myself, I would like to second that discussion and say that I agree that jurors do usually get it right. The jury literature—all the jury research that I’ve seen using mock jurors as well as actual jurors—shows that they really do have a good grasp of the case. But we need to think about it in terms of what happens when we let in science that maybe we shouldn’t let in. Judge Graves mentioned that this

***I think that when you think about science, you must keep in mind that science does not produce a definitive answer. Science is continually evolving, and scientists are currently learning more and more about each issue.***

morning. If we’re admitting testimony by default and leaning towards that potential error, what is the harm if we present it to the jury? What will the jury do with it? If the jury sees this evidence, will they be able to assess the credibility of that particular expert?

I think that jurors, generally, are very conscientious, and they’re very hard working. In fact, with the current reduction of exemptions for serving on a jury such as for certain professions, we are now seeing judges, attorneys, and scientists—everybody is serving, or at least encouraged to serve in many states. So we have jurors with intelligence and when they serve, whether they’re a plumber or they’re a doctor, they serve and believe that what they’re doing is important. They believe that what they’re doing is taken seriously and that it has serious implications when they make decisions. I just wanted to support that sentiment about jurors and their abilities.

I think that jurors, generally, are very conscientious, and they’re very hard working. In fact, with the current reduction of exemptions for serving on a jury such as for certain

This leads to a conversation of the dialogue between law and science. One of the benefits of this forum is that we are attempting to merge this nexus between law and science. Oftentimes these disciplines don’t communicate. They are in worlds that act separately, and have separate rules—scientists have particular rules that they follow. We go to school and as scientist we learn how to conduct research, how to be cautious about confusing correlations with causation. What is the scientific method? How do you be unbiased when you make an observation? And how is it that you make conclusions using science? What types of methodologies are accepted? Which are rigorous? And the language used—I’m talking about reliability and validity—it is not always understood by the legal world. And vice versa, the legal world with various standards for determining guilt and liability, does not always take into consideration what’s possible in the scientific world. So decisions such as *Daubert* help to bridge that gap. It helps to have judges talk to scientists and vice versa so that we can communicate on the same level.

I think that when you think about science, you must keep in mind that science does not produce a definitive answer. Science is continually evolving, and scientists are currently learning more and more about each issue. DNA evidence for instance, there is nuclear DNA and mitochondrial DNA, and different advancements in our understanding of DNA. Scientists are able to uncover aspects of a biological marker that were not known 20 or 30 years ago. There have been constant advancements in this field. How does such knowledge help when the legal community reviews this literature? And how do we look back at science and ask: What do we know now? What will we know in 20 years? And what did we know 20 years ago?

There's also science—such as what David Michaels mentioned—that is spurred because of litigation. It's not an issue that researchers sit around and say, "This is a great question, we should ask this, because perhaps some company might manufacture a particular chemical." That research is not available and the people who have the opportunity to do this type of research are not unbiased and neutral. Instead, oftentimes the research is spurred by litigation. So what do you do when you don't have access to the science that you need to be able to answer your question? Will you look to the science that is similar or that might answer a question that's relevant in a slightly different way? And the challenges that the judges have is to take the similar research and try to mold it to inform the case at hand and ask, how well can it inform the dispute that's currently facing me?

I'd also like to respond to a comment made by Lori Iwan. She mentioned that *Daubert* is used as a defense strategy. I would agree with that. A lot of what I saw in Delaware was that there are strategies used by both the plaintiff's bar as well as the defense bar to resolve the issues before trial. It would be helpful to have a discussion about whether or not it's better to have an issue go to trial versus settling—if it's a fair settlement, that's not necessarily a bad outcome. Whether or not a case goes to trial is a chance for both sides to really evaluate the experts and try to improve the type of expertise brought into the courts.

My final point. David Michaels touched on this when he said that we really need to look at the population and the methodology of how to study this. Is *Daubert* a problem? If there is a problem, what is it? One of the complications that SKAPP is facing currently is how to study this problem, or how to study this issue. We need to identify what is the universe of cases that we're talking about, what the population is.

That's something that has to go well beyond what's happening in courts, and it has to go on during these negotiations, these discussions, and these decisions that are made when there is an issue or a dispute, an injury, a claim that hasn't actually made it to the courthouse. I think that that's a challenge for some of us—and I will be included in that charge—but to be able to research this by looking at what is going on well before it hits the courthouse, before a court filing. I think that is important, and we can't overlook it.

## Questions and Comments

**Mary Alexander:** I'd like to start out with one to the panel. Picture a young woman who came into Yosemite Park, rented a bike, rode down a hill, the brakes didn't work and she crashed into a tree head first, breaking her neck. She's now on a breathing machine for life, paralyzed from the neck down. In that case that I tried with Gary Callahan in California, I called as an expert the guy in the bike shop down the street from my house who had been repairing brakes for 20 years and who knew how to take the brake apart in his sleep. He testified about why these brakes didn't work.

So what do you do when you have such a circumstance where there really isn't methodology, it is experience? And what we see, and part of my question also, is that what plaintiff lawyers sometimes do is hire a second expert to testify about the methodology of the first expert. So you can see what that does to cost of a case, and where does it end? Do you hire another one to talk about whether the methodology of the second one was right? And so I'd like to have your comments on that and the corollary, is the inability to talk about methodology if it's just based on the bike experts? Anybody want to comment on that?

**Juan Ramirez:** In Florida, we would take that bike expert that gained his experience from repairing hundreds of thousands of bikes to be pure opinion and that does not have to meet the *Frye* test. However if that bike repair expert tried to testify about studies that were done, the correlation of coefficient or whatever, trying to make it up as he goes, then that would have to be *Frye*-tested. But just pure opinion based on experience does not have to meet the *Frye* test in Florida.

**Lori Iwan:** I agree with the judge that it would be pure opinion, but he would be incapable of refuting then the higher caliber experts that the bike company would be putting on the stand who would talk about what damage was done by the impact to the tree, how that impacted what the true condition of the brakes was before the accident, and what pre-accident maintenance or failure to maintain might have done to the brakes. So you can do that, but as a strategic choice that's a whole different dialogue for another day. I don't have a problem in a *Frye* state with you going with that type of witness, but strategically I don't recommend it.

**Participant:** Well the economists have, God bless them, given us a new way to talk about litigation. They find value and they find virtue in ways to do things efficiently and economically, but they always invite us to compare those costs with other costs that we may have encountered by reaching these particular efficiencies. So I'm looking and listening very carefully for ways in which the panelists have intersected and agreed and also listening for where they have disagreed and one of the points that's still a gap in my notes is from the defense counsel, Ms. Iwan, in regard to the question of whether you believe that the introduction of the new regime of *Daubert* has or has not escalated the cost of using expert testimony in civil litigation.

**Lori Iwan:** I think its absolutely escalated the cost of using experts—there's no question about it that everybody has to get better experts. You used to be able to hire anybody who was willing to say anything. You could call them up and ask "Can I name you?" But the procedural rule changes now require reports, thoughtful analyses to be disclosed, detailed opinions to tell the other side what in fact that they're going to say at trial and actually having to present the expert to give a deposition. That is what has really raised the cost. It isn't so much finding the good expert, it's that you actually have to prepare them to say something in advance of trial and have them read the file and be ready to testify to those points well in advance of the trial date.

That's what's raised the cost, but on the other hand it has changed the dynamic of the timeline of when you settle. I find now that nobody wants to go through the expert disclosure report dance, and so everybody wants to go to mediation or talk settlement before we hit our expert disclosure dates, because we don't want to spend that money or do that work. And so you've saved I think money on the litigation expense side because you stop the case sooner and get to the settlement discussion end-of-the-case dynamic sooner. But if you get to the expert phase you will definitely be paying a lot more money, and you will be paying more for the type of expert that you need because the experts with the credentials know they are in much higher demand now.

**Richard Hailey:** Could I respond? We agree and disagree on one thing. It definitely has increased the cost, but I don't think it's the quality of the expert that's increased the cost. I've been practicing 32 years. My qualifications for doctors in malpractice cases, engineers in products cases have not changed. I want them published. I want them credentialed from great institutions. I want them to be good communicators, people who seem to have good character, and leaders from their profession—that's been constant over 32 years.

What's increased the cost is the *Daubert* proceeding. I mean it's a real live thing in the federal courts where I'm from, and maybe that's not happening anywhere else, but in the Southern and Northern District in Indiana, we do have an extra hearing, an extra proceeding. And I'm looking at some reaction but we have an extra proceeding, we call them *Daubert* hearings—we didn't have those before. So now the cost has increased because you're bringing that \$200 dollar an hour—or whatever they're charging—expert in for a whole new proceeding. And yes, the disclosures are different, they're more detailed, but I don't find that it costs more because you have to get "better people." You just are spending more time with those same people that you may have been using all along, and that's where I'm seeing the real transactional increase.

# The Judges' Comments

In the discussion groups, judges were invited to consider a number of issues raised by the group moderators related to the papers and oral remarks. The judges devoted more time to some issues than to others, and they raised other interesting points as well.

Remarks made by judges during the discussions are excerpted below, arranged by topic and briefly summarized in the italicized sections at the beginning of each new topic. These remarks are edited for clarity only, and the editor did not alter the substance or intent of any comments. The comments of different participants are separated into offset paragraphs. Although some comments may appear to be responses to those immediately above them, they usually are not. (In some cases, a response by one judge to another is distinguished by two slashes (//) separating the comments in the same paragraph, and the response is italicized.)

The excerpts are individual remarks, not statements of consensus (for general points of agreement that arose out of the discussion groups, please see the following section). No attempt has been made to replicate precisely the proportion of participants holding particular points of view, but we have tried to ensure that the various viewpoints expressed in the discussion groups are represented in the following discussion excerpts.

## ***Daubert versus Frye—A Perspective from the States***

*Judges discussed whether their states followed the Daubert or Frye standard.*

Our western state is a *Daubert* state. It didn't necessarily flatly reject *Frye*, but it adopted *Daubert*.

Our southeastern state is a *Frye* state and, in fact, the supreme court has this term reiterated that it is a *Frye* state, so it is not a matter of it's just surviving. They just haven't gotten around to looking at it again.

Our southeastern state is a pure *Frye* state.

Our southeastern state is neither. We have a hybrid.

Our Mid-Atlantic state is a *Frye* jurisdiction.

Our southern state is a *Daubert* state. My impression is that our supreme court was perturbed with *Daubert* and has added a couple of factors. It is definitely more restrictive in our state.

Our western state is *Frye*. The supreme court has on several occasions specifically determined that they will not even consider *Daubert*.

Our southeastern state is an avowed *Frye* state. Shortly after *Daubert* was decided, our supreme court reaffirmed that it was a *Frye* state. It decided the issue not too many years before *Daubert*, just three or four years, in a capital murder case, where it had ruled that bite mark evidence had to meet the

test of *Frye*, of scientific acceptability. So when it rejected *Daubert*, it seemed to be more following its own recent path than tackling the jurisprudence in *Daubert*. However, in later cases it has gone after *Daubert* on a number of issues.

Our southeastern state is a *Daubert* state, and it is a *Daubert* state because the Chamber of Commerce is trying to make the state more business friendly. Whether or not they have succeeded at that, we don't know at this point.

We came out with something very similar to *Daubert* before *Daubert* came out. Over the years it has been refined. We officially adopted *Frye*, but actually we use it to exclude evidence as not being helpful to the trier of fact. However, we use the *Daubert* case both in analyzing technical and scientific evidence, not only scientific.

In our northeastern state, we continue to profess that *Daubert* provides a broader basis on which to get expert evidence in. We continue to say it. I don't have any evidence that that is true, however. No one has done a study of how it is actually being applied in our state courts, but every time we get a case in which we apply *Daubert*, we say it. We also say that *Frye* is sufficient but not necessary. So if you meet the *Frye* test, you're in, that's it, it's over. But if you can't meet the *Frye* test, you can still look to the other factors in *Daubert*, a judge can, to determine whether this is sufficiently reliable to come into evidence anyway. So that is the way we look at it. But as I say, we do not have a study that shows exactly how judges are applying that.

Our Mid-western state also adopted *Daubert* very early on. I think the overall effect has been a slightly more restrictive admissibility standard, primarily because with *Daubert* there was an empowerment of the trial judges to exercise the discretion they had under *Frye*. It really emphasized that they have a role to act as that gatekeeper. I think they were much more willing after *Daubert* to exercise that role than they were before. Before, they would just, it goes to the weight, not the admissibility, let it in and let the jury decide. Now I think they will be more likely, but not in a radical way at all.

***Our southeastern state is a Daubert state, and it is a Daubert state because the Chamber of Commerce is trying to make the state more business friendly.***

Our Mid-western state is a *Frye* state. If you ask both the appellate courts and the trial court judges, the reason we will give you is that we believe that number one, as many questions as can be reserved for the finder of fact should be reserved for the finder of fact. That includes as much as possible about the expert testimony. The second point that intertwines our discussions is that either *Frye* or *Daubert*, we view the discretion of the court as the most important aspect of it. So whether you are applying *Frye* or *Daubert*, the judge should have the maximum amount of discretion, and oftentimes it is going to produce the same result. So those two things we most often talk about.

My impression is that our Mid-western state has vacillated and is more a *Frye* state now than *Daubert*. But it is very dependent on the individual case, from what I have been able to observe, and it has come up more with DNA and child custody and criminal prosecution cases than it has come up, at least from what I can tell, in civil litigations. In this context, I think there is a concern that to be proof beyond a reasonable doubt, that the scientific standard should be high, and that would favor exclusion. How that plays out on the civil side, I'm not exactly sure. I have not sat on a panel where we have had to

rule on that in district court.

Our western state is a hybrid state. It is a hybrid state in the sense that it called for a number of factors, the *Frye* test was embraced within that. In addition, it expanded the criteria that the trial courts may use to include those factors mentioned in *Daubert*, with the notion that a liberalized standard of factors were considered that would aid in admissibility determination of scientific expert testimony or technical testimony. That has worked without noticeable difficulty or big complaints from our trial judges.

Our state is neither fish nor fowl. Never strictly adopted *Frye* and has particularly rejected *Daubert*. We have our own committee. We say that on balance we are considered pretty liberal on the admission of expert testimony, typically taking the position that it is a matter of the weight of the evidence and not its admissibility.

Our western state defers to the jury a lot. We haven't adopted *Daubert* yet.

I think we are almost hybrid, although we don't call ourselves hybrid. We just scratch out a certain section of science for a *Daubert* hearing, and then the concern we have is for novel science, which could possibly be junk, that we feel that *Daubert* doesn't necessarily employ. Whether it has worked or not, from what I see, it has ratcheted up the cost of litigation. I see attorney fees spiraling because of *Daubert*. I also don't see that much of it in appellate review.

***Our state is neither fish nor fowl. Never strictly adopted Frye and has particularly rejected Daubert.***

We are a *Frye* state primarily, although it depends on the political waves that are emanating or that shift back and forth. I had a DNA case that first came up in my state, or one of the first cases. Examined it under the *Frye*. It was very restrictive at the time. I would imagine that that is probably the way most of the supreme court would have us examine these kinds of cases. I don't have very many of these cases at all, for some strange reason. We don't have the option of being discretionary in this. We have to take pretty nearly just about everything. We had tort reform and that has really, really taken a lot of these issues out of the hands of judges, and the legislation has made it much tougher for cases to even get to a jury now than ever before. So I don't know if that is the general trend across the country. I know it is a very, very horrible trend in my state.

Our western state is characterized as a modified *Daubert* state, in the sense that they take some of the federal body of law and apply it. But it reflects some of the same issues that *Daubert* brought to bear. As Professor Sanders suggested, there is a case to be made that in theory allows more evidence in, scientific evidence. To the extent there hasn't been that general acceptance, we haven't gotten to the point of having this new insightful body of knowledge recognized and accepted, therefore it can't come in. In theory, *Daubert* could give you the means to get it in if applied properly. From my perspective as to how my state has been administering our modified *Daubert* approach, it is that there really is a cultural- and perception-driven process. I think if one looked at decisions that we have had, we have pretty much let evidence in.

Our Mid-western state clearly is a *Frye* state. We have rejected *Daubert* every time it has reached the supreme court. It first reached our supreme court in a criminal case, and they didn't explain what

reason other than to politely tell the trial judge, We told you *Frye* is our standard—you don't change it until we say it is changed. I think we just subscribe to the notion that under *Frye* we use general acceptance of the scientific technique, but all else goes to weight, and that is for the jury to decide. We have not adopted *Kumho*. We apply *Frye* only to scientific technique. We don't apply it to any type of expert testimony. It is very, very clear that we are not a *Frye*-plus state.

Our Mid-western state was given an opportunity to accept *Daubert* shortly after it was decided in the federal courts. The supreme court in a lengthy, lengthy opinion said *Frye* is working pretty good.

We moved from a *Frye* state to a *Daubert* state. I personally think *Daubert* is a lot more restrictive than *Frye*. We were fairly liberal with our interpretation under the rule before we amended it to bring it in line with where the feds are. It also came at a time that in the beginning of tort reform, one of the justices of our supreme court was heard to say that the supreme court was going to do its part in the battle for tort reform. So I guess it saw *Daubert* as a way of assisting in that effort. So it is clearly *Daubert* now.

Our Mid-western state is neither of them. It is a state that applies the rules with respect to admissibility of expert testimony generally, so it is really a matter of testing the relevance of the opinion testimony. *Daubert* was expressly rejected in our state, principally because it was considered to be too extreme, too limiting. It has worked very well in our state by simply applying the relevance rule.

***We're a Frye state, pretty liberal in letting in expert testimony. I'm proud of it, and I hope we never change.***

It gives it a whole lot of leeway to the trial judge, subject to what we call an erroneous exercise of discretion review, which gives the trial judge a lot of leeway. Now, having said all that, a lot of the factors that are being applied in both *Daubert* and *Frye* are factors that can come up in the course of the testimony. We ask what are the methods that were used, what was the theory, and how is it applied in this particular case, without the restrictions that either doctrine applies. So frankly, I think we have the best of all the worlds.

I'm afraid of the great discretion you might be giving trial judges in the *Daubert* context, and nobody is going to know what the hell to expect. That's just not good. We're a *Frye* state, pretty liberal in letting in expert testimony. I'm proud of it, and I hope we never change.

### *Judges discussed their experiences with Daubert.*

I was a district court judge for 12 years, and of course relied on *Frye*. The supreme court at that time implemented *Daubert*. We know *Frye* is from that aspect of *Daubert*. Now I have been on the supreme court for 10 years, and we are trying to water it down, if I can get more former district court judges up there with me.

As I recall it was the Pound Foundation's essential position in 1997. You all should be wary about adopting *Daubert* because—not because of what it says, not because of what the decision says within its four corners—but because of the risks that are inherent in adopting it, as illustrated by the Federal Courts of Appeals and what they have done with it. I think that what many courts have done with *Daubert* is ideological. It is not political and agenda-laden.

I think that *Daubert* and *Frye* are both like the Wizard of Oz. They are what you make of them. Justice Graves's point was important and that is that the *Daubert* court kicked off a nonexclusive set of considerations that I don't think the *Daubert* court intended to be sanctified. Then the United States Courts of Appeal proceeded to use *Daubert* in a way that imposed heightened thresholds on the proponent of evidence than had been before and I think greater than the United States Supreme Court had intended.

That goes to the application of *Daubert*—and back to the Wizard of Oz premise. I don't think there is anything about *Daubert*, the decision, in and of itself, that requires the federal courts to do what they are doing. It is a matter of how they are applying *Daubert*.

I think it depends on the jurisdiction of whether or not they are liberal or conservative. I think *Daubert* gives you the tools to do what you want. Let's face it. I am not an appellate court judge. So, I can say this. At the risk of offending anyone, the appellate court judge looks at the lawyers, looks at the defendants, and they make sometimes political decisions; *Daubert* gives you the tools to do that, to go either way you want.

I think *Daubert* is subject to abuse by judges to fit their particular agendas, and if they don't want evidence to come in they are going to find a way, and *Daubert* gives them the way.

I was curious. There was one thing that was said, one of the panelists said something to the effect that *Daubert* had sometimes been used to exclude robust scientific evidence, good scientific evidence, was the idea. I had never seen that.

I would like to suggest that if *Daubert* had been decided in the 1960s that it would not have been viewed as significantly more restrictive than we do now today. I think it, in significant part, has to do with the environment and the timing of when it was presented. There already has been a fairly significant sales job done by various industries, both on a legislative and judicial level, to change the way people look at tort litigation. It is fairly effective, in my view, extremely professional, one of the best advertising jobs I have ever seen. I think that when you put this together, that is the combination that leads to more restrictive application, because the educational seminars have been going on for a lot longer than any of us even perhaps have realized. I think the combinations have a significant effect, for better or for worse; it is a subjective thing. But I think it seems to be true that that has occurred.

***I think Daubert is subject to abuse by judges to fit their particular agendas, and if they don't want evidence to come in they are going to find a way, and Daubert gives them the way.***

I would share with you, I attended a seminar all day yesterday, and I heard three talks on the plaintiff's offensive use of *Daubert*, and I heard plaintiff attorneys talking about the great success they were having in knocking out experts. The courts have adopted *Daubert*, going in there, and the defense experts are very vulnerable on some of these things.

To follow up on that, one of the papers I thought suggested that *Daubert* was supposed to be more liberal, that it was to lower the barriers for expert testimony. Yet in application it seems to be just the contrary.

It puzzles me greatly that the federal courts and apparently some state courts would see *Daubert* as restricting rather than enlarging the opportunity to bring in scientific evidence. It just logically doesn't follow. We have also stressed by the way that the factors listed in *Daubert* are suggestive, not exhaustive, and that trial courts should not require somebody to meet just those four standards. They can listen to whatever the people bring in. Undoubtedly *Daubert* has increased costs of litigation, because any defense lawyer has a chance to try it as a motion, see how far they can get. And of course you have to defend those motions if you are on the plaintiff's side.

It is interesting in these seminars about *Daubert*, *Kumho*, *Joiner*, etc., that the assumption is that we go right in and start talking about the body of case law, and particularly case law given to us by federal courts. If I can offer just one point of advocacy skill that I don't see used nearly often enough, that is to remind the advocates that you are dealing with rules of evidence that are adopted and that are interpreted by the state courts, and those interpretations don't necessarily automatically incorporate by reference all the federal case law on a particular subject. In terms of the individual rules of evidence that deal with the authorization to admit particular kinds of evidence, they are a fruitful potential grounds for litigation and appellate decision making and interpretation that I don't see advocates using often enough. I think that is the one fruitful thing I can offer. This is a rule-based system. It is not just an effort to begin citing federal cases and debating their appropriateness. It is a rule basis, and it ought to all go back to the application of our evidentiary rules.

