

WAITING FOR *DAUBERT*: THE NEVADA SUPREME COURT AND THE ADMISSIBILITY OF EXPERT TESTIMONY

Brian Irvine*

In 1993, the United States Supreme Court set forth a new rule for the admissibility of expert testimony in federal courts.¹ In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the Court overturned the seventy-year-old "general acceptance" test, which had allowed federal courts to certify witnesses as experts only when their testimony consisted of theories, opinions, or conclusions that had been generally accepted by the scientific community.² The Court in *Daubert* held that the general acceptance test established in *Frye v. United States* had been superceded by the more liberal Federal Rule of Evidence (hereinafter FRE) 702.³ Under the *Daubert* Court's interpretation of FRE 702, federal judges now must examine the scientific validity of the methodology used to form expert opinions or conclusions before admitting testimony.⁴

Prior to the FRE and the *Daubert* decision, most states had applied the *Frye* test for general scientific acceptance. Since the FRE were adopted, almost every state, including Nevada, has adopted a provision nearly identical to FRE 702 to govern the admissibility of scientific evidence.⁵ Only a few states have continued to apply the *Frye* general acceptance test; most states have since expressly adopted the *Daubert* decision or have interpreted and applied rules like FRE 702 in a similar fashion.⁶

Unfortunately, the Nevada rule for the admission of expert testimony remains unclear. The Nevada Supreme Court has sometimes used general acceptance as the deciding factor in determining admissibility,⁷ yet has adamantly refused to adopt *Frye*.⁸ The court has likewise refused to adopt *Daubert*, stating:

* Brian Irvine is a clerk for Judge Melvin Brunetti, United States Court of Appeals for the Ninth Circuit. J.D., 2001, University of Nevada, Las Vegas.

¹ See *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).

² See *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).

³ See *Daubert*, 509 U.S. at 579; FED. R. EVID. 702.

⁴ See *Daubert*, 509 U.S. at 592-93.

⁵ See Heather G. Hamilton, *The Movement from Frye to Daubert: Where Do the States Stand?*, 38 JURIMETRICS J. 201, 210 (1998) (listing Connecticut, Maine, New York, and Pennsylvania as the only states with no provision similar to FRE 702).

⁶ See *id.*

⁷ See, e.g., *Am. Elevator Co. v. Briscoe*, 572 P.2d 534, 538 (Nev. 1977).

⁸ See *Santillanes v. State*, 765 P.2d 1147, 1150 n.3 (Nev. 1988) ("In the sixty-five years since *Frye* was decided we have neither cited to nor adopted the decision.").

We believe that the *Daubert* doctrine is a work in progress, and that we should observe the doctrine's further development in the federal courts before concluding that *Daubert* should be adopted as the law of this state. Above all, we do not presently perceive a need to adopt *Daubert*, based on our perception of developments in Nevada law, and we therefore decline to do so.⁹

The admission of expert testimony in Nevada state courts is "left to the sound discretion of the trial judge and will not be disturbed on appeal in the absence of showing such discretion was abused."¹⁰ Experts need not be licensed in their area of expertise in order to be qualified, but the lack of a license, in conjunction with other factors, may preclude qualification as an expert.¹¹ The issue for the court to examine is not one of licensure, but rather the witness' actual knowledge, and whether she possesses special knowledge, training, and education in the area.¹² If the trial court decides that the witness has such knowledge or training, and that the testimony will assist the trier of fact to understand a contested issue, then the testimony should be admitted,¹³ so long as it meets standards of "reliability and trustworthiness."¹⁴

The most recent trend in Nevada is to examine reliability and trustworthiness in terms of the expert's credentials while ignoring the methods by which the expert's conclusions were reached.¹⁵ This trend is troubling in that an expert with good standing in his field might offer conclusions that have not yet been considered by his peers. The "credentials" method can allow the expert to offer opinions that are subsequently proven to be untenable. This result places an undue burden on the cross-examining attorney to cast doubt upon the opinions of a witness with impeccable credentials. Additionally, the adversary system compels lawyers to find experts to refute the testimony offered by their opponent. The Nevada rule results in unqualified lay-juries being forced to determine which party's expert witness provides the more valid opinion, undermining the purpose for which expert testimony is used. A preferable method would be for the court to not only scrutinize the expert's credentials at the outset, but also to consider equally the opinions that the expert will offer at trial and to examine the methodology behind those opinions.

The Nevada Supreme Court has not provided guidelines for trial courts to use in determining whether the witness has special knowledge or training. It has also failed to seriously examine the methodology behind expert opinions in recent cases.¹⁶ Trial courts, in turn, have used inconsistent reasoning in deciding to admit or exclude expert testimony, basing their decisions on a variety of factors, including general acceptance,¹⁷ the experts' credentials,¹⁸ or licensure

⁹ *Dow Chem. Co. v. Mahlum*, 970 P.2d 98, 108 n.3 (Nev. 1998).

¹⁰ *Provence v. Cunningham*, 588 P.2d 1020, 1021 (Nev. 1979).

¹¹ See *Cheyenne v. Hozz*, 720 P.2d 1224, 1226 (Nev. 1986); *Wright v. Las Vegas Hacienda*, 720 P.2d 696, 697 (Nev. 1986).

¹² See *Wright*, 720 P.2d at 697; *Freeman v. Davidson*, 768 P.2d 885, 886 (Nev. 1989).

¹³ See *Wright*, 720 P.2d at 697; *Fernandez v. Admirand*, 843 P.2d 354, 358-59 (Nev. 1992).

¹⁴ *Nev. Employment Sec. Dept. v. Holmes*, 914 P.2d 611, 615 (Nev. 1996).

¹⁵ See, e.g., *Dow Chem. Co. v. Mahlum*, 970 P.2d 98, 108-09 (Nev. 1998); *Yamaha Motor Co., U.S.A. v. Arnoult*, 955 P.2d 661, 667-68 (Nev. 1998).

¹⁶ See, e.g., *Dow Chem.*, 970 P.2d at 108-09; *Yamaha*, 955 P.2d at 667-68.

¹⁷ See *Am. Elevator Co. v. Briscoe*, 572 P.2d 534, 538 (Nev. 1977).

¹⁸ See *Dow Chem.*, 970 P.2d at 108-09; *Yamaha*, 955 P.2d at 667-68.

in the field of testimony.¹⁹ This inconsistency has led to confusion and uncertainty for Nevada practitioners, who cannot know what to expect when attempting to certify an expert for trial. Also, if an expert's credentials continue to be a dispositive factor for admissibility, juries may render judgments based on cutting edge expert opinions that are reached carelessly or have not yet been considered by the scientific community. Until the Nevada Supreme Court adopts *Daubert* or creates its own specific guidelines for trial courts to follow, confusion and uncertainty will undoubtedly continue.

The contrast between the application of Nevada's rule for admitting expert testimony and the application of the *Daubert* rule becomes clear when comparing recent cases. Recent Nevada state cases provide only limited analysis of experts' methodology, instead preferring to examine the experts' credentials.²⁰ On the other hand, recent cases of the United States District Court for the District of Nevada examine not only the experts' credentials, but also scrutinize the methodology behind the experts' opinions to ensure that acceptable scientific procedures were used.²¹ The federal decisions apply distinct factors and provide extensive analysis.²² Consequently, the federal opinions provide clear guidance as to what level of reliability the court will require before admitting testimony.

