

**District of Columbia
Court of Appeals**

No. 14-CV-1350

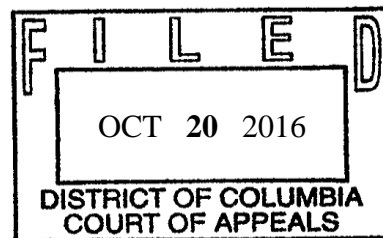
MOTOROLA INC., *et al.*,

Appellants,

v.

MICHAEL PATRICK MURRAY, *et al.*,

Appellees.



CAB-8479-01

On Appeal from the Superior Court of the District of Columbia
Civil Division

BEFORE: WASHINGTON, *Chief Judge*; and GLICKMAN, FISHER, BLACKBURNE-
RIGSBY, THOMPSON, BECKWITH, and EASTERLY, *Associate Judges*.

J U D G M E N T

This case came to be heard on the transcript of record and the briefs filed, and was argued *en banc* by counsel. On consideration whereof, and as set forth in the opinion filed this date, it is now hereby

ORDERED and ADJUDGED that the judgments on appeal are remanded for further proceedings consistent with this opinion.

For the Court:



JULIO A. CASTILLO
Clerk of the Court

Dated: October 20, 2016.

Opinion by Associate Judge John Fisher.

Concurring opinion by Associate Judge Catharine Easterly.

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DISTRICT OF COLUMBIA COURT OF APPEALS

No. 14-CV-1350

MOTOROLA INC., *et al.*, APPELLANTS,

v.

MICHAEL PATRICK MURRAY, *et al.*, APPELLEES.

Appeal from the Superior Court
of the District of Columbia
(CAB-8479-01)

(Hon. Frederick H. Weisberg, Trial Judge)

(Argued En Banc November 24, 2015

October 20, 2016)

Terrence J. Dee argued for appellants.

James F. Green and *Jeffrey B. Morganroth* argued for appellees.

Many additional counsel were on the briefs for the parties or filed briefs *amicus curiae*. Their names are listed in an appendix to this opinion.

Before WASHINGTON, *Chief Judge*, and GLICKMAN, FISHER, BLACKBURNE-RIGSBY, THOMPSON, BECKWITH, and EASTERLY, *Associate Judges*.

Opinion for the court by *Associate Judge* FISHER.

Concurring opinion by *Associate Judge* EASTERLY at page 20.

FILED 10/20/16
District of Columbia
Court of Appeals

Julio Castillo
Julio Castillo
Clerk of Court

FISHER, *Associate Judge*: For decades this court has used the *Dyas/Frye* test¹ to govern the admissibility of expert testimony. We now are sitting en banc to consider whether we should abandon that test in favor of the standards embodied in Rule 702 of the Federal Rules of Evidence. For the reasons explained below, we adopt Rule 702.²

I. The Factual and Procedural Background

The plaintiffs in these thirteen cases have sued numerous cell phone manufacturers, service providers, and trade associations, alleging that long-term exposure to cell-phone radiation causes brain tumors. Judge Frederick H. Weisberg held four weeks of evidentiary hearings on the admissibility of the expert testimony offered by the plaintiffs.³ He concluded that, based on the present

¹ See *Dyas v. United States*, 376 A.2d 827 (D.C. 1977); *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).

² In the absence of legislation prescribing rules of evidence, “this court is the final authority for establishing the evidentiary rules for the Superior Court of the District of Columbia.” *Laumer v. United States*, 409 A.2d 190, 195 n.7 (D.C. 1979) (en banc).

³ Judge Weisberg heard “testimony from plaintiffs’ eight experts and defendants’ four rebuttal experts, received approximately 280 exhibits containing thousands of pages of documents, and reviewed hundreds of pages of legal briefing both before and after the hearing.”

record, “some, but not all, of Plaintiffs’ proffered expert testimony on general causation is admissible under the *Frye/Dyas* evidentiary standard,” but “most, if not all, of Plaintiffs’ experts would probably be excluded under the Rule 702/*Daubert* standard”⁴ Judge Weisberg then certified the following question of law for interlocutory appeal: “whether the District of Columbia should adopt Federal Rule of Evidence 702 (or a revised *Frye* standard) for the admissibility of expert evidence.” *See* D.C. Code § 11-721 (d) (2012 Repl.). We granted appellants’ motion for interlocutory review.⁵