***I find that even though we are basically a Frye state, the defense firms are generally trying to test it, trying to expand it, trying to do whatever they can.***

*Several judges talked about their views on Frye and how it is used in their state.*

*Frye* is less restrictive, but as applied, you can apply it between the two if the evidence warrants the testimony.

In our southeastern state, in workers' compensation cases, *Frye* is starting to be fairly common. That is, our court gets all of the workers' compensation appeals statewide. Traditionally, it is a quick and dirty trial. You only have deposition testimony, and the administrative law judge makes a fast decision, and that is the way the system is designed. But now, every few months usually, the insurance company has started *Frye*-testing the doctor's testimony.

We are required under the supreme court's definition of *Frye* in our state to look at the methodology.

I find that even though we are basically a *Frye* state, the defense firms are generally trying to test it, trying to expand it, trying to do whatever they can. I find the trial judge will just have to listen to it, but then make a decision based upon what our appellate and supreme courts have said.

Under *Frye*, if the defense makes the motion and says, don't permit this expert to testify because his technique is not based on generally accepted principles, he still has to support it. Usually it is the affidavit of his own expert indicating this is not generally accepted principles, not accepted within the

community, not accepted here. So the burden doesn't go to the plaintiff until the defendant has first come forward with something to support the proposition that the plaintiff's expert is not adopting technique. So I don't know that it is a total shift in the burden of the defense to say, "Let's have a hearing."

It is a *Frye* state, and like I said before it is a fairly limited allocation of *Frye* and to the extent reliability and error rates are going to come in, it is going to come in before the jury and the jury is going to be asked to make those credibility determinations and assess the weight of the evidence and make a finding based on that.

*There was much discussion as to whether Daubert is actually more restrictive than Frye.*

I don't think that *Daubert* was intended to be more restrictive. Alex Kozinski wrote that first opinion primarily to enable more scientific testimony to be in than less because the *Frye* standard was cutting off the ability of new emerging techniques to be used to support expert opinion.

I think *Daubert* is more restrictive. I actually think that it is kind of political. We see the change coming. The way you elected the judges was that eventually you had lawyers as opposed to chamber-of-commerce-type lawyers in big defense trials. But I think you really see a mix in the district court of trying to get in the evidence as much as they can with the restrictions of *Daubert*.

***I think an inadvertent effect of Daubert has stymied the system in terms of plaintiff law, and small and poor law firms won't sit in on the process.***

*Daubert* certainly has been more restrictive, particularly to the smaller law firms and plaintiff's firms. You are not seeing many cases being prosecuted anymore because of the extreme costs, they are getting knocked out on summary judgment because they can't meet the burden. I think an inadvertent effect of *Daubert* has stymied the system in terms of plaintiff law, and small and poor law firms won't sit in on the process.

I don't think it is from *Daubert* itself, I think it is the way it is applied.

I don't think it matters. I think it strictly depends on the judicial philosophy of the individual judge that has the evidentiary matter coming before him or her. I think you can take either standard and let the evidence fit or not fit as you see fit. I think even when you are evaluating it under a *Frye* standard, you are considering a bunch of elements, a bunch of things that were called by the lawyer, and everything in *Daubert* is part of that, plus there are other things that you can consider, and you can either say it fits or it doesn't fit, and you let it in or you don't let it in. I think it depends on the judicial philosophy of the judge making the decision.

I have always regarded *Daubert* in a very restrictive sense, that it is being there for the purpose of eliminating junk science. Once it has served that purpose you get back to the reliability analysis, and then most comes in. It is so rare that *Daubert* comes up in my jurisdiction, that I don't even remember a case where it was even close. So I just look at it differently.

I think judges are paying more attention, first of all, because of *Daubert*. I think they are being more comprehensive in their evaluation because of *Daubert*. This may be reflected in more reasons to keep out evidence, but ultimately it is the judge's judgment on each of these factors. So I frankly think as much as anything it is because we are paying more attention.

It is an interesting question on whether it is more restrictive—is *Frye* or *Daubert* more restrictive? In listening to people in the way that decisions are made by judges, it seems like that it depends upon the judicial philosophy. I mean, you have got some conservative judges that just don't buy into the testimony and whether it is *Daubert* or *Frye*, if there is not a way not to have it admitted. So I don't see that one standard is more restrictive or the other. I think it boils down to the people interpreting it either way. But I think that the initial thought was, though, that *Daubert* was going to open up the field and I think it has just come back absolutely the opposite way and most of the jurisprudence on that has been in the federal courts where the federal judges have viewed the evidence that they are required to under *Daubert*. They are very restrictive now.

In my personal opinion, it is not more restrictive.

I think it is probably less restrictive, because it gives a pretty liberal interpretation, from my view.

In the federal courts the circuits have already determined whether they are going to be restrictive or political. You have got federal circuits that see this as a rule of inclusion. You have got other federal circuits that see this as a rule of exclusion. The Supreme Court, I don't see them taking any more cases. They had their trilogy, they laid down the rule.

I would have to say it is more restrictive, because I don't think anybody ever filed *Frye* motions before we had *Daubert* motions. And now everybody can't wait to file those motions to keep evidence out.

Just on the face of it though, when you have all of those requirements, which just seem to be designed to be more restrictive, just as you said, it puts you in the mind-set that you have to look at this evidence very closely. Then you have all of these tests that you use to filter this evidence. You would think it would be more restrictive. So it doesn't surprise me that, at least according to the professors, that has been the outcome. I don't really have a feel myself as to whether that is true or not. I think if you have a trial judge that is on a mission, it doesn't matter which test is going to be applied. Ultimately it comes down to the trial court's discretion.

***I would have to say it is more restrictive, because I don't think anybody ever filed Frye motions before we had Daubert motions.***

I just wanted to make the comment that last year I attended the defense trial lawyers seminar in Chicago, and some others may have been there also. It was on this very subject. The defense trial lawyers think the judges are way too restrictive, and the plaintiff's lawyers think the judges are not letting nearly enough evidence in, so it is hard to tell from my provision what the problem is overall, or if there is a problem.

*Some judges described the specific use of Daubert.*

I had an experience in the trial court in which it did make a difference, but I think it is a very unusual situation. It had to do with PET scans—brain scans. Two of the leading groups of scientists studying and developing PET scans were from one state university. We had a case in which PET scan evidence was being offered, and the scientists with all their Ph.D.s came in and testified and just knocked my socks off. I thought this was the greatest thing I had ever seen. I was so impressed with it. Then the scientists from another state school came in from the other side and said, “The other people are terrific people, but they can’t do what they think they can do.” You can’t take a PET scan and reason from the results of the PET scan to what caused the injury. The other scientists came back and said, no, they are way too conservative at the other school. When I got all the literature and listened to all of them, it was clear there was no general scientific consensus on this as yet. There just weren’t enough people working on it. I was impressed as hell by it, but I thought that under the *Frye* standard, since there could not be said to be a general scientific consensus on it, much less general agreement, that I had to exclude it. And I did exclude it, even though if it had just been up to me, a guy who didn’t even take high school biology, it would have come in. Under *Daubert*, I think I would have listened to all these scientists and said, there is a real difference of opinion here, and I would have said, I am impressed enough with this that I think it should go to the jury.// *Even though the last element of Daubert is general acceptance?*// That is why in most cases I think it probably won’t make a difference. But the fact that there is one element, general acceptance, that seems to be in play, if it fits the other three, I would probably accept it. Now, you are saying, it doesn’t fit all four tests, it doesn’t get in.

***If you let all of this in, aren’t you running the risk of what she is talking about, flat earth decisions by district courts just flowing through because of the character of the trial?***

We had a lot of controversy over electromagnetic fields and power lines. As I understand it, the science is not there, and the claim is not sustainable. If that indeed is true, if you let all of this in, aren’t you running the risk of what she is talking about, flat earth decisions by district courts just flowing through because of the character of the trial?

You mentioned that it has been applied in family custody matters. Can you explain how?// *I don’t know if you have heard about Munchausen syndrome by proxy?*// Yes.// *That ended up being an awkward case, to what extent is that a syndrome that is scientifically accepted by Frye or Daubert? So you see these situations, which are not addressing silicone or asbestos, and so on, where you might have high stakes in civil litigation.*

One of the other thoughts that occurred to me is, in my Mid-western state, that evidence has been restricted and not allowed in syndrome cases involving the response to sexual abuse by children and the effort to get in experiential and other kinds of experts to say the victim in this case responded the way you do when you are affected in that way.

*Judges noted the difference between the use of Daubert in civil versus criminal cases, with some noting that long-standing forensic techniques have come under challenge.*

Each of the pieces of forensic testimony that you see on television, where the medical examiner comes in and says, “This body has been decomposing for six weeks, because I have looked at all the maggots and they have gone through three life cycles.” All of a sudden that is being *Frye*-tested. Before, that was just allowed in and was common sense. But each type of testimony, the bite mark testimony, that is now being challenged. You could identify the particular knife that the defendant had because the science of studying how stab wounds look so you can identify knives, that is all being challenged by *Frye*.

I think it is just a progression, the way courts have progressed. If we look at the way we handle evidence in 2006 and then we go back and review the way it was handled in 1950, you would find out the prosecutor just threw it up there. So it is just a progression of the way we try cases.

I would imagine that there has got to be a ton of these cases that are going to make their way to us from the criminal side very soon.

There’s a big difference in our southeastern state. The supreme court decisions on scientific evidence have been by and large criminal cases. My sense is that the application of *Frye* since *Daubert* in our supreme court decisions in criminal cases has led to more excluding of evidence than it has to admissibility. Things like bite marks—nobody could offer anything showing any scientific acceptance of the methodology underlying bite mark evidence.

I think we want to recognize that in the criminal context it is the state trying to bring in the experts, because they have the burden of proof in a criminal case, and in civil cases you have a plaintiff with the burden of proof. So I think there may be a perception that a trial judge may be more lenient on allowing a state’s expert witness to testify in a criminal case than he or she may be of a plaintiff’s expert witness in a civil case.

I don’t know what the national trends are, but some of the accepted forensic sciences are under attack. We just decided a fingerprint case, in which we concluded that the underlying methodology and theory of latent fingerprint examination and individualization was sufficiently established to allow that testimony in, except if you look at it from a case-by-case basis, if that methodology is being used for purposes that have not been generally accepted or tested or proved. Then it is an open question.

***I would imagine that there has got to be a ton of these cases that are going to make their way to us from the criminal side very soon.***

There is going to be a significant burden on the government to demonstrate it. In this case, it was simultaneous impressions, where you had very few matching points on a series of fingers. The question was whether it was generally accepted that you could use other ordinary techniques to

establish this identification. So under *Frye* we said, even though we are a *Daubert* state, under *Frye* one was generally accepted, the other was not. So we looked to the other factors, and saw no other basis to admit it.

I remember a case where a psychologist was sued because one of his clients, patients, went out and killed somebody. The American Psychological Association submitted a brief on behalf of the psychologist, saying that he shouldn’t be held accountable because psychologists cannot predict with any degree of accuracy dangerousness as a mental disorder. Yet, every day, everywhere, psychologists testify and psychiatrists testify in mental illness proceedings, this guy is deemed might be dangerous as a result of a mental disorder. So it seems to me that although that is supposedly a criminal proceeding, it is sort

of a fiction, but it has a criminal side of that type of result, and all of these rules that apply for *Daubert* just go out the window when it comes to locking people out.

I think that is where the politics may start to change a little bit. Those who are probably in favor of these stringent tests on the civil side will not be as supportive of that on the criminal side if they think some people are going to be released or not be convicted.

I was just going to say that in my jurisdiction I only have civil jurisdiction, not general. So, talking to my brethren in the criminal, I tend to think that they keep a tighter rein because of what is at stake on *Daubert* applications, whereas in civil you tend to be a little more relaxed.

***As an ex-prosecutor I talk to a lot of my old colleagues, and they have been killed by all these “CSI” shows.***

Our Mid-western state is a *Daubert* state much more on the criminal side than on the civil side.

In the criminal context, many of the scientific questions dealing with DUIs, blood work, and those types of things have been settled. So, there

isn't a challenge as frequently in those areas as there are in more complex civil litigation being the drug companies and those areas that are creating new ground by raising new scientific concerns in those types of areas that give rise to much more complicated scientific information.

The rule of evidence is the same rule being applied in both civil and criminal cases. So it must in theory be applied in systems, and it will have the effect of keeping some state evidence out or keeping some defense evidence out, keeping plaintiff's evidence in civil cases in or not. But it has to be applied consistently. You can appreciate though that in a gut level or practical way, the social science research might not see a consistent application of principles in saying the rule is the same. It is not written different for different functions.

*Several judges spoke of the “CSI” syndrome or effect—that jurors, after watching the hit television show expect prosecutors to present certain scientific evidence such as DNA testing—and its relationship to scientific evidence issues.*

The only thing I think the “CSI syndrome” is going to do is generate more *Daubert* and *Frye* hearings as prosecutors feel the need to find some kind of scientific evidence. I think that you could say that this particular maggot evidence or blood spatter evidence or whatever it is would indicate not only facts, but also time of death or something. If they try to use it for that, then you are going to have a *Daubert* or *Frye* hearing. It just indicates what I would see in more criminal cases as well, whereas up to now most cases have been civil in our state.

I think the criminal cases are going to be a battleground. As an ex-prosecutor I talk to a lot of my old colleagues, and they have been killed by all these “CSI” shows.

My understanding now that juries in criminal as well as civil cases, because of all the exposure to “CSI” and all that stuff, they were sending notes during trial, for example, like, where is the DNA from this? It could be a bank robbery and the thing exploded, and the fingerprints, and this and that. In the criminal side anyway, lawyers are saying, you know just because it is on TV, we don't really do it like that. So it would be interesting to me to see if in fact juries are bringing in that same sort of

background because they have all watched “CSI” and all those shows on television.

*Some of the judges noted that the cost of proffering expert testimony and challenging state evidence may be a deterrent to Daubert challenges by criminal defendants.*

I was going to make maybe more of a practical point. Being from a southern state, I think it becomes an economic issue. I don’t think that you are going to have as many challenges in the criminal arena because most of the defendants who appear in the criminal court are represented by agencies that don’t really have the resources to raise the issue.

Defense attorneys don’t have the ability or the time to bring those cases. So that type of technical testimony you might expect to see in *Daubert*, we don’t see in a criminal case because people can’t afford it. You just don’t see those cases.

In my four years on the court, or if I do a survey of 10 years where any argument came about expert testimony, be it a murder scene or a rape scene or those kind of things, I think there is a direct relationship between the economics of the situation of the district and whether or not those things come—most often they do not. Poor criminals are just going to try to do the best they can now,

***I don’t think that you are going to have as many challenges in the criminal arena because most of the defendants who appear in the criminal court are represented by agencies that don’t really have the resources to raise the issue.***

unless they are serious dopers and they can afford a lawyer, and at that point you try to do a bargain. So I can’t say for sure whether our southern state applies *Daubert* or *Frye* in anything in criminal cases because it doesn’t happen that often.

It is amazing. You look at your locations, and in these urban areas where the vast majority of the population is, we never get to that. Mostly you have got them represented by the public defender program that is grossly understaffed and underfunded. So you try to cut a deal and move on. On the appeal, it is very seldom that we hear an appeal argument. We have it submitted on brief. It is usually by the appellate project, which was set up by the universities, and it is usually just a shotgun approach.

One of the concerns I have got is something the federal magistrate said. That is the issue where you have a civil case with preponderance of the evidence. Are we raising the proof for scientific facts to a point well beyond that in a civil case? I think we are by putting a screen. I am less concerned in criminal cases. In fact, in our southeastern state most of the *Frye* cases are criminal cases—bite marks, knife cuts, things like that, and DNA, originally. But I am really concerned that we turn the standard of proof on its head in civil cases where science is involved.

*Many commentators have suggested that Daubert was adopted in part because of the belief—advanced as fact by tort reformers such as Peter Huber of the Manhattan Institute—that so-called “junk science” was clogging the courts. Several judges disputed this claim.*

In the ‘80s there was a study group called the Manhattan Institute. That was the first time I heard the phrase “junk science.” They had a gentleman who was a scientist who was also an advocate, who went

to judicial organizations and lectured widely about it. It was all part of a PR campaign by a particular group to label what they thought was offending material with pejoratives. That is where we are now, and it continues. There are business interests on both sides of the question that essentially want to demonize the other side by attaching a label and preventing an objective analysis of what comes before a particular court. So the labels are applied so that wholesale things and ideas are rejected. I think the value of the courts is that we have an opportunity to sit and assess in the particular case what indeed comes before us.

It never was a big thing.

It wasn't a problem. It is not a problem.

Not a serious problem.

I don't think anybody is trying anything with bogus stuff, but I think they sometimes get somebody on the cheap.

I think what has happened is, all the talk about excluding "bogus science" has had more challenges, even in a *Frye* state. You go back 15 years, and my guess is, in some states, there were a tenth as many challenges of experts as there are today. So it doesn't matter whether you are a *Frye* state or a *Daubert* state. It is more the focus of complex litigation.

I can guarantee there is no judge at this table who has slipped any junk science in. // *Moderator: Ever?!* // No. Because there wasn't junk science when we let it in. (Laughter.) There wasn't junk science until we got reversed.

*Some judges did discuss some evidence that they have encountered that may be questionable.*

I have the same reaction to the new industry that is springing up, the economic forecast of damages, so the plaintiff or defendant each have their own pet CPA or pet economist come in and say, you just heard that this person is going to live until they are 84 years old. The following is the financial picture of the cost that this damage is going to befall the family as a result of this accident. // *If you tell me what the interest rate and inflation rate is going to be over the next 20 years, if you can predict that, you won't be testifying, you will be making investments.*

I will see a plaintiff's expert for a child in a vegetative state from an accident that is caused by negligence, using a mortality table and my experience and so on, this child should expect to live until the projected life of the mortality that we are now using in our courts. That changes from time to time; it is 84 years. You will have defense counsel expert who comes in, and they will say we do not believe it is more than 15 to 20 years. Then you have the quality of life expert come in, and this is where I really think it is becoming junk science, the quality of life experts. Any similarity between the testimonies offered by the experts for the plaintiff and the experts for the defendants is usually coincidental. I will sit there and I will bite my tongue.

***I can guarantee there is no judge at this table who has slipped any junk science in.***

This goes to a much more fundamental issue in my book. When you look at the pure science, the biology, chemistry, and physics, and you look at the scientific methods that are used for proofs of theories and those of pure science, you are dealing with outcomes that can be reproduced, pure science. So I don't have a problem with a chemical compound or with time, distance, things that are objective, ascertainable every day. I think the problems come, you have got people in applied science using the methods of pure science to bootstrap their claims of credibility; sociologists and psychologists. To bolster their credibility, they try to use the methods of proof of pure science that we know a percent that will never come up with the same results each time. So I think there is an inherent distrust in psychologists, psychiatrists, sociologists, and I think the junk science has come from there, from those social sciences, applied sciences trying to use the methodology of pure science to bolster their claims of credibility and their ability to predict behavior—if somebody is under this stress then they will do that. There is no way to prove that. So it is the hijacking of a pure science technique to prove something. But whether or not some behavior is going to trigger a result is bull.

***It is also seen as part of tort reform as well, the use of Daubert in keeping expert testimony that shouldn't come in out of the courtroom.***

*Several judges noted the relationship between efforts to limit scientific testimony and tort reform efforts to limit the right to trial by jury.*

I think it's a fight between the vested interests and the people out there. You get all this stuff about screening the evidence and generally from the vested side, the big-money people. They hate the jury system, and I think we just need to trust the jury system. It's been with us a long time. I spent 35 years trying cases, a lot of them bench trials, a lot of them jury trials, and I usually win them over in that courthouse, and they are a hell of a lot happier after a jury trial.

I think she hit it right on the head. It is all about the conservative movement. It is the Republicans. This is tort reform. They think that it is conservative. I agree with you, I don't see where it really makes any difference. Your trial judges are mostly letting everything in.

Our southern state is a pure *Daubert* state, to the point where we look to federal precedent in making our decisions. It is also seen as part of tort reform as well, the use of *Daubert* in keeping expert testimony that shouldn't come in out of the courtroom.

Speaking about a political comment, it is interesting that *Frye* and *Daubert* may have been a political response by the Supreme Court to the hot topic of tort reform at the time, where they were basically saying to plaintiffs' lawyers, don't bring in some hired gun with your junk science. We are going to send a message to the trial bar and to the lawyers that we are not going to tolerate just anybody coming in saying anything and permitting frivolous lawsuits. I just make that observation because the time frame in which *Daubert* basically came down was at that point where it just seems to coincide with all the hot rhetoric on how tort reform had ruined the civil justice system.

This isn't the only place that is talking about this. George Mason University put on a similar program I went to. Mostly it is federal judges there, I was one of the only state judges there. Their program was very clear, in fact, that is where I got the words junk science. The guy that was talking in one of the

programs, his book was called *Junk Science*. Then you have the insurance defense attorneys who put on one last year on the same subject. So what you are saying is entirely correct, but they feel they can come in and get conservative judges elected in the state court, get conservative judges appointed in the federal court system, and they can educate them along the lines of what that lady O'Toole was talking about. I think she hit it right on the head. But you're right, it depends on the judges.

I think that the Republican Party has usurped a lot of things regarding this idea of tort reform, and that is part of their tort-reform program. They are selling that as an idea that they will be more restrictive on the plaintiffs, but I don't think it is.

## Evidence and Experts

*Judges talked about the various kinds of evidence that can be subject to Daubert analysis.*

Bringing up *Daubert* issues in our western state involved the application of differential diagnosis to state a causation opinion in a breast implant case. The court—I believe it was a trial court, disallowed the evidence of a particular testimony. There was a defense verdict, and the supreme court reversed, because the testimony was in fact admissible. So the reason I cite that is because traditionally, if somebody states an opinion on the basis of differential diagnosis it would have been allowed in our jurisdictions. It was regarded as good science and a good opinion.

But I think the point is well taken, that there is much more of a focus on this kind of evidence. So no matter what standard you are going to be using, the parties are focused on it, the judges have to be focused on it. They take their role as gatekeepers more seriously in this area, because that is how it has evolved, not because they are now applying *Daubert* versus *Frye*, I think.

