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Establishing the Standard for a Physician's Patient Diagnosis Using Scientific Evidence: Dealing with the Split of Authority Amongst the Circuit Courts of Appeal

Jack E. Karns*

Scientific conclusions are subject to perpetual revision. Law, on the other hand, must resolve disputes finally and quickly. The scientific project is advanced by broad and wide-ranging consideration of a multitude of hypotheses, for those that are incorrect will eventually be shown to be so, and that in itself is an advance.¹

I. INTRODUCTION

In any trial where an expert's opinion or other scientific evidence is relied upon to establish causation, serious questions are raised as to the standard that should be applied by the court when deciding questions of admissibility.² In no area is this problem more acute than in the health-care field where patients afflicted with various and sundry maladies attempt to prove that a particular company is responsible, and they want to do so by the introduction of scientific evidence and expert testimony, especially that of physicians.³ The federal courts have not been a model of clarity with regard to this issue, and there now exists a singular split among the federal circuits that may have to be resolved by the Supreme Court.⁴

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1. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 597 (1993).

2. This issue has been garnering considerable coverage recently in the press. See, e.g., John R. Henderson et al., *How "Reliable" Should a Physician's Diagnosis Be?*, NAT'L. L.J., May 29, 2000, at B18; June D. Bell, *Gauging an Expert's Expertise*, NAT'L. L.J., July 24, 2000, at A10 (covering Utah state cases); and William C. Smith, *No Escape from Science*, A.B.A. J., August 2000, at 60.

3. In the American Bar Association Journal article, the author stated, "Scientific and technical issues have infiltrated nearly every corner of legal practice. Lawyers who thought they might avoid the esoteric rigors of science and technology simply by sidestepping a few fields like medical malpractice and patent law have come in for a rude awakening." Smith, *supra* note 2, at 60.

4. See *infra* Sections III, IV, and V.

Although the *Daubert v. Merrell Dow Chemicals, Pharmaceuticals, Inc.*⁵ case provides the starting point for evaluating this issue, subsequent case law and application thereof has diverged from the general gatekeeping function originally envisioned by this precedent.⁶ Through its gatekeeping function, *Daubert* intended that trial courts test the reliability and relevance of the scientific evidence, not that it be put to the scrutiny by members of the appropriate professional community.⁷ However, with the passage of the Federal Rules of Evidence (FRE or the "Rules"), the *Daubert* approach was emboldened as the Rules required that a certain flexibility be maintained with regard to the admission of all evidence.⁸ The theory underlying this approach was that the trier of fact should not be deprived of relevant evidence, was capable of discerning levels of relevancy *vis a vis* causation, and finally, that opponents could rely on cross-examination to expose weaknesses in any evidence, scientific or otherwise.⁹

5. 509 U.S. at 579.

6. The *Daubert* Court utilized Federal Rule of Evidence 702 in conjunction with its concept of the "gatekeeping" function at the trial court level to explain the role of judges in rendering decisions regarding the admissibility of scientific evidence. Essentially, the Court found that any evidence or testimony that assisted the trier of fact in rendering a decision or understanding a fact at issue should be admitted pursuant to the gatekeeping function. Most importantly, the Court distinguished this role by pointing to the issue of relevancy and its criticality in the decision process. *Id.* at 591.

7. See *Daubert*, 509 U.S. at 592-93. The Court clarified its position:

Faced with a proffer of expert scientific testimony, then, the trial judge must determine at the outset, pursuant to Rule 104(a), whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue. This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue. We are confident that federal judges possess the capacity to undertake this review. Many factors will bear on the inquiry, and we do not presume to set out a definitive checklist or test.

Id. (footnotes omitted).

8. Prior to the adoption of the Federal Rules of Evidence the controlling case precedent regarding expert opinion and scientific evidence was *Frye v. United States*, 293 F. 1013, 1014 (1923).

In accordance with the foregoing, the *Daubert* Court responded, "Because we hold that *Frye* has been superseded and base the discussion that follows on the content of the congressionally enacted Federal Rules of Evidence, we do not address petitioners' argument that application of the *Frye* rule in this diversity case, as the application of a judge-made rule affecting substantive rights, would violate the doctrine of *Erie R. Co. v. Tompkins*." *Daubert*, 509 U.S. at 589 n.6 (citation omitted). "That the *Frye* test was displaced by the Federal Rules of Evidence does not mean, however, that the Rules themselves place no limits on the admissibility of purportedly scientific evidence. Nor is the trial judge disabled from screening such evidence. To the contrary, under the Rules the trial judge must ensure that any and all scientific testimony or evidence is not only relevant, but reliable." *Id.* at 589.

9. See *Daubert*, 509 U.S. at 592-93. The Court was most adamant in its confidence regarding the use of cross-examination to weed out weak evidence:

Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence. Additionally, in the event the trial court concludes that the scintilla of

In recent cases, this flexibility approach was tested by proponents who demanded that a physician's differential diagnosis be supported by scientific studies and peer reviews, as is customary in the scientific community. The Third and Fourth Circuits, and more recently the Utah Supreme Court, chose to hold that such studies are not required for admissibility purposes under the FRE or *Daubert*.¹⁰ The contra position was taken by the Fifth Circuit, which now requires hard scientific backup before a physician's differential diagnosis can be admitted.¹¹ The conflict presented here is the subject of this article.

Following a discussion of the *Daubert* case and its attendant requirements, the various Circuit cases will be discussed as to the efficacy of both approaches.¹² Two Utah Supreme Court cases will receive particular attention and prominence as they are the first to be promulgated by the highest court of any state on this issue.¹³ Finally, the author will offer comments and rationale supporting the more flexible approach regarding admissibility of physician diagnoses that is supported by the majority of state and federal courts and which stands opposed presently only by the Fifth Circuit.¹⁴

II. THE SUPREME COURT'S POSITION—THE *DAUBERT* CASE

In *Daubert*¹⁵ the Supreme Court accepted, on certiorari, an appeal from a Ninth Circuit case¹⁶ regarding the question of how reliable a physician's diagnosis had to be in order to escape any negligence claims.¹⁷ Specifically, as Justice Blackmun put it in his opinion, the Court was called upon to determine the standard that would be used for "admitting expert scientific testimony in a federal trial."¹⁸ In this case, the petition-

evidence presented supporting a position is insufficient to allow a reasonable juror to conclude that the position more likely than not is true, the court remains free to direct a judgment, and likewise to grant summary judgment. . . . These conventional devices, rather than wholesale exclusion under an uncompromising 'general acceptance' test, are the appropriate safeguards where the basis of scientific testimony meets the standards of Rule 702.

Id. at 596 (footnotes, citations, and commentary omitted).

10. *Heller v. Shaw Industries, Inc.*, 167 F.3d 146 (3d Cir. 1999); *Westberry v. Gislaved Gummi A.B.*, 178 F.3d 257 (4th Cir. 1999); *State v. Kelley*, 1 P.3d 546 (Utah 2000); *State v. Adams*, 5 P.3d 642 (Utah 2000).

11. *Moore v. Ashland Chemical, Inc.*, 151 F.3d 269 (5th Cir. 1998) *cert. denied* 526 U.S. 1064; *Black v. Food Lion, Inc.*, 171 F.3d 308 (5th Cir. 1999).

12. *See infra* Sections III and IV.

13. *See infra* Section V.

14. *See infra* Section VI.

15. 509 U.S. at 579.