II. Legal Analysis

Our role at this stage of the proceedings is limited, but consequential. It is not our task to affirm or reverse Judge Weisberg’s ruling.⁶ For this reason, we will

⁴ *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

⁵ The statute governing our jurisdiction permits an interlocutory appeal in a civil case when a judge of the Superior Court states in writing his or her opinion “that the ruling or order involves a controlling question of law as to which there is substantial ground for a difference of opinion and that an immediate appeal from the ruling or order may materially advance the ultimate termination of the litigation or case.” D.C. Code § 11-721 (d). This court may, in its discretion, permit the appeal to be taken. *Id.*; *see also In re J.A.P.*, 749 A.2d 715, 717 (D.C. 2000).

⁶ Appellants note that their appeal “does not challenge any specific findings related to a particular expert.” Brief for Appellants at 8.

not attempt to duplicate his learned discussion of the underlying science or his extended summary of the testimony he heard. Instead, we must decide whether to change the legal standard that governs the admission of expert testimony.

A. The *Dyas/Frye* Test

In this jurisdiction, the admission of expert testimony has been governed by the legal principles set forth in *Frye v. United States* and *Dyas v. United States*. In the seminal case of *Frye*, the trial court excluded evidence that the defendant had taken and passed an early form of a lie-detector test. 293 F. 1013. Upholding the ensuing murder conviction, the Court of Appeals of the District of Columbia articulated a test for admitting expert testimony. That test was thereafter widely adopted in federal and state courts:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.

Id. at 1014.

Later, in *Dyas*, we expanded upon *Frye* and adopted a three-part test for determining whether to admit expert testimony:

(1) the subject matter “must be so distinctively related to some science, profession, business or occupation *as to be beyond the ken of the average layman*”; (2) “the witness must have sufficient skill, knowledge, or experience in that field or calling as to make it appear that his opinion or inference *will probably aid the trier in his search for truth*”; and (3) expert testimony is inadmissible if “the state of the pertinent art or scientific knowledge does not permit a reasonable opinion to be asserted even by an expert.”

376 A.2d at 832 (quoting *McCormick on Evidence*, § 13 at 29-31 (E. Cleary, 2d ed. 1972)). “The third criterion [of *Dyas*] incorporates the . . . *Frye* test, under which scientific testimony is admissible only if the theory or methodology on which it is based has gained general acceptance in the relevant scientific community.” (*John Jones v. United States*, 990 A.2d 970, 977 (D.C. 2010).

“[B]ecause expert or scientific testimony possesses an aura of special reliability and trustworthiness, the proffer of such testimony must be carefully

scrutinized.” *Ibn-Tamas v. United States*, 407 A.2d 626, 632 (D.C. 1979) (internal quotation marks and citation omitted). However, under *Dyas/Frye*, this inquiry “begins—and ends—with a determination of whether there is general acceptance of a particular scientific methodology, not an acceptance, beyond that, of particular study results based on that methodology.” *Id.* at 638; *see also President and Directors of Georgetown College v. Wheeler*, 75 A.3d 280, 291 (D.C. 2013) (“The third *Dyas* requirement focuses not on the acceptance of a particular conclusion derived from the methodology, but rather on the acceptance of the methodology itself.” (ellipsis, brackets, and internal quotation marks omitted)).

“General acceptance means just that; the answer cannot vary from case to case.” (*Nathaniel*) *Jones v. United States*, 548 A.2d 35, 40 (D.C. 1988). “If the technique has gained such general acceptance, we will accept it as presumptively reliable and thus generally admissible into evidence.” *Id.* at 39. As Judge Weisberg explained, under the *Dyas/Frye* test “the question of whether an expert used a particular generally accepted methodology correctly is not at issue when determining the . . . admissibility” of the expert’s testimony. *See, e.g., United States v. Porter*, 618 A.2d 629, 636 (D.C. 1992) (“Any failure by the scientists to adhere to the appropriate procedure is, of course, a proper subject of inquiry, but does not raise an issue which implicates *Frye*.”).

