Articles

Wading into the *Daubert* Tide: *Sargon Enterprises, Inc. v. University of Southern California*

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In Sargon Enterprises, Inc. v. University of Southern California*, the California Supreme Court decided arguably the most important expert testimony decision that it has rendered in at least two decades. Prior to* Sargon*, California appeared steadfastly committed to the classic "general acceptance" test, which required judges to assess whether an expert's theory or technique had gained general acceptance in the relevant fields. In 1993, in* Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the United States Supreme Court announced a new empirical validation test. In the years since 1993, most state courts adopted some version of* Daubert*, but until* Sargon *the California Supreme Court had refused to follow the federal lead.*

Sargon *undoubtedly moves California jurisprudence toward the* Daubert *approach. In* Sargon*, the court adopted the fundamental perspective of* Daubert *and embraced key terminology from the* Daubert *opinion and its progeny. These parallels have prompted some commentators to declare that California is now in the* Daubert *camp.*

Although Sargon *is a step toward the* Daubert *approach, it is premature to conclude that* Sargon *goes that far for at least two reasons. First, even post-*Sargon*, the California approach may be laxer than the federal approach. In* Daubert*, Justice Blackmun stated that Federal Rule of Evidence 104(a) governs the trial judge's admissibility decision, which mandates that the judge probe deeply into the bases for the expert's opinion, even including assessing credibility.* Sargon *stops short of explicitly going that far. Second, the California approach may prove to be more demanding than the federal approach. In a footnote,* Sargon *indicates that the* Frye *test is still good law in California. If so, then some proponents may face the daunting task of surmounting both hurdles to admissibility.*

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INTRODUCTION

Since the United States Supreme Court decided the landmark case *Daubert v. Merrell Dow Pharmaceuticals, Inc.* in 1993,[1] state courts and legislatures have confronted the persistent question of whether they should adopt the evidentiary test established by the Federal Rules of Evidence. Like a slowly rising tide, the *Daubert* test has washed over most state expert evidence rules. Today, the majority of states employ *Daubert* entirely and explicitly,[2] while many others do so implicitly or partially.[3] Still, several states have held out, steadfastly maintaining their independence from the federal regime—though most of these states model their rules on another federal case, *Daubert*'s predecessor *Frye v. United States*.[4] California has been perhaps the highest profile holdout, due to a

1. 509 U.S. 579 (1993).

2. *See*, *e.g.*, ALA. R. EVID. § 702 (2012) (adopting a rule "identical to the corresponding Federal Rule of Evidence"); *see also* DAVID L. FAIGMAN ET AL., MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY 20 n.8 (2012) (collecting cases).

3. *See, e.g.*, Marron v. Stromstad, 123 P.3d 992, 1004 (Alaska 2005) ("But we have never adopted *Kumho Tire*'s extension of *Daubert* to all expert testimony . . . . [W]e limit our application of *Daubert* to expert testimony based on scientific theory, as opposed to testimony based upon the expert's personal experience."); *see also* David Bernstein, *Keeping Junk Science Out of Asbestos Litigation*, 31 PEPP. L. REV. 11, 22 (2003); 1 PAUL C. GIANNELLI ET AL, SCIENTIFIC EVIDENCE §§ 1.14–15 (5th ed. 2012) (collecting cases); FAIGMAN ET AL., *supra* note 2, at 20 n.8.

4. 293 F. 1013 (D.C. Cir. 1923).

substantial jurisprudence built around its 1976 *People v. Kelly* decision, which adopted *Frye*'s general acceptance test as the governing standard in California.[5] However, in *Sargon Enterprises v. University of Southern California*,[6] the California Supreme Court dipped its feet into the *Daubert* tide. Although *Sargon* does not fully incorporate *Daubert* into California's Evidence Code, *Sargon* signals the court's interest in testing those waters.

California's history with expert evidence is checkered to say the least. Many view California as having adopted a liberal standard for determining the admissibility of such testimony.[7] This perceived liberality could explain the extensive use of expert testimony at trial in California.[8] Yet, the California Supreme Court adopted the *Frye* test limiting scientific testimony to evidence based on theories and techniques generally accepted in the relevant scientific communities; in doing so, the court asserted that it was deliberately choosing a conservative admissibility test to compensate for lay jurors' supposed tendency to attach undue weight to scientific testimony. In the ensuing years, however, the court sharply limited the *Kelly* test's scope. In 1984, for example, the court refused to apply the test to psychological testimony about the supposed unreliability of eyewitness identifications.[9] In doing so, the court commented that the *Kelly* test should be restricted to "evidence . . . produced by a machine."[10] The court reasoned that the *Frye* test (also called the *Kelly-Frye* test) is based on the fear that scientific testimony will overawe the trier of fact, but only testimony based on instrumental techniques creates this danger to an acute degree.[11] California courts thus apply a conservative *Frye*-style test to technologies such as polygraphs, DNA profiling, and blood alcohol tests, but not to expertise based on the experience of the expert. In fact, California courts "have never applied the *Kelly-Frye* rule to expert medical testimony."[12] In 1989, the California Supreme Court reaffirmed its view that non-instrumental expert testimony is exempt from California's version of the general acceptance test.[13] The end result has been that in California civil cases, litigants have been able to present expert medical causation opinions with "relative ease."[14]

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5. 549 P.2d 1240 (Cal. 1976).

6. 288 P.3d 1237 (Cal. 2012).

7. *See, e.g.*, Robert Barnes, *High Court Changes Evidentiary Standards*, RECORDER, Dec. 6, 2012, at 11.

8. California litigators make extensive use of expert testimony at trial. In one study funded by the Rand Corporation, researchers reviewed 529 California trials. Samuel R. Gross, *Expert Evidence*, 1991 WIS. L. REV. 1113, 1119 (1991). The researchers found that experts appeared at eighty-six percent of the trials. *Id.* On average, there were 3.3 experts per trial; at trials with experts, the average was 3.8. *Id.*

9. People v. McDonald, 690 P.2d 709, 723 (Cal. 1984).

10. *Id.* at 723–24.

11. *Id.*

12. *Id.* at 724.

13. People v. Stoll, 783 P.2d 698 (Cal. 1989).

14. Barnes, *supra* note 7, at 1.

Therefore, from 1976 (when *Kelly* was decided) to *Sargon* in 2012, California courts have followed a somewhat divided path. On one side, when expert testimony involves a scientific test or mechanism, California courts have applied a rigorously conservative general acceptance standard, ostensibly to protect jurors from being overawed by a misleading aura of scientific certainty. In contrast, when the expert testimony was not based on the results of scientific tests or rested principally on the experience or inferential judgment of the expert, California courts have used a relaxed standard and have largely allowed experts to testify if they were qualified and their opinions were relevant to the facts in dispute.

Meanwhile, the evidentiary jurisprudence surrounding expert testimony took an altogether different road in the federal courts. In its 1993 *Daubert* decision, the United States Supreme Court ruled, in an opinion by Justice Blackmun, that *Frye* was no longer good law in federal practice, despite the fact that it had previously been followed by most federal courts.[15] The Court derived a new admissibility test from the reference to "scientific . . . knowledge" in the text of Federal Rule 702.[16] Justice Blackmun first asserted that the statutory reference to "knowledge" "connotes more than subjective belief or unsupported speculation."[17] He then adopted an essentially methodological definition of "science":

> The adjective "scientific" implies a grounding in the methods and procedures of science. . . . [I]n order to qualify as "scientific knowledge," an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation . . . . In short, the requirement that an expert's testimony pertain to "scientific knowledge" establishes a standard of evidentiary reliability.[18]

In relatively short order, the Court rendered two more decisions under this line of authority. In 1997, the Court decided *General Electric Co. v. Joiner*.[19] The principal issue presented by *Joiner* was the proper standard of appellate review of trial court admissibility decisions. The Court followed standard evidentiary practice in adopting the abuse of discretion standard for such decisions.[20] Importantly, the *Joiner* Court also discussed the methodological standard it had set forth in *Daubert*,

15. The Federal Rules of Evidence were enacted in 1975. Justice Blackmun stated that he could not find any statutory language codifying the traditional general acceptance test. Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 587–89 (1993). Consequently, the enactment of the Federal Rules had impliedly superseded the *Frye* test. *See, e.g.*, David L. Faigman et al., *Check Your Crystal Ball at the Courthouse Door, Please: Exploring the Past, Understanding the Present, and Worrying About the Future of Scientific Evidence*, 15 CARDOZO L. REV. 1799, 1808 (1994) (describing the evolving use of *Frye* in federal courts prior to *Daubert*).

16. *Daubert*, 509 U.S. at 589–90.

17. *Id.* at 590.

18. *Id.*

19. 522 U.S. 136 (1997).