16. *See id.*

17. *See id.*

18. *Id.* at 582.

ers, Jason Daubert and Eric Sure, were minor children who had been born with serious birth defects.¹⁹ The petitioners filed suit in California state court alleging that the birth defects had been caused by the mother's ingestion of Benedictin, a prescription drug marketed by the defendant and prescribed to the plaintiff for nausea.²⁰ Prior to any argument, the case was removed to federal court on diversity grounds.²¹ The district court granted Merrell Dow's motion for summary judgment, holding that the scientific evidence upon which the plaintiff relied was not sufficiently established in order to have any sort of general acceptance in the medical field.²² The district court later concluded that Daubert had not met the standard set forth in *United States v. Killgus*.²³

Benedictin had been tested thoroughly, and there was a vast body of epidemiological data which tended to support Merrell Dow's arguments.²⁴ Another important factor raised by the district court was the fact that the live animal studies on which the petitioners relied could not be reasonably used by a jury in terms of deciding the issue of causation.²⁵ Also, with regard to the mountain of published studies that had been submitted and which had found no causal connection between the drug and any birth defect, the court ruled that these were not admissible since they had neither been published nor subjected to any sort of outside peer review.²⁶

Following extensive discovery, Merrell Dow filed for summary judgment based on the contention that Benedictin did not cause birth defects in humans and that the plaintiff could not produce any scientific evidence that would be admissible at trial.²⁷ In what became the battle of the expert witnesses, Merrell Dow put Steven Lamm, a physician epidemiologist, on the stand to testify about a number of published articles that essentially found that Benedictin was not a substance capable of creating any type of malformations in fetuses.²⁸ Based upon his extensive review of the literature and his professional opinion, Dr. Lamm concluded that Benedictin was not a cause of human birth defects, even if taken during the first trimester of pregnancy.²⁹

19. See *Daubert*, 509 U.S. at 582.

20. See *id.*

21. See *id.*

22. See *id.* at 583.

23. See *id.*

24. See *id.*

25. See *Daubert*, 509 U.S. at 584.

26. See *id.*

27. See *id.* at 582.

28. See *id.*

29. See *id.*

The Court was particularly taken with the fact that the briefs that had been filed in the case by both parties did not include the general types of information, statutory language, or case law that was customarily submitted.³⁰ The briefs dealt with definitions of “scientific knowledge, scientific method, scientific validity and peer review—in short, matters far from the expertise of judges.”³¹ Clearly, the Court was not as comfortable with these briefs as it would have been had they included the traditional statutory and case precedent material. This made the Court’s decision making process more difficult because since it had to base its decision on the “expert” observations provided in the briefs and the conflicting testimony provided by the expert witnesses.³²

The Ninth Circuit affirmed the district court’s decision and stated that any sort of medical or expert opinion had to be based on a scientific technique that was “generally accepted as reliable within the relevant scientific community.”³³ The appellate court stated that the expert opinions that had been offered diverged significantly from recognized authorities in the field and could not be “generally accepted as a reliable technique” so as to meet the admissibility standards.³⁴ The Ninth Circuit noted that other circuits refused to admit epidemiological studies that had not been published or subjected to peer review. Since the entire scientific community had no opportunity to view the material and offer its opinion, the strictures of the Federal Rules of Evidence were not met.³⁵ The Supreme Court subsequently concurred by noting that the issue of admissibility for scientific data rested on the reanalysis by the scientific community, thereby upholding its veracity relative to the issue of causation.³⁶

The Ninth Circuit ruled that the petitioners had not satisfied their causation burden at trial, and that they had laid an insufficient basis for the admission of their expert testimony that Benedictin was the cause of their children’s deformities.³⁷ The United States Supreme Court recognized the division among the Circuits and granted certiorari to resolve the conflict.³⁸

The Supreme Court began its analysis by reviewing the *Frye v. United States*³⁹ case and stating that the “general acceptance” test that

30. See *Daubert*, 509 U.S. at 599.

31. *Id.* at 599.

32. *See id.*

33. *Id.* at 584.

34. *Id.*

35. *See id.*

36. See *Daubert*, 509 U.S. at 596-98.

37. *See id.* at 585.

38. *See id.*

39. *See id.*

was the result of *Frye* had become the accepted standard regarding admissibility of "novel scientific evidence at trial."⁴⁰ The Court observed that the rule had been standing for seven decades and that it was followed by the Ninth Circuit.⁴¹ The key language of the rule is that which refers to the deduction having to be made sufficiently so as to gain general acceptance in the particular field in which it belongs.⁴² This decision became the long accepted rule for admissibility of scientific evidence, even though the *Frye* opinion had its origin in a brief 1923 decision which contained no legal citations.⁴³

Daubert argued that the *Frye* test, whatever that test might be, was superseded when the FRE were adopted.⁴⁴ The Supreme Court agreed with this argument and began with an analysis of Rule 402 which provides the baseline for any analysis for the admissibility of relevant evidence.⁴⁵ Evidence which is not relevant is not admissible, but this must be read in concert with Rule 401 which provides that evidence becomes relevant whenever it has "any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence."⁴⁶ Forgetting for a moment about the difficulties in deciding whether or not scientific evidence is relevant or admissible, it is granted that the FRE went to great lengths to incorporate as much admissible evidence as possible.

Other Federal Rules of Evidence that are of importance in this particular case include Rule 702 which has to do with expert testimony and which provides: "[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact and 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."⁴⁷ It should be noted that the term "general acceptance" is not necessarily included in this particular rule and that there is no connection which ties rules 401 and 402 together relative to the types of evidence which have to be available in order to be admissible to prove causation. Consequently, given the drafting of the FRE and the decision in the *Frye* case, the Supreme Court concluded that a rigid construction of the "general acceptance" requirement would be contradictory to the liberal tendencies of the FRE to relax the less stringent requirements on

40. *Daubert*, 509 U.S. at 585.

41. *See id.* at 585-86.

42. *See id.*

43. *See id.*

44. *See id.* at 587.

45. *See id.*

46. *Id.* at 587.

47. *Id.* at 588.

opinion testimony.⁴⁸ At the time *Frye* was decided, it was the exclusive test for admitting scientific testimony and was an "austere standard" when compared with the more current FRE.⁴⁹

Just as the Court accepted the FRE as superseding the *Frye* general acceptance test, it also stated that there were limitations on the admissibility of purportedly scientific evidence if the trial judge was in any way not able to screen the evidence or was precluded from insuring that the evidence was reliable.⁵⁰ Obviously, the connection here is with Rule 702 and the role that the expert plays in validating any type of scientific study for the court and jury to use in making its determination. As the Court pointed out, the word "scientific" engenders in the public a feeling that there have been procedures of some type acceptable in the world of science that, although the public does not understand them, legitimize the study.⁵¹

The purpose of expert testimony is to assist the trier of fact to reach a conclusion, and, in the *Daubert* case, that conclusion was related to the key issue of causation. It appears that two of the things the court may look to are the scientific methodology used in studies (i.e., can a theory or technique be tested, and has empirical testing been applied to the data involved?) and the peer review and publication aspect that results from the aforementioned studies.⁵² But, as the *Daubert* Court said, this is not the "*sine qua non* of admissibility"⁵³ since it does not necessarily establish the reliability of the scientific evidence in question.⁵⁴ Many propositions have been put forward in trial without the proper testing only to find out that some component of science was overlooked or that the scientist involved was too enthusiastic as to his or her results. This results in substantive laws in methodology, and the court must be ever mindful of the fact that when this occurs it is the job of the judge to ensure that this type of evidence is excluded.⁵⁵

The Court was particularly concerned about the pessimism of Merrell Dow regarding the ability of the jury and the judge, in general, through cross-examination and careful examination of the evidence, to render an appropriate result.⁵⁶ Although scientific conclusions may be subject to a perpetual revision, law has to be resolved finally and it must

48. See *Daubert*, 509 U.S. at 588.

49. See *id.* at 589.

50. See *id.*

51. See *id.* at 590.

52. See *id.* at 593.

53. *Daubert*, 509 U.S. at 593.

54. See *id.*

55. See *id.* at 595.

56. See *id.* at 595-96.

be resolved quickly. In other words, there is no such thing as the legal scientific process.⁵⁷ The Court also noted that the primary role for the judge is the gatekeeping role—to ensure that the aforementioned rules of evidence and scientific validity are not violated when evidence is admitted into trial and that the evidence is submitted to a vigorous cross-examination to insure that the jury is provided a good look at both sides of the case.⁵⁸ A judge can always exclude evidence under FRE 403 if he or she believes that the probative value is substantially outweighed by the unfair prejudice that it would create by misleading the jury.⁵⁹ Finally, the Court stated that the “general acceptance” test is not necessarily a precondition to admissibility of evidence in the FRE and that there are other foundations based on scientific principles that will satisfy these demands.⁶⁰ Since the district court and Ninth Circuit focused on the general acceptance test as enunciated in *Frye*, the Supreme Court vacated the judgment of the appellate court and remanded the case for further proceedings.⁶¹

III. THE FIFTH CIRCUIT

In 1998 and 1999, four cases were decided by various United States courts of appeal which have now created a split among the circuits on the causation factor when expert testimony is involved.⁶² The Fifth Circuit Court of Appeals decided the following two cases.