B. The *Daubert* Trilogy

In 1993 the Supreme Court held that the “general acceptance” test had been superseded by the Federal Rules of Evidence, which were enacted half a century after *Frye* was decided. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 587 (1993). Accordingly, “[t]hat austere standard, absent from, and incompatible with, the Federal Rules of Evidence, should not be applied in federal trials.” *Id.* at 589. Interpreting Rule 702, the “specific” rule governing expert testimony, the decision in *Daubert* in some respects relaxed traditional barriers to opinion testimony. *Id.* at 588 (“[A] 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.” (internal quotation marks omitted)). The Court emphasized, however, that “the trial judge must [still] ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Id.* at 589. Here, of course, the Court was referring “to *evidentiary* reliability—that is, trustworthiness.” *Id.* at 590 n.9.

Therefore, when a party proffers expert scientific testimony, the trial court must make “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.” 509 U.S. at 592-93. Although it eschewed “a definitive checklist or test,” *id.* at 593, the Court in *Daubert* did suggest factors to be considered, including whether the theory or technique has been tested, whether it “has been subjected to peer review and publication,” “the known or potential rate of error,” and “the existence and maintenance of standards controlling the technique’s operation.” *Id.* at 593-94. “Finally, ‘general acceptance’ can yet have a bearing on the inquiry.” *Id.* at 594. Nevertheless, the Court cautioned, the inquiry is “a flexible one.” *Id.* “The focus . . . must be solely on principles and methodology, not on the conclusions that they generate.” *Id.* at 595.

The Court made clear that it did not intend for the trial judge’s more refined gatekeeping role to displace the normal tools of the adversary system. “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.” 509 U.S. at 596. “[I]n practice,” however, “a gatekeeping role for the judge, no matter how flexible, inevitably on occasion will prevent the jury from learning of authentic insights and innovations.” *Id.* at 597.

The Court also pointed out that Rule 702 does not operate in isolation. To perform the gatekeeping function, the trial court normally will apply Rule 104 (a) (preliminary questions, such as whether a witness is qualified or evidence is admissible); Rule 703 (the bases of an expert's opinion); and Rule 403 (permitting the exclusion of relevant evidence "if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence").⁷ 509 U.S. at 592-95. When discussing Rule 403, the Court endorsed this explanation: "Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it. Because of this risk, the judge in weighing possible prejudice against probative force under Rule 403 of the present rules exercises more control over experts than over lay witnesses." 509 U.S. at 595 (quoting Hon. Jack B. Weinstein, *Rule 702 of the Federal Rules of Evidence Is Sound; It Should Not Be Amended*, 138 F.R.D. 631, 632 (1991)).

⁷ This court has adopted Rule 703 (*In re Melton*, 597 A.2d 892, 901 & n.10 (D.C. 1991) (en banc)), and Rule 403 (*Johnson v. United States*, 683 A.2d 1087, 1100 (D.C. 1996) (en banc)). Although we have not formally adopted Rule 104, "it accurately states the rule of evidence we generally follow." *Jenkins v. United States*, 80 A.3d 978, 991 (D.C. 2013).

Expressing confidence “that federal judges possess the capacity to undertake this review [of expert testimony for evidentiary reliability],” 509 U.S. at 593, the Court summarized:

“General acceptance” is not a necessary precondition to the admissibility of scientific evidence under the Federal Rules of Evidence, but the Rules of Evidence—especially Rule 702—do assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand. Pertinent evidence based on scientifically valid principles will satisfy those demands.

Id. at 597.

In two subsequent decisions, the Supreme Court refined its analysis in *Daubert*, now acknowledging that “conclusions and methodology are not entirely distinct from one another.” *General Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997). “[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.” *Id.* Thus, “[a] court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.” *Id.* The abuse of discretion standard of review applies, regardless of whether the trial court decided “to admit or exclude scientific evidence.” *Id.*

“*Daubert*’s general holding—setting forth the trial judge’s general ‘gatekeeping’ obligation—applies not only to testimony based on ‘scientific’ knowledge, but also to testimony based on ‘technical’ and ‘other specialized’ knowledge.” *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141 (1999) (quoting Fed. R. Evid. 702). Moreover,

the test of reliability is “flexible,” and *Daubert*’s list of specific factors neither necessarily nor exclusively applies to all experts or in every case. Rather, the law grants a district court the same broad latitude when it decides *how* to determine reliability as it enjoys in respect to its ultimate reliability determination.