20. *Id*.

emphasizing the need for scientific rigor.[21] In response to claims that *Daubert* applied only to the methods and principles, and not conclusions, of a proffered expert's testimony, the Court asserted:

> [N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to the existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.[22]

Two years after *Joiner*, the Court decided the third case of what is now known as the *Daubert* trilogy, *Kumho Tire Co. v. Carmichael*.[23] The *Kumho Tire* Court ruled that the requirement for a showing of reliability applies to all types of expert testimony, not only to claimed scientific expertise.[24] The Court acknowledged that Rule 702 refers in the alternative to "scientific, technical, or other specialized knowledge," but pointed out that all three adjectives modify "knowledge," a "word . . . that 'establishes a standard of evidentiary reliability.'"[25] The Court was insistent that "an expert, whether basing testimony upon professional studies or personal experience, [must] employ[] in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field."[26] By the end of that decade, in 2000, the Supreme Court acknowledged that *Daubert* and its progeny had established that to be admissible, any expert testimony must satisfy "exacting standards of reliability."[27]

As the contrast between the relatively permissive California standards and the rather demanding federal standards became more pronounced, the question arose as to whether California would continue to adhere to *Frye* for scientific evidence or abandon *Frye* and embrace *Daubert* for all expert evidence. In 1994, the year after *Daubert*, the California Supreme Court decided *People v. Leahy*,[28] in which the prosecution invited the court to jettison the California approach and adopt a *Daubert*-style validity inquiry. The court declined the invitation.[29] In late 2012, the court faced this issue once again, in *Sargon Enterprises, Inc. v. University of Southern California*.[30] The *Sargon* court, however, vacillated. It paid obeisance to *Frye* but framed its opinion around *Daubert*.

21. *Id.* at 146.

22. *Id*. at 146.

23. 526 U.S. 137 (1999).

24. *Id.* at 141.

25. *Id.* at 147 (quoting Daubert v. Merrell Dow Pharms. Inc., 509 U.S. 579, 589–90 (1993)).

26. *Id*. at 152.

27. Weisgram v. Marley Co., 528 U.S. 440, 455 (2000). *See* David L. Faigman, *The Daubert Revolution and the Birth of Modernity: Managing Scientific Evidence in the Age of Science*, 46 U.C. DAVIS L. REV. 893, 919 (2013) (describing *Weisgram* as the fourth case in the *Daubert* trilogy).

28. 882 P.2d 321 (Cal. 1994).

29. *Id*. at 331.

30. 288 P.3d 1237 (Cal. 2012).

The *Sargon* decision formally reiterated California's commitment to *Frye.* As in *Leahy*, the court announced that in California, the general acceptance test still controls the admissibility of testimony "regarding new scientific techniques."[31] Yet, many passages in *Sargon* seem to undermine the assumption that the *Frye* test, rather than *Daubert*, governs in California. As discussed in Part I of this Article, the *Sargon* court approvingly cited the three cases in the *Daubert* line of precedent: *Daubert* itself, as well as both *Joiner* and *Kumho Tire*.[32] Further, the court did not discuss the core cases of *Kelly* and *Leahy* beyond a perfunctory footnote.[33] Even more significantly, *Sargon* echoed key passages in the federal decisions. The parallels between *Sargon* and the *Daubert* trilogy are so strong that one commentator has declared that *Sargon* aligns "California's law of expert opinion admissibility with post-*Daubert* federal law."[34] In the words of that commentator, *Sargon* effects "a sea-change," casting the California trial judge in "the same stringent gatekeeper role" as a federal district court applying *Daubert.*[35]

The purpose of this Article is not to debate the policy merits of the competing *Frye* and *Daubert* approaches. Rather, the more limited objective of this Article is to assess the extent to which *Sargon* has moved California law toward a *Daubert*-style reliability inquiry. Has a "sea-change" occurred? Is it accurate to categorize California as the latest addition to the ranks of *Daubert* jurisdictions?

Part I describes the three cases that comprise the *Daubert* trilogy and attempts to identify their essential teachings. Part II shifts to discussing California law and *Sargon*, tracing the history of the *Sargon* litigation and explains the California Supreme Court's treatment of the *Daubert* trilogy in *Sargon*. Finally, Part III compares and contrasts *Sargon* and the federal trilogy cases. It demonstrates that although *Sargon* represents a major stride toward *Daubert*'s validity test, it is yet incorrect to characterize California as a *Daubert* jurisdiction. Careful scrutiny of *Sargon* reveals that though there is much of *Daubert* in *Sargon*, there remain significant differences between *Daubert* and the analytic framework outlined in *Sargon.* California courts may one day fully embrace *Daubert*, but it is premature to declare that the day has already arrived. Instead, in *Sargon* the California Supreme Court merely stuck its toes into the rising *Daubert* tide. Only time will tell whether California will decide to fully take the plunge.

31. *Id*. at 1252 n.6.
32. *See infra* notes 147–157 and accompanying text.
33. *Sargon*, 288 P.3d at 1252 n.6.
34. Barnes, *supra* note 7, at 2.
35. *Id*. at 1.

I. THE *DAUBERT* TRILOGY

In order to determine whether *Sargon* embraces the federal approach to evaluating the admissibility of expert testimony, it is necessary to review the leading United States Supreme Court decisions in the trilogy.

A. *DAUBERT*

Justice Blackmun concludes part II.A of his majority opinion in *Daubert* by stating that the enactment of the Federal Rules of Evidence superseded *Frye*.[36] In part II.B, he derived the new validation test from the text of Federal Rule of Evidence 702.[37] The statute refers to "scientific, technical, or other specialized knowledge."[38] As the Introduction noted, Justice Blackmun began parsing the language by focusing on the word, "knowledge."[39] He asserted that Congress' choice of that term signified that the expert's theory or technique must rest on "more than subjective belief or unsupported speculation."[40] Next, Justice Blackmun endeavored to interpret the word "scientific." At this point in his opinion, Justice Blackmun drew heavily on the amicus briefs submitted by scientists and scientific organizations.[41] In large part, those briefs described the modern understanding of the scientific process or method. Citing two amicus briefs, Justice Blackmun wrote:

> "Science is not an encyclopedic body of knowledge about the universe. Instead, it represents a *process* for proposing and refining theoretical explanations about the world that are subject to further testing and refinement." But, in order to qualify as "scientific knowledge," an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation—*i.e.*, "good grounds," based on what is known. In short, the requirement that an expert's testimony pertain to "scientific knowledge" establishes a standard of evidentiary reliability.[42]

Justice Blackmun listed several factors—such as error rates and peer review—that the trial judge may consider in evaluating the methodological soundness of the research that supposedly validates the technique or theory, but underscored that the "inquiry envisioned by Rule 702 is . . . a

36. Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 585–89 (1993).

37. *Id.* at 589–592.

38. FED. R. EVID. 702 (1975). The same phrase occurs in the 2011 restyled version of Rule 702.

39. *Daubert*, 509 U.S. at 590 (internal citations omitted).

40. *Id*.

41. Edward J. Imwinkelried, *Evidence Law Visits Jurassic Park: The Far-Reaching Implication of the* Daubert *Court's Recognition of the Uncertainty of the Scientific Enterprise*, 81 Iowa L. Rev. 55, 60–64 (1995).

42. *Daubert*, 509 U.S. at 590 (quoting Brief for Am. Ass'n for the Advancement of Science et al., as Amici Curiae Supporting Respondent, *Daubert*, 509 U.S. 579 (1993) (No. 92-102)).

flexible one."[43] Justice Blackmun stated that in conducting the inquiry, the trial judge plays "a gatekeeping role"[44] to "screen" out unreliable testimony.[45]

In part II.B of his opinion, Justice Blackmun stated that the expert's scientific knowledge must "fit" the case.[46] He elaborated: "'Fit' is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes."[47] Justice Blackmun added that "a valid scientific connection to the pertinent inquiry [is] a precondition to admissibility."[48]

After sketching the substance of the new validation/reliability standard, Justice Blackmun discussed the procedures that federal trial judges should follow to apply the standard. He wrote that in order to decide the admissibility of proffered scientific testimony, the judge must address the foundational question of whether the proponent has established that the expert's underlying technique or theory amounts to reliable "scientific knowledge."[49] The Justice specifically stated that the preliminary fact-finding procedures codified in Federal Rule of Evidence 104(a) govern the trial judge's determination.[50] That statement is significant: When Rule 104(a) applies to a judge's determination, the judge listens to the foundational testimony proffered by both sides.[51] As the advisory committee note accompanying Rule 104(a) explains, when the judge rules under 104(a), she serves as a true "trier of fact." The judge weighs the evidence pro and con, considers the credibility of the testimony,[52] and makes a factual determination as to whether the foundational fact exists.[53] In a footnote, Justice Blackmun indicated that the traditional civil standard of "a preponderance of the proof" governs the judge's determination.[54] Thus, if the two sides presented conflicting testimony about the methodology of a critical experimental test of the

43. *Id.* at 594.
44. *Id.* at 597.
45. *Id.* at 589.
46. *Id.* at 591.
47. *Id.*
48. *Id.* at 592.
49. *Id.*
50. *Id.*
51. Edward J. Imwinkelried, *Determining Preliminary Facts Under Federal Rule 104*, *in* 45 AM. JUR. TRIALS §§ 60–62, 64 (Charles S. Parnell ed. 1992) [hereinafter Imwinkelried, *Preliminary Facts*]. Under Rule 104(a), the opponent objecting to the admission of evidence has a right to conduct voir dire in support of his or her objection. *Id.* Thus, the opponent has a right to conduct a limited cross-examination during the direct examination before the judge's ruling on the objection. *Id.*
52. In *Huddleston v. United States*, the Court construed Rule 104 and indicated that unlike Rule 104(a), Rule 104(b) may not "weigh[] credibility." 485 U.S. 681, 690 (1988).
53. *See generally* Imwinkelried, *Preliminary Facts*, *supra* note 51.
54. *Daubert*, 509 U.S. at 592 n.10.