I remember when I was in law school, one of the hot subjects was trauma-induced cancer. There were beginning to be a lot of plaintiff's verdicts finding trauma-induced cancer. I imagine that one segment of the scientific community supported that, and another segment did not. But in the face of issues like that, I mean, involving that realm of scientific or medical uncertainty, can you have adjudication, especially where you got a qualified expert who has an opinion and is willing to explain it and then the reasons for it. I mean, they may not ultimately prevail, but do you allow it?

***No matter what standard you are going to be using, the parties are focused on it, the judges have to be focused on it.***

Where we had a problem we were going through a lot of this with these biomechanical experts, who come in and say based on this collision and this force, these are the type of injuries you have and this is unusual and that kind of thing. As a trial judge, I didn't allow that because normally in those kinds of tests, they take these 18-year-olds in college and do something to see if they have any injury. How do you apply that to a 73-year-old woman, you know, in terms of force or what kind of injuries she should have? The thing they were talking about just didn't make any sense, but our appellate courts have ruled that that kind of evidence comes in, even in a *Daubert* circumstance.

In our western state, *Frye* only applies to scientific evidence. We do not use it to evaluate quality of other experts. It becomes a call by the judge whether or not the expert has reasonably necessary

qualifications on the subject. It is up to the judge to determine the qualifications of that expert if it is a non-science type of situation.

One of the programs we had recently have talked about expert testimony. One particular discussion was about a sexual predator, and there were experts on both sides, and both of them said there really is no way we can tell. So it wasn't educating me to admit the evidence, it was probably educating me not to admit the evidence. But when I walked away from that seminar, I thought it was kind of interesting, because both of these experts had been in our court, and I was thinking, what am I going to do the next time we get this expert testimony? There is a question of admission, and there constantly is a question of admission. Now, should I have educated myself beyond that point, because now I am relying on something that isn't in the record?

***You have to connect the dots.***

In our southern state, there is no distinction. There are simply three prerequisites. One is that the testimony is necessary to help the jury understand. Two, that the expert is competent in his or her field or discipline, and three, that the evidence has reached a level of verifiable certainty.

*Judges discussed the different standards and how they are used to judge the qualifications of testimony and the admissibility of their testimony.*

It seems to me that one doesn't necessarily have to go to *Daubert*—in some jurisdictions qualifications are virtually everything. It used to be in almost all jurisdictions if an expert witness was qualified then the opinion came and we could test it, but at least the opinion came in. My trial court experience is pre-*Daubert*, but I can imagine, you know, viewing such a witness on the basis of experience and/or construing expertise on the basis of experience and training, whether one could pigeonhole it within a particular relevant scientific community or not with respect to which there would or would not be general acceptance regarding his construct and methodology, and so on. But I don't think it is DOA necessarily.

At our judicial conference last year we had a great example. They brought in, I think it was called a water witch, or somebody who could find water. The first person gets up and they give a lecture. Then the so-called expert gets up and starts explaining it, and all of a sudden all of us just stopped dead in our tracks. But it was this kind of a situation, there is no science to it, no science we can understand, but experientially somehow or another this guy finds water. It works. Now, is that a correlation? That is exactly what it is, a correlation.

I don't think the position was that we are not going to allow you to testify unless you are going to be able to demonstrate that this was the sole cause. I think really what I heard from her remarks was simply a fairly strong reinforcement of *Kumho* that says you may be an expert and you may be one of the smartest people in the world about this but when we are talking about this particular case, you are going to have to draw a clear connection between what we know and what happens to this plan. You have to connect the dots. I did not hear her say anything more.

I teach a class at our law school in trial advocacy. I tell the students every term that I think there are very few cases of any significance, any major case today, that does not have expert witnesses. And you don't have one expert, because when one side gets the expert, then the other side has to get an expert. There

are just no cases of significance tried today without experts, and that wasn't true when I started being a judge in 1977.

I think we are having these discussions because it just boils down to a mistrust of scientific or expert testimony. If you look back historically, big tobacco won every case they ever did until right toward the end. Asbestos was the same thing. When they were first going to trial, they won every case. Then you plop that over and you see where the breast implant stuff after they have done the studies doesn't look like it makes any sense. The power line studies where they were saying kids were getting cancer by living near the power lines, there was just no scientific basis for that.

Our position is, you can have expert testimony in a case where expert testimony might assist the jury; if it will assist the jury, it comes in. That is the test for admissibility.

It is the same thing. You still have to have some modicum of reliability. We are not letting people come in and give the dog whisperer ideas or from the entrails of a chicken or anything on that order. But if it sounds reasonably reliable, we'll let it in. But it must assist the jury in determining an issue.

***In our state, there is an old saying that an expert is somebody from out of town who carries a briefcase.***

We run into the problem in our state with the qualification of experts in child molestation-type cases, where you have people who profess to be experts in being able to question the child and determine whether that child has been molested or not. What are the qualifications for somebody who can do that? The only thing we have run across so far is, they have gone to a six-week school maybe, and they claim to be able to tell when there is no physical evidence at all of any act of molestation. The mother of the child and the stepfather are going through a divorce at the same time, and it is rather acrimonious, so he gets accused of molesting the child. The trial courts have problems with that, and we do, too. Typically if it is two or three people in our state, they are qualified because they have done it and they have been accepted over and over again. But that is always a problem. That is the way it comes up in most of the criminal cases in our state.

We used to have this doctor in our state, a medical doctor, who was a very, very good witness. He had a way with the juries. Somehow, he could testify to everything. He could testify on how a person died, then he would testify about what kind of gun was used, and because he had a rapport with the jury, they sometimes would believe him on things that they probably shouldn't have believed him on. In that particular situation, I think definitely the judge would be a better gatekeeper.

I think the real challenge for our western state courts has been to take whatever test we have and apply it to particular circumstances, particularly where you may have an expert who is basing his opinion at least in part, if not almost entirely, on his own experience. It is that issue that probably has created the most litigation in the our state more recently.

In our state, there is an old saying that an expert is somebody from out of town who carries a briefcase. So we tend to qualify them just about like that. If the person knows more about the subject than the jury would know, and would tend to assist them in understanding the facts and applying his knowledge to the facts, then it is admissible testimony.

I practiced law for 20 years and primarily represented those money interests that you say, like chemical companies. The only reason I say that and I am reflecting on my own incompetence—fortunately

the statute has run on most of these things—but I remember a case one time where the plaintiff’s lawyer went out and hired a worm expert. This guy was a fisherman. I mean he was this expert. We had a utility line, an electric line went down, fried this grate, and it killed all the worms; and he was talking about the ecological disaster. He sounded about half loony to me. It never occurred to me to make some motion that the jury wouldn’t hear this stuff. I want them to hear it. I think it discredits the whole case.

I don’t know how it is in other jurisdictions, but in our jurisdiction we see the same experts over and over.

I was going to say does that prejudice the trial judge in their gatekeeping role? Because you see these same people over and over.// *When you know that an expert is a whore, you just know it.*

We actually had one trial judge who got reversed after seeing one of these witnesses too often. He said he was simply not going to allow the testimony and he put this on the record. He said, “I have watched you in 25 other cases. You are not testifying in this case and, by the way, you are not going to be testifying in my court again. Don’t come in here.” We had to reverse him on the last part.

One thing that we can never lose sight of is, we have so many of these bogus experts that for whatever reason, they look like they are doing the right job, and we start accepting them, and we learn that they in fact have not been true experts.

Why is it that *Daubert* is more restrictive on plaintiffs than on defendants? The thought comes to my mind that insurance companies with the money at their disposal, they are just as likely to hire junk scientists as plaintiff’s lawyers.

Some of the experts are indeed wonderful and bring light, and others are simply paid assailants who will venture any opinion required for either side, unfortunately. That is human nature.

We had a case in our western state that the defendant in a capital case was convicted primarily on bite mark evidence. He was on death row for awhile. To make a long story short, ultimately he was found to be cleared by DNA evidence. But it is a little scary frankly for the reasons that you mentioned that when that case was originally tried back in the eighties, I think it was, there were experts that came on and said this is a generally accepted scientific technique, proving guilt or innocence with these bite marks. Now, things have come full cycle in 20 years, and bite mark evidence I don’t think anywhere is considered reliable. Yet there are dental experts getting up and saying based on this imprint we can say with a great degree of certainty this defendant is the person who made these imprints.

***Some of the experts are indeed wonderful and bring light, and others are simply paid assailants who will venture any opinion required for either side.***

You know more about it than I do, but it is still a little bit scary that dental bite experts were getting up and talking about the authenticity and the legitimacy and the accuracy. We have come a long way since then.

*Judges discussed the use of court-appointed experts to help them understand scientific evidence.*

In our Mid-western state, on workers' comp cases you get the plaintiff and the employer, we traditionally hire independent medical examiners to come in and give the court its advice, and the court selects from a list of qualified medical examiners to present its report, and makes its decision based on whichever way it wants to go. But then it has an independent function that they can look to, and it works out reasonably well. And the court pays for it, by the way.

I believe if the judges did that, they would have to give the parties access to the report, and make a decision. They can't be doing it in a closed room. I have only done it in the criminal context when there is a murder, and I get conflicting reports. I may hire another expert and have a hearing, and make a determination. I think they are all neutral. It is just a question of getting access to more information. But I think you have to do it that way. I don't think you can do it in the back room so the other side doesn't know who it is.

Years ago I got talked out of doing that when I was a trial judge by another judge who said, "I did that once, and what happened was, the jury completely disregarded the experts on either side and said, this is a court's expert, this must be the guy to listen to. When I talked to them afterwards, I felt like I had skewed the system, and I never did it again." On that basis, I didn't do it.

We cannot lose sight of the fact that when the two sides bring in an expert, there is an ounce and sometimes many pounds of advocacy in that expert that you are purchasing. You can't lose sight of that as a trial judge or an appellate judge. So I think what is being talked about here as an independent court expert is really a good idea in some instances. I like that.

*Several judges discussed the fact that despite being from a Frye state, the Daubert factors sometimes creep in.*

I am from a *Frye* state. We like to think we are rather innovative and ahead of other states. That is a pompous, unrealistic view of life, but that is often the attitude, more shared by the lawyers I think than the judges. But I find in talking to my colleagues at the trial level, and I have rather serious long cases, that we do even though we are a *Frye* state apply *Daubert* factors. I have attended many conferences regarding *Daubert* and how it should be applied in a *Frye* state. I think that having attended so many I am finding that I can make it work for me.

When I want to evaluate a motion in limine in the testimony of an expert, I might—although I will not go on the record—consider as my other colleagues, do a *Daubert* analysis. I think it is workable. To bring it in, sometimes you must. The one time I was ever reversed on this was applying *Frye* to a nonscientific case. I brought an expert, and I thought that the rationale, and unfortunately I put it on the record, the rationale for *Frye* would be about the reliability and the credibility of this witness to testify in an area that I believed did not fit within his area of expertise. If I had not mentioned those cases it would never have been reversed. So I was interested in Professor Sanders's paper, that sometimes it is used outside the context of totally scientific evidence, and some states accept it. But we haven't yet.

***We cannot lose sight of the fact that when the two sides bring in an expert, there is an ounce and sometimes many pounds of advocacy in that expert that you are purchasing.***

We are a *Frye* state technically. I think most of the writing on this seems to come from the federal courts, not the state courts. When we are looking for guidance on this point, we have seen *Daubert* sneak in more and more, if not through the front door, at least through the back door, and not so much on the substantive issue to be discussed or the substantive plaintiff in question, at least on the qualifications of the expert. Once you get the qualifications of the expert established, it is pretty much fair game to

***There does seem to be a consensus that the two standards are getting closer and closer together, and it is becoming harder and harder to tell whether it is a Daubert state or a Frye state.***

go ahead and have the person testify. So I think in that sense, *Daubert* is creeping in with us. Also, in many ways it still comes down to—on the appellate bench—is something I heard from a fellow from Georgia once, who was a so-called great expert on evidence. He lectured to a group of us and said that the rules of evidence boiled down to one thing. If the judge thinks it is interesting, it is coming in, and if he thinks it is boring, it ain't coming in. So I think you are

getting somewhat of a fuzzy line between the two points because of that.

I also think that lawyers and trial judges are really trying to do it right. They think they have to comment on every one of those factors because they are listed, even if in fact it is not at all relevant to the particular question that they have to decide. They are trying to apply those factors and comment on them.

There may not be a consensus on whether it makes a difference, but there does seem to be a consensus that the two standards are getting closer and closer together, and it is becoming harder and harder to tell whether it is a *Daubert* state or a *Frye* state.

*A couple of judges discussed the issue of general acceptance, a key component of the Frye test.*

The problem is that science is always in a constant state of motion from general acceptance or conventional wisdom through a period of uncertainty and argument to a new conventional wisdom. Where your appeal comes in in that system, how far should the courts go in trying to decide those issues, other than just leaving it to the trier of fact to deal with it in an individual case.

What is it that is generally accepted? Not just what it means, but where on the line from the opinion itself that is being given in the trial or the methodology. I can't think of which one of our speakers had that circular, of where it is going to be tested as being generally accepted. There is no consensus on that, either.

And where does something become generally accepted? We had a case and an opinion came out on it, where a doctor testified in a trial court as to trauma-induced cancer, and the trial judge did not let the evidence in, kind of applying the *Frye* standard, saying, "How many doctors around the country believe in that?" This fellow, this doctor, happened to be the head of what I will call a trauma-induced cancer unit or department. He had written two or three papers on it, and there were a few other doctors that supported him. It is not widely accepted, it truly is not, but it is accepted by a small body of scientists, I think we can call them. We reversed it and said, no, let it in.

Aren't you going one step further, though? Isn't the question really is it going to be generally accepted? For

example, silicone breast implants. Before I went on the bench I was involved in that. We had experts coming forward saying that lupus—tuberculosis, cancer, everything else—in ladies was caused by silicone breast implants. Then finally the long-range studies that finally came out—this went on for years—showed that there was absolutely no connection. So I think before you can even get to that question, the question is, is it ever going to be proven to be reliable?

I don't know how you can predict that which is going to be proven reliable, so we are back to what I think it is. Under *Frye* it either is generally accepted or it isn't. Under *Frye*, until it is generally accepted it is not coming in. If you want to let it in before, then make a policy decision and go with a standard other than *Frye*, I suppose.

*Another issue involved in the application of the Frye test is how to deal with novel scientific evidence.*

Isn't it also more likely that plaintiffs have to bring the new theory support than the defendants? I rarely see a defense attorney come in arguing a novel theory. They like the ones that are tried and true. But plaintiffs for the law to evolve have to bring in novel theories.

Our western state is pretty restrictive and it has got to be a really novel, scientific type of issue, rather than outside of that category. There are quite a few cases that just don't apply to *Frye* at all. As far as which one is more restrictive and so forth, a dissenting opinion in one case felt that *Frye* would actually keep out some evidence that *Daubert* might allow in, that in some sense *Daubert* was more restrictive or more lenient, I should say. Whereas the common theory I think discussed this morning was that *Daubert* is considered to be more conservative and would keep more things out. So, it is an interesting debate.

***If Galileo came in under Daubert, could he testify?***

The question that I have had in other seminars, if Galileo came in under *Daubert*, could he testify? He has got this theory. Everybody knows the sun revolves around the earth. We have known that for a thousand years. But this guy has got this theory that actually, the earth revolves around the sun. Would you allow him to testify?!! *Not if you have got a Catholic Supreme Court.*

It is also cutting-edge science. I was called up on the Galileo problem. In the Galileo problem, if you are Galileo you are the first one, but you don't have a group, so you are excluded from that kind of testimony. So you always have that conundrum in science. I do think the issue comes up a lot if you are doing medical malpractice cases, industrial accident cases, where you are looking at cancer-causing problems. That is the kind of case I am getting, where you get the fight going on between the people, is it junk science or not junk science?

I think that the Galileo matter is really the crux of the whole thing. I think that it seems to me that *Frye* would say Galileo, nice idea, but it is not generally accepted in the community, so it doesn't come in. Whereas I think *Daubert* would say, let's take a look at it, let's take it apart, let's look at different factors in it, and in some regards Galileo would have a better chance of getting his conclusion in under *Daubert* rather than *Frye*. So then I go back to the stuff that our speaker brought out that says, where do you want the court system? Do you want the court system at the cutting edge, and sometimes getting it wrong, or do you want it at the trailing edge and therefore getting it wrong the

other way. To me, that is the whole issue.

I think we have an opinion that, if nobody objects, it goes in, there is not a problem. Once you establish a principle, like fingerprints are okay, you just have to cite the case, you don't have to go through a *Daubert* hearing. DNA is okay, we don't go through that anymore. Red marks formula is okay. That is established for all cases.

In some cases the courts have said, if it has gotten into evidence a whole bunch of times, it is not novel, and we are not going to *Frye*-test it, because this has been through it. Now, that doesn't address what happens if the science changes, but in our southeastern state, it is only novel scientific evidence that is questioned.

I imagine the first attempt to prove DNA evidence was unsuccessful, until it became generally accepted.

Isn't it a public policy decision? If you base it on new scientific theory, on which side are you going to err? Are you going to err on letting people who shouldn't recover because they base their decision on junk science recover, or are you going to lose a few people who should recover but they couldn't—the theory wasn't generally accepted when their case came up? That is really all it boils down to.// *You are defining any novel theory as being junk science.*// No, I'm not, absolutely not. What I am saying is, you can't meet the *Frye* standard until it is generally accepted. You haven't defined it as junk science. You have just said that it is not admissible because you can't meet the generally accepted standards. Once it is generally accepted, that will allow it in, and the scientific community determines when something is generally accepted. So the question becomes, are you going to allow people to recover before it is generally accepted or are you going to prevent people from recovering until it is generally accepted? That is a public policy question, that is all it is. We can go through these examples left and right, but it still boils down to a societal question. Are you going to let them recover before it is generally accepted or are you going to prevent them from recovering until it is? That is all it is. I'm not sure that is a judicial decision. I think it is a public policy decision.

***What scientific theory is accepted in the community for even passing the Daubert standard would be looked at as foolishness 50 years from now.***

What scientific theory is accepted in the community for even passing the *Daubert* standard would be looked at as foolishness 50 years from now.

*Part of the Daubert line of the cases involves the issue of relevancy, that is, whether the testimony is relevant to the dispute at hand. Judges discussed the importance of relevance to the admissibility of testimony.*

If you are in a *Frye* state you have to look at relevance. That is just an additional evidentiary fact of life.

But the other thing you have to realize, you still have the primary issue of relevance in the first place. So if he doesn't have any experience in defects, then his testimony is not relevant in the first place. It is not helpful. So that is where you knock it out.

I don't see that relevance is a policy consideration. It is evidence, it is a fact of the issue, it is a matter of

absolute truth. I don't think it should be on an abuse-of-discretion standard, or review of the abuse-of-discretion standard. It should be de novo.

While I am a great believer in the jury system, I would never let expert testimony go to the jury that is not going to assist them. I think it needs to be reliable and relevant, and it needs to be able to assist the trier of fact. I will give you an example as a follow-up to this gentleman. As a trial court judge we get these low-impact collisions and the guy saying I have got an eight-month injury. Well, it is a rear-end collision, which means there is really no liability question, and it is just a question of how much treatment he's had. The defense lawyer will get an accident reconstruction expert and put all this junk science up there. What you want us to do is use this guy to tell the jury that injury could not be caused by this collision. Number one, that is a question for the trier of fact to make that. They don't need some convoluted guy who has been on the police force for 30 years. He has been to all these seminars to say I am an expert and you can't decide it, I can. I've excluded those people routinely; I have never been reversed. Those are everyday questions, those people, those 12 people can look at that collision and say either I believe it or I don't. That is their province, you know. I think *Daubert* doesn't come into play. I just look at the fact. It may be reliable. You may say it is relevant. They don't need that in this case.

Somebody in the session mentioned fit as being a definition of relevance, and that probably is pretty much the way we treat it. We refused to adopt *Kumho*, and we have dealt also with a case where a lower court excluded testimony from the director of a trauma center in a hospital as to standard of care for someone who had been injured, and we didn't even refer to *Daubert* or *Frye*, either one. We just said this is nonsense for you to exclude this expert testimony.

That is really the fundamental question throughout the whole common law history of evidence. This goes back to relevancy. In relevancy, in the whole body of law and evidence, judges always kept out things or allowed things in based on relevancy—relevant material, that old saying. Sometimes these are very philosophical questions. I know in the chapter on evidence, there is a whole section on the debate with footnotes—it goes page after page—about the debate in this country in the 19th century about relevance. Is it inductive, deductive, and the different schools of thought on it, and how fundamental that question is and how philosophical it is. We try to avoid that because we have to deal with things every day, and we don't want to get that issue debated in front of us. But those are the kinds of questions. So every day we keep evidence from the jury or allow evidence in the jury. It is these fundamental questions that are cutting edge about causation that all of a sudden are a big surprise to us. Sure, we let the treating doctor testify about causal connection based on a subjective statement of a patient, and maybe the last time they had physics training was in undergraduate years. But we accept it, and there is an historical basis for it. So we always do that.

***It is these fundamental questions that are cutting edge about causation that all of a sudden are a big surprise to us.***

*Several judges discussed some of the difficulties judges and courts, encounter when facing scientific evidence.*

One of the things that strikes me is that as an individual educated in science, I find it quite laughable that

most trial judges that I have run across and most lawyers presume to know science and to judge science. The statement was made earlier this morning that things are solid, science is not changing. But one of the things that people commonly accept is the Einstein thing, which was put out this morning. Einstein's theories right now are solidly under attack. They are not solid. Galileo was censored and Copernicus was censored. They had solid science behind them, but they were judged by nonscientists. We are in the same boat today. We are not that far removed. So when you are going to say, one university said this, another university said this, how do you know? Well, theories can be equally correct. One good example. As an aerospace engineer we did a major study as to whether or not a man could walk outside the spacecraft. They came to the conclusion that he could not, because the mechanics of the body—the arms and legs—are such that if you put any motion in it, you would go tumbling off into space. We were totally wrong.

But you don't have to be a scientist to understand that people can work outside the spaceship today. You don't have to be a scientist to understand that.

Before I became a judge, I practiced in the field of medical malpractice. There were a couple of major issues where I watched the pendulum swing over the years. Depending on where the plaintiff came in that process, that is the way it works. I don't think we can do anything about that.

If the science changes, it seems to me the law has to change.

Well, I think the point was made this morning, it depends upon when the case is being tried and the point at which the science is developing. In that example we know through scientific studies that what might appear okay to an ordinary clinician, who has treated 100 patients and has drawn an opinion based on that experience, is no longer scientifically valid because it has been disproved. We don't have that luxury as judges of having a completed scientific record of every case that comes before us.