Id. at 141-42. In other words, “the trial judge must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable.” *Id.* at 152. The objective of the gatekeeping requirement “is to make certain that an expert . . . employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Id.*

Daubert and its progeny thus focus not only on methodology, as *Frye* and *Dyas* do, but also on the application of that methodology in a particular case. As

the Court explained in *Kumho Tire*, “Rule 702 grants the district judge the discretionary authority, reviewable for its abuse, to determine reliability in light of the particular facts and circumstances of the particular case.” 526 U.S. at 158. Applying this principle, the Court concluded in both *Joiner* and *Kumho Tire* that the trial court had not abused its discretion by excluding the proffered expert testimony. *See Joiner*, 522 U.S. at 146-47; *Kumho Tire*, 526 U.S. at 158. It is thus fair to say that the impact of the *Daubert* trilogy has been mixed: These cases relax the initial barriers to the admission of expert testimony, but at the same time emphasize the trial judge’s robust gatekeeping function.

C. Rule 702, Amended

Although the *Daubert* trilogy represented the Supreme Court’s construction of Rule 702, that rule and its commentary were in turn amended (in 2000) to reflect the Supreme Court’s guidance. Rule 702 (as amended stylistically in 2011) now provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

(a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. In making our decision, we will focus on this articulation of the governing principles.

D. Why We Adopt Rule 702

The parties and *amici* have recommended three options for our consideration: (1) retain the *Dyas/Frye* test, by which we currently abide; (2) adopt Federal Rule 702, as amended to reflect the *Daubert* trilogy; or (3) craft a revised version of the *Dyas/Frye* test. There are many criticisms of the first two tests. On the one hand, critics of *Dyas/Frye* claim that it is antiquated and out-of-step with modern science. It avoids, even forbids, looking at the crucial question of whether the testimony offered in a particular case is reliable. Some say that *Frye* forces unqualified jurors to decide which scientific theories should be applied to the particular case. One court has concluded that *Frye* “is both unduly restrictive and unduly permissive.” *State v. Coon*, 974 P.2d 386, 394 (Alaska 1999). “[I]t excludes scientifically reliable evidence which is not yet generally

accepted, and admits scientifically unreliable evidence which although generally accepted, cannot meet rigorous scientific scrutiny.” *Id.* at 393-94. Judge Weisberg also concluded that *Frye* “is not a good gatekeeper for inductive sciences such as epidemiology or psychology.”

On the other hand, Rule 702 and *Daubert* are faulted for producing inconsistent results, for making unqualified judges evaluate the work of scientists, and for invading the province of the jury. We acknowledge that following a uniform rule does not ensure uniform results. There are many trial judges and many types of science. Moreover, the criteria for determining reliability are flexible, and the decisions of trial judges are reviewed only for abuse of discretion. Some inconsistency is inevitable.

Having studied the matter at great length, Judge Weisberg expressed his own conclusion: “[A]t the risk of over-simplification[,] if a reliable, but not yet generally accepted, methodology produces ‘good science,’ *Daubert* will let it in, and if an accepted methodology produces ‘bad science,’ *Daubert* will keep it out; conversely, under *Frye*, as applied in this jurisdiction, even if a new methodology produces ‘good science,’ it will usually be excluded, but if an accepted methodology produces ‘bad science,’ it is likely to be admitted.”

Our choice boils down to this: Like the “general acceptance” test, Rule 702 is concerned with the reliability of the “principles and methods” applied by the expert. Fed. R. Evid. 702 (c). But Rule 702 (d) goes further and expressly requires the court to determine whether “the expert has reliably applied the principles and methods to the facts of the case.” We conclude that Rule 702, with its expanded focus on whether reliable principles and methods have been reliably applied, states a rule that is preferable to the *Dyas/Frye* test.⁸ The ability to focus on the reliability of principles and methods, and their application, is a decided advantage that will lead to better decision-making by juries and trial judges alike.

We have considered revising the *Frye* test, as some jurisdictions have done,⁹ but there are substantial benefits to be gained from adopting a test that is widely used. *See Johnson v. United States*, 683 A.2d 1087, 1100 (D.C. 1996) (en banc) (noting “the advantage that uniformity with the federal rule and the vast majority

⁸ Our decision to adopt Rule 702 means, among other things, that we will no longer ask whether the subject matter is “beyond the ken of the average layman.” *Dyas*, 376 A.2d at 832. The proper inquiry is whether “the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702 (a).