validity of the expert's theory, the judge would not be obliged to accept the proponent's testimony.[55]

B. *JOINER*

Like *Daubert*, *Joiner* contains important substantive and procedural precedent. Substantively, *Joiner* refines the meaning of the concept of "fit" mentioned in *Daubert.* In *Joiner*, the plaintiff claimed that his workplace exposure to chemical PCB's had enhanced the onset of his small-cell lung cancer.[56] In part, the plaintiff's expert based his causation opinion on several animal studies. In his opinion, Chief Justice Rehnquist detailed some of the studies:

> The studies involved infant mice that had developed cancer after being exposed to PCB's. The infant mice in the studies had had massive doses of PCB's injected directly into their peritoneums or stomachs. Joiner was an adult human being whose alleged exposure to PCB's was far less than the exposure in the animal studies. The PCB's were injected into the mice in a highly concentrated form. The fluid with which Joiner had come into contact generally had a much smaller PCB concentration . . . . The cancer that these mice developed was alveologenic adenomas; Joiner had developed small-cell carcinomas. No study demonstrated that adult mice developed cancer after being exposed to PCB's.[57]

In effect, the trial judge ruled that the empirical studies cited by the plaintiff did not "fit" the opinion proffered by the plaintiff's expert. There were so many dissimilarities—human being versus mouse, adult versus infant, dermal exposure versus injection, modest exposure versus massive doses, and different cancers—that the studies did not adequately support the expert's opinion that the PCB exposure had caused the plaintiff's cancer.[58]

In affirming the trial judge's decision, the Supreme Court held that under *Daubert* the trial judge had the right to inquire whether the conditions obtained in the studies were sufficiently analogous to the conditions in Joiner's case.[59] Chief Justice Rehnquist wrote that the judge had the power to inquire whether the expert had engaged in unwarranted extrapolation.[60] Chief Justice Rehnquist also stated that the judge may test the connection between "the data" cited by the expert

55. *See* Edward J. Imwinkelried, *Litigating Credibility: Expert Witness*, NAT'L L.J., July 2, 2001, at A12. *See generally* Edward J. Imwinkelried, *Trial Judges—Gatekeepers or Usurpers? Can the Trial Judge Critically Assess the Admissibility of Expert Testimony Without Invading the Jury's Province to Evaluate the Credibility and Weight of the Testimony?*, 84 MARQ. L. REV. 1 (2000).

56. Gen. Elec. Co. v. Joiner, 522 U.S. 136, 139 (1997).

57. *Id.* at 144.

58. *Id.* at 144–45.

59. *Id.* at 146.

60. *Id.*

and the opinion proffered by the expert.[61] If the judge concludes that "there is simply too great an analytical gap," the judge should exclude the opinion.[62]

Procedurally, Chief Justice Rehnquist expanded on what was meant by the "flexible" inquiry mentioned in *Daubert.* The Chief Justice emphasized that the trial judge enjoys discretion in evaluating the reliability of the proffered evidence and in weighing the factors like error rate that were mentioned in *Daubert.*[63] The Supreme Court did not affirm the trial judge's ruling on the ground that the evidence proffered by the plaintiff was inadmissible as a matter of law. Rather, the Court held only that the trial judge had not abused his discretion in concluding that the empirical studies cited by the plaintiff lent inadequate support to the expert's opinion.[64] The Court held that on the facts, notably the numerous dissimilarities, it was "within the District Court's discretion to conclude that the studies upon which the experts relied were not sufficient, whether individually or in combination, to support their conclusions that Joiner's exposure to PCB's contributed to his cancer."[65] The Court stated clearly both that the trial judge's determination was discretionary in character and that the appropriate scope of appellate review was abuse of discretion.[66]

C. *KUMHO TIRE*

As it became increasingly clear that the federal courts were applying "exacting standards of reliability"[67] to determine the admissibility of purportedly scientific testimony under *Daubert*, the proponents of admissibility attempted to circumvent *Daubert.* As previously stated, the *Daubert* Court derived the validation/reliability standard from the wording of Rule 702. While 702 mentions "scientific . . . knowledge," it also refers to "technical, or other specialized knowledge."[68] The proponents of admissible expert testimony argued that the standards enunciated in *Daubert* and *Joiner* applied only to scientific expertise and

61. *Id.*

62. *Id.*

63. *Id.* at 141–43.

64. *Id.* at 141–43, 146–47.

65. *Id.* at 146–47.

66. *Id*. at 141–43, 146–47. *But see* David L. Faigman, *Appellate Review of Scientific Evidence Under* Daubert *and* Joiner, 48 HASTINGS L.J. 969, 979 (1997) (arguing that the appellate courts are uniquely situated to determine and balance the policy implications raised by the science, to ensure consistency across jurisdictions, and to evaluate the methods, principles and reasoning of multiple research studies); Christopher B. Mueller, Daubert *Asks the Right Questions: Now Appellate Courts Should Help Find the Right Answers*, 33 SETON HALL L. REV. 987, 1023 (2003) (arguing that appellate courts should apply a de novo standard when reviewing rulings admitting or excluding evidence presented as science).

67. Weisgram v. Marley Co., 528 U.S. 440, 455 (2000).

68. FED. R. EVID. 702 (1975).

that non-scientific technical or specialized expertise was exempt from the *Daubert* test. After all, in footnote 8 of the *Daubert* opinion, Justice Blackmun had remarked: "Rule 702 also applies to 'technical, or other specialized knowledge.' Our discussion is limited to the scientific context because that is the nature of the expertise offered here."[69] The footnote made it more credible to argue that a proponent could escape the rigors of *Daubert* by the simple expedient of labeling the proffered expert testimony "technical" or "specialized."

The Court grappled with this argument in 1999 in *Kumho Tire Co. v. Carmichael*.[70] Writing for the majority, Justice Breyer rejected any proposed distinction between scientific and non-scientific expertise. First, Justice Breyer rejected the distinction as a matter of statutory construction. He pointed out that although Rule 702 used three distinct terms, "scientific, technical, or . . . specialized," all three adjectives modified the same noun, "knowledge."[71] Reprising *Daubert*, he stated that the term "knowledge" is the source of the "standard of evidentiary reliability."[72] Secondly, he questioned the logical validity of the proposed distinction:

> [I]t would prove difficult, if not impossible, for judges to administer evidentiary rules under which a gatekeeping obligation depended upon a distinction between "scientific" knowledge and "technical" or "other specialized" knowledge. There is no clear line that divides the one from the others. Disciplines such as engineering rest upon scientific knowledge. Pure scientific theory itself may depend for its development upon observation and properly engineered machinery. And conceptual efforts to distinguish the two are unlikely to produce clear legal lines capable of application in particular cases.[73]

However, Justice Breyer then bowed to common sense. It was evident that many of the factors listed in *Daubert*, such as peer review and publication, were derived from a classical scientific model. Although the majority agreed that Rule 702 mandates a showing of reliability across the board for any type of claimed expertise, Justice Breyer realized that it can be difficult to fit a square peg in a round hole.[74] Justice Breyer therefore emphasized the language of *Daubert* to state that the reliability inquiry is "a flexible one."[75] Justice Breyer acknowledged that some of the factors listed in *Daubert* may not apply when the witness'

69. Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 590 n.8 (1993) (quoting FED. R. EVID. 702).

70. 526 U.S. 137 (1999).

71. *Id.* at 147.

72. *Id*. (quoting *Daubert*, 509 U.S. at 590).

73. *Id.* at 148.

74. It is often asserted that it is impossible to do so. Of course, that assertion is an overstatement. A very small square peg can easily fit into a very large round hole.

75. Kumho Tire Co. v. Carmichael, 526 U.S. 137,150 (1999) (quoting *Daubert*, 509 U.S. at 594).

expertise is non-scientific in character.[76] For instance, a witness will be hard pressed to determine the error rate for expert theories about "criminal *modus operandi* . . . [or] agricultural practices."[77] As a result, Justice Breyer explained that "the trial judge must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable."[78]

While *Joiner* grants the trial judge discretion in applying the factors listed in *Daubert*, *Kumho Tire* confers on judges evaluating non-scientific expertise a different, deeper type of discretion to select factors that can serve as "reasonable measures of the reliability of expert testimony."[79] This discretion, however, is not without limits. As Justice Scalia wrote in his concurring opinion in *Kumho Tire*, although "the *Daubert* factors are not holy writ, in a particular case the failure to apply one or another of them may be unreasonable, and hence an abuse of discretion."[80]

II. THE *SARGON* OPINION

In light of Part I, we can now consider *Sargon*. This Part highlights both the similarities to and the differences from the analytical framework developed in the *Daubert* line of authority.