What would you say then about the breast implant examples that were given, where you have something that is really counterintuitive when you apply the science to it? You have the before and after picture of a woman who has had a breast implant, and you assume reasonable people would assume there is a connection between the two, but the scientific community says there is no connection whatsoever. So what do you do about those situations?

*In her paper, Dr. Waters discussed how some expert witnesses seemed to be "Daubertized," that is, they have testified in numerous trials so their reputation and credentials are no longer questioned.*

We even have some case law in our appellate jurisdiction that loosely says that if somebody has been *Daubertized* before, you don't have to keep *Daubertizing* him. Say we had a toxic drug case with 30 different defendants, I get 30 *Daubert* motions on the same guys that were here last week before me and the week before. Obviously, I deny these *Daubert* motions, and I cite the case. They take it up and I get affirmed.

In our trials, part of the qualification to testify is always, have you qualified in the district court in our Mid-western state, and have you testified? And if so, how many times? That is a standard part of the expert testimony culture.

It doesn't come up in the sense that you can't really carry over your qualifications from one case to another,

like he said. If you are a proponent of an expert then you would want to have all his credentials related before the jury. So I don't think that they are *Daubertized*—every case is different.

How is being *Daubertized* as an expert witness any different from being just accepted as an expert witness in different courts?// *I don't think it is any different. I truly don't see a difference.*

I might add, even in our asbestos court, it isn't the experts. It is the evidence she is relying on that has been in a sense *Daubertized*. This is not admissible, but this is. You may rely on this but not this in your testimony. We have had so many asbestos cases that it is pretty standardized now.

I understood that discussion to be witnesses who were approved through *Daubert* and, therefore, they got a slide later which is opposed to being kicked out because of *Daubert*. But it would seem to me that an awful lot of those challenges go very specifically to the factual base of this case as opposed to the credentials of the experts. So I don't see how approving them under *Daubert* in Case 1, gives you much of an advantage going into Case 2 because a lot of the argument becomes the theory that applies to these facts in this case and whether that meets the test.

There are two things that I observed especially when I was on the trial bench. One of them was, you saw some of the same experts over and over again, but that is only because this is what they did. They testified as experts. Secondly, there are people who are good at what they do, good in their field,

***I would say it has gotten rid of the out-and-out charlatans.***

and so people constantly bring them in as an expert. Secondly, and it is related to that, I would see submissions that would ask the court to qualify this particular person as an expert because they have testified 50 times in federal court and they have been *Daubertized*. In our

Mid-western state, that is meaningless. If they knew our rules, they would know that was meaningless. But I still think there was an intent to try to impress upon us that this person was highly qualified to testify.

*Also in Dr. Waters's paper, there was a belief among those interviewed as part of her study that Daubert has led to an increase in the quality of experts. Most judges believed that experts have gotten better but were not necessarily willing to attribute it solely to Daubert.*

I would say it has gotten rid of the out-and-out charlatans. You see fewer of those, the ones that will come in and say anything.

We are now seeing people with more experience, training, and education who could come in and actually say let me explain how I got to my opinion.

I don't think it is *Daubert* that caused that effect.

I don't think it is *Daubert*. I think it is just the passage of time. You look at the exhibit hall. It is just that more people are in the business of being experts. Lawyers are applying their trade better, they are seeking out better experts. I think it is just an advancement of the way we do business.

I think people are more sophisticated, and people are educated differently. I think we are getting more

sophisticated jurors, too. So I don't know that it is from a change in the law so much. It is just a natural evolution.

I agree that people that are doing expert work and testifying are more experienced and have better training. I don't think that has anything to do with *Daubert*. I think this is people working harder.

I think it is just better lawyering on both sides.

Good lawyers are bringing in the good experts, and the not so good lawyers are bringing in the not so good experts.

They are better coached now.

I think time and the way things are developing has an impact on the quality of experts. They get better. They have got other fields they work in and discover other things. I don't think the rule of *Daubert* or *Frye* made them better. I think they are just getting better. At least they say they are better.

I was just going to remark in the final analysis the quality of experts depends on what you can pay. If you give me enough money, I will get the best expert in the world to say anything you want.

One observation that occurred to me is that, all throughout life in society, things have become more professionalized. The standards have improved, the bar has been raised. You look at everything from motor vehicles and food products and so on. Why shouldn't the same apply to the legal system, and why shouldn't we demand of ourselves a level of professionalism or performance that is better than we had a generation ago? If part of this is saying that we are more careful about using expert testimony, that just goes with the territory. If it is being used and manipulated to try to deprive some people of the right to trial or remedy, that is a different story. But just the fact that the bar is being raised, I don't think should be alarming.

***Good lawyers are bringing in the good experts, and the not so good lawyers are bringing in the not so good experts.***

## Judges versus Juries

*Judges discussed whether juries were capable of understanding scientific evidence, especially when compared to judges.*

I was on the trial bench for six years, and every questionable expert I let go to the jury, the jury did the right thing, and came up with the right decision. But I agree that it depends on the lawyer. It is the lawyer's job to present the case to the jury or the judge in a way that they can comprehend and they can make an informed decision.

Jury instructions are crucial, also giving them to them early on in the trial, not at the end, so that they know that they have that discretion to believe or not believe the expert.

But we are generally the same way. We generally do as much as a judge can, let it in and let the jury decide, let the jury weigh it, make a determination. You have competing experts, let the jury decide.

The judge is in no better position than the jurors are to determine the validity of a scientific conclusion. I'm not a scientist and the jury are not scientists, but with 12 they probably have more common sense collectively than the judges do, so we rely on it.

You are more likely to get a correct answer with a discussion of 12 than with one individual.

I agree with your comment that in most of the cases the jury is perfectly capable of deciding. Again, I don't think *Daubert* was designed to apply in that situation. *Daubert* kicks in when you have a witness who is going to say, well, I think that this causes cancer because the mouse told him. That is not the kind of stuff that is getting into court.

I always talked to my juries when I was a trial judge, even if I hated the result. They say, why didn't the defendant testify? Well, he didn't testify because he killed 12 people. You did a great job, ladies and gentlemen. So I think juries are the best thing that America has got going for it. Even in Israel, as great as they are as a democracy, they don't have regular jury trials.

I don't know why I, as a judge, would be in a better position to make that decision. I guess my bias is that I am a big believer in the jury system. I think when you get six people—six or 12, whatever it is—with their collective life experience, that they can sort that out. I don't think that a jurist who has even been to these conferences with scientific evidence is in a better position to make that call than six lay people with collective life experiences.

I have always wanted to know what instruction you can give to a jury, in my state, six lay people sitting on a complicated case, and say that it is going to make them be able to distinguish between the so-called junk science if we let it in and the so-called true science. I have yet to see anything that could educate these people and turn them into, I won't say experts, but I will say people capable of really being able to separate the wheat from the chaff.

***I don't think that a jurist who has even been to these conferences with scientific evidence is in a better position to make that call than six lay people with collective life experiences.***

I was interested in Justice Graves's comment, that in his years as a trial judge he just thought most jurors got it right. In my experience, I have always thought that, too. But you realize in talking to them later, they may have gotten it right but certainly not in the ways you thought they should have gotten it right. So I think the question should be asked, why do we segregate a certain type of evidence from the jury? I don't know.

I believe the juries can do it. I am a believer in the jury system. I had this one case, it had excellent lawyers on both sides, excellent experts. It was almost a pleasure to sit there and let them testify. Some very high-paid experts that were very good, totally diametrically opposed. Very good people. We get down to a matter of persuasion and proof, we don't deal in absolutes and everything. But that jury, I talked to them afterwards, and what they decided, these experts were just amazing to me. They listened to the local country doctor and what his opinion was about the corporation. That is what they based their opinion on.

Part of my life experience has been being around ranchers and farmers, people who worked in the timber

industry all their lives. Those people who have that kind of experience have a pretty good idea of what causes something, what works, what doesn't work. I think that is the kind of credible evidence that a fact finder ought to be able to hear, as well as somebody from the university who has a pedigree behind their name and has done a scientific study. What worries me about using *Daubert* as a gatekeeping vehicle is that out of our fact-deciding process we are going to exclude opinions that have arisen based upon experience by lay people. You and I all around this table, we base our decisions in life often on what our experience has told us is right. Why should juries be deprived of those kinds of opinions simply because there isn't a scientific study done that teaches us that opinion is either valid or invalid?

What I see is in my county, juries are very generous, extremely generous. Indeed, if you had a choice of counties and you didn't bring it in my county, then it might be malpractice. My sense of juries is they take their lead from how the judge handles the whole situation. But for the jury, it's other people's money. Somebody's here so then you've got to give them something. I've had jurors note in one case, a medical malpractice psychiatrist case, where the jurors sent me back a note and they said to me, Judge, we know that in car cases there is always money to give around; how is it that we can give this plaintiff money?

***What is wrong if reasonable people could either believe or disbelieve an expert's opinion? What is wrong with letting the jury decide that? Isn't that what our system of justice is all about?***

What is wrong if reasonable people could either believe or disbelieve an expert's opinion? What is wrong with letting the jury decide that? Isn't that what our system of justice is all about? Why should the court perform a gatekeeper role if a reasonable person could be persuaded from this beekeeper's testimony that is based upon lifelong experience? What is it accomplishing as a court if that is the kind of opinion a reasonable person could believe? I view the gatekeeper role in a much more limited fashion, for expert opinions where there is no evidence, where there is no basis for the expert's opinion. But if a reasonable person might disagree with your or my opinion as a judge, it seems to me that at least in our western states, the intent of the framers of our constitution is that juries get to make those kind of decisions, and not judges.

My view is that *Daubert* has been jumped on as a vehicle—and I sound a little biased, we all have biases, when I say this—by the defense bar generally to really emasculate our jury system. What they have done is, they have used that to turn it into a new restrictive standard than a less restrictive standard, which is, I think, what it was intended to be. So I think that jurors are as educable to make these kind of decisions as to who or what caused an accident, an engineer testimony saying what caused the van to break. They didn't study that type of stuff in the eighth grade. They are educated in the expert jury testimony with a root cross-examination process. I think it is reliable, I think it has been tested, and I think we just ought to guard against allowing the jury system to be emasculated by this evidentiary consideration that we are having here and discussing today.// *Now, 31 states have apparently come to a different conclusion.*

Why is the judge inherently a better gatekeeper than the jury in terms of whether it good science or bad? I don't know that our law degrees necessarily make us scientists and make us in a better position than maybe some actual scientist on the jury in order to determine whether or not it is good or bad science. I think that is one of the fundamental problems, the preconceived notion that judges are in a better

position to determine whether the science is good or bad in the first place.

I had a reaction to the idea of who is better able to do it. My gut tells me they should basically be assumed to be equally capable. But there is good social science research that can be done about that. One thought that occurs to me is, you could ask, do you find any validity to astrology as a basis by which to make any decisions. If you ask the population in general, the number might actually be fairly high. If you ask judges as a population in general, I hope the number is much lower. That is my hope. But the interesting thing is, back to the point of when you get a group of people together, if you have five members of the jury who think astrology is useful, you still won't get a decision based on astrology, because you would like to believe that that process itself will sort it out and say, come one, we are not going to make a determination in this case based on the astrological evidence that has been submitted to us. So there is an interesting dynamic that is involved, in terms of whether you can imagine differences among judges versus the population generally, but does it ultimately make a difference even if you could establish that difference, in terms of the way the cases sort out and the decisions that you would get from that process?

*Several attendees discussed how capable judges are at sorting through and understanding scientific evidence, with some noting that judges may have an advantage over jurors in that they are seeing similar experts and evidence routinely.*

That's the only problem that you have in this context, it seems to me. If you have got a judge who is seeing the same kind of case over and over again and the same experts, they are going to know some things, like this expert is now being inconsistent. It seems to me when we talk about the wisdom of the collective knowledge of a jury, in certain contexts you have got the collective knowledge of a judge because they have been seeing the same kind of cases, those same experts.

I agree. The reason I agree is because we can become knowledgeable—and I think we have all experienced that. Once you get into those cases, you learn a whole lot about this stuff you didn't know a darn thing about before. But I think you are a better-educated individual taken as a whole than a group of 12 people walking in the door. That is probably why in that brief period of time, and you have done the pretrial stuff and what have you, you can probably get to an appreciation of an expert much more quickly than a guy walking in, not knowing what kind of case he or she is going to hear, hearing it for four days, and then reaching a conclusion. So that is why I think the judge is better.

For me when I was a trial judge, yes, I felt like I needed to understand basics of science. I didn't think I needed to understand particular areas of science. I didn't understand the words that were being used, the language that was being used. Rate of error would be something, what does that mean? If I don't know what that means, then I am going to ask. I am going to either say, counsel, will you get him to explain that more during the motion in limine, or I am going to say, I don't quite understand yet, please help me some more on this rate-of-error thing. So I think it is the language I felt like I needed to study and read, understand more about statistics and statistical significance, but not the science of biology necessarily or mechanical engineering necessarily, certainly not in a specific case, not attached to a specific scenario.

***I think you are a better-educated individual taken as a whole than a group of 12 people walking in the door.***

I don't know what it means to say that we have abiding confidence in both judges and jurors. I guess you end up with some sort of stalemate at that point, as to whether judges should play a gatekeeper role. It just seems to me that that is the role that is assigned to us in a variety of contexts, not just in the consideration of scientific evidence. Regardless of how much faith we have in jurors, we have a judge there who makes evidentiary decisions. I don't know that though there are some distinctions between scientific evidence and the other kinds of evidence that we have to rule on, that the distinction is so great that we ought to just let it all into the jury room, confident that they are going to be able to sort

***This is just an offhand, broad, probably unsubstantiated comment, but I think a lot of judges are judges because we weren't all that great in math and science.***

it all out. Maybe they could sort out hearsay, maybe they could sort out undue prejudice and sort out everything else that we are required to make a call on, but I don't think so. I think it is a proper role for judges to play, particularly when you are given detailed standards, and given the discretion to even invent your own, which *Daubert* permits.

I have 14 years experience as a trial judge and 17 years experience as an appellate judge. Based on that experience, I agree with the previous speakers that the trial judges in our state are very capable of making these kinds of calls. I think the juries are, too. It is simply a matter of giving parties their day in court. Maybe I have an unsophisticated approach to this, but it is almost a commonsense approach. If it is the kind of opinion that is based upon something that you or I would accept in terms of common sense, that is the way juries sort cases out too, and there should be no difference in our role as a gatekeeper.

This is just an offhand, broad, probably unsubstantiated comment, but I think a lot of judges are judges because we weren't all that great in math and science. At least speaking for myself. I did okay and I started out a biology major in college but there was a reason I switched. As a person who tried a lot of cases for 18 years, I have got a lot of faith in the jury system. In my state you typically have eight people on a civil jury, and their collective experience and wisdom and, you know, overall, I have a lot of confidence in this system. Does that mean that judges should never be put in a position to make that preliminary gatekeeper call? Maybe not. I just question frankly whether the judges have the innate ability and time and resources and all the things that were mentioned in the paper and the discussion this morning to accurately make that call at the front end.

Most judges lack basic scientific education to distinguish a theory from a scientific fact and don't care to know, because they are not trained in scientific inquiry. They will declare the Copernican doctrine to be non-canonical and unacceptable. So as I said, the *Daubert* case has shifted from the scientific community to the judicial community the responsibility for judging science. That shift is unacceptable to me.

Maybe it is a problem with the attitude of the judge, where the judge feels he doesn't want to take the six weeks or seven weeks or whatever it takes to try the case. We are all busy. We may not wish to do it, but we are obligated by the oath and responsibility that we undertake. I can count on one hand, and I have been at this for 46 years, in some way or another, where the jury and the judge got it wrong. The judge may have gotten it wrong but the jury didn't. I think about those cases from time to time, where I believed there was a gross miscarriage of justice, but it was so seldom. I think the system does work.

This is probably a very minority view and maybe just my own bias, but I think for the most part, jurors have much less of a hidden agenda than judges. It seems in my state, there is one judge, there isn't any scintilla or anything, he is going to grant summary judgment. It is about his political philosophy, and it really has nothing to do with the search for truth in the case, in my judgment. So I always say, I would rather have the considered judgment of 12 people than to have the hidden agenda of one person. That is what I see. At least, that is my view of what I see a lot coming out from the trial judges in our state. I might also say, there are some judges that perhaps it would not be too unkind to say they are pro-person as opposed to pro-business, and they are going to overrule the motion for summary judgment almost every chance they get. There are some instances when they have been sustained.

I think, by and large, the courts have done a good job. I think the phrase “gatekeepers” in *Daubert* is unfortunate. I think the courts have acted to assess what has come before them, and to provide the objective analysis because of the judicial function. It comes down to the integrity of the process, the integrity of the judges involved, and the integrity of what occurs during the course of the dispute resolution process.

I'll just say one thing about the judges being able to sort it out. That is a really loaded question. The implication is somewhat invidious, if you ask me. The truth of the matter is that the admission or exclusion of evidence by a trial judge is hugely informed by the lawyering in front of the judge. If the lawyering isn't very good, maybe the judge's decision isn't going to be as reliable as it might have been. Busy trial court judges don't have time to engage in jurisprudence—they don't have time to read law review articles, what the academy is saying about *Daubert* in your state or *Frye* in your state. They are dependent on the lawyers in front of them. So it may be a function of the lawyering. I think, by and large, trial judges are just as capable as appellate judges of getting to the right result on the admission or exclusion of scientific evidence, if they have been given decent lawyering.

***I think for the most part, jurors have much less of a hidden agenda than judges.***

*Several of the appellate judges voiced their opinions of trial judges.*

I think our trial judges are pretty good.

In our southern state, I see the trial court judges are making a decision based on the information they have, as to whether or not there is a proper basis for the admission of this evidence, and they fit it into whatever rule there is. It is a call that they are making. We are a *Daubert* state, but I see stuff that looks a lot more *Frye* than *Daubert*, but the result is pretty good. I don't see it being made for any of the wrong reasons, but I don't know that they always fit in the proper judicial philosophy.

My impression is, if the trial court judge is careful in developing the record and writing an order, the trial court judge will be sustained and *Daubert* or *Frye* or something is just window dressing. It is a matter of doing careful order writing.

We are the sum total of our life experiences, and it depends to a great extent, at least in my state, whether the background of the trial judge was a legal aid lawyer, as I was, or whether he was an insurance

defense lawyer, as a great number of them are. Or in criminal cases, whether he was a prosecutor or whether he or she was a legal defense lawyer.

I still think it should not make any difference. I still think that the trial judges in our western state are pretty damn objective, regardless of whether they come from a prosecution background, a defense background, or a legal aid background.

There are a lot of trial judges who are lazy or hostile to the appellate courts, and they will just put “denied” or “granted.” That is all they will put.

***There are a lot of trial judges who are lazy or hostile to the appellate courts, and they will just put “denied” or “granted.” That is all they will put.***

*Daubert* gives the trial judge a great deal of discretion. I think that Justice Graves’s comments were very pointed, about what the trial judges can do. But it is such a huge burden, with everything that trial judges already have to go through. Theoretically, *Daubert*—I have had a number of courses on this—basically gives the judge a lot more discretion. It will throw out some good science with some junk science if the judge is not careful.

I just want to jump in. I don’t think that it is a problem with the judges’ willingness to do it. I think that it is probably a function of time. I am thinking about a court of general jurisdiction judge that has a criminal docket, a civil docket, and he or she is going to try to wade through the complex expert issues. I know that we see it in our southern state with respect to mass tort claims like silicosis and the asbestos cases, where the judges have to try to sort through these massive *Daubert* hearings and motions. So I guess I am saying, I don’t think it is the willingness of the trial court judges. I think the trial court judges have undertaken an oath and they will do the best job they can. I really think it is a matter of the burden we are putting on them in terms of time commitment to try to get those decisions made in light of what they have going on in the rest of their docket.

#### *Judges discussed the gatekeeping role of judges under Daubert.*

It seems to me that the reason the two standards sometimes appear to be the same is that they are being applied—a *Daubert* state may be applying it the same way another state that says they are a *Frye* state. It is where on the continuum you apply your gatekeeper function. If you are real liberal, and I don’t particularly like the word liberal or conservative in this context, but if you tend to want to let more evidence in, you are saying if it is generally accepted, if it looks like good science, we will let it in. But over here, it has got to be established as virtually a scientific fact before we let it in. Either state could end up in either extreme simply by applying the standards.

For all this, the science itself scientists don’t agree about. Once we get to general acceptance where scientists do agree, then it is no issue under any standard. So it is just when the science or the information is still in dispute. I agree with you, default goes to letting it in. But I suggest in the interest of economy as well as fairness, that there are some expert opinions that have no basis and do not help the jury and should not come in, whether we are talking about expert opinions or any kind of evidence. That is the proper role for the trial judge.

I take a very liberal approach to it. Let it in. I never have liked interfering with somebody's lawsuit. It is only just a bit of good refereeing that we should even be involved in it to start with.

I think there is a gatekeeping role. If something has been scientifically disproved, that is obviously a valid exercise of the gatekeeping role. My problem is going back to the beekeeper example, where I think some courts might say, we are going to require a scientific study before we will admit this kind of evidence. Here we have got the beekeeper who has spent his lifetime observing this phenomenon, and he has drawn a conclusion from it. That is pretty reliable evidence in my view.

I think the way you frame it causes that question to be even a relevant question to ask. I don't think it even relates to not trusting the jury. I think it is that this evidence is not competent. This evidence is unworthy of being believed. It is not that I distrust the jury, but every day I am making rulings about admissibility and where it is worthy of any belief. Whether it is scientific or not. Is this worthy of any belief? If it is not worthy of any belief, then if I give it to the jury I am introducing an opportunity for error. It is not that I don't trust the jury; it is just that I want to minimize the opportunity for error.

***It is not that I don't trust the jury; it is just that I want to minimize the opportunity for error.***

I guess that is where my problem is, because I think it should be up to the jury. All this is about gut. If it is a gatekeeper function, then gut shouldn't be at issue. You should get some experts on both sides and say whatever the technique that we have allowed for these years, whether it is good, and whether or not the chances for a mistake are acceptable.

Let me give you another example of what I am talking about. I have never allowed testimony about prior records. When a person is charged with burglary, and the neighbor suspects their other neighbor who just got out of the joint for the fifth burglary, we don't allow that other evidence in. But to the people in this room, would you think that would have a bearing if your house got burglarized and the guy next door had been in the joint five times for burglary? I think most people would think yes, probably maybe that is the first guy to look at. We don't allow that in, and it is a public policy decision that we don't allow that.