This Note proposes that the Nevada Supreme Court should adopt *Daubert*, so that Nevada state court practitioners would enjoy the same certainty and predictability when constructing their cases and choosing expert witnesses. Also, litigants in Nevada state courts would be protected from their opponents' witnesses offering unreliable scientific opinions. Only when Nevada litigants can expect the same degrees of predictability and reliability from state courts, as from federal courts, will the incentive for forum shopping be removed.

Part I of this Note will examine the history of evidentiary rules pertaining to expert testimony from *Frye* to the drafting of the FRE. Part II will continue the historical examination from the FRE to the *Daubert* and *Kumho Tire*²³ decisions. Part III will discuss the current Nevada statutes and case law governing the admissibility of expert testimony, consider the Nevada Supreme Court's treatment of the *Daubert* rule, and analyze how certain evidentiary issues in recent Nevada cases may have been resolved differently if the court had applied the *Daubert* rule. Finally, Part IV will explore several recent decisions of the United States District Court, District of Nevada in order to show the federal court's exhaustive examination of scientific methodology under the *Daubert* rule, as compared with the more cursory analysis conducted in state court.

¹⁹ See *Cheyenne v. Hozz*, 720 P.2d 1224, 1226 (Nev. 1986).

²⁰ See, e.g., *Dow Chem.*, 970 P.2d 98; *Yamaha*, 955 P.2d 661.

²¹ See, e.g., *Cabrera v. Cordis Corp.*, 945 F. Supp. 209 (D. Nev. 1996); *Valentine v. Pioneer Chlor Alkali Co., Inc.*, 921 F. Supp. 666 (D. Nev. 1996).

²² See, e.g., *Cabrera*, 945 F. Supp. 209; *Valentine*, 921 F. Supp. 666.

²³ See *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999).

I. FRYE TO FRE 702

In *Frye v. United States*, the United States District Court for the District of Columbia decided that all expert testimony must be comprised of ideas or conclusions "sufficiently established to have gained general acceptance in the particular field in which it belongs."²⁴ The decision was made in an attempt to resolve many years of conflict surrounding the issue;²⁵ however, the rule was the subject of serious criticism from twentieth-century scholars.²⁶ As science rapidly grew and new fields were introduced, courts began to realize that the general acceptance test sometimes allowed for the admission of invalid science, while excluding new but valid ideas or theories.²⁷ Dissatisfaction with the general acceptance rule reached a new high in the federal system in 1975 with the adoption of the FRE, which are generally slanted toward liberal admissibility of evidence.²⁸ FRE 702, "Testimony by Experts," provides that:

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.²⁹

Since the adoption of the FRE, nearly every state has adopted provisions similar to FRE 702.

II. FRE 702 TO KUMHO TIRE

In 1993, the United States Supreme Court examined FRE 702 in light of the general acceptance test and determined that the two were incompatible. In *Daubert*, the Court held that a trial judge must determine whether proposed scientific evidence is relevant, pursuant to FRE 401, and that its possible prejudicial effects, pursuant to FRE 403, do not substantially outweigh its probative value.³⁰ The judge must also determine whether the testimony constitutes the expert's "genuine knowledge," and whether the testimony is reliable.³¹ In order to be considered reliable, testimony need not be "known to a certainty,"³² but instead must at least consist of a body of known facts or of ideas supported by appropriate validation or good scientific grounds.³³ The Court provided a non-exhaustive list of factors for trial judges to consider in determining

²⁴ *Frye v. United States*, 293 F. 1013, 1014 (D.C. Cir. 1923).

²⁵ See Lee Loevinger, *Science as Evidence*, 35 JURIMETRICS J. 153 (1995) (historical survey of scientific evidence).

²⁶ See, e.g., CHARLES T. MCCORMICK, MCCORMICK ON EVIDENCE § 325, at 692 (1954); JACK B. WEINSTEIN & MARGARET BERGER, 3 WEINSTEIN'S EVIDENCE § 702[03], at 702-18, 702-19 (1987).

²⁷ See Bert Black et al., *Science and the Law in the Wake of Daubert: A New Search for Scientific Knowledge*, 72 TEX. L. REV. 715, 735 (1994).

²⁸ See Richard D. Friedman, *The Death and Transfiguration of Frye*, 34 JURIMETRICS J. 133, 144-45 (1994).

²⁹ FED. R. EVID. 702.

³⁰ See *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 587 (1993).

³¹ *Id.* at 587, 595; see also FED. R. EVID. 401, 403.

³² *Daubert*, 509 U.S. at 589.

³³ See *id.* at 590.

whether the purported knowledge is based on good grounds.³⁴ The trial court should examine the proposed theory or scientific technique and consider: (1) whether it can be tested; (2) whether it has been subjected to peer review and publication; (3) whether there is a known or potential rate of error; and (4) whether it has been generally accepted.³⁵ None of these factors were dispositive, but were instead intended to provide trial judges with some guidance, while maintaining the flexibility envisioned by FRE 702.³⁶

Daubert discussed scientific evidence, but was silent as to the ruling's applicability to technical or other forms of specialized testimony,³⁷ leaving the issue to be resolved by *Kumho Tire*.³⁸ In *Kumho Tire*, the Court held that *Daubert*'s requirement that the expert have genuine knowledge applied to all types of experts.³⁹ The Court also found that there might be circumstances in which the trial judge could legitimately apply the "gatekeeping" factors found in *Daubert*.⁴⁰ In deciding *Kumho Tire*, the Court stressed the difficulty of drawing strict lines between scientific and technical testimony, concluding that in most cases such a determination is unnecessary.⁴¹

III. NRS § 50.275 AND NEVADA SUPREME COURT DECISIONS

The Nevada Revised Statutes (hereinafter NRS) include a provision nearly identical to FRE 702. NRS § 50.275 provides that:

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 special knowledge, skill, experience, training or education may testify to matters within the scope of such knowledge.⁴²

From the time of Nevada's adoption of NRS § 50.275 in 1971 to the *Daubert* decision in 1994, the Nevada Supreme Court has fashioned a different interpretation from that of the federal courts. Nevada never expressly adopted the federal courts' *Frye* test. Instead, the Nevada Supreme Court has remained relatively independent from the influence of federal jurisprudence and has developed its own rule for admitting expert testimony through a succession of cases. The rule has evolved in a way that could make trial preparation difficult for both plaintiff and defense counsel.

³⁴ See *id.*

³⁵ See *id.* at 593-94.

³⁶ See *id.*

³⁷ See *id.* at 594 n.12.

³⁸ See *id.* at 590 n.8 ("Our discussion is limited to the scientific context because that is the nature of the expertise offered here.").

³⁹ See *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999).

⁴⁰ See *id.* at 151 ("In certain cases, it will be appropriate for the trial judge to ask, for example, how often an engineering expert's experience-based methodology has produced erroneous results, or whether such a method is generally accepted in the relevant engineering community.").

⁴¹ See *id.* at 148.