A. THE PRIOR HISTORY OF THE *SARGON* LITIGATION

The plaintiff, Sargon Enterprises, Inc., is a dental implant manufacturer.[81] Most implants on the market must be made in several stages. For example, the implant offered by the largest manufacturer requires three steps, spanning weeks.[82] However, Sargon patented a dental implant procedure that allowed the implant to be completed in a single day.[83] To prepare for a publicity campaign for its new procedure, Sargon entered into a contract with the University of Southern California ("USC") School of Dentistry in 1996.[84] USC agreed to conduct a clinical study of Sargon's implant procedure. If the results of the study were positive, then Sargon could use the study in its publicity campaign; in addition, all the USC dental graduates from this time period would be familiar with the procedure and more likely to use it in practice.[85]

76. *Id*.
77. *Id.*
78. *Id.* at 152.
79. *Id.*
80. *Id.* at 159 (Scalia, J., concurring).
81. Sargon Enters., Inc. v. Univ. of S. Cal., 288 P.3d 1237, 1240 (Cal. 2012).
82. *Id.*
83. *Id.*
84. *Id.*
85. *Id.* at 1243.

Unfortunately, Sargon's hopes were not realized. Sargon claimed that USC "sabotaged"[86] the study by, inter alia, failing to produce the periodic reports of the study's progress as USC had promised. Sargon sued USC for breach of contract in 1999.[87] The litigation then became a tale of two hearings and two appeals.

1. The First Hearing and Appeal

Before the first hearing in the case, USC filed motion in limine to exclude Sargon's expert testimony about lost profits on the ground that USC could not have foreseen them.[88] As the basis for its motion, USC invoked the well-settled principle of contract law that an innocent plaintiff may recover only types of damages that the defendant should have foreseen at time of contract formation.[89] Relying on that principle, the trial judge granted the motion.[90] The case then proceeded to trial. At the 2003 trial, the jury found that USC had breached its contract with Sargon and awarded Sargon over $400,000 in compensatory damages.[91] However, the award did not include any recovery for lost profits; pursuant to the in limine ruling, the trial judge forbade Sargon from submitting any testimony about such profits.

Sargon appealed from the judgment on the ground that the trial judge had misapplied the foreseeability principle; Sargon contended that although there may have been some uncertainty about the amount of lost profits, it was foreseeable that Sargon would lose profits if USC breached the contract.[92] The Court of Appeal agreed with Sargon and reversed.[93] However, the court stated that given that "the in limine hearings focused on foreseeability and not the amount of lost profit damages, it is premature to determine whether such damages can be calculated with reasonable certainty."[94] That statement shifted the battleground from the foreseeability principle to another contract principle—namely, the rule that to be recoverable, damages must be reasonably certain.[95] Although some jurisdictions now restrict the certainty requirement to the fact of damage, California still applies the requirement to both the fact and the amount of damage.[96]

86. *Id.* at 1249.
87. *Id.*
88. *Id.*
89. E. ALLAN FARNSWORTH, CONTRACTS § 12.14 (3d ed. 1999) (citing Hadley v. Baxendale, 156 Eng. Rep. 145 (Ex. 1854)).
90. *Sargon*, 288 P.3d at 1249.
91. *Id.* at 1240.
92. *Id.* at 1240.
93. *Id.*
94. *Id.*
95. FARNSWORTH, *supra* note 89, § 12.15.
96. *Sargon*, 288 P.3d at 1253–54.

2. The Second Hearing and Appeal

On remand after the initial appeal, the trial judge conducted an eight-day evidentiary hearing on the question of whether the plaintiff's lost profits damages were sufficiently certain to be recoverable.[97] The primary witness at the hearing was the plaintiff's expert James Skorheim.[98] Skorheim testified that he was a certified public accountant as well as an attorney; he had served as a business consultant and forensic accountant for twenty-five years.[99]

Skorheim testified that he had intensively researched the dental implant industry.[100] His research indicated that although worldwide there were ninety-six companies marketing dental implants, "the Big Six" controlled over eighty percent of global sales.[101] Sargon was part of the industry, but its sales accounted for only one half of one percent of the world market.[102] In 1998, the year before filing suit, Sargon's net profits had been $101,000.[103]

After surveying the industry, Skorheim developed his "market drivers" hypothesis.[104] According to his theory, three factors largely determine a company's share of the dental implant market: (1) the innovativeness of its products; (2) clinical studies validating the effectiveness of its products; and (3) outreach to general practitioners.[105] However, he acknowledged that almost all the dental implant companies both sponsor clinical studies and engage in outreach to general practitioner dentists.[106] Thus, by process of elimination, the innovativeness of a company's products emerged as the key determinant of its market share.[107]

Skorheim conceded that he was not a dentist and, for that matter, could not specify criteria that a jury could use to determine the degree of innovativeness of a company's products.[108] He admitted that "the jury would have to 'wrestle' with" that question.[109] However, he believed that the jury could resolve the issue because during his research he had heard people state that an immediate load implant like the procedure Sargon had patented was "the holy grail of dental implantology."[110]

97. *Id.* at 1241.
98. *Id.*
99. *Id.*
100. *Id.*
101. *Id.* at 1242. "The Big Six" were Nobel Biocare, Straumann, Biomet 3i, Zimmer, Dentsply, and Astra Tech. *Id.*
102. *Id.* at 1243.
103. *Id.* at 1242.
104. *Id.* at 1241.
105. *Id.*
106. *Id.*
107. *Id.* at 1242, 1246.
108. *Id.* at 1244.
109. *Id.*
110. *Id.* at 1241.

Based on a comparison between Sargon and the Big Six, Skorheim opined that between 1998 and 2009, with the benefit of a timely, favorable clinical study, the innovative dental implant procedure would have enabled Sargon to become one of the world leaders in the industry.[111] Because he admittedly lacked the expertise to determine how innovative Sargon's procedure was, he proposed submitting four different scenarios to the jury.[112] If the jury found that Sargon's innovation was "meaningful," during that period Sargon would have gained a 3.75% market share and realized approximately a quarter of a billion dollars in profits; if the jury decided that the innovation was "somewhat greater," the market share would rise to 5% and the profits to a third of a billion dollars; if it was "somewhat greater yet," the market share would be 10% and the profits would be in excess of $600,000,000; and if the innovation was "revolutionary," the market share would increase to 20% and the profits would grow to approximately $1.2 billion dollars.[113]

Skorheim acknowledged that his estimates posited a number of assumptions. For instance, he assumed that during the 1998–2009 period, one of the Big Six would fall out of that group.[114] Further, he did not account for the possibility that Sargon's competitors would respond by developing even more innovative products.[115] He appeared to assume that "the Big Six would have taken no steps to contend with their new competitor, Sargon."[116] Moreover, although in 2007 Sargon was only "a three-person operation"[117] without a marketing or research and development department,[118] he assumed that Sargon would marshal the financial resources and managerial skill to overcome those handicaps and rival the Big Six.

Based on this record, the trial judge excluded Skorheim's testimony.[119] The judge found several flaws in the foundation for Skorheim's opinions. To begin with, the judge concluded that Skorheim's lost profit estimates were based on an invalid comparison between Sargon and the Big Six market leaders; Sargon was too dissimilar.[120] By "objective business measure[s]" such as the number of employees, Sargon and the Big Six were "worlds apart."[121] By way of example, in the 2001–2003 period

111. *Id.* at 1244.
112. *Id.*
113. *Id.* at 1244.
114. *Id.* at 1257.
115. *Id.* at 1248.
116. *Id.* at 1257.
117. *Id.* at 1248.
118. *Id.* at 1242, 1257.
119. *Id.* at 1246.
120. *Id.*
121. *Id.* at 1245–46.

Nobel Biocare had eighty field representatives in the United States alone.[122] Further, the submission of Skorheim's opinions to the jury would require the jury to determine the degree of innovativeness of Sargon's products; because Skorheim admitted that he could not articulate any criteria of innovativeness, the jury would have no "standards from which it [could] make a rational decision."[123] In addition, the judge faulted Skorheim's reliance on speculative assumptions such as the failure of the Big Six to retain their market shares by aggressively responding to Sargon's competition.[124]

Just as Sargon had appealed the trial judge's initial ruling on the contract issue, Sargon appealed the judge's order excluding Skorheim's testimony on evidentiary grounds.[125] Once again, Sargon prevailed. Just as the Court of Appeal had rebuffed the trial judge's analysis of the foreseeability issue, in the second appeal the court rejected the judge's imposition of the limitations on Skorheim's expert testimony by a two-to-one vote.[126] Although the court noted that there was merit in many of the judge's criticisms of Skorheim's testimony, the court held that under California evidence law those issues "were better left for the jury's assessment."[127] Under the court's construction of California evidence law, the weaknesses in Skorheim's testimony cut to its weight, not its admissibility.

B. THE CALIFORNIA SUPREME COURT'S OPINION IN *SARGON*

While Sargon appealed the trial judge's evidentiary ruling to the Court of Appeal, USC prosecuted an appeal of the Court of Appeal's decision to the California Supreme Court. On November 26, 2012, the California Supreme Court rendered a unanimous opinion, with Justice Chin writing for the court.

On appeal, Sargon challenged USC to identify any statutory basis for excluding Skorheim's testimony. At the outset of his analysis, Justice Chin addressed that challenge. Sargon argued that Skorheim's testimony satisfied California Evidence Code section 801. In pertinent part, section 801(b) allows an expert to base an opinion on matter "that is of a type that reasonably may be relied upon by an expert in forming an opinion upon the subject."[128] Sargon contended that Skorheim had established that forensic valuation experts such as himself routinely rely on the sort of market studies that he had conducted in the instant case.