Yes, as a threshold matter, the trial judge is a gatekeeper. But it is the extent of the gatekeeping that is really what is at issue here. Will it assist the trier of fact? Will it substantially assist the trier of fact? Well, what is the difference between assistance and substantial assistance? I suppose it is whatever you say it is. Substantial assistance is greater than mere assistance, but how much greater? It is whatever you say it is. It cycles back to whether the trial court performs a gatekeeping function or not, and I think most jurisdictions would say, well, in our jurisdiction, of course, the trial court performs some gatekeeping function, but it comes down to how much.

*Judges were asked whether the constitutional right to trial by jury informs their view of the scientific evidence debate.*

I don't think the constitutional right to a jury trial has a thing to do with it as a legal matter, but if you appreciate that there is that constitutional right to a jury trial, then the jury is supposed to perform the function. If you give it full understanding and appreciation of that function, then I think your inclination should be to give it more opportunity to do work, and that means cases show up that are based on evidence that is subject to debate, that we still expect the jury system to give that opportunity to do that job.

Maybe the question is getting at the fact that that constitutional right may have a part to play in the underpinnings, in other words, in the tendency to let issues go to the jury.// *I hadn't thought about it frankly, I hadn't seen it, but it is not a bad idea.*

Someone this morning made the point that we are passing upon the admissibility of all kinds of evidence. Does that interfere with the right to a jury? It is pretty clear that it does not. We are just struggling here with what would be the appropriate legal vehicle for making a threshold decision that this jury can hear this stuff.

I think that gets back to the question of, is a constitutional right to a jury trial—the right to get confrontation and cross-examination, then let the jury decide—at play here? Or is it really, you were introducing a more restrictive standard for judges to exclude evidence.

I don't know whether this is too simplistic, but it seems to me that there is not that big a change, in the sense that the judge has historically been the gatekeeper on issues of relevancy, on issues of qualification, et cetera. This argument about constitutional rights, I don't know whether or not we have so departed from historical constitutional protections to allow the judge to exclude some things that one side or the other would ordinarily want to get before the jury. So I'm not so sure that it is as big a deal as it is all made out to be. I don't know whether there is this big departure and attack on constitutional right to a jury, because as a practical matter, the judge has historically been a gatekeeper, and he has historically been keeping things from the jury based on relevancy, qualifications, and other evidentiary rules that they make.

***As a practical matter, the judge has historically been a gatekeeper, and he has historically been keeping things from the jury based on relevancy, qualifications, and other evidentiary rules that they make.***

I think they do, but I think it comes up very, very rare. I think it is in a rare situation that it comes up. I don't know of anybody who has ever raised a constitutional issue of a right to trial. That is what I was addressing. I have never seen it, and I don't think anybody has raised it.

In a *Frye* jurisdiction, in the time period I have been on the bench, I have never seen one case, so no one has ever argued that. In talking to the trial judge from our jurisdiction, he said in 22 years he has never had the issue even raised. So it is just not there.

*Several judges talked about the importance of good lawyers in making scientific evidence understandable to the jury, as well as understanding how to cross-examine experts.*

A lot of it is the quality of the judge and the quality of the lawyers. If the lawyers do a good job, in my experience, there is no reason why they can't educate a jury just as well as they can educate the judge. To me it is almost the identical task. I appreciate it takes them a little longer to do it with a large group, so there is a resource and efficiency issue. Other than that, as far as I can tell in the jury panels that I have presided over, I think in general they are at least as competent as I am in terms of my background to listen to a lawyer's argument. So that has been my experience. They can do a fine job, as long as the lawyers do their work.

One of the things that I don't think has been discussed is the art of cross-examination. Once you let the expert in, you have said the expert is going to testify, that is not saying that the expert is going to be able to prove that there was causation. So as you said, this is just the expert's opinion, and I think you have to consider the art of cross-examination on that particular expert and how it will play to the court.

I think it has sparked all the conversation at the whole table, but it brought to mind as you were talking the O. J. Simpson trial and something was said that a good cross-examination will show the expert's failures. Well, the premise was that there would be good cross-examination. I happened to watch the prosecutors cross-examination of the DNA expert the defense brought forward in the O.J. Simpson case and it was probably the worst thing—by the time they were done cross-examining the DNA experts, you thought O. J. Simpson should have been given a halo and walked out of the courtroom.

***By the time they were done cross-examining the DNA experts, you thought O. J. Simpson should have been given a halo and walked out of the courtroom.***

The notion that rigorous cross-examination exposes flaws is theoretically correct, but I think you are right, there are more instances where the lawyer's cross-examination ends up reinforcing the expert's points on direct.

The lawyers have got to make a record that shows that the expert is either qualified or not qualified and/or reliable or not reliable. If they don't ask the right questions, we are just stuck with the record as it is. Frankly, it depends on whose burden it was to get that established.

A lot of lawyers think they are really good about beating up experts, but a good expert can tie the average lawyer in knots if they know what they are doing. Lawyers can end up thinking they have scored all kinds of points with a seasoned expert, when in fact nothing has gone on.

I think by subjecting it to the test of cross-examination and even subject to questioning as to what are your credentials and what is your ability to be able to testify on this particular topic. Jurors are pretty smart, and they are able to sort through that and they are able to figure out, is this good science or is this bad science. We don't run into a problem that *Daubert* was allegedly attempting to resolve.

Does that lead to inconsistent results though? It seems like a lot of it hinges on the ability to cross-examine. Depending on the science being presented and the abilities of the cross-examiner, do you have inconsistency?

## Appeals and Outcomes

*The appellate judges discussed how often they see scientific evidence issues on appeal.*

I am just somewhat curious overall as to how many appellate courts are dealing with these issues. To my knowledge, there are not a great number of reported cases in our state. It sounds to me like the trial judges are dealing with considerably more than at the appellate level, so you are giving more focus to *Daubert* or *Frye* or a combination that I think we are seeing at least for our appellate judges.

Maybe one out of 100 cases, 200 cases.

A couple a year.

I am not quite sure how many are appealed. I know there was one in a large city in our state. Quite frankly, the defense bars are shocked if there are grounds.

I don't know that we run into it at all. I was a trial judge for eight years, and I have been on the appellate court for 14, and I think as a trial judge—and I have heard these cases; we may get three *Frye* hearings in 14 years. I don't think we have issued an opinion that had anything to do with a *Frye* hearing or a *Frye* issue. It just doesn't come up that often.

I have to say, I just feel completely uneducated. I have been on the court for five-and-a-half years. We have had only four *Daubert* cases in five-and-a-half years. The supreme court does, and maybe the intermediate appeals court gets a lot more of this. So I am certainly going to go back and take a look.

I have been on the court 11 years and I can easily count on one hand the number of true *Frye* issues that we have seen in 11 years.

I think it is certainly more of an issue in our southern state, but I just do not see that many experts being excluded. There is one occasionally, but just not that much.

I would think it is gradually increasing.

In our western state, I just don't see them. They fall under the standard review, abuse of discretion. The lawyers know that, so long as the trial judge has gone through some exercise of identifying the reasons why or why not, she is going to allow this expert to testify. We are not under *Frye* going to second guess that.

We get some. We don't get very many that is just purely about that. But we get a lot of evidentiary things, yes. Sometimes we get questions about the fact that defendants will take it because the trial court did not exclude the evidence, and sometimes when the trial court rules in the defendant's favor, we get some. Not very many—we are not talking about a ton coming in all the time. They come in occasionally.

When you talk about what kinds of cases are getting to the appellate courts, it is not a giant crisis. There are not a lot of cases coming in with these issues, and you are fairly comfortable in the system you have to deal with.

We don't have a whole lot, but we deal with them on a regular basis, about expert things. And sometimes it is a function of who has the money and how big the judgment is, as to how many witnesses and how big a challenge they are going to bring, and whether they are going to get their own experts to say that this expert is not reliable. We have had quite a few. Our courts seem to be—and I came to this conclusion this morning, so it may not be true—but our courts seem to be focusing more on going more toward, is this analytically sound, the fit issue, which goes back to the original question, is this reliable, and maybe not concentrating so much on the technical factors.

*Judges discussed their experience dealing with scientific evidence cases at the appellate level and how important a good record is.*

I think every time a court of appeals judge has a record that he or she can rely on, it is good stuff. When there is no record, that is when there are problems. So asking that question, I think every kind of business, you have an argument for the record. We don't have crystal balls, except maybe some trial judges are a little bit more experienced than the ones who weren't, but we don't judge people that way.

Competing experts and just because one says this is a methodology, and the other said listen, I do this kind of stuff and I have this expertise, and I can tell whether or not this stuff that went off was there based on our sample, and we found therefore it must have come from this source. It is an intuitive kind of thing, but that's what you get with *Daubert*. You get this kind of thing, the judge believes these experts and orders a summary judgment. Looking at affidavits, how are you going to determine what to believe and not believe, what should come in and what shouldn't?

I think it gets back to what our craft is as opposed to the trial court's craft. A lot of times I look at it and I say, "It's a damn shame, that party could have won. That was lousy advocacy." But that is the record. It is an abuse of discretion, but I don't think that would make any difference. Either way I've got to rule on this record and notwithstanding what other experience I have that tells me this is the wrong result.

***I think every time a court of appeals judge has a record that he or she can rely on, it is good stuff. When there is no record, that is when there are problems.***

I think the determination is based on a case-by-case basis. The general rule is subject to erroneous exercise and discretion and if the trial judge establishes a good record, then whatever the decision made by the trial judge will likely be affirmed. That being said, we get different circumstances, for example, the example that was just brought, such as the medical malpractice case. The expert was going to testify in an area in which they didn't have the requisite expertise, and it was excluded, then we would affirm that. If the court excluded testimony where there was a record that obviously the expert did have the requisite amount of expertise, then that would likely be reversed.

The *Daubert* type issues come to us rarely. And I think it is because we don't use *Daubert* or *Frye*. They are not part of our vocabulary. So, generally speaking, the issues tend to revolve around qualifications, whether the proper testimony is probative and to the extent that there are questions of reliability or trustworthiness, as I said, they are analyzed there generically from an abuse-of-discretion standpoint and are very case specific.

When these issues come before appellate court on review, some of the other justices get confused because you can't really tell what is incorrect unless you know what is correct. Then you have to go back to your basics and elevate your level of scientific knowledge on your own and not necessarily on what is testified.

*Appellate judges debated the standard they apply in examining the decisions of trial judges on scientific evidence issues.*

If it is so uncertain as to the reliability of the science that you need an expert to help you decide it, shouldn't it just be a matter for the jury, anyway? If there is enough scientific basis that it is that controversial, then why shouldn't the jury, or if it is a bench trial, on the merits decide it there?

But I guess it is a question of, is there a minimum threshold that you say no? It is kind of like a directed verdict. No reasonable juror could possibly find this reliable, therefore they are not going to get to see it. On the other hand, both sides presented argument on it, either side could be believed as to how reliable it is. It seems to me that there is enough evidence there that the jury can determine reliability, and there has been a sufficient amount of evidence.

***We can decide that he was right for the wrong reasons.***

It is not uncommon if you look at a case kind of straight in the middle and the trial judge didn't do the best job of trying to set the decision up and tried to send it back and say do what you are supposed to do or fumble around and say, well, there is this, that and the other thing.

We have operated according to a couple of principles for a very long time. One is that experts can't opine regarding alternate questions and the other is that experts may not advise the jury that the witness is credible or not. And a lot of what might otherwise be *Daubert* questions are disposed of by these two propositions.

We can decide that he was right for the wrong reasons.

*Some judges talked about what they take into account in reviewing the trial court decision and what outside sources, if any, they may want to use.*

I prefer to have a written opinion also of why the person should have been included or excluded and why. In certain instances you may want to go back for articulation for the reasons why they were excluded or not excluded. We have some judges, lower court judges, that manage to get to conclusions without telling us what the facts or anything were. Boom, they got the conclusion and they are done. We have no idea how they got there. So, you just kick it back to them and say, hey.

This isn't one of your questions, but I think it is one of the most important issues. That is, when is it appropriate, if ever, for appellate judges to do independent research or other types of research—and somebody is mouthing the word “never” back there, I agree—but there is a fair amount of dispute among the appellate bench over whether or not it is never, or whether or not there are situations where it is appropriate.

There is a fine line, and we have to figure out where that line is. Because I think we would probably all agree that you can't just call up your buddy, someone you consider an expert and who may be, what do you think about this? But what's the difference between that and reading their law review article? The only difference is that you can point out the article in your opinion—of course it is too late then to object to what it says. But I think that we are really kind of missing an important issue here in how we do judicial ethics.

***Our supreme court has said not only is it non-deferential, but it says that the appellate court may consult any literature, whether it is in the record or not, on the science.***

Our southeastern supreme court has said not only is it non-deferential, but it says that the appellate court may consult any literature, whether it is in the record or not, on the science. That, it seems to me, makes a big difference.

There is apparently some good precedent for it. Apparently Justice Blackmun of the *Roe v. Wade*

case spent all that time in the library at the Mayo Clinic doing all this independent research on the medical aspects of abortion, on the risks, and all kinds of factual stuff made it into that opinion.// *They can do whatever they want to.*

You see a difference between looking at the Internet, for example, or calling a consultant to ask about facts as opposed to us doing independent legal research or looking at treatises on the law. I mean, there is nothing wrong with that.

But I've seen it done where somebody sits and puts their thinking cap on and says, well, if I'd been the lawyer I would have argued this and I would have won. And I have written a couple of dissents to no avail. I do hope I prevail in that at some time in the future. It is very, very wrong, I think, for a judge who decides he wants to be a lawyer. He should resign and go back and start doing it. That's what I think they ought to do.

*Judges discussed the abuse-of-discretion standard for reversal and whether it was the standard in their state. They also talked about how they decide whether the trial judge did in fact abuse their discretion.*

It is one thing if a judge rules procedurally on something, or gives somebody a continuance. That is totally within the judgment of the trial court in the context of that litigation. There are certain evidentiary rulings at trial that are pretty much the same thing. But in this situation we have got rules of evidence. We have got factors, we have got elements, we have got cases. The question is whether the judge actually applied those or not. So you can call it abuse of discretion, but when the actual question before us involves certain elements that were supposed to be considered by the trial judge, we are supposed to look at whether the judge actually included those elements or just said, "Well, I think that is close enough."

Again, it is subject to the erroneous exercise of discretion. The standard compels you to look through the records to sustain the judge's ruling, not to find error, but to support the ruling. So that is your job. So as you are going through the record, you try to see, does it support the judge's ruling. If the record doesn't contain evidence to do that, then you reverse. On the other hand if there is credible, reliable evidence that is in the record—although with summary judgment you have got to be careful because you don't make credibility determinations. But if there is any evidence in the record, then

you have to sustain the court's ruling, as long as the court provided its reasoning and applied the correct law, then you have to go the way of the trial judge.

But that is going to be quite different, because I may totally disagree with everything the trial court did on that *Daubert* hearing, but I can't reverse it, because he has that manifest-error standard, which is really high.

We have an abuse-of-discretion standard of review of admission or exclusion of evidence by the trial judge. We go even further than the clearly erroneous standard for abuse of discretion. Manifestly unsupported by reason is our standard of abuse of discretion. Basically you have to find the trial judge is crazy.

Error of law. We don't have abuse of discretion or de novo. If it is not error of law, it is not reviewable, it is not reversible—it is not abuse of discretion. The only abuse of discretion would be if you didn't hold the hearing. Then that would be abuse of discretion.

If you think about it, under *Daubert* for sure there are all kinds of factors that the judge can consider, including those not listed. It just strikes me that abuse of discretion or other clear error of law is the right standard. That picks up the cases where the judge has simply misunderstood the standard to apply in some sense, he made an error of law as to what the right standard is. But when it gets down to balancing various factors, it seems to me it has got to be an abuse-of-discretion standard. But certainly if the judge excluded DNA evidence, which has repeatedly been found to be reliable and acceptable in the court, that would be an abuse of discretion, for example, unless there was some explanation as to why it wasn't allowed.

In practical application, I certainly see a big difference. But again, and this has been said before, how is the case tried, and how is the evidence presented? This judge has this case in front of him, and again, there is a real craft to being a trial judge, and there is not real black and white in the courtroom, is there? So I don't want to substitute my judgment for the trial judge, so I would much prefer to be doing it under an abuse-of-discretion standard. Eventually, if this is real junk science, then the lawyers are going to get better and better at it. They are going to bring together the case for appellate review, and then at some point we are going to say, bingo, that was an abuse of discretion and now the judges are going to look more cautiously at similar kinds of evidence. The lawyers are going to work harder, and eventually may have the same effect.

***Manifestly unsupported by reason is our standard of abuse of discretion. Basically you have to find the trial judge is crazy.***

It is broken down between the scientific principles and the expert's qualifications as an expert, and the latter you do abuse of discretion like you do for any expert. But in terms of the acceptability of the scientific principles, it should be de novo. That is one of the points. I would just throw it out. If it isn't, then you could have trial judge A saying it is not accepted or it doesn't meet *Daubert*, trial judge B saying it does, and both being affirmed. That creates a problem, it seems to me.

Our state has defined abuse of discretion as an irrational act, something very serious, as opposed to de novo. And whether you admit evidence is an abuse of discretion.

The whole concept of abuse of discretion is a bit troublesome. Is it fact? Is it law? And the judge goes through and makes either implicitly or explicitly certain facts—the experts said this, the experts said that, he went to this school, he went to that school, this kind of thing. That is all factual stuff that we are going to be rather deferential to. From that the judge is going to conclude he can testify or she can testify or can't testify. That is the kind of error of law or legal question that we are not going to be deferential on. The only way I have been able to understand abuse of discretion is something apart from that factual consideration or the legal consideration. Are there parameters that we set? Would we set the parameters within which you have not abused your discretion. Over that, as a matter of law, we say this is not something subject to expert testimony, or it is. Otherwise, just to say abuse of discretion—what's that mean?

*Some state judges discussed how their appellate review is de novo.*

One that has not been mentioned by any of the speakers who talked about it today in any detail is the standard of review. In our southeastern state, the standard of review on the scientific evidence is de novo. It seems to me that you should ask yourselves the question if your state is serious about scientific evidence being reliable, by which I take it to mean that it is accurate and that it reflects the consensus of the science involved, why would you allow it to be done differently in a case-by-case basis? Or as Judge Friendly wrote in his article, “The Indiscretion About Discretion,” why would you prefer the decision of the single trial judge over the collective judgment of the appellate judges? And how would you ever get to shape the law of evidence by appellate decision making if it is an abuse-of-discretion review?

***In our court, de novo means that we got to see as much as you did.***

De novo in our Mid-western state.

We also apply the de novo standard. We had a case similar to yours, and we concluded that there was no reason to exclude, and pointed out that the party whose expert evidence was hurting it never challenged the evidence in summary process. The lack of challenge was a very important reason for reversal.

We would review the record independently without being bound by what the trial court decided on legal issues. But I agree with you entirely, if there is any kind of fact issue then we are going to defer to the trial court.

In our court, de novo means that we got to see as much as you did. It did not depend upon the demeanor of the witness. So motions for summary judgment are de novo because they are all paper.

The problem with de novo is you have already burdened the parties with hearings on the evidence, then you practically have to have one again. The burden on the appellate courts would be incredible, too.

You have to have a de novo standard. You couldn't allow another standard on this kind of stuff. But I think most of the relevancy questions we have, I agree with you, are based on—either if you approach it from an deductive standpoint or an inductive standpoint—a form of reasoning. So you give a reasoned analysis of why it is relevant.

Our definition of abuse of discretion includes an error of law. So it seems to me if a court in a *Frye* or *Daubert* jurisdiction rules that this opinion evidence just does not fall within that realm, therefore no hearing is necessary. And they are simply wrong about that. I think an appellate court would look at that issue de novo and remand it.

You just have to realize though that if you do apply that very sensible rule, you will get more appeals, and if you have the abuse of discretion, you will get fewer appeals.

*Several judges noted that their states do allow for some form of interlocutory appeal on issues relating to the admissibility of scientific evidence.*

The answer is yes, occasionally. The fingerprint case I was mentioning earlier was reported up by an interlocutory basis by the trial judge after having made the decision, after having a *Daubert* hearing, reported the question up.

***In our northeastern state, we have a very limited right to interlocutory appeal, praise God.***

In our northeastern state, we have a very limited right to interlocutory appeal, praise God.

We have a very limited interlocutory.

We have the same thing in our southeastern state. By statute, it has to affect a major issue in the case or be finally conclusive of some issue. These rulings on the admissibility of evidence, that waits until the final decision.

We technically don't allow it, but occasionally a lawyer may try to sneak through the back door through an extraordinary remedy, and then the motion for prohibition to prohibit the judge continuing the trial until he decides a certain issue. We then start squawking and say, no, this is an interlocutory appeal, don't grant it. But occasionally we might say, wait a minute, this is an issue that you may as well close the door now. It is probably a case where we prejudged it right up front saying, this is ridiculous, let's stop this now. But typically, no.

Most district judges require a pretrial order to require deposing of experts weeks prior to trial. If there is any challenge to those experts and what have you, all that is going to be done pretrial. More important in our state, because we have a serious writ practice, where interlocutories come up like mad, if there is any objection thereto, it is coming up for our review.

We do have, if a party believes it has been denied his fundamental constitutional right—a right guaranteed by statute—which will have a substantial impact on the outcome of the case based on the ruling by the judge, we have a writ procedure. You can file a writ within three days with a grievance. There are writ law clerks in the court of appeal that do nothing but read these writs. The statistics showing the success rate of obtaining a writ is one in 18. It may be higher now.

Our interlocutory appeals do not go to the intermediate court. They go to the supreme court.

*Judges discussed the outcome of Daubert and its progeny on cases in their states, such as more hearings, more motions in limine, greater costs, more settlements or summary judgments.*

I think our system doesn't do anything in terms of settling cases any greater. What it does do, however, is enhance the ability of the defense bar to get summary judgment, because the plaintiff comes in with a lousy expert, a lousy report, which is basically all conclusory, and that is going to be the only thing that he has got to oppose a summary judgment motion with.

I see many more motions in limine in civil and criminal cases by evidentiary rulings before trial. They don't want to spend the money to get there to find out that they are unable to get it in.

That is the way we look at it where I am from. We have a jury there, and we are taking up their time. Before the jury is ever brought to the courthouse, we just about settle everything that is in dispute, so that when they get there we give them the evidence and get on with it. Like the gentleman says, I don't dare have a jury sitting in the back room twiddling their thumbs while we are having hearings under any circumstances.