⁹ *See, e.g., Blackwell v. Wyeth*, 971 A.2d 235, 241-43, 250-56 (Md. 2009); *Cornell v. 360 West 51st St. Realty, LLC*, 9 N.E.3d 884, 896-97 (N.Y. 2014); *Betz v. Pneumo Abex LLC*, 44 A.3d 27, 58 (Pa. 2012).

of state rules affords for interpretation and application”). We can learn from the decisions of other courts which apply Rule 702 or its state counterparts. Nevertheless, we are not proceeding with any illusions that the cases are uniform or even consistent. Nor will the transition be easy. But we are not the first jurisdiction to make this change, and the Advisory Committee Notes to Rule 702 provide helpful guidance for applying the rule. Echoing sentiments from *Daubert*, 509 U.S. at 593, we are confident that judges of the Superior Court, like their Article III counterparts, are fully capable of performing the gatekeeping function.

E. Applying Rule 702

Properly performing the gatekeeping function will require a delicate touch. “[T]he trial court’s role as gatekeeper is not intended to serve as a replacement for the adversary system.” Fed. R. Evid. 702 advisory committee’s notes to 2000 amendments (quoting *United States v. 14.38 Acres of Land Situated in Leflore County, Mississippi*, 80 F.3d 1074, 1078 (5th Cir. 1996)). But, as *Joiner* and *Kumho Tire* clearly demonstrate, the trial court will have the discretion (informed by careful inquiry) to exclude some expert testimony. The goal is to deny admission to expert testimony that is not reliable, but to admit competing theories if they are derived from reliable principles that have been reliably applied.

“When a trial court, applying [Rule 702], rules that an expert’s testimony is reliable, this does not necessarily mean that contradictory expert testimony is unreliable. [Rule 702] is broad enough to permit testimony that is the product of competing principles or methods in the same field of expertise.” Fed. R. Evid. 702 advisory committee’s notes to 2000 amendments. Indeed, we expect that many cases will feature expert witnesses espousing different views of the evidence. Their testimony will be tested by the adversary process and evaluated by the jury.

What about cases in which the experts on one side are in a distinct minority? That may well raise a red flag, for “[w]hen a scientist claims to rely on a method practiced by most scientists, yet presents conclusions that are shared by no other scientist, the [trial] court should be wary that the method has not been faithfully applied.” *Lust v. Merrell Dow Pharmaceuticals, Inc.*, 89 F.3d 594, 598 (9th Cir. 1996) (cited in Fed. R. Evid. 702 advisory committee’s notes to 2000 amendments). But minority status is not a proxy for unreliability. The trial court still will need to determine whether the opinion “is the product of reliable principles and methods[,] . . . reliably applied.” Fed. R. Evid. 702 (c), (d).

One considerable cost of adopting Rule 702 is that judges and lawyers will have to adjust to new rules. There will also be the question of what to do about types of expert testimony that have been commonly admitted under *Dyas/Frye*. Must this jurisdiction revisit the admissibility of every form of expert testimony? Both *Daubert* and the Advisory Committee Notes to Rule 702 provide some useful guidance.

There is no “grandfathering” provision in Rule 702. However, *Daubert* commented that “‘general acceptance’ can . . . have a bearing on the [reliability] inquiry.” 509 U.S. at 594. “Widespread acceptance can be an important factor in ruling particular evidence admissible, and a known technique which has been able to attract only minimal support within the community may properly be viewed with skepticism.” *Id.* (internal quotation marks and citation omitted). Moreover, “the trial judge has the discretion ‘both to avoid unnecessary “reliability” proceedings in ordinary cases where the reliability of an expert’s methods is properly taken for granted, and to require appropriate proceedings in the less usual or more complex cases where cause for questioning the expert’s reliability arises.’” Fed. R. Evid. 702 advisory committee’s notes to 2000 amendments (quoting *Kumho Tire*, 526 U.S. at 152). What the court may not do is reflexively admit

expert testimony because it has become accustomed to doing so under the *Dyas/Frye* test.

Plaintiffs lament the enormous amounts of time and money that have been spent on discovery and pretrial litigation, and they fault defendants for agreeing to use the *Dyas/Frye* test in these cases. But the defendants could not have done otherwise because *Dyas* and *Frye* are binding precedent until revisited by this court sitting en banc. See *M.A.P. v. Ryan*, 285 A.2d 310, 312 (D.C. 1971). It is also highly doubtful that we would have accepted an interlocutory appeal until we were presented with a developed record. See note 5, above.