122. *Id.* at 1248.
123. *Id.* at 1246.
124. *Id.* at 1248 (internal quotation marks omitted).
125. *Id.* at 1249.
126. *Id.*
127. *Id*.
128. CAL. EVID. CODE § 801 (2012).

While acknowledging Sargon's argument, Justice Chin responded that "Evidence Code section 801 is not the only statute that governs the trial court's gatekeeping role."[129] Citing a recent Loyola Law Review article on point (the "Loyola article"),[130] written by the present Authors, the Justice stated that Evidence Code section 802 applies. In pertinent part, section 802 provides: "A witness testifying in the form of an opinion may state on direct examination the reasons for his opinion and the matter . . . upon which it is based, unless he is precluded by law from using such reasons or matter as a basis for his opinion."[131]

Justice Chin immediately pointed out that section 160 of the Evidence Code contains a definition of "law."[132] According to that section, the term "law" in the California Evidence Code includes "decisional law."[133] Hence, construed in light of section 160, section 802 authorizes the California judiciary to enforce uncodified limitations on the "reasons" underlying a proffered expert opinion.[134]

The question then became whether the trial judge had properly exercised that authority in excluding Skorheim's testimony. Justice Chin stated that in California, the normal scope of appellate review of trial court evidentiary decisions is an abuse of discretion.[135] Writing for the court, Justice Chin held that the trial judge's ruling was not an abuse of discretion.[136] He agreed with each of the trial judge's fundamental criticisms of the foundation for Skorheim's opinions.

Quoting the Loyola article, the court ruled that under section 802, the judge may at the very least conduct "a 'circumscribed inquiry' to 'determine whether, as a matter of logic, the studies and other information cited by experts adequately support the conclusion that the expert's general theory or technique is valid.'"[137] In the court's view, Skorheim's testimony did not adequately support his proffered opinions because, as the trial judge had found, Sargon was not substantially similar to the Big Six that Skorheim had used for purposes of comparison.[138] The court approvingly quoted the trial judge's finding that Sargon was not similar to the industry leaders by "any relevant, objective business measure."[139] The court underscored Skorheim's admission that

129. *Sargon*, 288 P.3d at 1251.

130. *Id.* at 1251–52.

131. CAL. EVID. CODE § 802.

132. *Sargon*, 288 P.3d at 1252.

133. CAL. EVID. CODE § 160.

134. *Sargon*, 288 P.3d at 1252.

135. *Id.*

136. *Id.* at 1256.

137. *Id.* at 1252 (quoting Edward J. Imwinkelried & David L. Faigman, *Evidence Code Section 802: The Neglected Key to Rationalizing the Law of Expert Testimony*, 42 LOYOLA L.A. L. REV. 427, 449 (2009)).

138. *Id.* at 1256.

139. *Id*.

Sargon was distinguishable from the Big Six by "objective business metric[s], such as sales or number of employees."[140]

Likewise, the court concurred with the trial judge's conclusion that Skorheim's inability to articulate guidelines for a jury determination of a degree of innovativeness was fatal to the admissibility of Skorheim's opinions.[141] Without the benefit of any criteria or guidelines, the jury's determination of "the degree of innovativeness" would lack a "rational basis."[142]

Finally, the court agreed with the trial judge that Skorheim's opinions rested on several critical, conjectural assumptions. The court observed:

> An accountant might be able to determine with reasonable precision what Sargon's profits would have been *if* it had achieved a market share comparable to one of the Big Six. The problem here, however, is that the expert's testimony provided no logical basis to infer that Sargon *would* have achieved that market share.[143]

In particular, the court pointed to Skorheim's highly debatable assumptions that one of the Big Six companies would drop out of the market and that the members of the Big Six would not take effective measures to counter Sargon's competition.[144] Given the questionable nature of these assumptions, Justice Chin held that the trial judge had not erred in barring Skorheim's opinions because they were "speculative."[145]

III. EXPERT EVIDENCE IN CALIFORNIA AFTER *SARGON*

This Article's Introduction noted that following *Daubert*, states must consider whether they should follow the federal regime. Most states have adopted *Daubert* to one extent or another. *Sargon* reinvigorates the issue in California and places the question front and center: Is California now a *Daubert* state?

This Part shows that the answer is not a simple yes or no. *Sargon* is highly significant for California's expert evidence law in ways that reach beyond whether California can now be categorically declared a *Daubert* state. There are three separate but related ways that *Sargon* must be understood vis-a-vis *Daubert*. The first is that unlike previous California case law, *Sargon* alters the fundamental focus of a trial court's admissibility decision. Before *Sargon*, California courts either deferred to what was generally accepted in a particular field or accepted the

140. *Id.* at 1255.
141. *Id.* at 1255–56.
142. *Id.* at 1247.
143. *Id.* at 1258.
144. *Id*. at 1257.
145. *Id.* at 1258.

professional practice of the testifying witness. After *Sargon*, trial judges have been appointed gatekeepers charged with scrutinizing the reliability of all expert evidence.

Subpart A explains that on this issue *Sargon* generally aligns with *Daubert*. Subpart B explores an issue left ambiguous in *Sargon*: How the decision will impact the California courts' longstanding differential treatment of technologically-based scientific evidence and non-technical or experience-based expert evidence. Although *Sargon* seems to apply to all expert testimony, the court did not explicitly abandon the old *Kelly-Frye* approach as applied to scientific evidence. Quite to the contrary, *Sargon* indicates that the *Kelly-Frye* test survives. The question, discussed in Subpart B, is how the courts should apply *Sargon* in conjunction with California's *Kelly-Frye* standard. While Subparts A and B deal with the substantive scope and operation of *Sargon*, Subpart C turns to the question of whether *Sargon* mandates the same procedural regime prescribed by *Daubert*. Subpart C answers that question in the negative. Thus, on this issue *Sargon* generally does not align with *Daubert*. The upshot of the analysis in Subparts A through C is that while there is much of *Daubert* in *Sargon*, and *Sargon* is likely to transform California practice, it is an oversimplification to say that California is now a *Daubert* state.

A. *SARGON*'S *DAUBERT* PERSPECTIVE

To the extent that *Daubert* was revolutionary, it was so because the decision fundamentally altered the way that trial courts perceived and evaluated expert evidence.[146] *Daubert* focused courts on the methods and principles that underlie expert testimony and thus required judges and lawyers to understand the basis for the knowledge being claimed in court. In comparison, under the *Frye* test courts merely ask whether the basis for the expert opinion was generally accepted among those most likely to know. *Daubert* refocused courts' attention on the bases themselves. *Sargon* no longer permits trial judges to defer to some proxy professional group, but rather assigns them the weighty responsibility of inquiring how the knowledge was derived. In epistemological terms, what is the group's knowledge claim, and is there an adequate warrant for the claim?

Although this question of analytical perspective may appear theoretical, it has myriad practical implications. Before *Daubert*, many experts testified on the basis of little more than conjecture and supposition. Many of the forensic identification sciences—including fields such as bitemarks, arson, and handwriting—are based principally on consensus in the field rather than empirical data validating their expert

146. *See generally* Faigman, *supra* note 27.

methodologies. This difference is even more dramatic in the areas of medicine, psychology, and psychiatry. In these areas, California has traditionally applied the "opinion rule" to admit expert opinion with virtually no scrutiny if the opinion was based on the experience of an otherwise qualified expert.[147] *Daubert* calls on courts not to defer to guild-like consensus, but instead to independently inquire into the soundness and adequacy of the bases of claimed expert knowledge. While California courts previously employed standards of deference to professional fields—under either *Frye*'s general acceptance precept or the opinion rule—*Sargon* endorses the independent perspective embraced by the *Daubert* trilogy.

Daubert assigns federal trial judges a gatekeeping responsibility to screen out unreliable testimony. In short, the California Supreme Court borrowed key terminology from the *Daubert* lexicon in *Sargon*. At several points in his opinion, for example, Justice Chin uses the expression "gatekeeping" to describe the role of a California judge passing on the admissibility of expert testimony.[148] Further, Justice Chin repeatedly makes it clear that the purpose of that assignment is to task the trial judge to exclude "unreliable" expert testimony.[149]

Significantly, when the *Sargon* court defined the determination that the California judge must make as a gatekeeper, the court used language strikingly similar to the corresponding passage in *Daubert.* In his opinion, Justice Blackmun wrote that the federal trial judge must decide whether the expert's opinion is "supported by appropriate validation."[150] In the equivalent portion of his opinion, Justice Chin stated that the California trial judge must "determine whether, as a matter of logic, the studies and other information cited by experts adequately support the" expert's conclusion.[151]

The *Sargon* court borrowed insights from *Kumho Tire* as well. Part I.C explains that the most important teaching of *Kumho Tire* is that the reliability requirement arising from Rule 702's reference to "knowledge" applies to every type of claimed expertise, whether it is scientific, technical, or specialized. It is true that in footnote six of his opinion Justice Chin mentions the general acceptance test and seems to reserve it for gauging the admissibility of "new scientific techniques."[152] However, throughout his opinion, Justice Chin makes no distinction

147. David L. Faigman, *Admissibility Regimes: The "Opinion Rule" and Other Oddities and Exceptions to Scientific Evidence, The Scientific Revolution, and Common Sense*, 36 SW. U. L. REV. 699, 706–07 (2008).