⁴² NEV. REV. STAT. 50.275 was adopted from Draft Federal Rule 7-02. See *Subcommittee's Comment*, NEV. REV. STAT. ANN. 50.275 (Michie 1971).

The Nevada Supreme Court has established that specific types of science are inadmissible, such as polygraph tests or narco-interrogation results.⁴³ However, the court has also decided that other science is reliable and admissible, such as hair drug test results.⁴⁴ As a result, the court has failed to provide a coherent test for trial courts to use to evaluate new science. Instead, a looser rule has been developed, granting trial courts broad discretion. The Nevada Supreme Court will not disturb this rule unless such discretion has been abused,⁴⁵ or in more recent cases, unless the trial court's decision is "manifestly wrong."⁴⁶

Development of the Nevada Rule

Shortly after Nevada adopted NRS § 50.275, the Nevada Supreme Court held that the conditions of an out-of-court experiment attempting to prove the trajectory of a fired bullet through re-creation must be "substantially similar" to those at the time of the incident in order to be admissible.⁴⁷ The court also held that expert opinion testimony must not be admitted if it is shown to rest on assumptions rather than facts.⁴⁸

The threshold test for admitting expert opinion testimony is whether the expert's specialized knowledge will assist the trier of fact to understand evidence or ascertain the truth of relevant matters outside the knowledge of the layperson.⁴⁹ If the trial court concludes that the evidence would be helpful, it must determine that the evidence is more probative than prejudicial.⁵⁰ Finally, the court has applied a two-pronged test, holding that evidence that has not received court recognition as possessing "trustworthiness and reliability" cannot be given the status of competent evidence.⁵¹ The two-pronged test is somewhat vague, as trustworthiness and reliability are both highly subjective determinations. Nonetheless, it is a test that provides trial courts with some guidance.

Despite the fact that the court has often emphasized the importance of the two-pronged test,⁵² it has sometimes failed to apply or even mention the test. For example, the court did not seem to apply the two-pronged test in *American*

⁴³ See *Warden, Nev. State Prison v. Lischko*, 523 P.2d 6, 8 (Nev. 1974); *Am. Elevator Co. v. Briscoe*, 572 P.2d 534, 538 (Nev. 1977).

⁴⁴ See *Nev. Employment Sec. Dept. v. Holmes*, 914 P.2d 611, 615 (Nev. 1996).

⁴⁵ See *Provence v. Cunningham*, 588 P.2d 1020, 1021 (Nev. 1979); *Wright v. Las Vegas Hacienda*, 720 P.2d 696, 697 (Nev. 1986).

⁴⁶ *Bolin v. State*, 960 P.2d 784, 799 (Nev. 1998) (citing *Petrocelli v. State*, 692 P.2d 503, 508 (Nev. 1985)).

⁴⁷ *Wrenn v. State*, 506 P.2d 418, 419-20 (Nev. 1973) (the experts conceded that the validity of their calculations rested upon several assumed facts and that even a slight difference could materially affect their conclusion).

⁴⁸ See *id.* at 419.

⁴⁹ See *Townsend v. State*, 734 P.2d 705, 708 (Nev. 1987); *Yamaha Motor Co., U.S.A. v. Arnoult*, 955 P.2d 661, 667 (Nev. 1998).

⁵⁰ See NEV. REV. STAT. 48.035, 50.275 (Michie 1971).

⁵¹ *Warden, Nev. State Prison v. Lischko*, 523 P.2d 6, 8 (Nev. 1974) (holding that a convicted defendant could not seek to introduce lie detector test and narco-interrogation results on appeal because such tests had not received court recognition as possessing trustworthiness and reliability).

⁵² See *id.*; *Bolin v. State*, 960 P.2d 784, 800 (Nev. 1998).

Elevator Co. v. Briscoe,⁵³ holding that the results of polygraph tests could not be admitted under NRS § 50.275 because they had not received general scientific acceptance.⁵⁴ While the court seems to have applied the *Frye* test in *American Elevator*, it clarified in a 1988 decision that it had not previously cited to or adopted *Frye*.⁵⁵ Instead, the court reaffirmed its intention to evaluate evidence in terms of trustworthiness and reliability.⁵⁶

American Elevator is not the only case in which the court decided to exclude or admit expert testimony without using the two-pronged test. Instead, the court has admitted expert evidence based solely on its findings that the testimony would assist the jury.⁵⁷ In *Watson v. State*, the court relied on a jury instruction allowing the jury to attach whatever credibility it wished to the expert's testimony to protect the defendant from being harmed by the prejudicial effect of the testimony, rather than determining its trustworthiness and reliability at the outset.⁵⁸ In another case, the Nevada Supreme Court upheld the admission of the testimony of an accident reconstruction expert, even though his conclusions were based upon the factual findings of others.⁵⁹ Additionally, the court has consistently refused to exclude testimony based solely on the fact that experts are not licensed in the field in which they will offer testimony.⁶⁰ The issue is not one of licensure, but rather of the witness's actual knowledge, and whether she possesses special knowledge, training, and education in the area.⁶¹

The court has not always been so liberal in admitting testimony, and also has *excluded* witnesses without discussing the two-pronged test. The court has held that, although the lack of a license in the relevant field does not automatically exclude an expert's testimony, a court may consider the witness's lack of

⁵³ See *Am. Elevator Co. v. Briscoe*, 572 P.2d 534, 538 (Nev. 1977).

⁵⁴ See *id.*

⁵⁵ See *Santillanes v. State*, 765 P.2d 1147, 1150 n.3 (Nev. 1988).

⁵⁶ See *id.* at 1150.

⁵⁷ See, e.g., *Watson v. State*, 578 P.2d 753, 756 (Nev. 1978) (holding that the testimony would have been helpful to the jury in order to indicate the possible modus operandi of burglary); *Smith v. State*, 688 P.2d 326, 327 (Nev. 1984) (holding that expert testimony explaining that some victims are ambivalent about the forcefulness with which they want to pursue their complaints would assist the jury in understanding a victim's unusual behavior in a sexual abuse case).

⁵⁸ See *Watson*, 578 P.2d at 756 (holding that the competency and admissibility of opinion testimony is discretionary, and that the jury instruction properly stated that the jury could give whatever credibility it wished to the expert opinion).

⁵⁹ See *Jeep Corp. v. Murray*, 708 P.2d 297, 300 (Nev. 1985) (holding that the trial court did not err in admitting expert testimony regarding the cause of an automobile accident when the conclusions contained in the testimony were based on a third party's accident report, photographs of the scene, witness' descriptions of the scene of the accident and the expert's familiarity with the vehicle involved).

⁶⁰ See, e.g., *Wright v. Las Vegas Hacienda*, 720 P.2d 696, 697 (Nev. 1986) (holding that NEV. REV. STAT. 50.275 requires that an expert have special knowledge, skill, experience, training or education to testify, but that a license is not required); *Cheyenne v. Hozz*, 720 P.2d 1224, 1226 (Nev. 1986) (holding that the lack of a license in the field of offered testimony does not automatically preclude testimony, and that the trial court did not abuse its discretion by failing to qualify an unlicensed expert in light of other relevant factors).