A. *Black v. Food Lion, Inc.*

In *Black v. Food Lion, Inc.*,⁶³ Maxine Black was shopping at a Food Lion store in Grand Prairie, Texas when she slipped and fell on the residue of a broken mayonnaise jar that had been dropped by a stock boy. Although the stock boy cleaned up the contents of the spill with paper towels and the cleanup was approved by the store manager, Ms. Black fell on the spot and filed this action.⁶⁴ The case was removed to federal court by the defendant. The plaintiff recovered nearly \$300,000 in damages because she was able to establish a diagnosis of fibromyalgia syn-

57. See *Daubert*, 509 U.S. at 596-97.

58. See *id.* at 589 n.7, 597, 599.

59. See *id.* at 595.

60. See *Id.* at 589, 597.

61. See *id.* at 598.

62. See *Black*, 171 F.3d at 308; *Moore*, 151 F.3d at 269; *Heller*, 167 F.3d at 146; *Westberry*, 178 F.3d at 257.

63. 171 F.3d at 309.

64. See *id.*

drome.⁶⁵ The court described it as an elusive but debilitating affliction. A large part of Ms. Black's case was dependent upon the expert witness and evidence that she put on the stand.⁶⁶ The Fifth Circuit reversed the award, concluding that Ms. Black had not adequately established her case by the production of reliable scientific expert evidence or witnesses.⁶⁷

Some background is necessary to understand the test which was used by the Fifth Circuit in reaching this particular decision. While in the store, Ms. Black slipped on the mayonnaise film on the floor while escorting her daughter to the restroom.⁶⁸ At that time, she complained of pains in her lower back and arm, a headache, and dizziness.⁶⁹ The injury was immediately reported to the Food Lion management, and Ms. Black sought medical attention.⁷⁰ Ms. Black's physician was Dr. James Polli-frone, who conducted tests and physical therapy but was unable to identify any physical basis for Ms. Black's continued complaints of pain.⁷¹ He prescribed a Magnetic Resonance Imaging (MRI) test, an EMG, and a battery of other tests that he would do for any patient for whom a diagnosis was difficult to reach.⁷² On May 11, 1994, he referred Ms. Black to Dr. Mary Reyna, a physician certified by the American Board of Physical Medicine and Rehabilitation and by the American Board of Pain Medicine, and holding a specialty in persistent and chronic pain treatment.⁷³

After a short time Dr. Reyna diagnosed Ms. Black with fibromyalgia syndrome.⁷⁴ This syndrome is characterized by generalized pain, poor sleep, an inability to concentrate, and chronic fatigue. Although it is most common in women between the ages of 30 and 40 and is associated generally with hormonal problems, Dr. Reyna's hypothesis was that the fall caused the physical trauma that resulted in hormonal changes which precipitated Ms. Black's condition.⁷⁵

After the case was removed to federal court, the court conducted a bench trial.⁷⁶ Food Lion, of course, argued that it was not negligent and

65. See *Black*, 171 F.3d at 309.

66. See *id.*

67. See *id.*

68. See *id.*

69. See *id.*

70. See *id.*

71. See *Black*, 171 F.3d at 309.

72. See *id.*

73. See *id.*

74. See *id.*

75. See *id.*

76. See *id.*

that the action it had taken had been reasonable relative to the danger presented and to the duty and breach of said duty, which had occurred with the spilling and breaking of the mayonnaise jar in the store's aisle.⁷⁷ Food Lion, more importantly, argued that the scientific evidence which Ms. Black offered was insufficient to support her contention that she suffered from this unusual disease. In a nutshell, Food Lion's defense "was the contention that Dr. Reyna's testimony could not causally link the fall at Food Lion with Black's present medical condition with any degree of medical certainty."⁷⁸ The trial court rejected Food Lion's arguments and did allow Dr. Reyna to testify over its objections, ultimately awarding judgment to Ms. Black.⁷⁹

The Fifth Circuit reviewed the factual findings for clear error and conclusions of law. The court pointed out that Food Lion did not engage in an extensive defense regarding the issue of negligence since it felt that its conduct had risen to the level of an adequate negligence defense.⁸⁰ The real contention focused on the extent of Ms. Black's damages regarding the relationship of her fall to the onset of fibromyalgia.⁸¹

The court pointed out that, under Texas law, Ms. Black's burden of proof required her to prove that, pursuant to a reasonable degree of medical certainty based on medical probability and scientifically reliable evidence, the fall at Food Lion directly caused her claimed injury.⁸² All she presented at trial was Dr. Reyna's testimony, which resulted from the several weeks of treatment before the trial began.⁸³ The magistrate judge allowed Dr. Reyna to testify as an expert witness notwithstanding Food Lion's challenge pursuant to Rule 702 and, most importantly, pursuant to *Daubert*.⁸⁴ Although the majority did not specifically tie its decision to the scientific reliability standard set out in *Daubert*, it did make some interesting remarks which bear on understanding this ruling.

The judge stated that "the court looks to the trial testimony presented by Dr. Reyna as well as that of other medical experts whose testimony was presented by deposition."⁸⁵ Despite the elusiveness which appeared in an absolute determination of causality via testimony of the specialists in the field, their conflicting testimony had to be recognized because they all followed proper protocol in rendering an opinion in terms of reason-

77. See *Black*, 171 F.3d at 309.

78. *Id.*

79. See *id.* at 309-310.

80. See *id.* at 310.

81. See *id.*

82. See *id.*

83. See *id.* at 309.

84. See *id.* at 310.

85. *Id.*

able medical probability.⁸⁶ It does appear that Dr. Reyna followed this particular protocol in basing her presentation of testimony in court on this evidence.⁸⁷

The *Black* court was particularly taken that the district court did not even mention the *Daubert* case. This raised serious reservations regarding the intellectual rigor that had been used to determine Ms. Black's medical condition.⁸⁸ Because of this, the Fifth Circuit concluded that the magistrate judge had abused his discretion in admitting Dr. Reyna's testimony.⁸⁹ To justify this conclusion, the court held that experts had recognized that there is an insufficient amount of evidence to establish that a particular trauma causes fibromyalgia.⁹⁰ The appellate court also listed the *Daubert* factors that should be used in order to establish scientific validity or reliability when judging the validity of any expert's testimony.⁹¹

The court's conclusion was that Dr. Reyna's theory did not pass muster with regard to meeting these tests. More to the point, it stated that Dr. Reyna's conclusion was more conjecture than science and was not deduced from "scientifically validated information."⁹² Considerable time was spent noting that the scientific literature states that Dr. Reyna's theory has not gained acceptance in the medical profession. Resident experts throughout the field conclude that the ultimate cause of fibromyalgia cannot be known and that it is only an educated estimate that can be made by a physician based on the patient's history. To quote the Fifth Circuit, "[m]ere conjecture does not satisfy the standard for general acceptance, except to demonstrate general acceptance of a proposition contrary to Dr. Reyna's. Finally, Dr. Reyna's theory of causation, which has been verified or generally accepted, also has no known potential rate of error."⁹³

Since the exact causes of fibromyalgia are not known, there can be no way to prove in a court of law what scientific evidence would be sufficient to show causation of this disease by any particular type of traumatic action such as that which occurred in this particular case. The court negated Dr. Reyna's testimony and held that Food Lion was not liable for any medical expenses, lost wages, pain, or suffering that were attributable to her diagnosis of fibromyalgia by the physician. She could only

86. See *Black*, 171 F.3d at 310.

87. See *id.* at 310-12. See, e.g., *Moore*, 151 F.3d at 269 and *Kuhmo Tire Company, Ltd. v. Carmichael*, 526 U.S. 137 (1999).

88. See *Black*, 171 F.3d at 312.

89. See *id.* at 312-14.

90. See *id.* at 312.

91. See *id.* at 311. See also *Kuhmo Tire Company, Ltd.*, 526 U.S. at 137.

92. *Id.* *Black*, 171 F.3d at 313.