***I don't dare have a jury sitting in the back room twiddling their thumbs while we are having hearings under any circumstances.***

I would say 98 percent of our cases have pretrial conference with very explicit scheduling orders.

The panel has touched on that, everything is called a *Daubert* challenge, even though they are challenging procedural things—did you designate on time, were your responses to discovery adequate? Yet, you have a docket that says *Daubert* challenges by such and such a date. So everything gets lumped into this one hearing. That may be why you hear so much about the *Daubert* challenges, and thinking of it in a practical sense.

Most expert hearings in our Mid-western state now are done on the basis of deposition testimony. Ordinarily the lawyers come in and are prepared with fairly specific citations, here is what this person said, and therefore this testimony ought to be excluded or this subject should be excluded. I can't remember the last live hearing I had. It is all cut and dried before we go to trial. They have done it by deposition. I'm not so sure that at least in our state with the *Frye* rule, I'm not so sure there is a lot of difference.

I think a lot of trial judges in my area would be reluctant to impose on the parties the third personal appearance by the expert. The pretrial one and the trial one, yet have another one in between where we do the motion in limine. I don't think that would be too popular. Trial judges in our state are elected and not appointed, and stand for re-election. More and more are faced with opposition when they acquire reputations about their unfair treatment of lawyers.

One thing they kept summing up is that even in complex cases, a *Daubert* or *Frye* hearing will last a half hour. I have heard that twice today, I thought. Maybe I didn't hear it right, but that doesn't strike me as consistent with what I see coming up from below. There is no way that hearing could have been resolved in a half hour. Maybe I didn't hear it right.

Typically it will come up as a trial judge in a motion in limine or as part of a summary judgment, or a request for a *Daubert* hearing, if you were going to have an expert. I guess that is the way we do it. Motion in hearing and findings. If you are talking about a pretrial, that is the only way it would come up.

They do it mostly through depositions, and they do it like you said pretrial. We get supervisory requests from our supervisory jurisdiction to look at it. We have had several. Most of the time the trial courts allow evidence in. I don't know of too many times where we have ever changed that. Occasionally the trial court has not left evidence in. I do know of several times where we have reversed that by saying, get into the trial, look at all the evidence, make the decision. But it is usually done by depositions.

I agree with the one panelist. In federal court they call them *Daubert* hearings, but we routinely now get motions to strike the testimony of experts after the deposition has been taken, which we never used to get before *Daubert* came along. Our Mid-western state is not a *Daubert* state. Even under *Frye* we get these motions now. It is just an extra day in every trial. It happens pretrial, but it is just an extra day that you have added on to all your litigation expenses.

I think that is definitely true. We have got far more motions, particularly in limine, but most of them are handled not by a particular hearing with evidence taken, but through depositions being offered. But yes, you have an awful lot more motions.

When I started practicing law 40-some years ago, I never heard of a motion in limine, and they are all over creation now. For 25 years, regardless of jurisdiction, I never heard anybody make a motion in limine. Now they are just garden variety, every lawsuit of any stature at all, there are one, two, or three motions in limine coming forward. So from my standpoint, whether they are *Daubert* questions or whatever they are, it seems to me there is much more energy put forth by the defense bar today to test evidence ahead of time than there used to be.

***When I started practicing law 40-some years ago, I never heard of a motion in limine, and they are all over creation now.***

In our southern state, we do have hearings to challenge the expert testimony. It is not incorporated in civil procedure, but the supreme court has said that those hearings should occur prior to trial. Most judges have in their docket control folders dates for any *Daubert* hearing to be held if the parties are going to have them, a certain amount of time before trial starts.

*Many judges noted that there were fewer trials in their states, but most were reluctant to attribute it to Daubert.*

My sense is that there are fewer tort lawsuits being filed. I know there are a lot fewer on appeal in the intermediate court of appeals. My sense is that that is affected by a lot of things, not just the admission or exclusion of evidence, but other things as well. But if you happen to be in a state like *Daubert*, where it is obviously meant to restrict the evidence, that is just one more factor leading to fewer cases.

I don't think they have in our southeastern state really, except maybe in med mal. But I think they try more of them because they know they can win, but that is because the juries have been poisoned by the propaganda against the trial lawyers. Jackpot justice and lottery systems.

I would echo what Nicole said in her remarks, that there has been a decline in civil trials. I can't attribute it to *Daubert*.

Most are settled.

Most of them are summary judgment.

Oh, very definitely. Nationwide, of all kinds of cases, not just where experts are involved. I think there is more and more reluctance of lawyers to try good cases one way or the other. They will end up settling those, either through mediation or just voluntary settlement. The second thing they want to do a lot of times if they have a closed case, at least in our state, is try before the judge and not the jury, because they recognize if it is a closed question of liability but with damages, if the judge determines liability on behalf of the plaintiff, he will award full damages, whereas a jury will compromise the issue of liability by awarding smaller damages.

Our statistics are that of all of the civil cases actually disposed of in our courts of general trial jurisdiction, only 2 percent are disposed of by jury trial, 3 percent by court trial.

They are down all over America. The data are that jury trials are down. They are damn near nonexistent in federal courts anymore, but they are down in state courts also, way down.

Yes, they have, but I would attribute them largely to mediation.

*Judges talked about whether there was an increase in summary judgments because of Daubert.*

In our southern state, what I am finding is more of a problem is where we went several years ago in the area of summary judgment, and basically it is stated in our law that summary judgments are favored in the law. What is happening is that plaintiffs are getting knocked out, not because of *Daubert* hearings but because they don't have experts at all, and they are getting knocked out on summary judgment very early in the process.

Actually in our jurisdiction we changed the summary judgment law. All they have got to do is say, I don't believe plaintiffs can prove their case, period. Then plaintiffs have got to say I have evidence to support my case.// *That is a terrible rule.*

And that is probably the reason for the flagrant concern about summary judgments, because summary judgments are inherently a denial of access to a jury. A summary judgment, you're not going to see a jury.

I have seen very few cases where summary judgments have been sustained as a result of excluding expert testimony.

The fact is it is your motion for summary judgment that forces the other side to give you your expert, even if it might be ahead of time. We have a local rule that tells them when they have to identify them, but a motion for summary judgment might push it up faster and without *Daubert*, we were doing that.

Defense will follow a summary judgment motion to smoke out the basis and causal relationship.

The defense bar doesn't have any trouble coming up with experts to counter the plaintiff's experts, so we ought to stop allowing judges to summarily dismiss. The summary judgments in our state are up so high, and they frequently use this as a way to knock the plaintiff's expert out of the box up front, therefore summary judgment, it is all over. We all should do something to stop that.

We don't really have the trouble in our Mid-western state, because to obtain summary judgment, you must present a case for which reasonable people would not disagree. In other words, they would all agree that the summary judgment being granted here today is reasonable. If reasonable people could disagree as a result, you are going to throw it out. So the exclusion of expert witnesses in this area for our state is almost nonexistent.

We have a problem with docket control in the district courts, and unfortunately some judges have used summary judgment as a vehicle for docket control, and they come up and get bounced back down. But when it is used properly, which is a weasel wording way of saying it, it is a good vehicle and they get affirmed. But the question is, and I can't give you an honest answer on that. I don't know.

***The defense bar doesn't have any trouble coming up with experts to counter the plaintiff's experts, so we ought to stop allowing judges to summarily dismiss.***

I am from a small state, and I know all of our judges and I hear them talking, and I go to judicial conferences. I think, but I don't have the data to put my finger on it, I just sense that it is used to knock expert witnesses out of the box up front, which leads hastily to an increased number of summary judgments. I know we see an increased numbers of summary judgments,

despite the fact that we have given them some hoops they have to go through. It is very difficult to get there, but they will track those. They have learned how to track those and still grant them. I sense that it has made a difference.

*One of the findings that Dr. Waters reported, and was seconded by some of the panelists, was that, in the aftermath of Daubert, litigation costs had risen due to the expense of holding extra hearings about expert testimony. Most judges agreed with this proposition, but some suggested that overall costs may have dropped because of an earlier disposition of trials through settlement or summary judgment.*

Do we have a sense of whether *Daubert* has put a greater burden on litigants or has differently impacted parties? Absolutely, it has increased the cost of litigation as *Daubert* affects our Mid-western state pretrial and in-trial—it has added numerous additional rules, which are expensive, and you have to produce these people at times for examination. So I would say *Daubert* has significantly impacted the cost of the litigation in our state, for the plaintiffs as well as the defendants.

They have got to. Rich Hailey explained it. You have got to have them there twice. You have got to pay them to get ready twice. It has got to add to it substantially.

A lawyer is not going to take the case, because the lawyer is going to have to pay for the expert. If they have a hard time finding an expert, it is going to cost them more to get to trial. You have depositions, you put that expert on at trial, and you have maybe got 75, 100 bucks in the case. You go through this *Daubert* procedure, a labyrinth, exchanging reports, depositions. You have got to get past the cert,

then you get to go to the trial, and now you are out \$65,000. You are not going to find a lawyer.

As you might say in the southern part of our state, “If they ain’t got the money they are not going to get the witnesses.” So obviously it is very, very expensive, but I think the medical mal attorneys and products guys, I think the real good ones turn away probably more cases than they accept, because of the fact of the expense.

I have not done a study, but it is common sense. Maybe there is a tradeoff. Maybe you force cases into settlement earlier, but that again is just speculation. I don’t know how you can tell whether a case settles because they didn’t want to go through the expense of the hearing versus, if they had mediation.

Sometimes, but I think it has more to do with the cost of the expert. I know our lawyers in our state won’t take on a medical malpractice case if they are going to have to advance \$50,000. But I don’t know that that is any different than it was 15 years ago. It is just that the cost is more.

With one exception, I would submit that *Daubert* has not been a problem. As my colleague indicated, we have not changed our rules. There is this insane level of an attempt to use junk science now as there was before. There is the same level of reliance on well-known, well-credentialed experts now as there was before. The introduction of *Daubert* has had in my view only one change, and that seems to be the sense on the part, particularly the plaintiff, of a dramatic escalation in the cost of using expert witnesses, where they are having to spend a lot more time anticipating objections to credentials or scientific methodology and the nexus between facts and opinion, and making double darn sure that they are going to survive any *Daubert* objections.

I can see where you can increase cost, because now you are looking at an all-or-nothing deal. If you—I guess some states you can challenge *Daubert* right before trial. If your expert gets stricken, you are out of the ballgame. So if you are a plaintiff, you are going to be spending a lot of time and money to make sure that expert is as good as you can get him or her, and you are going to spend a lot of money doing that. The flip side of that we talked about this morning is, maybe that is a good thing. Maybe it is good to make sure that the experts are coming to trial with their theories well-researched and the issues well-presented and with expert reports. But in my mind, I can definitely see where if I was a plaintiff, I would be spending a lot of money and time making sure that my expert would meet *Daubert*.

***As you might say in the southern part of our state, “If they ain’t got the money they are not going to get the witnesses.”***

If the defendant has a high incentive or degree of incentives to resist, then this is one of the tools that makes it possible to inflict pain on the opponent, if the defendant’s incentive is to clean this up and get it over with. Then the tendency of the *Daubert* hearing probably doesn’t make all that much difference either. I haven’t seen yet, I don’t think, a defense lawyer, and I was a defense lawyer to a significant degree for a long time, who wasn’t willing to bill a client if the client was willing to be billed.

Maybe not. Maybe it has caused a lot of cases to settle. So you would have to know both sides. You don’t know the number of cases that settle as a result of an anticipated *Daubert* hearing.

What if it is breaking off 30 percent of the cases that might be filed or go to court because people can't find a lawyer because it is too expensive to go through that process?

## Helping Judges Deal with Scientific Evidence

*Many judges noted that their states had active judicial education programs, with several of those programs focused on scientific evidence and the scientific process.*

Judges need to be generally more aware and retrained in how to deal with scientific evidence. There needs to be some judicial education.

Most states now have judicial education, different departments or a division of a judicial department and they put on judicial education. Ours, twice a year, does education for judges. They are not always as specific as they should be to appellate judges. They are for trial judges, and this is a subject that is covered.

I think we have done two on *Daubert*. I should say on evidence.

We have a full-time judicial training institute that occasionally will bring in people to discuss scientific issues, but it is rare. Mostly what we deal with is substantive legal issues.

Every judicial conference we have, we try to advance their general knowledge of how to deal with these expert-type issues. I think again, it works.

I have a better solution for you. I was on a committee that drafted the DNA initiative. It is now online. It is about a six-hour program, where judges and lawyers can go online or get the disk from the National Institute of Justice, to give you the basics on what you need to know to admit DNA evidence.

I started a program in our western state to elevate the knowledge that judges have on science. The first program was held at a scientific institute, and the subject matter was gene therapy and addictive disorders. I thought, how in the world am I going to get the trial judges or the judges of my state interested? I said, if we get 50, we'll be lucky. We got over 100 judges to come to the program. They went into the lab, they did a PCR analysis. They had five world-class scientists giving the program. It was an overwhelming success, and we are going to continue to do it.// *I think that is exactly what the judicial systems of the various states have to do.*

I want to echo the same thing in our southern state. We have a center for the judiciary that puts on programs and occasionally will bring in folks, but on an as-needed basis. I do want to add that I have seen a lot lately through the National Judicial College. They seem to have been offering a lot more science courses lately, science- and expert-type courses. It seems like every time I turn around, there is another science-type program and judicial grants floating around. Maybe it is something that is coming up.

In discussions on *Daubert*, this is probably the eighth or ninth hearing that I have gone to on *Daubert*. We read the cases, we read the advance sheets. Still, there is some confusion.

There is a lot of education going on out there for judges and their uses of scientific evidence, but again, I

will say to you that I think this whole emphasis of the *Daubert* court, on the inquisitorial system for purposes of scientific evidence is misplaced in the adversarial system. I think the duty or the burden, whatever you want to call it, the lawyers in the cases, they know what their case is, they know what their problems are, let them be responsible for educating trial judges and appellate judges about why this is junk science or why it isn't.

We experimented with having two very good presentations, having defense and plaintiff lawyers come and lecture on a given subject twice, and the next thing you knew, those lawyers were out telling their clients that they were teaching judges. Wham, there went that program.

We have, you are required when you become a judge, whether it is a trial judge or an appellate court judge or you are appointed to the supreme court, you have to attend what they call judges' college, and it is mandatory. If you don't, you cannot get your commission. It is two weeks. It is divided up. One week is all about how to be a judge, basically. Then the next week it is all substantive. You get materials like this. You are lectured on every area that you could possibly cover.

Organizations like this—and there are dozens—provide the opportunities that I have been exposed to. I don't know of too many judicial academies the states have set up. I think it is a wonderful idea in concept. I would love to be able to do it in our western state. It is not going to happen, not in my lifetime, that's for sure.

You have to get scientists who can speak plain English, and there aren't a lot of them.

***The next thing you knew, those lawyers were out telling their clients that they were teaching judges. Wham, there went that program.***

I am a proponent of judicial education. I say that as a preface to what I am now about to say. That is, for me personally, there becomes a tension between reviewing a case based on the record made in the trial court and a judge sitting on an appellate court, determining what is scientifically reliable. That tension arises at any point in which you make the record and you start using your own knowledge or understanding. So I guess that leads me to this tentative conclusion, that any educational programs that would be useful would have to teach us how to understand the evidence that is being made in the record, that is being produced in the record, as opposed to turning us into quasi-scientific experts.

Our state has continuing legal education programs available to judges that are sponsored both by the state, which are neutral, down the middle. Also, judges in our state can sign up for and take continuing programs sponsored by the Cato Institute or other conservative think tank type-organizations. I think I have been to one of the latter kind, and I have to say this. Every time I get into a legal education environment in which the audience are judges, there is no ability to pull wool over their eyes. The judges are absolutely skeptical about the things that they should be skeptical about, and very open and welcoming of the education about the neutral name, rank, and serial number information that they should be absorbing. But there is no ability on the part of these private organizations to fool a room full of judges. They get hostile questions. The judges don't waste any time with the B.S. that is nothing but political.

*Few judges had experience with the technology discussed by Dr. Waters that can be used to facilitate case management.*

From a practical standpoint, unless you have some federal aid, I don't know that a lot of the existing courts could handle testimony by satellite, so that you don't have issues come up, could the jury hear it, is there something being missed, do they really see what they should. We have a new, new courthouse that could handle that, but I'm not so sure all around the state, if we've got courthouses that can utilize the new technology.

I have been involved in some video conferences that were just horrible. All kinds of things can go wrong and it is just not the same as being there.

On the criminal side, I haven't seen this, but one of my interns this summer in my office just went to the State Bureau of Investigation. He says they have a whole room outfitted to be able to do satellite testimony. They are waiting for the right case in order to try and get it introduced into the trial courts in our southeastern state, but so far it has not been done, at least to the SBI and criminal cases. But they have to travel to 100 counties to testify. It is a big state. So hopefully they will be able to do that.

We have certainly used several technologies in depositions by that kind of linkage. In some trials, I have had a jury go to a place across town from the courthouse to put on a witness live from across the country by a slightly awkward, slightly delayed—you ask a question and you have to pause because the witness hasn't heard yet, and the witness answers and we see their lips move and then we hear the answer. It is early satellite linkage, but again, we don't have expert disclosure, so we haven't seen it for that purpose.

We have videoconferencing capability in the courthouse in the county I am living in. But if you are talking about the courthouses around the state, most of which are older, they don't have that capability.

You are seeing so much more use in the higher end of civil litigation with technology generally that it wouldn't surprise me if they used it that way as well. I have seen some appeals with briefs that include everything from hyperlinks to the record, things like that. We are seeing a few more of those. The technology today, the demonstrative stuff on computer. It is just amazing what we are seeing in cases. It wouldn't surprise me if they are doing more and more with experts like that.

Our jurisdiction is not that advanced.



# Points of Agreement and Closing Comments

In the discussion groups, the moderators were asked to seek out consensus—to the extent that it was achieved—on the issues raised in the Forum, and to characterize their group’s points of agreement in a few sentences. The moderators’ comments and their informal summaries of their group discussions follow, edited for clarity.

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## *Daubert versus Frye*

Most of the states were *Frye*.

The *Daubert-Frye*-hybrid division was about 30/30/30. But most jurisdictions use Rule 702 with reference, but not adherence, to *Daubert* and its progeny.

There was about a 50/50 split as to the adoption of *Daubert* or the continuing adherence to *Frye*.

*Daubert* criteria are referred to in non-*Daubert* states.

Most agree that *Daubert* review is more restrictive than *Frye* or pre-*Daubert* rule.

As applied, *Daubert* is more restrictive than *Frye*.

Because of *Daubert*, even in *Frye* states, judges are more focused on the admissibility of expert evidence.

***All acknowledged that Daubert and Frye could be (and have been) used to further political and philosophical goals.***

The issue is a “tempest in a teapot.” There are not many differences in the factors actually applied or in the result; *Daubert* merely creates more of a process.

There was a lack of consensus on what the meaning of “generally accepted” is.

All acknowledged that *Daubert* and *Frye* could be (and have been) used to further political and philosophical goals.

## Appellate Review

Most of the judges did not have *Frye* issues on appeal.

Few cases come up before appellate judges.

Not many cases reach the stage of appellate review.

Our group is seeing relatively few appeals relating to *Daubert/Frye* issues, but they have been increasingly slightly in the past few years.

Not many cases are coming up on appeal that deal with scientific testimony. There were a lot right after *Daubert*, but fewer now.

There are not many issues about scientific evidence reaching appellate courts. More of them are in criminal than civil cases.

***Either a judge or jury get it right—the reliability of expert opinion—“99.9 %” of the time.***

The abuse-of-discretion standard is appropriate for review of the admission of evidence rulings.

Trial judges should write opinions describing reasons for granting or denying motions.

If the trial court is careful in writing its order regarding the admissibility of the evidence, the appellate courts is very likely to uphold the decision.

## Judges and Juries

Either a judge or jury get it right—the reliability of expert opinion—“99.9 %” of the time.

All expressed great faith in juries, but there was a range of opinions as to how much gatekeeping there should be.

Juries are very good at weighing evidence, but judges should be a gatekeeper on evidence or testimony that involves experts. This is the same function that judges apply to all evidence.

The majority of judges thought the jury is very capable of assessing expert testimony if counsel is skilled in cross-examination.

The judges are able to exercise sufficient gatekeeping with *Frye*, and let the jury weigh the evidence.

Sometimes experts are just irrelevant; the jury will decide what the basis for damages is using common sense.

## Experts

Experts are generally better.

The quality of experts has improved because of the advancement of forensic science.

Experts are getting better, but not all due to *Daubert*. Advocacy on both sides has gotten better.

One effect of the *Daubert* progeny has been better prepared experts.

*Daubert* scrutiny has had an impact by reducing the charlatan element in defense (and some plaintiff) medical examinations for litigation purposes.

“Junk science” was not and is not a problem in our group’s states.

Everyone agrees that there are opinions that should not require special analysis—“I-know-it-when-I-see-it” basis. Common sense is required.

The issue of expert testimony based on “experience” is a difficult one, and is an evolving area.

### Costs

In both *Daubert* and *Frye* jurisdictions, there has been increased pretrial motion practice and concomitant increase in cost.

*Daubert* adds to costs but that is because lawyers have to, and should, make a record on the reliability.

Hearings add numerous hoops that are expensive, and mostly plaintiffs are affected.

There has been a dramatic escalation in costs. Experts are too “used” to working for too much money.

### Outcomes

There has been an increased use of summary judgment motions, impacting both sides equally.

Summary judgments after a *Daubert* ruling are not increasing in state courts.

The appellate judges have not observed changed case outcomes or increased reliance on summary judgment, but they may not have really looked at the issue.

***“Junk science” was not and is not a problem in our group’s states.***

Settlement rates are substantial now.

There is a decline in the number of cases, but *Daubert* issues are not the cause.

### Criminal versus Civil Standards of Scientific Evidence

In criminal cases, the lack of resources can lead to lack of challenges.

Judges did not see or had not considered a different application of *Daubert*/*Frye* in civil versus criminal cases.

There should be no difference between criminal and civil cases, but there is. There was no consensus as to why.

The application is the same, but in the civil context, the issues are much more complicated and the science much less certain.

***Judicial education is necessary on scientific issues.***

The application of the standard may vary whether the case is criminal or civil.

## Judicial Education

Judicial education on scientific topics is helpful

All jurisdictions have judicial education programs, which routinely include sessions on scientific evidence.