148. *Sargon*, 288 P.3d at 1249–52, 1258.

149. *Id.* at 1250, 1252.

150. Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 590 (1993).

151. *Sargon*, 288 P.3d at 1252.

152. *Id.* at 1252 n.6.

between the various types of expertise. Rather, the analysis outlined in the opinion appears to apply to any offer of expert testimony in a California court. In this respect, *Sargon* reaches the same result as the outcome in *Kumho Tire.*

While *Sargon* contains passages duplicating the analytics of *Daubert* and *Kumho Tire*, probably the most striking parallel is between *Sargon* and *Joiner.* Part I.B of the opinion noted that the essence of the *Joiner* Court's teaching was that the trial judge had discretion to evaluate the aptness of the analogy between the conditions in the studies cited by plaintiff's experts and the facts in Joiner's case history. Chief Justice Rehnquist concluded that the trial judge justifiably found that the conditions in the "studies were so dissimilar to the facts presented in [the *Joiner*] litigation that it was not an abuse of discretion for the District Court to have rejected the experts' reliance on them."[153] The *Sargon* trial judge relied on an identical mode of reasoning, and like the United States Supreme Court in *Joiner*, the California Supreme Court sustained the trial judge's reasoning. Just as the *Joiner* Court listed the differences between adult humans and infant mice, injection and dermal exposure, and adenoma and small-cell carcinoma, Justice Chin enumerated several "objective business measures,"[154] such as the number of employees[155] and sales representatives,[156] that the trial judge had identified as distinguishing Sargon from the Big Six. Echoing *Joiner*, Justice Chin found that the trial judge had not abused discretion in concluding that "Sargon was dissimilar to all of the Big Six."[157] In both cases, the trial judges second-guessed an analogy underlying the expert's opinion. And in both instances, the court of last resort found that the trial judge had exercised permissible, sensible discretion in rejecting the analogy urged by the expert.

Notwithstanding the clear parallels between *Sargon* and the *Daubert* trilogy, it may prove to be a mistake to predict that the California courts will wholeheartedly embrace the rigorous federal approach to assessing the admissibility of expert testimony. To begin, Justice Chin's opinion is measured, containing abundant language that is consistent with the California courts' previously liberal approach to the admissibility of opinion testimony that is based on non-instrumental expert theories and techniques.[158] *Sargon* evinces sympathy with the policy considerations that inspired that liberality. At the beginning of part II.A (devoted to the evidentiary analysis), Justice Chin quoted Judge Friendly to the effect

153. Gen. Elec. Co. v. Joiner, 522 U.S. 136, 143 (1997).
154. *Sargon*, 288 P.3d at 1256.
155. *Id.* at 1243, 1246.
156. *Id.* at 1255.
157. *Id.* at 1256.
158. Barnes, *supra* note 7, at 11.

that in light of "the guaranty of the Seventh Amendment," a trial judge "must be exceedingly careful not to set the threshold to the jury room too high."[159] Paraphrasing Judge Friendly, Justice Chin stated that "due to the jury trial right, courts should not set the admission bar too high."[160] Later in the same part, Justice Chin asserts that trial judges "must . . . be cautious in excluding expert testimony. . . . [T]he trial court's task is not to choose the most reliable of the offered opinions and exclude the others."[161] Part II.B of his opinion analyzed the interplay between the contract principle of certainty and the expert opinion rules. Justice Chin wrote:

> Once again, we add a cautionary note. The lost profit inquiry is always speculative to some degree. Inevitably, there will be an element of uncertainty. Courts must not be too quick to exclude expert evidence as speculative merely because the expert cannot say with absolute certainty what the profits would have been. Courts must not eviscerate the possibility of recovering lost profits by too broadly defining what is too speculative.[162]

Furthermore, in future cases the proponents of expert testimony will have a plausible argument for distinguishing *Sargon* on its facts. In the court's perspective, Skorheim's testimony about lost profits was highly speculative. The facts in the record below were extraordinary. Although determining the degree of innovativeness was obviously the key to choosing among Skorheim's four scenarios, Skorheim admitted frankly that he could not provide the jury with any criteria or guidelines for making the choice.[163] He conceded bluntly that the lay jurors "would have to 'wrestle'" with the choice.[164] In his fourth, revolutionary scenario, Sargon's profits would have skyrocketed by 157,000%[165]—"wildly beyond . . . anything Sargon had ever experienced in the past."[166] Skorheim predicted that Sargon would not have merely modest or substantial but rather "spectacular" future success.[167] The facts and claims in *Sargon* were so extreme that in a later, more mundane case, the proponent of an expert opinion will have a plausible argument for distinguishing *Sargon.* And, as we have seen, the proponent can strengthen that argument by citing Justice Chin's statements to the effect that the Seventh Amendment jury

159. *Sargon*, 288 P.3d at 1250 (quoting Herman Schwabe, Inc. v. United Shoe Mach. Corp., 297 F.2d 906, 912 (2d Cir. 1962)).

160. *Id.*

161. *Id.* at 1252.

162. *Id.* at 1254.

163. *Id.* at 1246.

164. *Id.* at 1244.

165. *Id.* at 1245.

166. *Id.*

167. *Id.* at 1255.

trial guarantee counsels that trial judges should think long and hard before denying a jury relevant expert testimony.[168]

Given Justice Chin's discussion of the jury trial guarantee and the extreme facts in *Sargon*, it is an unjustified leap to conclude that *Sargon* requires California trial judges to police the quality of expert testimony in the same manner and to the same extent as the federal courts currently do. Despite those caveats, it is clear that there is an important common denominator between *Sargon* and *Daubert.* By announcing the federal trial judge's "gatekeeping" role, *Daubert* fundamentally altered the perspective from which trial judges evaluate expert evidence. *Sargon* has done the same for California by stressing the state trial judge's "gatekeeping" responsibility. Whatever other differences may persist between the federal and California approaches to determining the admissibility of expert testimony, at the very least trial judges must engage in a *Joiner*-style analysis under both approaches and, as gatekeepers, critically inquire whether the proponent's foundational testimony has sufficient probative value to support the expert's knowledge claim.[169]

B. RECONCILING *SARGON*'S *DAUBERT* PERSPECTIVE WITH *KELLY-FRYE*

Until *Sargon*, it was fair to say that while the federal courts enforced *Daubert*, California remained committed to the *Frye* general acceptance standard. Subpart A demonstrated that *Sargon* moved toward *Daubert* in requiring California trial judges to adopt a critical "gatekeeping" perspective. However, the *Sargon* court briefly alluded to the *Kelly-Frye* general acceptance test in a footnote. Footnote six reads in its entirety:

> In *People v. Leahy*, this court held that the "general acceptance" test for admissibility of expert testimony based on new scientific techniques still applies in California courts despite the United States Supreme Court's rejection in *Daubert v. Merrell Dow Pharmaceuticals, Inc*. of a similar test in federal courts. Nothing we say in this case affects our holding in *Leahy* regarding new scientific techniques.[170]

Thus, it appears that *Kelly-Frye* is still good law in California. How will California's traditional *Kelly-Frye* test operate in conjunction with *Sargon*? There are two thoughts to bear in mind.

First, the differences between the general acceptance and validation tests should not be overstated. *Daubert*'s assignment of a gatekeeping role to trial judges does not make *Daubert* a more rigorous test than its predecessor *Frye*. *Daubert* has been extolled and excoriated for being

168. It's worth noting, however, that Justice Blackmun in *Daubert* similarly stated, as Justice Chin emphasized, the "liberal thrust" underlying evidentiary rules. Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 588 (1993). This issue is discussed further in Part II.B.

169. People v. Dry Canyon Enters., 211 Cal. App. 4th 486, 493 (2012) (citing *Sargon*, 288 P.3d at 1237)) ("Trial judges have a substantial gatekeeping responsibility when it comes to expert testimony.").

170. *Sargon*, 288 P.3d at 1252 n.6 (internal citations omitted).

both too rigorous and too permissive toward proffered expert testimony. But the validation test itself is not inherently more or less demanding than *Frye*. The focus of the validation test is simply different, which can lead to very different results. While *Frye* defers to a respective field's view of the bases for its members' expertise, *Daubert* tasks judges to independently assess the claimed bases for an expert's ostensible expertise. *Frye*, therefore, should be expected to be more liberal than *Daubert* when applied to fields with considerable consensus of opinion, but which lack a robust methodological foundation. Conversely, *Daubert* can be expected to be more liberal than *Frye* when applied to fields that are highly contentious, but which possess considerable methodological underpinnings.