93. *Id.*

be compensated for expenses that occurred as a direct result of the slip and fall relative to the mayonnaise residue on the floor.⁹⁴

B. Moore v. Ashland Chemical, Inc.

Another important case decided in the Fifth Circuit in 1999 was *Moore v. Ashland*,⁹⁵ which was essentially a toxic tort action filed against a chemical manufacturer. In this particular case, the key issue was whether the court abused its discretion by excluding the opinion of a particular physician. The doctor would have testified as to the causal relationship between the plaintiff's exposure to the industrial chemicals and his pulmonary illness.⁹⁶ The court did not find any abuse of discretion and affirmed the lower court's decision.⁹⁷

Bob Moore worked for Consolidated Freightways, a company which contracted freight deliveries for a variety of companies. On the morning of April 23, 1990, Moore delivered several containers of chemicals that had been manufactured by Dow Corning Corporation to the Ashland Chemical, Inc. terminal in Houston.⁹⁸ When he opened the back door of the trailer, a pungent chemical smell caused him to suspect that one of the containers had started to leak.⁹⁹ The Ashland Chemical Manager, Bart Graves, along with Moore, identified the two leaking containers and removed them from the trailer as soon as possible. Graves contacted Dow and requested instructions as to how the cleanup should proceed as well as a copy of the material safety data sheet (MSDS) for spilled chemicals.¹⁰⁰ The MSDS for these particular containers showed exactly what was in them along with the health hazards associated with their contents.¹⁰¹ The MSDS noted that Toluene was the most hazardous of the ingredients contained in the drums and warned that depending upon exposure to fumes, various organs such as lungs could be seriously damaged.¹⁰²

In accordance with the cleanup instructions, Moore and Graves put the leaking containers into larger salvage drums. Then Moore and another Consolidated Freightways employee placed absorbent material on the spilled chemicals inside the Freightways trailer and swept them up.

94. *See id.* at 314-15.

95. *Moore*, 151 F.3d at 269.

96. *See id.* at 271.

97. *See id.*

98. *See id.*

99. *See id.*

100. *See id.*

101. *See id.*

102. *See id.* at 272.

This cleanup period exposed the two men to the pungent fumes for approximately forty-five minutes to an hour.¹⁰³ Following the cleanup, Moore went back to the Consolidated terminal from which he had begun his travel. At trial, he testified that about an hour after finishing the cleanup he began to feel symptoms of dizziness, watery eyes, and difficulty breathing.¹⁰⁴ Even though Moore was experiencing these physical difficulties, he was able to deliver one more trailer as requested by his supervisor. At the end of his final delivery, Moore returned to the terminal and told his supervisor that he was sick. The supervisor sent Moore to the company doctor, and the next day Moore went to see his family physician.¹⁰⁵

Following two to three weeks of treatment by his family physician, Moore was placed under the care of a pulmonary specialist, Dr. Simi. Dr. Simi released Moore to return to work on June 11, 1990, but after working several days, Moore terminated his employment due to difficulty breathing.¹⁰⁶ During the summer of 1990, on three separate occasions, he consulted Dr. Daniel E. Jenkins, another pulmonary specialist, and Dr. Jenkins diagnosed his condition as a "Reactive Airways Dysfunction Syndrome" (RADS). This is an asthmatic type condition.¹⁰⁷ In November 1990, Moore sought out the advice of another pulmonary specialist, Dr. B. Antonio Alvarez, who became his primary treating physician and who also confirmed Dr. Jenkins's diagnosis and treated Moore for RADS.¹⁰⁸ Moore told his physicians that he was a smoker, that he had consumed approximately one pack of cigarettes a day for approximately twenty years, and that he was smoking at the time of the trial. He further reported that on April 23, 1990, when he was exposed to the Dow chemical, he had just returned to work following an absence from work with pneumonia. The evidence provided by Moore's childhood treating physician established that Moore had a related history of childhood asthma.¹⁰⁹

Moore and his wife filed suit against Ashland Chemical, Inc. and others based on the grounds that Ashland was negligent in insisting that Moore expose himself to the vapors that had been created by the spillage of the leaking drums. To be more specific, Moore argued that Ashland's employee, Bart Graves, did not have the authority to enlist Moore's support in cleaning up the spillage problem and should have permitted

103. See *Moore*, 151 F.3d at 272.

104. See *id.*

105. See *id.*

106. See *id.*

107. See *id.*

108. See *id.*

109. See *id.*

Moore to return to Consolidated's terminal or had other Ashland employees clean up the spill.¹¹⁰ Finally, Moore argued that Graves did not permit him to use a respirator during the cleanup and that this contributed to the gravity of his physical problem. Following removal to federal court on the basis of diversity jurisdiction, the case moved toward trial.¹¹¹

After extensive motion arguments regarding whether or not expert physicians should be permitted to testify, the case proceeded to trial before a jury. At the conclusion of the trial, the district court entered a take nothing judgment against Moore. Moore then appealed the decision to the Fifth Circuit, which concluded that the district court had made an error in not allowing Dr. Jenkins, one of Moore's expert witnesses, to give an opinion regarding the cause of Moore's illness.¹¹² The divided Fifth Circuit reversed the district court's judgment and remanded the case for a new trial.¹¹³ An *en banc* rehearing was granted to clarify the standards that the district court should have applied in determining whether to admit expert testimony.¹¹⁴

In this particular appeal, the Circuit focused on the trial court's refusal to permit Dr. Daniel Jenkins to give an opinion on the cause of Moore's illness. It is necessary to understand some additional factual and procedural information and background in order to completely appreciate the arguments of both parties in this particular case. Moore wanted to call two medical witnesses, Dr. Jenkins and Dr. Alvarez. Dr. Jenkins was a well qualified medical specialist who was board certified by the American Board of Internal Medicine.¹¹⁵ Dr. Jenkins also had special training and had taught in the fields of pulmonary disease, allergy, and environmental medicine. He had seen Moore on three occasions, examined him, performed a variety of tests, and reviewed Moore's medical records. His final conclusion was that Moore suffered from RADS and, based upon his examination and tests, expressed the opinion that Moore's RADS had been caused by the exposure to vapors from the chemical spill at the Ashland facility in April of 1990.¹¹⁶ Dr. Jenkins relied heavily on the MSDS in reaching this decision and conducted tests to determine the close connection between Moore's exposure to the Toluene solution and the symptoms which he exhibited after exposure to the spillage.¹¹⁷

110. See *Moore*, 151 F.3d at 272.

111. See *id.*

112. See *id.*

113. See *id.*

114. See *id.* at 272-73.

115. See *id.* at 273.

116. See *id.*

117. See *id.*

Dr. Alvarez was a former student of Dr. Jenkins and agreed with Dr. Jenkins about the cause of Moore's RADS disease. He was Moore's primary treating physician and, in addition to the reasons relied on by Dr. Jenkins, he supported his theory of causation with a report of a study on RADS co-authored by Dr. Stewart Brooks that he found in a medical magazine.¹¹⁸ It is important to note that when Dr. Jenkins was initially being deposed he stated that he did not know of any reported literature that supported his causation opinion and that his knowledge of the medical report was made known to him outside the presence of the jury.¹¹⁹

Perhaps the most important thing that Dr. Jenkins admitted at trial was the fact that Moore was his first RADS patient who had had an exposure to Toluene and that he had never conducted any research on this particular subject. Although Dr. Jenkins had previously treated other patients whose RADS he attributed to exposure to chemicals that he knew were known to irritate the airways, he did concede that the chemicals involved with the previous patients were stronger and probably more irritating than those to which Bob Moore had been exposed.¹²⁰ The district court reviewed Dr. Jenkins's deposition, listened to his testimony, and decided to exclude his causation opinion. Although the court did permit Dr. Jenkins to testify about his examination of Moore, the tests that he had conducted as well as his diagnosis, the court excluded his opinion because his exposure to the causation of RADS by Toluene in patients like Bob Moore was limited.¹²¹

The district court decided that Dr. Jenkins had no scientific basis for this opinion and that it would be inconsistent with Rule 702 of the FRE, not to mention the court's gatekeeper rule under *Daubert*, to admit this particular opinion.¹²² The court then allowed Dr. Alvarez's scientific expert opinion even though it was essentially the same as Dr. Jenkins's because he had relied on the Brooks study and had also been Moore's treating physician throughout most of this particular time period.¹²³ Ashland's chemical expert, Dr. Robert Jones, made his review from medical records and the overall medical history of Bob Moore and concluded that he did not have RADS. He concluded that Moore suffered from a form of bronchial asthma and that the Toluene did not cause his pulmonary problems. He believed that Bob Moore's history as a heavy smoker for about twenty years, history as an asthmatic, and his bout with pneumonia al-

118. *See Moore*, 151 F.3d at 273.