They have all been to judicial education programs run by the state and scientific evidence issues have been addressed.

Judicial education is necessary on scientific issues.

Judges do not prefer to become educated about scientific matters. Some have attended CLE programs for judges on the subject done by university or private groups.

Science is ahead of trial courts—courts have some catching up to do.

## PANELIST COMMENTS AT CLOSING PLENARY SESSION

**Professor Sanders:** First of all, let me say that I really enjoyed the breakout sessions, and the ones I enjoyed the most are the ones where the panel did not say a single thing and I just had the opportunity to listen to you all talk. I may know a lot of doctrine, but I don't know the first thing about trying a lawsuit or writing an appellate opinion or what have you, and I found it very helpful. I don't need to go into the particular issues that came up, but just for example in the last discussion group, there was talk about judicial research that's outside the boundaries of briefs that the parties have written and what in fact judges can or cannot do in that regard, especially with respect to expert testimony. It is a fascinating issue that I must confess I had never really thought of before in my life and yet obviously, it is well worth talking about.

***What is interesting is in the federal courts Daubert certainly has had the effect of excluding substantial amounts of evidence, and it's just not clear to me from today's discussion the same thing is true in state courts.***

I guess if I did have some closing remarks they would be this—upon reflection I'm not sure that my paper asked anything like the right questions, and I apologize for that. And the reason that I think that may be true, is that the reality is that you all are where you are and it might be nice to have a nice discussion about whether the *Frye* states should be *Daubert* states, if the *Daubert* states should be *Frye* states. But the

truth is you are where you are, and to some extent there's not much you can do about it, especially if you're a middle-level appellate court judge. So perhaps it's more important to engage in a discussion of how best to facilitate trial court and appellate court decisions so as to come to the best possible solutions. In the last group we were in, I thought it was very helpful in hearing some of the ways in which the state courts try to help trial judges with very few resources to come to better judgments about expert testimony than they otherwise might have done. I guess I would just encourage every effort to be made to make the best possible decisions under the circumstances.

A final thing I would say is this. It is far too easy, and I'm more guilty than most, to make way too much of the distinction between *Frye* and *Daubert*. I think that in fact, if we took specific cases and dealt with them in some detail, we would discover, as one of the speakers said in the second panel today, that very often we would come to similar sorts of conclusions about the evidence in those cases. So in fact as far as doctrine goes, it is just not clear to me that everything turns on the choice of *Daubert* versus *Frye*.

What is interesting is in the federal courts *Daubert* certainly has had the effect of excluding substantial amounts of evidence, and it's just not clear to me from today's discussion the same thing is true in state courts. It may be that less is at stake here than there has been in the federal courts. And insofar as that's the case, if that's what I heard today, I think I need to go back and rethink some of my thoughts about exactly how we should approach these two problems.

**Dr. Waters:** I agree with Professor Sanders when he said that it was most exciting for him when he was able to be a fly on the wall and listen to what all of you had to say. The reason for that is because of course, I'm in the business of research and I'm interested in great ideas where I can do additional research, and what is important to you as appellate court judges or attorneys. So I'm very excited to report back that, after listening to everyone talk for a full day, I have plenty, plenty, plenty of ideas for research I could do. I'm very excited to move forward on these ideas, and I want to thank you for sharing those with me. I hope that I will come back some day to report to you my findings born from your ideas generated in your discussions.

The second point that I'll make is that I heard interest in locating resources if you have a particular question. Trial judges tend to be interested in where they can find resources and possibly conduct independent research on their own. Court-appointed experts have been discussed, but where can they go to find out which journal is elite, where can they go to find out where good research is done. And there's been some Web Sites discussed—David Michael has mentioned [defendingscience.org](http://defendingscience.org). The National Center for State Courts ([ncsconline.org](http://ncsconline.org)) is developing a Web Site that will include links to [defendingscience.org](http://defendingscience.org), but also others that might be of use to you, sending you to the resources that you need, finding out about educational seminars that might be of interest to you. It doesn't have to be done necessarily on a case-specific topic but for a general knowledge of where to go, who to ask, and where to get these resources, so I do hope to include that in our Web Site.

***What's important is that we keep pressure on scientists to produce good research, to produce good information that we can use in the courtrooms and in the pursuit of justice.***

And there's been some Web Sites discussed—David Michael has mentioned [defendingscience.org](http://defendingscience.org). The National Center for State Courts ([ncsconline.org](http://ncsconline.org)) is developing a Web Site that will include links to [defendingscience.org](http://defendingscience.org), but also others that might be of use to you, sending you to the resources that you need, finding out about educational seminars that might be of interest to you. It doesn't have to be done necessarily on a case-specific topic but for a general knowledge of where to go, who to ask, and where to get these resources, so I do hope to include that in our Web Site.

I follow Professor Sanders and, therefore, I get the advantage of hearing what he has to say, but I also think that something that came through a lot of the breakout discussions today was that there's not necessarily a large distinction between *Daubert* and *Frye*. Instead, when it really comes down to it, the judge and the jury—sometimes one more than the other—are deciding these cases and diligently assessing the expert witness and the expert evidence that's proffered.

What's important is that we keep pressure on scientists to produce good research, to produce good information that we can use in the courtrooms and in the pursuit of justice. We want this to be right—we want to get it right. I think that's more important than which standard we're using, and we can make either standard, or hybrids of the two, work.

Judges take the duty as a gatekeeper very seriously, whether they've adopted *Daubert* or not. I think that is important, and that we are using the best science that we can—of course it's continually evolving, and we can only use the best that we have. But we can continue to seek the best science in the pursuit of justice. I'll conclude with that.

# Appendices

## PARTICIPANT BIOGRAPHIES

### Paper Presenters

**Joseph Sanders, Ph.D.**, is A.A. White Professor of Law at the University of Houston. Professor Sanders attended Northwestern University, where he earned a J.D. and a Ph.D. in Sociology. He teaches torts, products liability, law and society, and scientific evidence. Professor Sanders's scholarly interests include research on the attribution of responsibility, mass torts, and the use of scientific evidence in court. He is a co-editor of *Modern Scientific Evidence: The Law and Science of Expert Testimony*. Professor Sanders has a long standing interest in the use of expert testimony in courts. In the 1980s, he and a group of colleagues interviewed lawyers, judges, and experts involved in the school desegregation litigation. The study culminated in *SOCIAL SCIENCE IN COURT: MOBILIZING EXPERTS IN THE SCHOOL DESEGREGATION CASES* (1988). He's the author of *BENEDICTIN ON TRIAL: A STUDY OF MASS TORT LITIGATION*, which examines the expert testimony in the numerous lawsuits concerning the drug given to pregnant women to control morning sickness. Professor Sanders plays an active role in the law and social science community. He served on the advisory panel for the Law and Social Science Program at the National Science Foundation. He is a past trustee of the Law and Society Association, and he was the editor of the *Law and Society Review*. He is the co-author with Richard Lempert of *AN INVITATION TO LAW AND SOCIAL SCIENCE* (1986). Along with Lee Hamilton, he has conducted several research projects comparing the legal cultures of Japan, Russia, and the United States. Some results of this collaboration are presented in numerous articles and the book, *EVERYDAY JUSTICE: RESPONSIBILITY AND THE INDIVIDUAL IN JAPAN AND THE UNITED STATES* (1992).

**Nicole L. Waters, Ph.D.**, is a Court Research Associate in the Research Division of the National Center for State Courts in Williamsburg, Virginia. At the University of Delaware, she received a Ph.D. in Sociology with a specialization in law and society and research methodology/statistics. She received a M.A. in general experimental psychology from California State University in Fresno and her B.A. in psychology and statistics from St. Olaf College in Northfield, Minnesota. Her current work at the Center includes examining the policy and social implications of jury procedures, investigating the reciprocal interplay between science and the law, and evaluating issues of civil justice at both the trial court and appellate court levels. Her recent work includes authoring *The Current Debate on Juror Questions: To Ask or Not to Ask, That is the Question*, co-authoring *The Hung Jury: The American Jury's Insights and Contemporary Understanding*, and *The Timing of Opinion Formation by Jurors in Civil Cases: An Empirical Examination*; and *What's Half a Lung Worth? Civil Jurors' Accounts of their Award Decision-Making*. She has been the recipient of several grants, including two on the effects of U.S. Supreme Court decisions on admissibility of expert witness testimony, and a grant from the Bureau of Justice Statistics to conduct the 2005 Civil Justice Survey of State Courts. Dr. Waters has taught Criminology, as well as Research Methodology at The College of William and Mary and courses in Legal Studies at the University of Delaware.

## Panelists

**Bert Black** is a partner in the Lockridge Grindal Nauen firm and is a 1982 graduate of the Yale Law School. Mr. Black received his undergraduate degree in Civil Engineering in 1974 from the University of Maryland, and his Masters in Civil Engineering, in 1975, from the Georgia Institute of Technology. He has been a litigator for over 20 years, handling a wide variety of cases for both plaintiffs and defendants. His primary focus has been products liability and environmental litigation, but he also has worked on securities and banking cases. Most recently, he has represented plaintiffs in pharmaceutical products litigation. Mr. Black is a member of the American Law Institute, serving as an advisor on the Restatement (Third) of Torts. He is a past chair of the American Bar Association Section of Science and Technology Law, and a past co-chair of the National Conference of Lawyers and Scientists. He has taught engineering as an adjunct professor at the Georgia Institute of Technology, and products liability law at the Southern Methodist University Law School. He has published numerous articles on science and the law, including several cited by appellate courts and the U.S. Supreme Court. A former Marine, he served in Vietnam as a First Lieutenant.

**Honorable James E. Graves Jr.**, is Associate Justice on the Mississippi Supreme Court, a position he has held since 2001. Justice Graves previously served as a circuit court judge for 10 years. He received a Bachelor of Arts in Sociology from Millsaps College and his law degree from Syracuse University College of Law. He also holds a Master of Public Administration degree from the Maxwell School of Citizenship and Public Affairs at Syracuse University. Justice Graves worked as a staff attorney at Central Mississippi Legal Services. As a special assistant Attorney General, he was head of the Human Services Division of the Attorney General's Office. Just prior to being appointed Circuit Judge, he was director of the Division of Child Support Enforcement of the Mississippi Department of Human Services. He was also engaged in the private practice of law for more than three years. His teaching experience includes serving as a teaching team member at Harvard Law School, where he has taught trial advocacy frequently in recent years. He has been a presenter at Stanford Law School on two occasions and was a jurist-in-residence at Syracuse University School of Law. Justice Graves has also served as an adjunct professor at Jackson State University, Tougaloo College, and Millsaps College, where he taught media law, civil rights law, and sociology of law. Justice Graves has been recognized by numerous organizations for his commitment to the principle of "equal justice for all" and for his outstanding ability as a judge. The Hinds County Bar Association named Justice Graves the recipient of its Innovation Award in 2000 in recognition of his pioneering efforts in creating the first state-of-the-art high-tech courtroom in Mississippi state courts, in establishing the first court Web Site for a Mississippi state trial court, and in implementing electronic filing of court documents. The National Bar Association awarded him its first Distinguished Jurist Award in 1996. The National Conference of Black Lawyers selected him from among judges nationwide to receive the Judge of the Year Award in 1992. The Millsaps College Black Students Association named Justice Graves the recipient of its Alumnus of the Year Award in 1993. He received the NAACP Legal Award in 2004.

**Richard D. Hailey** practices law in Indiana and Colorado in the areas of personal injury, medical malpractice, products liability, and class actions. He earned his J.D. from Indiana University in 1974, and an L.L.M. from Georgetown University Law Center in 1983. He was the president of the Association of Trial Lawyers of America (ATLA) from 1997-1998, becoming the first African-American to hold that position. Mr. Hailey has served on the Board of Directors of the Indiana Trial Lawyers Association. He is a member of the American Law Institute, having been inducted to that prestigious organization in 1996, and has been named to *Best Lawyers in America* every year since 1998. Mr. Hailey is a frequent lecturer

throughout the United States and has appeared on CLE programs in 47 states. He has been involved in Fen-Phen, PPA, and Dalkon Shield litigation, and with the Southern Poverty Law Center he successfully obtained civil judgments against hate groups. He is a Fellow and Honorary Trustee of the Pound Civil Justice Institute.

**Lori E. Iwan** practices law in Chicago, Illinois, where she is a partner in the firm Iwan Cray Huber Horstman & VanAusdal, LLC. She received her J.D. from the University of Illinois College of Law, in Champaign, Illinois, and her B.A. in Finance from the University of Illinois. Ms. Iwan's practice is concentrated in the supervision, preparation and trial of complex commercial and product liability cases for a number of corporations and insurance companies on a national basis. Ms. Iwan is the author of numerous articles on privilege, discovery, trial tactics, law office economics, products liability, health care, preventive law, and technology issues. She is a member of the Board of Directors of the Lawyers Club of Chicago, and the Federation of Defense & Corporate Counsel, where she is Dean of the College of their Litigation Management College. Ms. Iwan is "AV" rated by Martindale Hubbell, and was named one of the top 50 Leading Women Lawyers in Illinois and one of the top 50 Leading Women Business Lawyers in Illinois by the Leading Lawyers Network in 2006. She is a member of the Defense Research Institute and served on its Law Institute from 1999-2001.

**David Michaels, Ph.D.**, is Research Professor and Associate Chairman in the Department of Environmental and Occupational Health at the George Washington University School of Public Health and Health Services, and directs the Department's doctoral program. He also holds faculty appointments at the Albert Einstein College of Medicine and the Mount Sinai School of Medicine. He received a B.A. in History from the City College of New York, a Masters of Public Health (Epidemiology) from Columbia University in 1981, and a Ph.D. in Sociomedical Sciences from Columbia University in 1987. Professor Michaels is an epidemiologist with extensive experience in research, regulatory and public policy, and program administration. He directs The Project on Scientific Knowledge and Public Policy, bringing together an interdisciplinary group of scientists to examine the use and misuse of science in two forums in which public policy is shaped: the courts and the regulatory arena. Dr. Michaels is the author of articles in JAMA, Science, the International Journal of Epidemiology, the American Journal of Public Health and numerous other scientific publications, and has taught epidemiology and biostatistics at several medical schools. His recent publications include an editorial in SCIENCE on the stacking of federal advisory committees and two articles addressing conflict of interest issues in regulatory science. He was guest editor of a special issue on Scientific Evidence and Public Policy in the American Journal of Public Health. He also serves on the Editorial Board of Preventive Medicine. Dr. Michaels served as the U.S. Department of Energy's Assistant Secretary for Environment, Safety, and Health from 1998 through January 2001. In February 2006, Dr. Michaels received the American Association for the Advancement of Science's Scientific Freedom and Responsibility Award for his work on behalf of nuclear weapons workers and for his advocacy for scientific integrity. He is also the recipient of the American Public Health Association's David P. Rall Award for Advocacy in Public Health, and the U.S. Department of Energy's Meritorious Service Award.

**Leslie O'Toole** practices in the areas of civil litigation in Raleigh, North Carolina. Her litigation practice includes the representation of pharmaceutical companies, health care practitioners and institutions, car rental companies, trucking companies, and insurance companies. Ms. O'Toole obtained her undergraduate degree, *magna cum laude* from Brown University and her J.D. with High Honors from the University of North Carolina, where she was a Morehead Law Fellow. Ms. O'Toole was a member of the Order of the Coif, and she served as Research Editor of the North Carolina Law Review. She has served as the President of the Raleigh Professional Women's Forum and as Secretary of the 1999 Special Olympics World Summer Games. She currently serves as the chair for the Board of Special Olympics North Carolina

and on the Board of the UNC Law Alumni Association. She is the past recipient of the Business Journal's 1999 *Women in Business Award*. Ms. O'Toole served as president of the North Carolina Association of Defense Attorneys from 2006-2007, and was vice chair of the Drug, Device and Biotechnology Section of the FDCC in 2004-2005. In addition, Ms. O'Toole has given numerous presentations on *Daubert* for organizations such as the North Carolina Association of Defense Attorneys, DRI, the FDCC, the North Carolina Bar Association, and the National Institute for Trial Advocacy. She was named in the 2005 edition of *Business North Carolina Magazine's Legal Elite* for litigation. Ms. O'Toole has also been named in the 2005 and 2006 edition of *The Best Lawyers in America*.

**Honorable T. Michael Putnam** is a U.S. Magistrate Judge for the Northern District of Alabama, where he has served since 1987. He received his J.D. from the University of Alabama School of Law in Tuscaloosa, where he was Senior Editor of the Alabama Law Review, a member of Order of the Coif, and Hugo L. Black Scholar. Judge Putnam earned his B.A. *magna cum laude* in Political Science from the University of Alabama, where he was Phi Beta Kappa. Prior to joining the federal bench, he was a partner in the firm of Potts, Young, Blasingame & Putnam. Judge Putnam has lectured at CLE programs on the Alabama Rules of Civil Procedure, changes in Federal Civil Procedure, class certification, the role of the magistrate in Federal Civil Procedure, and developments in Federal Criminal Law. He is the author of *Warrantless Seizures: The Plain View Doctrine in Alabama*, 30 ALA. L. REV. 433 (1979), and *The Utilization of Magistrate Judges in the Federal District Courts of Alabama*, 28 CUMB. L. REV. 635 (1998). Judge Putnam is a member of the Federal Magistrate Judges Association, and has presided over the discovery and pretrial motions in such high-profile cases as the Eric Rudolph Birmingham bombing case and HealthSouth CEO Richard Scrushy's corporate fraud case.

**Honorable Juan Ramirez Jr.** has been a judge in the Third District Court of Appeal in Miami, Florida, since January 2000. He previously served as a Circuit Court Judge (1990-99) and as a County Court Judge (1988-90). Judge Ramirez earned a B.A. and an M.A. from Vanderbilt University, followed by two years at the University of Florida, where he worked on a Ph.D. in Latin American History. He graduated with honors in 1975 from the University of Connecticut School of Law. As a district judge, he is currently the Associate Dean of the College of Advance Judicial Studies and is serving in the Florida Courts Education Council, which makes all the policy and funding decisions for the judicial education in the state. As a trial judge, he served in the Criminal, Family and General Jurisdiction Divisions and, during his last year, was the Administrative Judge of the Appellate Division of the Circuit Court. He was elected as the Third District Court representative to the Conference of Circuit Court Judges, and also served as civil section chair and education program chair. He has previously lectured at various meetings of the Conference of Circuit Judges on civil topics. Judge Ramirez has taught numerous law school courses as an adjunct professor at Florida International University, St. Thomas University School of Law, and Nova Southeastern University School of Law, including Florida civil procedure, medical malpractice, criminal procedure, evidence and family law. He is currently a member of the Civil Rules Committee. He is the author of "Florida Civil Procedure," a two-volume set published by Michie/Lexis Publishing in 1997, and a three-volume set entitled "Florida Evidence Manual," published in 2000 by Lexis. He has also written for a number of Florida Bar publications.

### Discussion Group Moderators

**Sharon J. Arkin** practices law in Newport Beach, California, concentrating on business torts, ERISA, HMO, and insurance bad faith actions. She received a B.S. from the University of California, Riverside, and a J.D. degree from Western State University School of Law, and was also a contributing author of

BUSINESS TORTS (Matthew Bender 1991). Ms. Arkin is a past-president of Consumer Attorneys of California (CAOC), Editor-in-Chief of CAOC *Forum*, and the chair of the CAOC Amicus Curiae Committee. In addition to being co-chair of the American Association of Justice's (AAJ) [formerly the Association of Trial Lawyers of America (ATLA)] Legal Affairs Committee, she is a Fellow and Honorary Trustee of the Pound Institute.

**Kathryn H. Clarke** is an appellate lawyer and complex litigation consultant in Portland, Oregon. She specializes in medical negligence, products liability, punitive damages, and constitutional litigation in both state and federal courts. She received a B.A. from Whitman College, an M.A. from Portland State University, and a J.D. from the Northwestern School of Law of Lewis and Clark College. Ms. Clarke serves on the AAJ Board of Governors and is chair of AAJ's Amicus Curiae committee. She is a past-president of the Oregon Trial Lawyers Association and a Fellow of the Pound Institute.

**Lynne Stern Feiges** is an attorney and freelance writer in Seattle, Washington. For the past 16 years, she has edited and contributed to the AAJ Law Reporter and the Professional Negligence Law Reporter, among other publications. She received her psychology degree from Rutgers University and her J.D. *magna cum laude* from the New England School of Law, where she was a New England Scholar and served on the school's law review. Ms. Feiges has copy edited such Pound Civil Justice Institute's publications as *Civil Justice Digest* and the 2001-2006 editions of the Report of the Annual Forum for State Appellate Court Judges. Most recently, Ms. Feiges co-authored a book, "Sibling Stories," published by the Autism Asperger Publishing Company.

**William A. Gaylord** is a shareholder in the Portland law firm of Gaylord Eyerman Bradley, P.C., specializing in major products liability and medical negligence litigation. He received his B.S. from Oregon State University and his J.D. from the Northwestern School of Law of Lewis and Clark College. Mr. Gaylord is a past-president and current governor of the Oregon Trial Lawyers Association and a member of the Washington Trial Lawyers Association. He is member of AAJ's Board of Governors, as well as co-chair of the AAJ Legal Affairs Committee. Mr. Gaylord is a Fellow of the Pound Civil Justice Institute.

**Betty Morgan** is a member of the firm Epstein, Becker, and Green, P.C., in their National Litigation practice in the firm's Atlanta office. She received her J.D. at Emory University School of Law, where she was a member of the Order of the Coif, and earned her B.A. at the University of Florida. Ms. Morgan is chair of the Business Torts Section of AAJ. She was named as one of the top 50 women attorneys in Atlanta, as selected by Georgia attorneys. Ms. Morgan teaches Trial Techniques at Emory University School of Law. She is a Fellow of the Pound Civil Justice Institute.

**Leslie O'Leary** practices law in Portland, Oregon with Williams Love O'Leary Craine & Powers. Ms. O'Leary received her law degree in 1998 from Northwestern School of Law, Lewis and Clark College. She is a member of the Board of Governors for the Oregon Trial Lawyers Association. She also serves on the board of Oregon Women Lawyers. In addition, she is a member of the AAJ, where she is co-chair of the Ephedra Litigation Group. She also serves as a member of the State of Oregon's Council on Court Procedure. Ms. O'Leary is a Fellow of the Pound Civil Justice Institute.