Moreover, *Daubert* contains considerable language extolling the "liberal thrust" of the Federal Rules of Evidence. The opinion begins by describing the liberality of the Federal Rules of Evidence and the need for fact-finders to hear all relevant evidence,[171] and proceeds to observe that the "basic standard of relevance" in the Federal Rules "is a liberal one."[172] The Court also noted the Rules' "permissive backdrop" and the "austere standard" inherent in the traditional *Frye* approach.[173] Significantly, the Court stated that the "rigid 'general acceptance' requirement would be at odds with the 'liberal thrust' of the Federal Rules and their 'general approach of relaxing the traditional barriers to 'opinion' testimony.'"[174]

When *Daubert* was decided, the principal issue presented was the continuing viability of the *Frye* test under federal law. The *Daubert* Court held that the Federal Rules did not incorporate *Frye*, and the Court consequently construed Rule 702 as supplanting *Frye*. However, in discussing how courts should implement the validity approach mandated by the Federal Rules, the *Daubert* Court observed that "'general acceptance' can yet have a bearing on the inquiry."[175] Although general acceptance was no longer the litmus test, it remained pertinent. To be specific, general acceptance can furnish relevant circumstantial evidence of the methodological soundness of the reasoning and data underlying an expert's technique; if a technique has been in circulation long enough to have garnered general acceptance, other experts have presumably had time to study the technique's bases and have come away satisfied. General acceptance, the centerpiece of *Frye*, became one of the four factors the Court identified (along with testability, error rate, and peer review and publication) as useful for determining whether the proffered

171. *Daubert*, 509 U.S. at 587.
172. *Id.*
173. *Id*. at 589.
174. *Id.* at 588 (quoting Beech Aircraft Corp. v. Rainey, 488 U.S. 153, 169 (1988)).
175. *Id*. at 594.

expert opinion is adequately supported by valid methods and principles.[176] Indeed, many federal trial judges have ascribed considerable weight to this factor in conducting their *Daubert* calculus.[177] Thus, general acceptance plays a significant role under both *Daubert* and *Frye.*

Secondly, *Sargon* and *Kelly-Frye* can plausibly coexist in California.[178] While in *Sargon* the court offered no clear guidance regarding how the more *Daubert*-like perspective it embraced is to be reconciled with past practice, the key to understanding footnote six may come from the paragraph it follows, in which the court summarizes its holding. The court explains that:

> [U]nder Evidence Code sections 801, subdivision (b), and 802, the trial court acts as a gatekeeper to exclude expert opinion testimony that is (1) based on matter of a type on which an expert may not reasonably rely, (2) based on reasons unsupported by the material on which the expert relies, or (3) speculative. Other provisions of law, including decisional law, may also provide reasons for excluding expert opinion testimony.[179]

According to the court, Evidence Code sections 801 and 802 mandate a gatekeeping role for trial courts that applies to *all* expert testimony. These code sections require trial judges to enforce a minimum threshold for expert evidence. The California trial judge must inspect the premises of any proffered expert opinions to ensure that they fall above the threshold.

However, the *Sargon* opinion suggests that in certain cases, the threshold might be higher. When, as the California Supreme court stated in *People v. McDonald*, the expert evidence is "produced by a machine,"[180] the proffered testimony may have to pass muster under *Kelly-Frye* as well as section 801. Once the *Sargon* court construed section 802 as empowering it to enforce uncodified limitations on expert testimony, *Sargon* legitimated continued judicial enforcement of the general acceptance test. The California courts might still reason that instrumental scientific evidence presents such a substantial risk of overawing lay jurors that certain types of expert testimony ought to be singled out and required to run the gauntlet of both *Kelly-Frye* and sections 801 and 802.

It remains to be seen whether the California courts will reconcile *Sargon* and *Kelly-Frye* in this fashion. To an extent, this reconciliation would require California judges to differentiate between truly "scientific"

176. *Id*. at 593–95.

177. *See generally* Lloyd Dixon & Brian Gill, *Changes in the Standards for Admitting Expert Evidence in Federal Civil Actions Since the* Daubert *Decision*, 8 PSYCHOL. PUB. POL'Y & L. 251 (2002).

178. *See generally* Edward J. Imwinkelried, *Forensic Science:* Frye*'s General Acceptance Test vs.* Daubert*'s Validation Standard—"Either . . . Or" or "Both . . . And"?*, 33 CRIM. L. BULL. 72 (1997).

179. Sargon Enters., Inc. v. Univ. of S. Cal., 288 P.3d 1237, 1252 (Cal. 2012).

180. 690 P.2d 709, 724 (Cal. 1984).

testimony and non-scientific expertise—the type of line drawing that the *Kumho Tire* Court eschewed. In *Kumho Tire*, Justice Breyer asserted that "it would prove difficult, if not impossible, for judges to administer evidentiary rules under which . . . [the admissibility standard] depended upon a distinction between 'scientific' knowledge and 'technical' or 'other specialized' knowledge."[181] There is certainly merit in Justice Breyer's assertion. However, the California courts could solve that problem by restricting the more demanding standard to purportedly scientific testimony involving instrumentation; the incorporation of that element into the scope limitation might render the scope limitation more judicially manageable. In effect, this is what courts did prior to *Sargon*, and despite Justice Breyer's epistemological point to the contrary, California courts might continue to do so after *Sargon*. Certainly, logic does not dictate that the general acceptance and validation tests are mutually exclusive.[182] After *Sargon*, the two tests may exist side by side in California courts, and the courts may rule that scientific expert testimony based on instrumental analysis must satisfy both tests.

C. A COMPARISON OF THE PROCEDURES FOR APPLYING *DAUBERT* AND *SARGON*

Under both the *Daubert* trilogy and *Sargon*, the trial judge must employ a critical, "gatekeeping" perspective. The question is whether *Sargon* authorizes a California judge to probe as deeply as *Daubert* mandates. Subpart A demonstrates that *Sargon* suggests that the California Supreme Court sympathizes with the federal approach to expert opinion testimony. A close reading of the *Sargon* opinion, however, indicates that the *Sargon* court stopped short of fully embracing the procedural demands set forth in *Daubert*. As Part I.A emphasizes, in his opinion Justice Blackmun explicitly stated that the preliminary fact-finding approach codified in Federal Rule 104(a) governs the trial judge's reliability determination under *Daubert.* Part I.A explains that when 104(a) governs, the trial judge acts as a trier of fact; the trial judge must consider the foundational testimony on both sides and can weigh the credibility of the testimony in choosing which testimony to believe.[183] In federal practice, the trial judge decides by a preponderance of the evidence, after weighing the foundational testimony on both sides, whether there is adequate, methodologically sound empirical data and

181. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 148 (1999).

182. Imwinkelried, *supra* note 178, at 83.

183. The Advisory Committee Note accompanying the 2000 amendment to Federal Rule 702 contemplates that the judge will consider the evidence on both sides. For example, it refers to "Claar v. Burlington N.R.R., 29 F.3d 499, 502–05 (9th Cir. 1994) (discussing the trial court's technique of ordering experts to submit serial affidavits explaining the reasoning and methods underlying their conclusions)." FED. R. EVID. 702 advisory committee's note.

reasoning to support the hypothesis that the expert's theory or technique is valid.

In the critical passage in *Sargon*, Justice Chin stopped short of assigning or empowering California trial judges the responsibility to make such a decision. Again, quoting the Loyola article, Justice Chin stated that a California trial judge must conduct "a circumscribed inquiry' to 'determine whether, as a matter of logic, the studies and other information cited by experts adequately support the conclusion that the expert's general theory or technique is valid."[184] Notice two things about the wording of that statement. First, rather than mentioning both sides' foundational testimony, the statement can be interpreted as referring only to "the studies and other information cited by [the proponent's] experts."[185] Second, and more importantly, the statement does not require the trial judge to make a factual determination by a preponderance of the evidence. Rather, the statement directs the trial judge to make a "circumscribed" decision "as a matter of logic." That language is consistent with the assumption that the California trial judge is to focus on the proponent's foundational testimony and decide whether "as a matter of logic" that testimony is adequate to support the hypothesis of the validity of the expert's underlying theory or technique.

Several aspects of *Sargon* support this limited reading. The court describes Skorheim as "the primary witness" at the hearing on USC's motion in limine.[186] Nowhere in the opinion does the court mention any defense testimony contradicting Skorheim's factual testimony about Sargon, the Big Six, or the global market. For that matter, there is no passage in the opinion in which the court rejected as incredible any of Skorheim's foundational testimony. As far as the opinion indicates, both the trial court and the California Supreme Court accepted that testimony at face value and confined their analyses to the question of whether "as a matter of logic" that testimony provided adequate support for Skorheim's ultimate opinions. In large part because of the inaptness of the analogy between Sargon and the Big Six, the trial judge answered that question in the negative, and the California Supreme Court found this that answer did not amount to an abuse of the trial judge's discretion.

A limited reading becomes even more plausible when one considers the *Sargon* court's repeated references to the earlier *Lockheed Litigation*

184. *Sargon*, 288 P.3d at 1252 (quoting Edward J. Imwinkelried & David L. Faigman, *Evidence Code Section 802: The Neglected Key to Rationalizing the Law of Expert Testimony*, 42 LOY. L.A. L. REV. 427, 449 (2009)).

185. *See* Edward J. Imwinkelried & David L. Faigman, *Evidence Code Section 802: The Neglected Key to Rationalizing the Law of Expert Testimony*, 42 LOY. L.A. L. REV. 427, 449 (2009).

186. *Sargon*, 288 P.3d. at 1241.