⁶¹ See *Freeman v. Davidson*, 768 P.2d 885, 887 (Nev. 1989) (holding that an expert could testify in a malpractice case although the witness was not a licensed physician until after the date of the alleged malpractice); *Wright*, 720 P.2d at 697.

a license, among other factors, in deciding to exclude testimony.⁶² In *Porter v. State*,⁶³ the court upheld the trial court's exclusion of expert testimony based on the fact that the testimony was not within a recognized field of expertise.⁶⁴ In a later case, the court held that a police officer could not testify that based on his law enforcement experience, the appearance of the defendant's injuries indicated that he had recently been in a fight.⁶⁵ The court held that only a licensed medical expert would have been qualified to testify as to the cause of injuries.⁶⁶

Undoubtedly, the Nevada Supreme Court examines lower courts' decisions very closely to determine whether such decisions have been made in terms of reliability and trustworthiness. However, the court often provides little or no analysis of the factors it considered in ruling on a trial court's decision. This lack of discussion by the Nevada Supreme Court, combined with the possibility for vastly different interpretations of the terms reliability and trustworthiness, provide a great deal of gray area in which Nevada lawyers can argue for the admission or exclusion of expert testimony. Still, the opportunity for creative lawyering is at least somewhat offset by the need for predictability and certainty in the law.

The *Daubert* decision and its subsequent Ninth Circuit interpretations allow for a greater measure of certainty and predictability in federal courts than is found in Nevada courts. Federal litigants know that the judge will thoroughly examine all proffered scientific evidence at the outset to determine whether it will be admitted. Consequently, a federal plaintiff knows that any scientific evidence must be based on good scientific grounds. On the other hand, a Nevada state court will probably examine only the qualifications of the witness in determining whether to admit testimony, and allow the often-unpredictable jury to determine credibility. The predictability of the federal rule is preferable to the uncertainty that exists in Nevada law today. Still, Nevada has not yet followed the federal courts' lead.

IV. THE NEVADA SUPREME COURT AND *DAUBERT*

Since the United States Supreme Court decided *Daubert*, the Nevada Supreme Court has referred to the opinion only three times, and has yet to adopt it as the Nevada rule.⁶⁷ In *Nevada Employment Security Department v.*

⁶² See *Cheyenne*, 720 P.2d at 1226.

⁶³ See *Porter v. State*, 576 P.2d 275 (Nev. 1978).

⁶⁴ See *id.* at 278-79 (holding that the trial court did not abuse its discretion in refusing to allow testimony regarding the general unreliability of eyewitness identification; the testimony, by a psychologist formerly qualified as an expert in a Nevada District Court, was to consist of a review of authored works concluding that eyewitness identification is unreliable).

⁶⁵ See *Lord v. State*, 806 P.2d 548, 551 (Nev. 1991) (holding that the trial court committed harmless error in allowing a police officer to provide an opinion as to the cause of the defendant's injuries, and that a medical opinion was needed instead).

⁶⁶ See *id.*

⁶⁷ See *Nev. Employment Sec. Dept. v. Holmes*, 914 P.2d 611 (Nev. 1996); *Yamaha Motor Co., U.S.A. v. Arnoult*, 955 P.2d 661 (Nev. 1998); *Dow Chem. Co. v. Mahlum*, 970 P.2d 98 (Nev. 1998).

Holmes, the Nevada Supreme Court overturned the trial court and reinstated an administrative agency's denial of unemployment benefits.⁶⁸ The agency considered the results of a radio-immunoassay hair analysis (RIA) to prove cocaine use, and determined that the employee's misconduct precluded benefits.⁶⁹ The trial court reversed, holding that, "hair drug screens, standing alone, are scientifically unreliable at this time to sufficiently form a legal basis for disqualifying claimants."⁷⁰ In reinstating the agency's decision, the Nevada Supreme Court employed the reasoning of a federal district court, which held that RIA testing was a scientifically acceptable method of drug testing.⁷¹ The federal court examined expert testimony and scientific journals that validated RIA drug testing and concluded that RIA testing had passed the *Frye* test; that it was generally accepted by the scientific community as an accurate and reliable test for measuring human cocaine use.⁷² The court considered the federal court's holding and the testimony of two experts as to the test's reliability and concluded that, "RIA testing . . . is now an accepted and reliable scientific methodology for detecting illicit drug use."⁷³

The opinion mentioned the trial court's decision that RIA testing was unreliable to disqualify an employee from receiving unemployment benefits, but did not find this argument persuasive.⁷⁴ The court referred to the *Daubert* opinion briefly, stating, "[w]e acknowledge that there are, arguably, no certainties in science."⁷⁵ The opinion in *Holmes* provides more detailed analysis of proposed scientific testimony than any other recent opinion. However, much of the analysis was borrowed from a federal court.

Several years later, the Nevada Supreme Court addressed *Daubert* in greater detail. In *Yamaha Motor Co., U.S.A. v. Arnoult*, the court upheld the trial court's decision to admit the testimony of the plaintiff's expert witness as to the inadequacy of warnings provided in the defendant's safety manual.⁷⁶ The plaintiff sustained terrible injuries while driving a Yamaha four wheel ATV that flipped over forward.⁷⁷ She sued under strict liability and negligence, and the jury returned a verdict in her favor, partly because defendant failed to warn her of the danger of a forward flip in the vehicle's safety manual.⁷⁸

Yamaha appealed, arguing that the court should assume the "gatekeeping" role described in *Daubert* to exclude the expert testimony of plaintiff's safety engineer, Dr. Johnston, alleging that his testimony consisted of "unsupported opinion testimony with no scientific basis."⁷⁹ The court declined to adopt

⁶⁸ See *Holmes*, 914 P.2d at 614.

⁶⁹ See *id.* at 613.

⁷⁰ *Id.*

⁷¹ See *id.* at 614-15 (citing *United States v. Medina*, 749 F. Supp. 59, 60-62 (E.D.N.Y. 1990)).

⁷² See *Medina*, 749 F. Supp. at 60-61.

⁷³ *Holmes*, 914 P.2d at 615.

⁷⁴ See *id.*

⁷⁵ *Id.* (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993)).

⁷⁶ See *Yamaha Motor Co., U.S.A. v. Arnoult*, 955 P.2d 661 (Nev. 1998).

⁷⁷ See *id.* at 664.

⁷⁸ See *id.*

⁷⁹ *Id.* at 667.

Daubert in *Yamaha*, holding that its application is limited to evaluating the admissibility of novel scientific evidence.⁸⁰ The court held that warnings expertise is neither governed by the scientific method, nor does it implicate the natural laws of science, but instead “falls within the area of ‘specialized knowledge’ that may be the subject of expertise not totally governed by the scientific method.”⁸¹ Consequently, the court admitted Dr. Johnston’s testimony based solely on the quality of his credentials.⁸² The court in *Yamaha* seemed to imply that it might have been ready to adopt *Daubert*, but not in a case where the disputed testimony was of a technical nature, rather than purely scientific.⁸³ It would have been interesting to see the Nevada Supreme Court’s ruling had the *Yamaha* case been decided after the United States Supreme Court had extended the *Daubert* rule to apply to technical and other specialized testimony in *Kumho Tire*.⁸⁴

However, the court again declined to adopt the *Daubert* rule in a recent silicon breast implant case.⁸⁵ In *Dow Chemical v. Mahlum*, the court upheld a judgment holding the manufacturer of silicon breast implants both negligent and strictly liable for manufacturing unsafe and defective implants which caused Mahlum’s autoimmune disorder.⁸⁶ The court held that “substantial evidence” in the record supported the judgment rendered at trial.⁸⁷ The evidence on which the judgment was based was that of three expert witnesses.⁸⁸

The first witness was an immunologist, Dr. Gershwin, who is the author of a number of articles about silicone and its negative effects on the human immune system.⁸⁹ He examined the plaintiff and concluded, based on his studies and his examination of other women with silicon implants, that silicon had damaged her brain and nerve sheaths, and had caused her to “suffer from a multiple-sclerosis-like disease and a progressive dysfunction of the nerves.”⁹⁰ Dr. Gershwin stated that all of these symptoms had been caused by Mahlum’s

⁸⁰ See *id.*

⁸¹ *Id.* at 667-68.