**Wayne D. Parsons** practices law in Honolulu, Hawaii. He received his B.S., M.S., and J.D. from the University of Michigan. He is a member of the Board of Governors of AAJ. He is a past president of the Consumer Lawyers of Hawaii and is a director of the Hawaii State Bar Association. He is a Fellow of the Pound Institute. Mr. Parsons has been active in educating the public about the work of lawyers and the courts and is a founder of the Hawaii Peoples' Law School Program and the Hawaii Appleseed Center for

Public Interest Law.

**Ellen Relkin** practices law in New York City, where she concentrates on pharmaceutical products liability, toxic torts, medical malpractice, and women's health issues. She received her B.A. from Cornell University and her J.D. from Rutgers University, where she served as executive editor of the *Women's Rights Law Reporter*. She is a member of the American Law Institute and a Fellow of the Pound Institute.

**Larry A. Tawwater** practices law in Oklahoma City, specializing in products liability, aviation, and general negligence litigation. He received both his B.A. and J.D. from the University of Oklahoma. He has served as president of the Oklahoma Trial Lawyers Association and as a governor of AAJ. He is a member of the American Society of Law, Medicine and Ethics, the American Judicature Society, and the International Society of Barristers, and is a Fellow of the Pound Institute.

**John Vail** is Vice President and Senior Litigation Counsel with the Center for Constitutional Litigation. He has been counsel on several cases in the United States Supreme Court, and spearheads AAJ's fight against mandatory arbitration. He is a graduate of the College of the University of Chicago and of Vanderbilt Law School. Mr. Vail is President of the Board of Directors of the Virginia chapter of the American Civil Liberties Union.

#### **President, Pound Civil Justice Institute; Forum Moderator**

**Mary E. Alexander** was President of the Pound Civil Justice Institute in 2005-2006. She is the founder of the San Francisco firm of Mary Alexander and Associates, where she is an experienced trial lawyer in personal injury, products liability, and business litigation. She obtained her law degree at the University of Santa Clara and her Masters of Public Health at the University of California at Berkeley. Prior to her legal career, she was engaged in scientific research in medical toxicology and was director of environmental health at the Stanford Research Institute. She is a past-president of ATLA, a past-president of the Consumer Attorneys of California, a member of the American Board of Trial Advocates, is Senior Counsel with the College of Master Advocates & Barristers, and has served on numerous committees for the Judicial Council of California. Ms. Alexander was named one of the top 10 trial lawyers in the Bay Area in 1990 by the *San Francisco Chronicle* and the California Daily Journal named her one of the Top 100 Most Influential Lawyers in California. ATLA's Minority Caucus awarded Ms. Alexander with the Trailblazer award in 2002. She was also the award recipient of the Consumer Attorneys of California's Marvin E. Lewis award in 1998. Ms. Alexander received an honorary Doctor of Laws in May 2003 from Santa Clara University and Santa Clara School of Law's Alumni Association awarded her their Special Achievement Award.

#### **Forum Report Editor**

**Richard H. Marshall, Ph.D.**, was the Executive Director of the Pound Civil Justice Institute, located in Washington, D.C., from 2001 to 2007. Dr. Marshall received his B.A. degree *cum laude* in Political Science and English from the University of Delaware, and his A.M and Ph.D. in Political Science from the University of Illinois at Urbana-Champaign, where he was a Charles W. Merriam Fellow. From 1997 to 2001, he worked as a Research Analyst for ATLA, studying the civil justice system from an empirical perspective. Before working at ATLA, he served as a Visiting Assistant Professor at the University of Illinois, teaching courses in public policy. He taught constitutional law and civil liberties and served as pre-law advisor at Eastern Illinois University. As Executive Director of the Pound Institute, he developed and managed the Institute's Annual Forum for State Appellate Court Judges, the Law Professor

Symposium, Regional Judges Forums, and served as editor of the *Civil Justice Digest*. He was the editor or co-editor of the Reports of the Annual Forum for State Appellate Court Judges: THE JURY AS FACT FINDER AND COMMUNITY PRESENCE IN CIVIL JUSTICE (2001); STATE COURTS AND FEDERAL AUTHORITY: A THREAT TO JUDICIAL INDEPENDENCE? (2002); THE PRIVATIZATION OF JUSTICE? MANDATORY ARBITRATION AND THE STATE COURTS (2003); STILL CO-EQUAL? STATE COURTS, LEGISLATURES, AND THE SEPARATION OF POWERS (2004); and THE RULE(S) OF LAW: ELECTRONIC DISCOVERY AND THE CHALLENGE OF RULEMAKING IN THE STATE COURTS (2005). Dr. Marshall served on the Education subcommittee for the American Association for the Advancement of Science's Court Appointed Scientific Experts (CASE) Demonstration Project.

# Judicial Attendees

## Alabama

Honorable Eddie Hardaway Jr., Presiding Circuit Judge, Seventeenth Judicial Circuit

Honorable T. Michael Putnam, United States Magistrate Judge, Northern District of Alabama (panelist)

Honorable Tennant M. Smallwood, Judge, Tenth Judicial Circuit

Honorable Marvin W. Wiggins, Judges, Fourth Judicial Circuit

## Arkansas

Honorable Donald L. Corbin, Associate Justice, Supreme Court

Honorable Jim Gunter, Associate Justice, Supreme Court

Honorable Jim Hannah, Chief Justice, Supreme Court

## Arizona

Honorable A. John Pelander, Chief Judge, Court of Appeals, Division Two

## California

Honorable Marvin R. Baxter, Associate Justice, Supreme Court

Honorable William W. Bedsworth, Associate Justice, Fourth District Court of Appeal, Division Three

Honorable Ming W. Chin, Associate Justice, Supreme Court

Honorable Malcolm Mackey, Judge, Los Angeles Superior Court

Honorable Thomas I. McKnew, Judge, Los Angeles Superior Court

Honorable Vance W. Raye, Associate Justice, Third District Court of Appeal

## Colorado

Honorable Russell E. Carparelli, Judge, Court of Appeals

Honorable Dennis Graham, Judge, Court of Appeals

## Connecticut

Honorable Joette Katz, Associate Justice, Supreme Court

Honorable Flemming L. Norcott Jr., Associate Justice, Supreme Court

## Florida

Honorable Edwin B. Browning, Judge, First District Court of Appeal

Honorable Gary M. Farmer, Chief Judge, Fourth District Court of Appeal

Honorable Ronald M. Friedman, Judge, Eleventh Judicial Circuit Court

Honorable Melvia B. Green, Judge, Third District Court of Appeal

Honorable Joseph Lewis Jr., Judge, First District Court of Appeal

Honorable William D. Palmer, Judge, Fifth District Court of Appeal

Honorable Juan Ramirez Jr., Judge, Third District Court of Appeal (panelist)

Honorable Frank A. Shepherd, Judge, Third District Court of Appeal

Honorable Richard J. Suarez, Judge, Third District Court of Appeal

Honorable William A. Van Nortwick, Judge, First District Court of Appeal

## **Georgia**

Honorable Anne Elizabeth Barnes, Judge, Court of Appeals  
Honorable John H. Ruffin Jr., Chief Judge, Court of Appeals

## **Hawaii**

Honorable Simeon R. Acoba Jr., Associate Justice, Supreme Court  
Honorable James E. Duffy Jr., Associate Justice, Supreme Court  
Honorable Steven H. Levinson, Associate Justice, Supreme Court  
Honorable Ronald T.Y. Moon, Chief Justice, Supreme Court  
Honorable Paula A. Nakayama, Associate Justice, Supreme Court

## **Illinois**

Honorable Calvin C. Campbell, Justice, Appellate Court  
Honorable Robert L. Carter, Chief Judge, Thirteenth Judicial Circuit  
Honorable David R. Donnersberger, Judge, Chancery Division Illinois, Third District  
Honorable Rodolfo Garcia, Justice, First District Appellate Court, Division Two  
Honorable Richard P. Goldenhersh, Justice, Fifth District Appellate Court  
Honorable Alan J. Greiman, Justice, First District Appellate Court, Division Three  
Honorable Thomas E. Hoffman, Presiding Justice, First District Appellate Court, Division Three  
Honorable Themis N. Karnezis, Judge, First District Appellate Court, Division Three  
Honorable Alexander P. White, Judge, Circuit Court of Cook County

## **Indiana**

Honorable James S. Kirsch, Chief Judge, Court of Appeals

## **Iowa**

Honorable Rosemary S. Sackett, Chief Judge, Court of Appeals  
Honorable Gary Wenell, Judge, District Court

## **Kansas**

Honorable Daniel A. Duncan, Judge, Wyandotte County District Court  
Honorable Gerald T. Elliott, Judge, Johnson County District Court

## **Kentucky**

Honorable John William Graves, Justice, Supreme Court

## **Louisiana**

Honorable Mary Hotard Becnel, Judge, Civil District Court, Fortieth Judicial District  
Honorable Sylvia R. Cooks, Judge, Third Circuit Court of Appeal  
Honorable Marion F. Edwards, Judge, Fifth Circuit Court of Appeal  
Honorable John Michael Guidry, Judge, First Circuit Court of Appeal  
Honorable Charles R. Jones, Judge, Fourth Circuit Court of Appeal  
Honorable Edwin A. Lombard, Judge, Fourth Circuit Court of Appeal  
Honorable Terri Love, Judge, Fourth Circuit Court of Appeal  
Honorable Lloyd J. Medley Jr., Judge, Civil District Court, Parish of Orleans  
Honorable Jewel E. Welch, Judge, First Circuit Court of Appeal

## **Maryland**

Honorable Lynne A. Battaglia, Judge, Court of Appeals  
Honorable Robert M. Bell, Chief Judge, Court of Appeals  
Honorable Alan M. Wilner, Judge, Court of Appeals

## **Massachusetts**

Honorable Robert J. Cordy, Associate Justice, Supreme Judicial Court

## **Michigan**

Honorable Mark J. Cavanagh, Judge, Court of Appeals  
Honorable Karen M. Fort Hood, Judge, Court of Appeals  
Honorable Kathleen Jansen, Judge, Court of Appeals  
Honorable William B. Murphy, Judge, Court of Appeals  
Honorable Peter D. O'Connell, Judge, Court of Appeals

## **Mississippi**

Honorable Larry Buffington, Judge, Chancery Court, Thirteenth District  
Honorable Charles D. Easley Jr., Justice, Supreme Court  
Honorable James E. Graves Jr., Justice, Supreme Court (panelist)  
Honorable Tomie Green, Judge, Circuit Court, Seventh District  
Honorable Tyree Irving, Judge, Court of Appeals  
Honorable Forrest Al Johnson, Judge, Circuit Court, Sixth District  
Honorable Billy J. Landrum, Circuit Court Judge, Eighteenth Circuit District  
Honorable Jannie M. Lewis, Circuit Court Judge  
Honorable Percy L. Lynchard Jr., Judge, Chancery Court, Third District  
Honorable William Singletary, Judge, Chancery Court, Fifth District

## **Missouri**

Honorable Gary M. Gaertner, Senior Appellate Judge, Court of Appeals, Eastern District

## **Nevada**

Honorable Robert E. Rose, Chief Justice, Supreme Court

## **New Jersey**

Honorable Howard H. Kestin, Presiding Judge, Appellate Division, Superior Court

## **New Mexico**

Honorable A. Joseph Alarid, Judge, Court of Appeals  
Honorable Patricio M. Serna, Justice, Supreme Court  
Honorable James J. Wechsler, Judge, Court of Appeals

## **New York**

Honorable John T Buckley, Presiding Justice, Supreme Court, Appellate Division, First Department  
Honorable Michelle Weston Patterson, Associate Justice, Supreme Court, Appellate Term, Kings County  
Honorable Elizabeth W Pine, Associate Justice, Supreme Court, Appellate Division, Fourth Department  
Honorable John W. Sweeny Jr., Associate Justice, Supreme Court, Appellate Division, First Department  
Honorable Melvyn Tanenbaum, Associate Justice, Supreme Court, Appellate Term, Suffolk County

### **North Carolina**

Honorable Wanda G. Bryant, Judge, Court of Appeals

Honorable John M. Tyson, Judge, Court of Appeals

### **Ohio**

Honorable Frank D. Celebrezze Jr., Judge, Court of Appeals, Eighth District

Honorable W. Scott Gwin, Judge, Court of Appeals, Fifth District

Honorable Diane Karpinski, Judge, Court of Appeals, Eighth District

Honorable Roger L. Kline, Judge, Court of Appeals, Fourth District

### **Oklahoma**

Honorable Marian P. Opala, Justice, Supreme Court

Honorable Keith Rapp, Vice Chief Judge, Court of Civil Appeals

### **Oregon**

Honorable Rex Armstrong, Judge, Court of Appeals

Honorable Robert D. Durham, Associate Justice, Supreme Court

Honorable Walter I. Edmonds, Judge, Court of Appeals

Honorable Henry Kantor, Circuit Court Judge, Multnomah County

Honorable R. William Riggs, Associate Justice, Supreme Court

Honorable Ellen Rosenblum, Judge, Court of Appeals

Honorable Robert Wollheim, Judge, Court of Appeals

### **Pennsylvania**

Honorable Linda K.M. Ludgate, Judge, Court of Common Pleas, Twenty-third Judicial District

### **South Carolina**

Honorable Donald W. Beatty, Judge, Court of Appeals

Honorable H. Samuel Stilwell, Judge, Court of Appeals

### **Tennessee**

Honorable William M. Barker, Chief Justice, Supreme Court

Honorable Patricia J. Cottrell, Judge, Court of Appeals

Honorable William C. Koch Jr., Judge, Court of Appeals

### **Texas**

Honorable John Cayce, Chief Justice, Second Court of Appeals

Honorable Molly Francis, Justice, Fifth Court of Appeals

Honorable Anne Gardner, Justice, Second Court of Appeals

Honorable Dori Contreras Garza, Justice, Thirteenth Court of Appeals

Honorable Eva M. Guzman, Justice, Fourteenth Court of Appeals

Honorable George C. Hanks Jr., Justice, First Court of Appeals

Honorable James T. Worthen, Chief Justice, Twelfth Court of Appeals

**Washington**

Honorable J. Robin Hunt, Judge, Court of Appeals, Division II

Honorable Susan Owens, Justice, Supreme Court

Honorable Richard B. Sanders, Justice, Supreme Court

Honorable John A. Schultheis, Judge, Court of Appeals, Division III

Honorable Dennis J. Sweeney, Judge, Court of Appeals, Division II

**West Virginia**

Honorable Joseph P. Albright, Justice, Supreme Court of Appeals

Honorable Elliot E. Maynard, Justice, Supreme Court of Appeals

Honorable Larry V. Starcher, Justice, Supreme Court of Appeals

**Wisconsin**

Honorable Paul B Higginbotham, Judge, Court of Appeals, Fourth District

## **FORUM UNDERWRITERS**

### **BARRISTER**

Keith A. Hebeisen

### **DEFENDER**

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Maier, Guiley and Maier, P.A.

Betty A. Thompson

### **SENTINEL**

Lawrence N. Curtis

Russ M. Herman

Koskoff, Koskoff and Bieder, P.C.

Lovell and Jack Olender

Mark S. Mandell

Stanley J. Marks

Ron Morgan

Jack H. Olender

Roger L. Pardieck

### **ADVOCATE**

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Law Offices of Jeffrey A. Garrety

Robert L. Parks

Wayne D. Parsons

Patrick M. Regan

Searcy, Denny, Scarola, Barnhart

and Sniple, P.A.

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### **SUPPORTER**

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Gregory S. Cusimano

Franklyn Glinn

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W. Noel Harris

William N. Kritselis

Michael S. Miller

David J. Romano

Seymour Sikov

# About the Pound Civil Justice Institute

## What is the Pound Civil Justice Institute?

The Pound Civil Justice Institute is a legal think tank dedicated to the cause of promoting access to the civil justice system through its programs, publications, and research grants. The Institute was established in 1956 to build upon the work of Roscoe Pound, Dean of Harvard Law School from 1916 to 1936 and one of law's greatest educators. The Pound Institute promotes open, ongoing dialogue between the academic, judicial, and legal communities, on issues critical to protecting and ensuring the right to trial by jury. At conferences, symposiums, and annual forums, in reports and publications, and through grants and educational awards, the Pound Civil Justice Institute initiates and guides the debate that brings positive changes to American jurisprudence and strives to guarantee access to justice.

## What Programs Does the Institute Sponsor?

**Annual Forum for State Appellate Court Judges**—The Annual Forum for State Appellate Court Judges brings together judges from state supreme courts and intermediate appellate courts, legal scholars, practicing attorneys, legislators, and members of the media for an open dialogue about major issues in contemporary jurisprudence. The Forum recognizes the important role of state courts in our system of justice, and deals with issues of responsibility and independence that lie at the heart of a judge's work. Pound Forums have addressed such issues as rule making, electronic discovery, mandatory arbitration, secrecy in the courts, judicial independence, and the civil jury. The Forum is one of the Institute's most respected programs, and has been called "one of the best seminars available to jurists in the country."

**Regional Trial Court Judges Forum**—Following the overwhelming success of the Annual Forum for State Appellate Court Judges, the Institute created a program for trial court and other judges conducted at judicial seminars around the country. In order to expand our outreach to the judicial community, this program is held in conjunction with national and regional groups working with judges. These programs feature panels comprised of judges, lawyers, and legal scholars who engage the attendees in a dialogue on important judicial issues. The Pound Institute has held regional Forums in Texas, Hawaii, South Carolina, and Alaska and examined such topics as judicial independence, scientific evidence, the civil jury, and secrecy in the courts.

**Law Professors Symposium**—One of the primary goals of the Pound Civil Justice Institute is to provide a well-respected basis for challenging the claims made by entities attempting to limit individual access to the civil justice system. To this end, the Institute inaugurated the Law Professor Symposium, which offers an alternative to the "law and economics" programs being cultivated on law school campuses by tort reformers; it seeks to develop a new school of thought emphasizing the right to trial by jury and to provide a fertile breeding ground for new research supportive of the civil justice system. The Institute held its first Symposium on the subject of mandatory arbitration in conjunction with Duke University Law School in October, 2002. The papers from the 2002 Symposium appear in a special issue of the Duke law journal, 67 *LAW & CONTEMPORARY PROBLEMS* (2004). The Pound Institute held its Symposium in 2005 on medical malpractice at Vanderbilt Law School, and the papers from that program appear in 59 *VANDERBILT LAW REVIEW* (2006).

**Research**—The Institute actively promotes research through grants to scholars and academic institutions, as well as through in-house scholarship. We have sponsored academic research on soft-tissue injury cases, juror bias, and the contribution that lawyers make to the economy. Our goal is to ensure that first-rate, respected, and useful research is conducted on the civil justice system.

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## PAPERS OF THE POUND CIVIL JUSTICE INSTITUTE

### Reports of the Annual Forums for State Appellate Court Judges

2005 • *The Rule(s) of Law: Electronic Discovery and the Challenge of Rulemaking in the State Courts*. Report of the thirteenth Forum for State Appellate Court Judges. Discussions include state court approaches to rule making, legislative encroachments into that judicial power, the impact of federal rules on state court rules, how state courts can and have adapted to the use of electronic information, whether there should be differences in handling the discovery of electronic information versus traditional files, and whether state courts should adopt new proposed federal rules on e-discovery. (Price per bound copy-\$40)

2004 • *Still Coequal? State Courts, Legislatures, and the Separation of Powers*. Report of the twelfth Forum for State Appellate Court Judges. Discussions include state court responses to legislative encroachment, deference state courts should give legislative findings, the relationship between state courts and legislatures, judicial approaches to separation of powers issues, the funding of the courts, the decline of lawyers in legislatures, the role of courts and judges in democracy, and how protecting judicial power can protect citizen rights. (Price per bound copy-\$40)

2003 • *The Privatization of Justice? Mandatory Arbitration and the State Courts*. Report of the eleventh Forum for State Appellate Court Judges. Discussions include the growing rise of binding arbitration clauses in contracts, preemption of state law via the Federal Arbitration Act (FAA), standards for judging the waiver of the right to trial by jury, the supposed national policy favoring arbitration, and resisting the FAA's encroachment on state law. (Price per bound copy-\$40)

2002 • *State Courts and Federal Authority: A Threat to Judicial Independence?* Report of the tenth Forum for State Appellate Court Judges. Discussions include efforts by federal and state courts to usurp the power of state court through removal, preemption, etc, the ability of state courts to handle class actions and other complex litigation, the constitutional authority of state courts, the relationship between state courts and legislatures and federal courts. (Price per bound copy-\$40)

2001 • *The Jury as Fact Finder and Community Presence in Civil Justice*. Report of the ninth Forum for State Appellate Court Judges. Discussions include the behavior and reliability of juries, empirical studies of juries, efforts to blindfold the jury, the history of the civil jury in Britain and America, the treatment of juries by appellate courts, how juries judge cases in comparison to other fact-finders, and possible future approaches to trial by jury in the United States. (Price per bound copy-\$40)

2000 • *Open Courts with Sealed Files: Secrecy's Impact on American Justice*. Report of the eighth Forum for State Appellate Court Judges. Discussions include the effects of secrecy on the rights of individuals, the forms that secrecy takes in the courts, ethical issues affecting lawyers agreeing to secret settlements, the role of the news media in the debate over secrecy, the tension between confidentiality proponents and public access advocates, and the approaches taken by various judges when confronted with secrecy requests. (Price per bound copy-\$40)

1999 • *Controversies Surrounding Discovery and Its Effect on the Courts*. Report of the seventh Forum for State Appellate Court Judges. Discussions include the existing empirical research on the operation of civil discovery; the contrast between the research findings and the myths about discovery that have circulated; and whether or not the recent changes to the federal courts' discovery rules advance the purpose of discovery. (\$40)

1998 • *Assaults on the Judiciary: Attacking the “Great Bulwark of Public Liberty.”* Report of the sixth Forum for State Appellate Court Judges. Discussions include threats to judicial independence through politically motivated attacks on the courts and on individual judges as well as through legislative action to restrict the courts that may violate constitutional guarantees, and possible responses to these challenges by judges, judicial institutions, the organized bar, and citizen organizations. (\$40)

1997 • *Scientific Evidence in the Courts: Concepts and Controversies.* Report of the fifth Forum for State Appellate Court Judges. Discussions include the background of the controversy over scientific evidence; issues, assumptions, and models in judging scientific disputes; and the applicability of the *Daubert* decision’s “reliability threshold” under state law analogous to Rule 702 of the Federal Rules of Evidence (Only available in electronic format at [www.poundinstitute.org](http://www.poundinstitute.org)). (Free)

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