Cases.[187] Like *Sargon*, those consolidated cases asked whether the California judiciary possesses the authority to impose decisional restrictions on the admissibility of expert testimony and, if so, how the courts should exercise that authority.[188] The California Supreme Court never reached the merits of those questions in the *Lockheed Litigation Cases*:

> In a stunning turn of events in 2007, the Court dismissed review after the case had been pending before the California Supreme Court for two years. The apparent explanation is that a majority of members of the court had stock holdings that they believed required them to recuse themselves from the case. The justices could have designated pro tem judges to fill out the panel to decide the case, but they chose not to exercise that option. However, the upshot is that the disposition of the case left this evidentiary issue unresolved.[189]

Although five years passed between the dismissal of the *Lockheed Litigation Cases* and *Sargon*, Justice Chin's opinion made it clear that the court had not forgotten either the cases or the questions that they posed. Indeed, early in part II.A of his opinion, Justice Chin wrote:

> In *Lockheed Litigation Cases*, the plaintiffs argued that under Evidence Code section 801, subdivision (b), "a court should determine only whether the type of matter that an expert relies on in forming his or her opinion is the type of matter that an expert reasonably can rely on in forming an opinion, without regard to whether the matter relied on reasonably does support the particular opinion offered."[190]

It was that very plaintiffs' argument that had prompted the authors of the Loyola article (quoted by Justice Chin) to submit an amicus brief in the *Lockheed Litigation Cases* to challenge the plaintiffs' argument.[191] When the court dismissed the *Lockheed Litigation Cases*, the authors converted their amicus brief into the Loyola article that was eventually cited by the *Sargon* court.[192]

In the passage from the Loyola article that *Sargon* approvingly quoted, the authors urged the California Supreme Court to adopt the view that under section 802, California trial judges may conduct a "circumscribed inquiry" to "determine whether, as a matter of logic, the studies and other information cited by experts adequately support the conclusion that the expert's general theory or technique is valid."[193] In proposing that view, the authors specifically stated:

> [I]n conducting the proposed inquiry under the Evidence Code, a California trial judge would be playing a much narrower role than the role assigned to federal judges under *Daubert.* In *Daubert*, the Court

187. *Id.* at 1250–51 (referencing Lockheed Litig. Cases, 115 Cal. App. 4th 558 (2004)).
188. Imwinkelried & Faigman, *supra* note 186, at 428–30.
189. *Id.* at 430 (internal citations omitted).
190. *Sargon*, 288 P.3d at 1250–51 (internal citations omitted).
191. Imwinkelried & Faigman, *supra* note 185, at 429–30.
192. *Id.* at 427.
193. *Id.* at 449.

> expressly stated that Federal Rule of Evidence 104(a) governs the judge's determination as to whether the proponent has proven by a preponderance of the evidence that the expert has validated his or her theory or technique by sound scientific methodology. When a federal judge determines the existence of a foundational fact under Rule 104(a), "the judge acts as a trier of fact. . . . If the question is factual in nature, the judge will of necessity receive evidence pro and con on the issue." When the proponent and opponent submit conflicting testimony about the disputed foundational fact, a federal trial judge can consider the credibility of the testimony and resolve the dispute on the basis of a credibility determination.[194]

The authors did not specifically argue that California trial judges should be empowered to make such credibility determinations.[195] Instead, they suggested the more modest proposal that the California Supreme Court assign trial judges the task of reviewing the proponent's foundational testimony to decide whether, as a matter of logic, that testimony furnishes adequate support for the expert's ultimate opinion.[196] They provided an example of the minimum inquiry demanded by the California Evidence Code. Suppose that in a pesticide case, the plaintiff calls an epidemiologist as an expert:

> [T]he expert testifies along the following lines: there are thirty published studies involving 130,000 patients; every study yielded the finding that the relative risk was only 1.0; the incidence of cancer in the exposed group was no higher than the incidence of the disease in the general population; the expert conducted a metanalysis of the studies; and that metanalysis also yielded the finding that the relative risk is no higher. Yet, based solely on the epidemiological [data], the expert is prepared to testify to the validity of the general theory that exposure to the pesticide causes cancer.[197]

On one hand, this foundational testimony technically satisfies the letter of Evidence Code section 801 because these are the types of studies that epidemiologists customarily rely on. On the other hand, given the studies' uniform finding that exposure to the pesticide does not increase the risk of cancer, it is illogical to treat those studies as adequate support for the expert's causation opinion. If the judge can enforce only the letter of section 801, then the judge's hands are tied—she must admit the testimony. However, even without a full commitment to *Daubert*, a California trial judge could exclude the opinion if she may conduct a limited inquiry whether "as a matter of logic," the empirical data cited by the expert justifies the expert's opinion.

As in the case of the possible reconciliation of *Daubert* and *Kelly-Frye*, discussed in Subpart B, *Sargon* does not furnish a clear answer to

194. *Id.* at 446–47 (alterations in original).
195. *Id.* at 449.
196. *Id.*
197. *Id.* at 444.

the present question. Although the court did not expressly accord California trial judges the authority to conduct the sort of full-blown inquiry permissible under Federal Rule 104(a), it did not forbid such an inquiry. The *Sargon* court might have contemplated that in the future California trial judges should be as active as federal judges in conducting the kind of probing *Daubert* reliability inquiry permissible under Rule 104(a). Since 1976, California has employed the *Frye* general acceptance test to determine the admissibility of testimony based on novel scientific theories. There is California authority[198] that when the trial judge rules under *Frye*, the judge should follow the preliminary fact-finding procedures set out in California Evidence Code § 405—an analogue to and model for Federal Rule 104(a).[199] Since *Frye* and *Daubert* both serve as admissibility standards for expert testimony, that authority suggests that to be consistent, California trial judges ought to follow the procedures in section 405 to determine the reliability of the proffered testimony under *Sargon.*

CONCLUSION

Sargon is arguably the most important California expert testimony decision in nearly two decades.[200] While it is always difficult to forecast the impact of significant decisions like *Sargon*, it undeniably moves California law closer to the federal approach. How much closer remains to be determined. As we have seen, California courts have traditionally favored the liberal admissibility of expert testimony.[201] Justice Chin's decision reminds us that the Seventh Amendment jury trial guarantee shows that, to an extent, that policy has a constitutional dimension.[202]

Part III begins by remarking that there is no simple yes or no answer to the question of whether *Sargon* "adopted" *Daubert.* In one respect, the two opinions are quite kindred. As we saw in Subpart A, it is undeniable that to some extent, *Sargon* requires California trial judges to assume "gatekeeping" responsibilities and reject any expert's *ipse dixit* claim that his or her knowledge claim is valid. Like the federal trial judge in *Joiner*, a California trial judge may now accept *arguendo* a proponent's foundational testimony but still rule that the testimony does not provide sufficient warrant for the expert's knowledge claim.

In two other respects, though, it is unclear how closely the new California approach will track the federal trilogy. First, even after *Sargon* the California approach may be more liberal than the federal approach. In

198. *See generally In re* Robert B., 218 Cal. Rptr. 337 (1985).

199. FED. R. EVID. 104 advisory committee's note.

200. *Leahy*, the case in which the California Supreme Court refused to adopt *Daubert*, was decided in 1994. People v. Leahy, 882 P.2d 321 (Cal. 1994).

201. Barnes, *supra* note 7, at 2.

202. Sargon Enters., Inc. v. Univ. of S. Cal., 288 P.3d 1237, 1250 (Cal. 2012).

Daubert, Justice Blackmun went to some length to explicitly state that Federal Rule 104(a) governs the federal trial judge's admissibility analysis.[203] Consequently, the federal judge can probe deeply, even passing on the credibility of the foundational testimony. The *Sargon* opinion does not explicitly empower California trial judges to go that far. Secondly, however, the California approach may prove to be more demanding—or at least more complicated—than the federal approach. If *Kelly-Frye* is still good law in California, proponents of scientific testimony involving instrumentation may face the daunting prospect of surmounting both hurdles to admissibility.

For now, it is uncertain whether California lower courts will give *Sargon* a limited reading and conduct only a "circumscribed inquiry" into whether the proponent's foundational testimony furnishes adequate support for the expert's hypothesis. In the original *Daubert* decision, Chief Justice Rehnquist expressly worried about whether it was realistic to expect federal trial judges to act as "amateur scientists."[204] This worry might be greater among state court judges. In many jurisdictions, state trial judges have fewer clerks and more limited access to scientific literature than federal judges.[205] Even if *Daubert* is the right choice for the federal judiciary, a state could reasonably conclude that it is not the right path for it to take.[206] Alternatively, the California courts might well find that a gradual, incremental movement toward the *Daubert* approach is preferable. If so, *Sargon* will certainly mark the beginning of this move. In *Sargon*, the California Supreme Court demonstrated its interest in testing the *Daubert* waters. Only time will tell whether the court is ready to take the plunge.

203. Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 598, 592–95 (1993).

204. *Id*. at 601 (Rehnquist, C.J., concurring in part and dissenting in part).

205. *See generally* Sophia I. Gatowski et al., *Asking the Gatekeepers: A National Survey of Judges on Judging Expert in a Post-*Daubert *World*, 25 L. & HUM. BEHAV. 433 (2001).

206. Edward J. Imwinkelried, *Master Class: Evidence Equilibrium*, NAT'L L.J, July 22, 2002, at B9.

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