⁸² See *id.*

⁸³ See *id.* Stating that:

“[g]atekeeping” under *Daubert*, requires the trial court to engage in a two-part analysis: (1) to determine whether the evidence is based on “scientific knowledge”; and (2) whether the evidence is relevant, i.e., that it will assist the trier of fact. . . . *Daubert*’s applicability, however, is still unclear. . . . To date, we have not adopted the *Daubert* test. We conclude that *Daubert* does not apply to this case because, while some empirical behavioral testing may be involved in assessing the efficacy of different warnings, warnings expertise does not, in its entirety, implicate the natural “laws of science.” . . . Here, the assessment of warnings falls within the area of specialized knowledge that may be the subject of expertise not totally governed by the scientific method.

Id.

⁸⁴ See *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 147 (1999) (holding that, “[t]he initial question before us is whether this basic gatekeeping obligation applies only to ‘scientific’ testimony or to all expert testimony. We, like the parties, believe that it applies to all expert testimony.”).

⁸⁵ See *Dow Chem. v. Mahlum*, 970 P.2d 98 (Nev. 1998).

⁸⁶ See *id.*

⁸⁷ *Id.* at 107.

⁸⁸ See *id.* at 108.

⁸⁹ See *id.*

⁹⁰ *Id.*

exposure to silicon, and such symptoms were common for women with silicon implants.⁹¹

Mahlum's other experts were her treating neurologist, Dr. Eaton, and a rheumatologist, Dr. Atcheson, who had observed her symptoms but had apparently not treated her. Dr. Eaton did not specifically testify that silicon had caused Mahlum's illness, but stated that the majority of other women with silicon implants that he had treated displayed similar nervous system disorders and autoimmune diseases.⁹² On the basis of his treatment of over one hundred women with ruptured silicon implants, Dr. Atcheson concluded that Mahlum's symptoms were caused in large part by exposure to silicon, which can cause "atypical autoimmune disease."⁹³

It seems likely that the *Daubert/Kumho Tire* rule may have compelled different results in the *Yamaha* and *Mahlum* cases. The safety-engineering expert in *Yamaha* did not explain how he arrived at his conclusions at all,⁹⁴ while the expert in *Kumho Tire* gave a very detailed explanation.⁹⁵ Nonetheless, the expert was certified to testify in *Yamaha*,⁹⁶ while the testimony of the tire expert in *Kumho Tire* was excluded.⁹⁷ The Nevada Supreme Court admitted the testimony of Dr. Johnston based on his impressive academic and professional credentials, but the court did not examine the methodology or reasoning he employed to reach his conclusions.⁹⁸ Dr. Johnston had vast experience in the safety field, but a federal court would have certainly forced him to validate his conclusions. This process may take more time and limit the parties' right to present the evidence of their choice, but it also insulates the court and the parties from the prejudicial effect of unreliable testimony.

In *Dow Chemical Co. v. Mahlum*, the court examined and admitted the testimony of three experts.⁹⁹ The testimony of the first expert, Dr. Gershwin, would likely have been admitted in federal court as well. He is a classic research scientist, whose studies are conducted in laboratories and published in medical journals. He could undoubtedly explain to the court exactly how his conclusions were reached, how they were tested and at what rate of error, and show a number of journals in which they were subjected to peer review. While not all of Dr. Gershwin's colleagues might agree with his conclusions, they probably all use substantially similar methods when conducting experiments.

The admissibility of the testimony of the second expert, Dr. Eaton, would have been a closer case in federal court. Dr. Eaton is a neurologist who treated both the plaintiff and other women with silicon implants.¹⁰⁰ He testified that most of the patients he saw with silicon breast implants complained of similar symptoms, but he did not offer an opinion as to the source of these symp-

⁹¹ See *id.*

⁹² See *id.* at 108-09.

⁹³ *Id.* at 109.

⁹⁴ See *Yamaha Motor Co., U.S.A. v. Arnoult*, 955 P.2d 661, 667-68 (Nev. 1998).

⁹⁵ See *Kuhmo Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 142-45 (1999).

⁹⁶ See *Yamaha*, 955 P.2d at 667-68.

⁹⁷ See *Kumho Tire*, 526 U.S. at 145.

⁹⁸ See *Yamaha*, 955 P.2d at 667.

⁹⁹ See *Dow Chem. v. Mahlum*, 970 P.2d 98, 108-09 (Nev. 1998).

¹⁰⁰ See *id.*

toms.¹⁰¹ Because Dr. Eaton's testimony was so narrow and contained observations rather than conclusions, the court would have also probably admitted his testimony under *Daubert*. He had records to back up his opinions, and did not jump to any unsupported conclusions based on his observations.

Dr. Atcheson, on the other hand, concluded that Mahlum's symptoms were caused by an autoimmune disorder, which was caused by exposure to the ruptured silicon implants.¹⁰² He based this opinion on an examination of Mahlum and on his prior treatment of over one hundred women with silicon implants.¹⁰³ While his conclusion is logical, it would most likely have failed the *Daubert* test for admissibility. His conclusion had not been and cannot be tested; therefore, no rate of error could have been established. His opinion had not been subjected to publication or peer review nor was it generally accepted. Dr. Atcheson's conclusion is nothing more than that of one doctor who was justifiably concerned with the symptoms he had found in a majority of patients with silicon breast implants. There are a number of studies that conclude that silicon exposure is harmful, while many other studies disagree.¹⁰⁴ The Nevada Supreme Court has decided that such disagreement did not matter, stating that consensus was unnecessary, and that there was sufficient evidence to find liability.¹⁰⁵

Consensus in the scientific community is too stringent a standard to ask of all expert evidence. It does not, however, seem unduly restrictive to ask courts to ensure that experts are not only qualified, but also that they derived their conclusions through sound methods. If the Nevada Supreme Court required an examination of the methodology behind expert opinions and provided some guidelines for trial courts to use in conducting such an examination, it would insulate the jury from flawed science, while promoting consistency and predictability in Nevada state courts.

¹⁰¹ See *id.*

¹⁰² See *id.* at 109.