119. *See id.*

120. *See id.*

121. *See id.*

122. *See id.*

123. *See id.* at 274.

lowed a trained physician to rule out RADS as a possible causation injury to the lungs.¹²⁴

Given this background, the key issue here was the exclusion of Dr. Jenkins's causation testimony and the Fifth Circuit's interpretation of the Supreme Court's resolution of the disagreement among circuit courts as to the standard for admission of expert witnesses testimony or exclusion thereof. The court concluded that *Daubert* was one of two cases that controlled the analysis in this situation. The *Moore* court analyzed the factors looked at by the *Daubert* Court including admissibility of witnesses, the methodology used in the scientific community, the *Frye* doctrine, and the issue that the Federal Rules of Evidence supersede the admissibility of scientific evidence as established in the *Daubert* case. Most importantly, the Fifth Circuit noted that although the *Frye* test was displaced by the Federal Rules of Evidence, the Rules did place some limits on admissibility of scientific evidence.¹²⁵ Scientific evidence must be relevant and reliable. It is the judge's responsibility to ensure that any and all scientific evidence is admitted as long as the evidence is relevant and reliable.¹²⁶

The most important thing that the Fifth Circuit did in *Moore*,¹²⁷ as well as in *Black*,¹²⁸ was to reiterate the essential element coming from the *Daubert* case that the expert testimony of any scientific witness must be buttressed by facts supporting the validity of that scientific evidence. That is to say, the evidence must have been tested within the area and realm within which that particular type of evidence would have been tested. If the scientific evidence were legal we would look to legal scholars for legal documents, legal journal articles, and so on in order to bolster the argument that the conclusion reached by the author had substantial merit in the context of he or she being an expert.¹²⁹ In the case of scientific or medical evidence, we would look toward articles resulting from scientific studies and then published in a medical paper and subject to the scrutiny of others in the field who could write contrary or concurring opinions.¹³⁰

Remembering that the key question in this particular case was whether Dr. Jenkins's opinion should be allowed in the court given that he had not stated his knowledge of the Brooks report, but when it was

124. See *Moore*, 151 F.3d at 274..

125. See *id.* at 274-75.

126. See *id.* at 276.

127. See *id.* at 269.

128. 171 F.3d at 308.

129. See *Moore*, 151 F.3d at 277.

130. See *id.*

called to his attention by counsel, he did claim to have knowledge of the article and stated that he had relied on it. The Fifth Circuit considered the issue regarding the admissibility of Dr. Jenkins's testimony in the light of a Seventh Circuit decision in which the court stated, "[u]nder the regime of *Daubert* a district judge asked to admit scientific evidence must determine whether the evidence is generally scientific, as distinct from being unscientific speculation offered by a genuine scientist."¹³¹

The Fifth Circuit was establishing its preference that expert scientific witnesses be able to substantiate their opinions with tests and factors that meet the *Daubert* test. Simply stated, this means that without hard science or scientific studies that sometimes go beyond that offered by clinicians, this circuit is not inclined to accept the testimony of scientific expert witnesses absent unusual circumstances.¹³² "In the end, Dr. Jenkins is relegated to his fallback position that any irritant to the lungs could cause RADS in a susceptible patient. Dr. Jenkins cited no scientific support for this theory."¹³³ Finally, the Fifth Circuit concluded that the district court did not abuse its discretion in finding that the "analytical gap" between Dr. Jenkins's opinion regarding causation and his scientific knowledge and data did not support the opinion which he proffered. The quote authorized a conclusion under Rule 702 of the FRE that Dr. Jenkins's scientific knowledge would not assist the trier of fact in his role as an expert witness.¹³⁴

IV. THE THIRD AND FOURTH CIRCUITS

In 1999, the Third and Fourth Circuit Courts of Appeal also decided two cases dealing with the issue of expert testimony, but they adopted a more flexible approach than that taken by the Fifth Circuit.

A. *The Third Circuit and Heller v. Shaw Industries, Inc.*

In *Heller v. Shaw Industries, Inc.*,¹³⁵ the Third Circuit faced a situation where Carol Heller sued Shaw Industries, a carpet manufacturer, and claimed that compounds from carpet had caused her to develop a respiratory illness. She had one of her experts, Dr. Joseph Papano, her treating allergist, testify on her behalf.¹³⁶ After an extensive hearing, the district court excluded plaintiff's expert testimony and granted Shaw Industries'

131. *Id.* at 278 (quoting *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 318 (7th Cir. 1996)).

132. *See id.*

133. *Id.* at 279.

134. *See id.*

135. 167 F.3d 146 (3d Cir. 1999).

136. *See id.* at 149-50.

motion for summary judgment. The appellate court revisited the case law interpreting FRE 702, 401, and 403 and concluded that the district court incorrectly excluded some aspects of the proper testimony, yet properly excluded the central portions of the testimony that Heller would have needed in order to prove her specified claim.¹³⁷ Most importantly, as to the key issue in this particular article, the Third Circuit held that

the District Court was too restrictive in requiring Heller's medical expert to rely on public studies specifically linking Heller's illness with Shaw's product, and in requiring Heller's medical expert to rule out *all* alternative possible causes of her illness. However, it properly excluded this expert's causation testimony because his conclusion regarding the cause of Heller's illness was heavily based on a flawed temporal relationship between the installation of Shaw Carpet and the presence of Heller's illness.¹³⁸

The court also properly excluded the testimony of Heller's environmental expert on the grounds that his environmental testing revealed levels of dangerous compounds in the air in Heller's home that were not significantly higher than the background levels in his testing methodology.¹³⁹ Therefore, the grant of summary judgment was affirmed because the district court did not abuse its discretion in excluding the key elements with regard to Heller's experts' testimony necessary to prove causation.¹⁴⁰

The key fact here is that the Third Circuit is in direct contradiction with the Fifth Circuit by not agreeing that hard scientific data and studies are required before a scientific expert witness' testimony will be accepted. The Third Circuit's test is more liberal and does not require a rote acceptance of the factors set forth in the *Daubert* case.¹⁴¹

On September 30, 1993, Carol Heller, her husband Thomas, and their children moved into a nine-year-old home in Westchester, Pennsylvania. Not long after the move, Mr. Heller began experiencing allergy symptoms, and a couple of months later he was advised to replace the carpeting in the home because cat hair from the previous owner might

137. See *Heller*, 167 F.3d at 149-50.

138. *Id.*

139. See *id.* at 150.

140. See *id.*

141. See *id.* at 155. The court laced its opinion with comments such as the following: Given the liberal thrust of the Federal Rules of Evidence, the flexible nature of the *Daubert* inquiry, and the proper roles of the judge and the jury in evaluating the ultimate credibility of an expert's opinion, we do not believe that a medical expert must always cite published studies on general causation in order to reliably conclude that a particular object caused a particular illness.