¹⁰³ See *id.*

¹⁰⁴ See Tom Corwin, *In the Fight of Their Lives: Sisters of Silicone Battle Medical Establishment*, THE AUGUSTA CHRONICLE ONLINE (July 9, 1997), at <http://www.augustachronicle.com/stories/o71097/fea-implant.html>. Stating that:

In the medical realm, massive reviews of medical records by researchers at the Mayo Clinic and Harvard University found no significant link between silicone and connective tissue diseases. But the women claim those studies were influenced by funding from the breast-implant companies. They point to more recent studies, one by Tulane University and the other by a pathologist at the University of Tennessee-Memphis, that show a link between disease and silicone.

Id.

¹⁰⁵ See *Dow Chem.*, 970 P.2d at 109. Holding that:

We are aware that causation is a scientifically controversial component of the plaintiff's case in breast implant litigation. The Mahlums, however, did not need to wait until the scientific community developed a consensus that breast implants caused her diseases. . . . The Mahlums' complaint was not tried in a court of scientific opinion, but before a jury of her peers who considered the evidence and concluded that Dow Corning silicone gel breast implants caused her injuries.

Id.

V. THE UNITED STATES DISTRICT COURT, DISTRICT OF NEVADA DECISIONS

The *Daubert* rule puts more pressure on judges than its "general acceptance" predecessor. Many arguments against the *Daubert* rule exist, including: the rule puts unnecessary and unfair pressure on judges who lack the scientific training to make a preliminary ruling;¹⁰⁶ the adoption of the *Daubert* rule in Nevada would add needless and tedious motions to trial;¹⁰⁷ and the rule limits the rights of litigants to have the case tried before a jury of their peers.¹⁰⁸

The *Daubert* rule does in fact force judges into the difficult role of "gatekeeper," in which they must decide which expert's methods are valid and which are not. While most judges have limited scientific training, they must be at least as qualified as the average jury, and the gatekeeper function insulates the jury from opinion testimony with little or no objective scientific support. The additional pre-trial motions that the *Daubert* rule requires are undoubtedly cumbersome for federal practitioners. From a practical standpoint, *Daubert* motions and hearings certainly take more time than the examinations conducted under the more easily applied *Frye* standard. Also, the *Daubert* process likely takes more time than the system used in Nevada state courts. However, it seems more important to insulate lay-juries from bad science or bad conclusions than it is to expedite trials. Many cases turn on the testimony of experts; therefore, courts should do everything possible to ensure that expert testimony is reliable and valid before admitting the evidence. In addition, the *Daubert* rule does not prevent parties from litigating their disputes before a jury of their peers. The rule simply encourages parties to more carefully select their experts and construct their cases, and discourages professional expert witnesses from offering a quickly formed, scientifically unsupportable opinion solely for the purposes of testifying.

Federal judges applying the *Daubert* rule in the District of Nevada have taken the gatekeeper role very seriously and conducted detailed analyses in recent cases.¹⁰⁹ These decisions seem to apply the rule in precisely the way that the United States Supreme Court intended. First, the court examines the academic and professional qualifications of the expert.¹¹⁰ Then, if the expert is

¹⁰⁶ See Geoffery White, *Admitting Scientific Evidence: Exploring the Ramifications of the Nevada Supreme Court's Rejection of the Daubert Doctrine*, NEV. LAW., May 1999, at 32. Stating that:

The judge and his or her law clerk, most of whom have solid legal backgrounds but are not versed in physics, science and medicine, read the motions, oppositions, and replies, and then preside over lengthy and tedious inquiries into the relative merits, or lack thereof, of each expert's "methodology" in arriving at his or her conclusions. More often than not, when the battle ends, most experts pass muster under *Daubert*.

Id.

¹⁰⁷ See *id.* ("Daubert motions can add needless complexity to an already complex trial, often resulting in a trial judge having to try a complex medical product's liability case twice.").

¹⁰⁸ See *id.* ("The philosophy expressed by the Nevada Supreme Court in *Mahlum* was decidedly in favor of a litigant's right to have his or her case decided by a jury of his or her peers, and of allowing that jury broad access to expert testimony.").

¹⁰⁹ See, e.g., *Cabrera v. Cordis Corp.*, 945 F. Supp. 209 (D. Nev. 1996); *Valentine v. Pioneer Chlor Alkali Co., Inc.*, 921 F. Supp. 666 (D. Nev. 1996).

¹¹⁰ See *Cabrera*, 945 F. Supp. at 209; *Valentine*, 921 F. Supp. at 666.

qualified, the judge analyzes the methodology used to derive the expert's conclusions.¹¹¹ This analysis includes the four factors listed in *Daubert*,¹¹² and adds an additional factor created by the Ninth Circuit: "[w]hether the experts are proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, or whether they have developed their opinions expressly for the purposes of testifying."¹¹³ A comparison between these federal decisions and the previously discussed Nevada Supreme Court decisions will show that qualified experts who attempt to offer opinions based only on their own assurances of reliability can be allowed to testify in Nevada state court, but are uniformly excluded in federal court. Nevada state courts seem to consider qualifying the expert and examining the reliability of that expert's testimony as a one-step test. Federal judges, on the other hand, first qualify the expert and then require that expert to support his or her opinions or conclusions with valid science.

The following two cases show how the federal courts have used the *Daubert* rule to thoroughly examine scientific methodology before admitting the resulting conclusion. Also, this section will compare the federal courts' decisions with the previously discussed Nevada cases, and will attempt to show how the Nevada court might have more thoroughly and effectively examined the offered expert testimony by using the *Daubert* analysis.

A. *Cabrera v. Cordis Corp.*

In *Cabrera v. Cordis Corp.*, the federal court for the District of Nevada examined the proposed testimony of five *qualified* expert witnesses in a products-liability case involving silicone brain shunts.¹¹⁴ This case is similar to the previously discussed Nevada Supreme Court case *Dow Chemical Co. v. Mahlum*, in that both plaintiffs claimed that silicon exposure had led to the development of an autoimmune disorder.¹¹⁵ The federal court excluded one expert's testimony as irrelevant without reaching a *Daubert* analysis and conducted a fairly detailed analysis of the other expert testimony.¹¹⁶

Dr. Vojdani, who holds a Ph.D. in immunology, offered to testify to the results of a "silicone antibody blood test."¹¹⁷ The federal court excluded his testimony, finding that because Dr. Vojdani had developed the test and was the only person who ever used the test, he would have to establish its scientific reliability before being allowed to offer testimony.¹¹⁸ Dr. Vojdani was unable

¹¹¹ See *Cabrera*, 945 F. Supp. at 209; *Valentine*, 921 F. Supp. at 666.

¹¹² See *supra* note 35 and accompanying text.

¹¹³ *Cabrera*, 945 F. Supp. at 212 (quoting *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1317 n.5 (9th Cir. 1995)).

¹¹⁴ See *id.* at 212-15.

¹¹⁵ See *id.* at 211; *Dow Chem. v. Mahlum*, 970 P.2d 98, 106 (Nev. 1998).

¹¹⁶ See *Cabrera*, 945 F. Supp. at 213. Stating that:

Simply put, Puszkun looked at tissue through a microscope and observed a giant cell reaction to a foreign body, which he could not identify at all, let alone as silicone. As such, Dr. Puszkun's testimony is simply irrelevant under F.R.E. 401 and is not, in and of itself, helpful to the trier of fact under F.R.E. 702.

Id.

¹¹⁷ *Id.* at 213.

¹¹⁸ See *id.*

to offer any support for his methodology because all documentation regarding its development had been destroyed, and the test had not been subjected to peer review.¹¹⁹ There is no generally accepted blood test for silicone antibodies, and Dr. Vojdani did not study the chemical composition of the brain shunt before conducting his test.¹²⁰ In excluding the testimony, the federal court concluded:

This Court is being asked to admit Dr. Vojdani's testimony based solely upon his claim that the silicone antibody test he has developed is a valid scientific test. Beyond the bald assertions of Dr. Vojdani, the Court has no basis for doing so and concludes that the proffered testimony completely fails to meet the *Daubert* standard for admissibility under F.R.E. 702.¹²¹

Under the current Nevada test, a Nevada state court seems likely to have admitted Dr. Vojdani's testimony based solely on his immunology doctorate, just as it admitted the testimony of Dr. Johnston in *Yamaha Motor Co., U.S.A. v. Arnoult* based solely on his credentials.¹²²

The federal court then examined the testimony of Dr. Brautbar, an internist with a specialty in nephrology.¹²³ Dr. Brautbar was advertised as an expert for silicone breast implant plaintiffs.¹²⁴ Based upon his neurological examination, he concluded that Cabrera's medical complaints were the result of silicone toxicity.¹²⁵ His proposed testimony was very similar to that of Dr. Atcheson in the Nevada Supreme Court case *Dow Chemical Co. v. Mahlum*. Both Dr. Brautbar and Dr. Atcheson conducted examinations of the respective plaintiffs and based their conclusions on the examinations of the plaintiffs' complained-of symptoms, and on their experience with patients in similar situations.¹²⁶ Neither expert supported his conclusions with published tests or data.¹²⁷ Nonetheless, Dr. Atcheson was allowed to testify in the Nevada state case while the federal court excluded Dr. Brautbar's testimony.¹²⁸

The federal court excluded the testimony of a physical chemist, Dr. Blais, for the same reason as it did that of Dr. Brautbar: the offered testimony did not consist of generally accepted opinions, nor had it been tested or subjected to peer review.¹²⁹

¹¹⁹ See *id.*

¹²⁰ See *id.*

¹²¹ *Id.*

¹²² See *Yamaha Motor Co., U.S.A. v. Arnoult*, 955 P.2d 661, 667-68 (Nev. 1998).

¹²³ See *Cabrera*, 945 F. Supp. at 213.

¹²⁴ See *id.*

¹²⁵ See *id.*

¹²⁶ See *id.*; *Dow Chem. v. Mahlum*, 970 P.2d 98, 109 (Nev. 1998).

¹²⁷ See *Cabrera*, 945 F. Supp. at 213; *Dow Chem.*, 970 P.2d at 109.

¹²⁸ See *Cabrera*, 945 F. Supp. at 213-14. Stating that:

In essence, Dr. Brautbar offers testimony that Cabrera's medical problems are silicone induced because he says so. Clearly, Dr. Brautbar's theory cannot be viewed as having gained general scientific acceptance in the relevant scientific community, nor is there any apparent way to test the validity of his opinions. . . . Moreover, it appears that Cordis is correct that Dr. Brautbar has developed his opinions expressly for purposes of testifying in this case and that he has not himself performed any tests nor can he rely on other published tests or data regarding brain shunts to substantiate his theories.

Id.; see *Dow Chem.*, 970 P.2d at 109.

¹²⁹ See *Cabrera*, 945 F. Supp. at 214.

In examining the last expert, Dr. Veres, the court exercised considerable discretion. Rather than make a pre-trial decision on whether to admit Dr. Veres's testimony at a *Daubert* hearing, the court decided to consider different parts of the testimony during trial.¹³⁰ This part of the decision shows the flexibility that *Daubert* provides federal judges. The list of factors provided by the U.S. Supreme Court and the Ninth Circuit is non-exhaustive. Courts are not required to use all of the factors if they do not apply, nor is any one factor determinative. Also, as in this case, if the testimony consists of a variety of conclusions or opinions, the court can rule on them on a case-by-case basis during trial, rather than making a wholesale pre-trial ruling.

The Ninth Circuit affirmed the trial court's evidentiary rulings in Cabrera's appeal from summary judgment entered against her.¹³¹ The Ninth Circuit held that it was within the trial court's discretion to exclude the testimony of Dr. Vojdani, who failed to provide information regarding his conclusions, his testing measure, and whether he used the scientific method in his research.¹³² It held that the exclusion of Dr. Brautbar's and Dr. Blais's testimony was also within the trial court's discretion because Brautbar was unable to show that he had followed the scientific method, while Dr. Blais had relied on "underground knowledge, untested and unknown to the scientific community."¹³³

B. Valentine v. Pioneer Chlor Alkali Co., Inc.

In *Valentine v. Pioneer Chlor Alkali Co., Inc.*, the federal district court examined the testimony of four *qualified* expert witnesses who offered proof that exposure to chlorine gas damaged plaintiffs' lungs, brains, and nervous systems after the gas was accidentally released from defendant's facility.¹³⁴ The court excluded the testimony of Dr. Heuser, a medical doctor who offered the opinion that plaintiffs' symptoms were "what you typically see after chemical exposure," and that chlorine might have caused neurological damage through oxygen deprivation, but admitted that his theories could probably not be tested.¹³⁵

The court also excluded testimony from Dr. Spindell, who examined the plaintiffs and concluded that they both "exhibited significant cognitive and emotional deficits."¹³⁶ The court excluded Dr. Spindell's testimony because he had not reviewed the plaintiffs' pre-accident cognitive or emotional capacities, nor had he made an effort to find the cause of the alleged post-accident cognitive and emotional deficits.¹³⁷ He made no attempt to rule out chlorine as the cause of the deficits.¹³⁸ He also failed to provide any research showing that

¹³⁰ See *id.* at 215.

¹³¹ See *Cabrera v. Cordis Corp.*, 134 F.3d 1418 (9th Cir. 1998).

¹³² See *id.* at 1422.

¹³³ *Id.* at 1422-23.

¹³⁴ See *Valentine v. Pioneer Chlor Alkali Co., Inc.*, 921 F. Supp. 666, 668 (D. Nev. 1996).

¹³⁵ *Id.* at 671-72.

¹³⁶ *Id.* at 672-73.