Id.

have caused this allergic reaction.¹⁴² The new carpeting was installed in mid-December by Shaw Industries in various rooms throughout the house. In late December 1993, Carol Heller began to experience some respiratory difficulties, which included asthma, breathing difficulties, some wheezing, coughing, and dizziness. She sought treatment from her father, a physician, and then consulted Dr. Joseph Papano, an allergist and one of her two expert witnesses.¹⁴³ Dr. Papano conducted a full medical history, did a number of allergy tests, including chest X-rays and pulmonary function tests.¹⁴⁴ Based on these histories and tests, he ruled out some of the possible causes of her respiratory difficulties.¹⁴⁵

In February 1994, she was still experiencing the problems but informed Dr. Papano that her symptoms improved when she was out of the house. She also brought the doctor a sample of the Shaw carpet so he could sample the odor for himself.¹⁴⁶ Dr. Papano recommended that she contact Allen Todd of the Todd Environmental consultants company to test the air quality in her home, as well as the carpet, and then to see him again after she had the results. Todd tested the carpet twice. First, while it was still in the house and the second time in May 1994 after the Hellers had moved out and all of the carpet was removed. At this point, levels of the toxic compound were found to be significantly lower, but none of them was the type that would be expected to result in any type of asthmatic response. The Hellers returned to the house, and Mrs. Heller began to experience her shortness of breath and irritating throat problems. In November 1994, the Hellers sold the house for less than they had paid for it and moved to another location. The Hellers filed suit in district court.¹⁴⁷

The district court specially held a *Daubert* hearing over several days. The key issue was whether or not the scientific evidence gathered on both sides would be admissible at trial.¹⁴⁸ The court filed an unpublished opinion granting defendants' motions for exclusion of the plaintiff's expert testimony and for summary judgment.¹⁴⁹ The Third Circuit ultimately concluded that during this process, some of the expert evidence for Heller had been incorrectly excluded and should have been allowed by the district court. This evidence would have weighed heavily on the

142. See *Heller*, 167 F.3d at 150.

143. See *id.*

144. See *id.*

145. See *id.*

146. See *id.*

147. See *Heller*, 167 F.3d at 151.

148. See *id.* at 151-52.

149. See *id.* at 151.

causation issue, and the court spent extensive time discussing the issues in *Daubert* as well as a number of other cases.¹⁵⁰

The *Heller* court was particularly taken with the *Daubert* Court's comment that there was ample opportunity for vigorous cross-examination of any evidence that was presented at trial or a motion hearing, even evidence that the opposing side felt was admitted improperly.¹⁵¹ This approach or position would be in line with the Fourth Circuit's opinion that the *Daubert* factors were more flexible than viewed by the Fifth Circuit in *Black* and *Moore*.¹⁵² To state the Third Circuit's opinion succinctly, the court noted, "[p]ut differently, an expert opinion must be based on reliable methodology, must reliably flow from that methodology and the facts at issue—but it need not be so persuasive as to meet a party's burden of proof or even necessarily its burden of production."¹⁵³

The Third Circuit stated that *Heller* had to demonstrate as a part of the prima facie case that Shaw's carpet emitted toxic organic compounds that, if inhaled, could cause the injury which she claimed. Certainly, the testimony of Todd, a certified industrial hygienist, was integral to proving one or two of these elements and could bolster any medical conclusion of causation by demonstrating that the compound levels did exist in the *Heller* home and were higher than usual. Without his testimony, *Heller* would not be able to evoke any evidence that there had been organic compounds in the air at a sufficient level to cause her illness. Without that particular evidence having been admitted first, in a subsequent trial, any effort to attempt to admit scientific expert evidence would be meaningless.¹⁵⁴ The court stated,

Dr. Papano testified that he also relied on temporal relationships between *Heller*'s exposure to the Shaw carpet and onset of her symptoms as well as information from Todd Environmental Consultants after its testing of the *Heller* home in April and May 1994. Finally, Dr. Papano relied on his more than thirty years of experience treating patients with allergy related medical problems and his knowledge of environmental causes of respiratory problems gained at professional seminars he attended.¹⁵⁵

150. See *Heller*, 167 F.3d at 151-52.

151. See *id.* at 152.

152. See *id.*

153. *Id.* at 152.

154. See *id.* at 153.

155. *Id.* at 154.

Certainly, the lack of published research did not stand in the way of the Circuit ruling that FRE 702 had been violated because it was not necessary that published clinical data and medical studies be presented to support any testimony from a scientific witness.¹⁵⁶ To quote the court:

A number of courts, including our own have looked favorably on medical testimony that relied heavily on a temporal relationship between an illness and causal event. . . . The temporal relationship will often be (only) one factor, and how much weight it provides for the overall determination of whether an expert has 'good grounds' for his or her conclusion will differ depending upon the strength of that relationship.¹⁵⁷

The Third Circuit accepted a less stringent test for admission of scientific data.¹⁵⁸

Ironically, the court agreed with the district court in the *Heller* case that the evidence of Dr. Papano and Todd had been properly excluded and that the district court was correct in granting summary judgment and withholding the expert testimony.¹⁵⁹ Most importantly though, *Heller* stands for the proposition that the Third Circuit placed itself in direct contradiction with the Fifth Circuit with regard to what type of evidence would be required in cases involving scientific expert testimony.¹⁶⁰ Finally, it erased any questions as to the necessity for established studies subject to clinical review and outside peer review before that evidence would be admitted and any particular witness would be allowed to take the stand at trial.¹⁶¹

B. The Fourth Circuit's Holding in Westberry v. Gislaved Gummi A.B.

In *Westberry v. Gislaved Gummi A.B.*,¹⁶² Curtis and Connie Westberry brought an action against Gummi AB (GGAB) claiming that the company was liable under South Carolina law for damages they had suffered as a result of the firm's failure to warn of the danger attendant to its use of talcum powder on its rubber gaskets.¹⁶³ A jury verdict was reached in federal court in favor of the Westberrys from which GGAB appealed. Mrs. Westberry cross-appealed the refusal of the district court to increase

156. See *Heller*, 167 F.3d at 154.

157. *Id.* (citations omitted).

158. See *id.* at 154-55.

159. See *id.* at 158-59, 164-65.

160. See *id.* at 155, 165.

161. See *id.* at 155-56. The court went to great lengths to reach this conclusion despite its conclusion that proffered expert's testimony had been properly excluded by the district court. *Id.*

162. *Westberry*, 178 F.3d at 257.

163. See *id.* at 259-60.

damages.¹⁶⁴ The Fourth Circuit Court of Appeals affirmed the trial court's holding.¹⁶⁵

GGAB is a manufacturing company that produces rubber products, specifically rubber gaskets that are used in window frames. Westberry's employer bought some gaskets produced by GGAB to be used in skylights and windows in a South Carolina plant where Westberry worked. Because the rubber gaskets were difficult to handle, GGAB applied a coating of talcum powder before they were shipped.¹⁶⁶ One of Westberry's first duties in the receiving plant was to remove the gaskets from the boxes and place them in a cutting machine. In his testimony, he argued that there was a high concentration of airborne talc and that he did not receive any warning regarding health dangers. Accordingly, he did not wear any protective gear.¹⁶⁷ What followed was an unrelenting series of sinus problems that resulted in numerous trips to the hospital and treatment by his physician, Dr. W. David Isenhower, Jr. This also included some surgeries to alleviate his sinus pain. During these procedures his frontal sinuses were obliterated.¹⁶⁸ Westberry's claim against GGAB is quite simple—its failure to warn of the dangers of the gaskets coated with talcum powder proximately caused an aggravation of his preexisting sinus condition for which aggravation GGAB was liable.¹⁶⁹

At trial, Westberry introduced his physician as an expert witness to provide primary evidence of the causation issue. Obviously, the jury was persuaded by Dr. Isenhower since it returned the verdict in Westberry's favor.¹⁷⁰ The appeals court looked to FRE 702 regarding the strictures that govern the entry of scientific evidence into a trial.¹⁷¹ It cited *Daubert* and made clear that it was necessary to demonstrate that the expert's opinion was reliable and that it was supported by adequate validation in order to render it trustworthy. The second part of the scientific evidence test required an analysis of the opinion to insure that it was relevant with regard to the facts at issue in the case.¹⁷² As the court quoted the *Kumho Tire Co.* case, "an expert's testimony is admissible under rule 702 if it rests on a reliable foundation and is relevant."¹⁷³

164. *See id.* at 260.

165. *See Westberry*, 178 F.3d at 260..

166. *See id.*

167. *See id.*

168. *See id.*

169. *See id.*

170. *See id.*

171. *See id.*

172. *See id.*

173. *Id.* at 260-61.

The appeals court noted the flexibility of the federal rules with regard to the admissibility of expert witness testimony and refused to find that Dr. Isenhower's testimony should be inadmissible simply because it was not based on "reliable scientific methodology." The mere fact that Dr. Isenhower did not have any epidemiological studies or peer review publications, where other laboratory data supported the conclusion regarding the inhalation of talcum powder causing Westberry's sinus problems, was not sufficient to bar his testimony.¹⁷⁴ GGAB argued that Dr. Isenhower's testimony was nothing more than an opinion and certainly not that of an expert. In the words of GGAB, Dr. Isenhower's diagnosis was not reliable because he could not "rule in" talc as a possible cause of sinus disease. There were no means of accurately assessing the level of exposure, and this was absolutely essential in order to establish proximate cause.¹⁷⁵

The Fourth Circuit was not persuaded by GGAB's arguments and held that there was plenty of opportunity for any disagreement to be dealt with on cross-examination.¹⁷⁶ The court believed that Dr. Isenhower had demonstrated that he considered and excluded various potential causes for Westberry's sinus disease and had ruled them in or out.¹⁷⁷ In this fashion, he had reached his conclusion to which he testified at trial. Most importantly, the court ruled that any alleged failure of an expert witness to rule out all possible alternative causes is not sufficient to prohibit his or her expert testimony at trial. In conclusion, the Richmond-based appellate court rejected GGAB's arguments and held that "a reliable differential diagnosis provides a valid basis for an expert opinion on causation."¹⁷⁸

V. THE UTAH EXPERIENCE

The issue of admissibility of scientific evidence and medical expert testimony has received particularly acute attention recently in the State of Utah by virtue of two decisions rendered by the State Supreme Court in May 2000.¹⁷⁹ Just as the *Daubert* Court focused on the term "general acceptance" of scientific evidence and looked for reliability assessments that would allow a differential diagnosis to be allowed or proffered to the

174. See *Westberry*, 178 F.3d at 261-63.

175. See *id.* at 263.

176. See *id.* at 264.

177. See *id.* at 264-65.

178. *Id.* at 265-66.

179. See *State v. Kelley*, 1 P.3d 546, 549 (Utah 2000); *State v. Adams*, 5 P.3d 642, 645 (Utah 2000). Both cases dealt with the admissibility of evidence offered by an expert relative to an individual's mental condition.

trier of fact under rule FRE 702, the Utah justices were faced with a comparable situation. Both of the cases that the court reviewed dealt with convictions of individuals originally accused of sexually assaulting women who were developmentally disabled.

A. *State v. Adams*

In *State v. Adams*,¹⁸⁰ Nealy W. Adams was convicted of forcible sexual abuse, and his conviction was affirmed by the Utah Court of Appeals as well as the State Supreme Court.¹⁸¹ Adams had developed a personal relationship with Ms. Virla Hess in 1993 and moved into her house which she shared with her thirty-four-year-old daughter Carlene. The daughter suffered from Down's Syndrome, could not read or write, and had the cognitive skills level of a three-year-old. In 1994 Adams began drinking excessively, and his relationship with Ms. Hess began to deteriorate. One evening, Ms. Hess awoke when she heard a very loud sound of breaking glass only to find Mr. Adams leaving Carlene's bedroom wearing no clothes. When she spoke with Mr. Adams about the incident, he said that he could not remember anything based on the fact that he had been very intoxicated. At that point, both parties agreed that Adams should leave the residence.¹⁸²

When Ms. Hess told Carlene that Adams was leaving the home, she responded by telling her mother, "good, he has been messing with me."¹⁸³ Ms. Hess waited until Mr. Adams had removed all of his belongings from the home before she reported the sexual abuse to the police and an intensive investigation began. Adams was subsequently charged with one count of rape and another of forcible sexual abuse. At trial, Carlene testified that she had been molested by Adams even though opposing counsel attempted to suggest that the allegations had been invented and that Carlene's story was coached in order to achieve retaliation for what was effectively a lover's quarrel.¹⁸⁴

As part of its case, the State of Utah took testimony from Detective DeHart who stated that he was "unable to lead Carlene with his questions and that, in his opinion, she did not appear to be coached."¹⁸⁵ He further testified that the young woman's account of the molestation appeared to be consistent with her subsequent description of the events, and he,

180. 5 P.3d at 642.

181. *See id.* at 643.

182. *See id.* at 644.

183. *Id.* at 644.

184. *See id.*

185. *Id.* at 644.

therefore, had no reason to disbelieve the account.¹⁸⁶ The prosecution also called Dr. Hawks, a psychologist, who had evaluated Carlene's general cognitive abilities and whose purpose was to testify that it was not likely that Carlene could be coached in order to tell a trumped up story, nor was she sophisticated enough to contrive it up on her own accord.¹⁸⁷ Based on the foregoing evidence, a jury acquitted Adams of rape but found him guilty of forcible sexual abuse.¹⁸⁸ Adams appealed the jury result arguing that there had not been a proper foundation for Dr. Hawks's testimony that Carlene was not capable of being coached. This argument was summarily dismissed by the Utah Court of Appeals, but the court did agree that Detective DeHart's testimony violated Rule 608(a) of the Utah Rules of Evidence (URE).¹⁸⁹ This rule deals with opinion testimony as to character or truthfulness, and the appellate court held that admission was really harmless error given the preponderance of other evidence to support the trial court's finding.¹⁹⁰ Most importantly, the court of appeals ruled that Dr. Hawks's testimony satisfied the foundational requirements for admitting scientific testimony established in *State v. Rimmasch*,¹⁹¹ a base line precedent in Utah guiding the admissibility of such evidence. Adams sought review of the court of appeals decision and certiorari was granted.¹⁹²

The Utah Supreme Court ruled that Dr. Hawks's testimony did not violate Rule 608(a) of the URE since the rule permits testimony dealing with a witness' general character or reputation for truthfulness.¹⁹³ It only prohibits testimony as to the truthfulness of a witness on a particular occasion.¹⁹⁴ As a result, the admissibility of Dr. Hawks's testimony had to be reviewed with regard to whether Carlene could possibly have been coached. The court found an answer to this question in the trial tran-

186. *See id.*

187. *See Adams*, 5 P.3d at 644.

188. *See id.*

189. *See id.* at 648. The court based its decision as to this expert's testimony on the fact that "he did not offer a direct opinion of Carlene's truthfulness about the alleged sexual abuse." *Id.* at 646. The rationale for this conclusion emanated from the nature of his testimony. He testified as to her lack of sophistication relative to the ability to be coached to tell a false story. *See id.* The court also held Dr. Hawks's testimony properly admitted under Rule 702 of the Utah Rules of Evidence, but based upon a different rationale. Since the expert's testimony was not delving into "new or novel scientific principles or techniques," the *Rimmasch* test did not apply. Accordingly, Rule 702 parameters were not violated. *Id.* at 646-47. As to Detective DeHart's testimony, there was ample "other persuasive evidence" to support the conviction, making this harmless error. *Id.* at 647-48.

190. *See id.*

191. 775 P.2d 388 (Utah 1989).

192. *See Adams*, 5 P.3d at 644.

193. *See id.* at 645-46.

194. *See id.*

script.¹⁹⁵ The court reviewed the testimony and concluded that Dr. Hawks's testimony did not violate rule 608(a) since it was merely his opinion that she did not have the cognitive ability to be coached. This was not a question of truthfulness.¹⁹⁶ Dr. Hawks had testified that it was "probably not likely that the victim had been coached or that she was sophisticated enough to make such allegations at trial,"¹⁹⁷ but the expert witness did not offer any direct opinions regarding the victim's truthfulness about the alleged sexual abuse.¹⁹⁸ His comments were confined to Carlene's mental capacity regarding the ability to effectively establish and repeat a fabricated story.¹⁹⁹

This type of differential analysis was very much in concert with the spirit of the *Daubert* case—despite the fact that the Utah Supreme Court did not mention this—as URE 702 is virtually the mirror image of its federal counterpart.²⁰⁰ Most importantly, the court held that Rule 608(a) does not prevent an expert like Dr. Hawks from giving differential diagnosis in court from which a jury could infer the truthfulness of the witness.²⁰¹ Instead, the rule bars direct testimony as to truthfulness. As a result, Dr. Hawks did not improperly offer any evidence relative to Carlene's veracity on any occasion, and his testimony did not violate the appropriate Utah Rules of Evidence.²⁰²

As to the foundation issue with regard to Dr. Hawks's testimony, the court did not fall into the trap of requiring substantial scientific data and published peer review documents in order to find probative or substantial value in his differential diagnosis.²⁰³ The court found that he "properly applied the scientific principles to the facts" and that "the probative value of [his] testimony outweighed its potential for prejudice."²⁰⁴ Consequently, although the Utah Supreme Court upheld the Utah Court of Appeals conclusion with regard to this issue, it did state that the lower appellate court's reliance on the *Rimmasch* case was misplaced.²⁰⁵

The final inquiry relative to Dr. Hawks's testimony is the question of admissibility relative to the general rule of expert testimony admission. This is covered in URE 702 and provides that "if scientific, technical, or

195. *See id.*

196. *See Adams*, 5 P.3d at 645-46.