¹³⁷ See *id.*

¹³⁸ See *id.*

exposure to atmospheric chlorine could cause cognitive impairment.¹³⁹ The court concluded that Dr. Spinell's testimony was based on speculation and conjecture, and excluded it under *Daubert* and FRE 702.¹⁴⁰

Next, the court considered the testimony of Dr. Hirsch, who concluded that plaintiffs suffered from headaches and had developed a hypersensitivity to odors as a result of chlorine exposure.¹⁴¹ Dr. Hirsch's testimony was initially excluded because his conclusions were based entirely on examinations of the plaintiffs.¹⁴² He did not provide any medical literature supporting his conclusions, nor had he published his conclusions in any recognized medical journal or conducted any relevant pre-litigation research.¹⁴³ The court did not permanently exclude Dr. Hirsch's testimony, but held that it would be admissible only if Dr. Hirsch could

explain precisely how [he] reached [his] conclusions and point to some objective source – a learned treatise, the policy statement of a professional organization, a published article in a reputable scientific journal – to show that [he has] followed the scientific method, as it is practiced by (at least) a recognized minority of scientists in [his] field.¹⁴⁴

The proposed testimony of both Dr. Spindell and Dr. Hirsch in *Valentine* is analogous to that of Dr. Brautbar in *Cabrera* and to that of Dr. Atcheson in the Nevada *Dow Chemical v. Mahlum* case. All four doctors offered conclusions regarding the cause of the respective plaintiffs' symptoms based solely on their physical examinations.¹⁴⁵ None of them supported their opinions with any relevant medical research, nor did they publish their conclusions or conduct relevant research prior to trial.¹⁴⁶ Despite the similarity of each expert's offered testimony, only Dr. Atcheson was allowed to testify.¹⁴⁷ The Nevada Supreme Court determined that he was a qualified medical doctor, and then allowed him to offer his conclusions based solely on his experience and qualifications, despite the fact that he offered no objective support for his conclusions.¹⁴⁸

Finally, the court in *Valentine* conducted an extremely detailed analysis of the methodology used by Dr. Kilburn.¹⁴⁹ Dr. Kilburn is board certified in internal medicine, preventive medicine, and occupational health.¹⁵⁰ He conducted various tests and concluded that one plaintiff had suffered nerve damage as a result of exposure to chlorine gas.¹⁵¹ Again, as with the other experts in

¹³⁹ See *id.*

¹⁴⁰ See *id.*

¹⁴¹ See *id.* at 672-73.

¹⁴² See *id.*

¹⁴³ See *id.* at 673.

¹⁴⁴ *Id.* (quoting *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1319 (9th Cir. 1995) (citing *United States v. Rincon*, 28 F.3d 921, 924 (9th Cir. 1994))).

¹⁴⁵ See *Cabrera v. Cordis Corp.*, 945 F. Supp. 209, 213-14 (D. Nev. 1996); *Valentine*, 921 F. Supp. at 671-73.

¹⁴⁶ See *Cabrera*, 945 F. Supp. at 213; *Dow Chem. Co. v. Mahlum*, 970 P.2d 98, 109 (Nev. 1998); *Valentine*, 921 F. Supp. at 672-73.

¹⁴⁷ See *Dow Chem.*, 970 P.2d at 109.

¹⁴⁸ See *id.*

¹⁴⁹ See *Valentine*, 921 F. Supp. at 673-78.

¹⁵⁰ See *id.* at 673.

¹⁵¹ See *id.*

the case, Dr. Kilburn did not base his opinions on any independent medical research.¹⁵² However, Dr. Kilburn previously published an article related to the causation issue.¹⁵³ The publication of this article seems to meet several of the factors considered to be important in both the Supreme Court's *Daubert* decision and the Ninth Circuit's decision issued on remand. Namely, Dr. Kilburn subjected his theory to peer review and developed it prior to and independent from the litigation. However, the court in *Valentine* did not find these factors persuasive and excluded Dr. Kilburn's testimony.¹⁵⁴

The court excluded Dr. Kilburn's testimony in part because his published article had not been subjected to "true" peer review, but instead had only been subjected to "editorial" peer review.¹⁵⁵ Since the peer review was not satisfactory, the court was obligated to ensure that the scientific methods used in Dr. Kilburn's investigation were "grounded in good science."¹⁵⁶ The court found Dr. Kilburn's methodology to be flawed and inadmissible.¹⁵⁷

While the court in *Valentine* may have taken the *Daubert* analysis to an extreme, it does not mean that every court is required to go to such detail. *Daubert* is a flexible test. Its factors can be considered and weighed by judges using far less scientific expertise than the judge in *Valentine*. Less qualified judges will learn to evaluate expert evidence as they decide the complex cases on their docket.

Valentine and *Cabrera* are examples of how the *Daubert* test could have been applied by Nevada courts in similar recent cases. Had the Nevada Supreme Court applied the *Daubert* analysis in *Dow Chemical v. Mahlum* and *Yamaha Motor Co., U.S.A. v. Arnoult*, it probably would have admitted the

¹⁵² See *id.* at 674.

¹⁵³ See *id.* Noting that:

Plaintiffs vaunt the fact of publication in 1995 of the article by Dr. Kilburn in the International Journal of Occupational Medicine and Toxicology entitled "Evidence that Inhaled Chlorine is Neurotoxic and Causes Airway Obstruction." The article purports to find an association between the exposure of seven individuals to chlorine and their subsequent presentation with various symptomatic neuropathologies.

Id.

¹⁵⁴ See *id.* at 678.

¹⁵⁵ See *id.* at 674-75. The court determined that true peer review involves an investigator making "her methods and findings public, so that others can attack or support her conclusion by following the same protocols while asking what besides the stated principle could account for the documented results." *Id.* On the other hand, editorial peer review is conducted not by the scientific community at large, but rather by a journal referee, who merely reviews the article and makes "confidential comments on the article's scientific accuracy, style, originality and importance," and then recommends that the article be published or rejected. *Id.*

¹⁵⁶ *Id.* at 675.

¹⁵⁷ See *id.* at 678. Holding that:

In summary, Dr. Kilburn's study suffers from very serious flaws. He took no steps to eliminate selection bias in the study group, he failed to identify the background rate for the observed disorders in the Henderson community, he failed to control for potential recall bias, he simply ignored the lack of reliable dosage data, he chose a tiny sample size, and he did not attempt to eliminate so-called confounding factors which might have been responsible for the incidence of neurological disorders in the subject group. As a result, his conclusions that the plaintiffs' exposure to atmospheric chlorine caused their neurological disorders cannot be said to be derived from acceptable scientific methodology.

Id.

testimony of fewer witnesses than it did using the current Nevada test. At the very least, the parties would have had to meet a much higher standard of reliability before the court would admit their offered evidence. Also, the resulting opinions would have contained more detailed analyses and would have had more precedential value. Over time, the *Daubert* test would provide a greater degree of predictability and certainty for the parties, and would make litigants less likely to engage in forum shopping between state and federal court, looking to ensure that questionable evidence be admitted or excluded.

VI. CONCLUSION

The Nevada Supreme Court should adopt the *Daubert* rule or create a similar test. The current Nevada rule only considers the qualifications of the expert and fails to examine the scientific methodology behind the expert's conclusions. This rule allows experts to offer unreliable opinions that have never been considered by the scientific community, and does not require these experts to offer any independent research or objective data to support their conclusions. Under the current rule, it is difficult for Nevada practitioners to predict which factors the court will consider when deciding whether to admit expert testimony.

It is clear that Nevada is now more liberal in its approach to expert evidence than the federal courts. The results of recent cases compel parties with shaky experts to try their cases in state court, while parties wishing to exclude evidence will likely seek the federal forum.

Adoption of the *Daubert* rule would eliminate the need for forum shopping and provide decisions with clearer analysis and greater precedential value. *Daubert* puts judges in the difficult position of judging which expert testimony is valid and which is not. However, this approach is preferable to putting juries in the same position. Judges would quickly gain competency as they tried complex cases under the new rule, and Nevada's lawyers and citizens would benefit as a result.