197. *Id.* at 646.

198. *See id.*

199. *See id.*

200. *See Daubert*, 509 U.S. at 589-94.

201. *See Adams*, 5 P.3d at 646.

202. *See id.*

203. *See id.*

204. *Id.* at 646.

205. *See id.*

specialized knowledge will assist the trier of fact to understand the evidence or to determine the fact in issue, a witness qualifies as an expert by knowledge, skill, experience, training or education may testify thereto in the form of an opinion or otherwise."²⁰⁶ Since Dr. Hawks had specialized knowledge that would provide assistance to the finder of fact, his opinion was certainly relevant.²⁰⁷ Further, he was a designated mental retardation expert with extensive experience with victims of alleged sexual abuse. The trial court did not err with regard to allowing Dr. Hawks's testimony relative to its overall discretion since Dr. Hawks's testimony was not based on any new or novel theories.²⁰⁸

B. State v. Kelley

In another Utah case factually similar to and decided just three days prior to *Adams*, the Utah Supreme Court reviewed the conviction of Defendant Allen Kelley for attempted rape.²⁰⁹ During trial, evidence was introduced showing that the victim was staying with her brother over the December 1997 Christmas holiday period.²¹⁰ She was not capable of living alone and needed assistance even for the simplest of daily tasks. Defendant Kelley was staying with the victim's brother during the referenced December 1997 period, having moved there following marital difficulties.²¹¹ On December 26, 1997, Kelley entered the victim's room, undressed her, and attempted to initiate sexual intercourse with her. They were interrupted by the victim's sister who entered the home to pick her up according to a preestablished appointment.²¹² The sister found the victim naked from the waist down and the defendant ran out fully naked.²¹³ The sister helped dress the girl, removed her from the house, and called the police.²¹⁴ At trial, Kelley was convicted and testified that he was aware that the victim was "mentally retarded to some extent."²¹⁵

Four months prior to the trial, the government provided notice that Ronald J. Wright, a mental retardation expert, would be called as a witness.²¹⁶ Wright was also the director of the victim's residential home.²¹⁷

206. *Adams*, 5 P.3d at 647.

207. *See id.*

208. *See id.*

209. *Kelley*, 1 P.3d at 546.

210. *See id.* at 548.

211. *See id.*

212. *See id.*

213. *See id.*

214. *See id.*

215. *Id.*

216. *See id.*

217. *See id.*

Kelley's counsel failed to file a motion in limine or any other objection challenging Wright's credentials or experience as an expert until four days prior to the trial.²¹⁸ As the residential director of the victim's home, his testimony was sought for no other significant purpose than to comment on her mental state. However, this catapulted him into the category of an expert witness who could do considerable harm to the defendant's case. At trial, oral argument was heard regarding the admissibility of Wright's testimony. The judge ruled that if the prosecutor could lay a proper foundation, the expert would be permitted to testify.²¹⁹ Wright testified that despite the fact the victim had the body of an adult, "she did not have the mental capacity to consent to, or understand the consequences of, a sexual act."²²⁰ He used intelligence quotient test scores, mental age assessment, and his experience as a special education teacher to reach his conclusion.²²¹ Kelley sought an appeal objecting to the admission of Wright's testimony²²² and to the ineffective assistance of counsel due to the failure to file timely motions in his case.²²³

Again, the key question was the admissibility of Wright's testimony as an expert pursuant to URE 702. As noted by the Utah Supreme Court, "[t]he critical factor in determining the competency of an expert is whether that expert has knowledge that can assist the trier of fact in resolving the issues before it."²²⁴ The court focused on Wright's twenty-seven years as a trained professional and his degree in special education from Brigham Young University.²²⁵ His experience was extensive in working with other professionals in determining the intellectual capabilities of disabled individuals.²²⁶ Not too surprisingly, the defendant objected to the fact that Wright was not licensed to diagnose mental retardation and alleged that this disqualified him from testifying as to the victim's cognitive abilities.²²⁷ Similar charges were levied against his

218. See *Kelley*, 1 P.3d at 548.

219. See *id.*

220. *Id.* at 549.

221. See *id.*

222. See *id.*

223. See *id.* at 549, 551-52. The Utah Supreme Court followed the precedent established by *Strickland v. Washington*, 466 U.S. 668, 687 (1984) that any ineffective assistance of counsel claim must be buttressed by evidence in a demonstrable manner that his or her "performance fell below an objective standard of reasonable judgment and, second, that counsel's performance prejudiced the defendant." *Id.* (emphasis added); *Parsons v. Barnes*, 871 P.2d 516, 521 (Utah 1994) (quoting *Bundy v. Deland*, 763 P.2d 803, 805 (Utah 1988)). Since the evidence of Mr. Wright did not violate either of these requirements, it was properly admitted. See *Kelley*, 1 P.3d at 552.

224. *Id.* at 549. See *Patey v. Lainhart*, 977 P.2d 1193 (Utah 1999).

225. See *Kelley*, 1 P.3d at 549.

226. See *id.* at 549-50.

227. See *id.* at 550.

qualifications to administer an intelligence quotient (IQ) test.²²⁸ The court dispensed with these arguments in a fashion similar to that used in the *Adams* case.²²⁹ First, "licensing in and of itself is not dispositive of an expert's qualifications to offer an opinion."²³⁰ Secondly, "Wright's training and experience were sufficient for the trial court to have found him qualified to give expert testimony on the victim's competency."²³¹ For these reasons, URE 702 was not violated by the introduction of this expert's scientific and opinion testimony.²³²

VI. CONCLUSION

The most recent contributions in this controversy are those made by the Utah Supreme Court in *Kelley* and *Adams*. Not surprisingly, the Utah Supreme Court chose to accept the prevalent view, as set forth in *Daubert*, that flexibility and relevance supersede the strictures of the scientific community. This was done despite the fact that *Daubert* was not cited or even mentioned in these state cases. In *Kelley* and *Adams*, deference was given to scientific methodology but not at the expense of robbing the trier of fact of reasonable, relevant, and potentially decisive evidence.

This is the prudent approach enunciated clearly in *Daubert*. The fact that the Utah Supreme Court did not reference *Daubert* in its recent holdings may indicate the development of admissibility criteria that are, perhaps, even more forgiving than the *Daubert* criteria. The idea that the trier of fact would be shielded from scientific evidence simply because it is not vetted in a manner comparable to methodologies generally accepted in the legal community is not acceptable. A more flexible approach is necessary to maintain the good order of evidence introduction and availability, especially in cases that rest on the opinion of differential diagnoses offered by experienced physicians. As noted by one expert on law and psychiatry, and as implied throughout the Utah opinions, experience does count for something.²³³

228. *See id.*

229. *See Kelley*, 1 P.3d at 550-51.

230. *Id.* at 550. The court went on to state, "[w]e have routinely allowed persons to testify as experts based on the totality of their qualifications and experience, and not on licensing or formal standards alone." *Id.* (citations omitted).

231. *Id.*

232. *See id.*

233. *See Bell*, *supra* note 2, at A10. Professor Christopher Slobogin, a law professor with an affiliation as a psychiatry professor with the University of Florida, stated: "Expertise is not only a matter of degrees. It's a matter of experience and knowledge..." *Id.*