Plaintiffs also argue that any new rule we adopt should not apply to these cases, but such an outcome would be inconsistent with the very purpose for entertaining an interlocutory appeal. See note 5, above. Judge Weisberg explained that if this court adopted a new rule governing the admissibility of expert testimony, he “could then allow whatever additional discovery might be necessary to place Plaintiffs in a fair position to litigate that issue.”

III. Conclusion

We adopt Rule 702 to apply to the trial of this case and to any civil or criminal case¹⁰ in which the trial begins after the date of this opinion. We will consider at a later time, when the issue is properly presented, whether the standard applies to cases that have already been tried but are not yet final on direct appeal. *See generally Davis v. Moore*, 772 A.2d 204 (D.C. 2001) (en banc). These cases are remanded for further proceedings consistent with this opinion.

It is so ordered.

EASTERLY, *Associate Judge*, concurring: I join the opinion of the court adopting Federal Rule of Evidence 702 as the rule for the admission of expert testimony in criminal and civil cases. With this decision, trial courts will be called upon to scrutinize an array of forensic expert testimony under new, more

¹⁰ The United States Attorney's Office and the Office of the Attorney General for the District of Columbia prosecute the criminal cases that are heard in the Superior Court. The Public Defender Service represents the defendants in many of those cases. All three offices have filed briefs *amicus curiae* urging us to adopt Rule 702. No party or *amicus* has asked us to adopt a different rule for criminal cases.

scientifically demanding standards. As the opinion of the court states, “[t]here is no ‘grandfathering’ provision in Rule 702,” and, under the new rule we adopt, courts may not “reflexively admit expert testimony because it has become accustomed to doing so under the *Dyas/Frye* test.” *Ante*, at 18–19.

Fortunately, in assessing the admissibility of forensic expert testimony, courts will have the aid of landmark reports that examine the scientific underpinnings of certain forensic disciplines routinely admitted under *Dyas/Frye*, most prominently, the National Research Council’s congressionally-mandated 2009 report *Strengthening Forensic Science in the United States: A Path Forward*,¹ and the President’s Council of Advisors on Science and Technology’s (PCAST) 2016 report *Forensic Science in the Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods* [hereinafter PCAST Report].² These reports provide information about best practices for scientific testing, an objective yardstick against which proffered forensic evidence can be measured, as well as critiques of particular types of forensic evidence. In addition,

¹ Available at <https://www.ncjrs.gov/pdffiles1/nij/grants/228091.pdf>.

² Available at https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf.

the PCAST Report contains recommendations for trial judges performing their gatekeeping role under Rule 702:

- (A) When deciding the admissibility of [forensic] expert testimony, . . . judges should take into account the appropriate scientific criteria for assessing scientific validity including: (i) foundational validity,³ with respect to the requirement under Rule 702(c) that testimony is the product of reliable principles and methods; and (ii) validity as applied,⁴ with respect to [the] requirement under Rule 702(d) that an expert has reliably applied the principles and methods to the facts of the case.
- (B) . . . [J]udges, when permitting an expert to testify about a foundationally valid feature-comparison method, should ensure that testimony about the accuracy of the method and the probative value of proposed identifications is scientifically valid in that it is limited to what the empirical evidence supports. Statements suggesting or implying greater certainty are not scientifically valid and should not be permitted. In particular, courts should never permit scientifically indefensible claims such as: “zero,” “vanishingly small,” “essentially zero,” “negligible,” “minimal,” or “microscopic” error rates; “100 percent certainty” or proof “to a reasonable degree of scientific certainty;” identification “to the exclusion

³ “Foundational validity for a forensic-science method requires that it be shown, based on empirical studies, to be *repeatable, reproducible, and accurate*, at levels that have been measured and are appropriate to the intended application.” PCAST Report, *supra*, at 4. If a method has foundational validity it “can, *in principle*, be reliable.” *Id.* at 4–5.

⁴ “Validity as applied means that the method has been reliably applied *in practice*.” *Id.* at 5. It means that the expert has “reliably applied . . . [foundationally valid] principles and methods to the facts of the case.” *Id.*

of all other sources;” or a chance of error so remote as to be a “practical impossibility.”

PCAST Report, *supra*, at 19; *see also id.* at 142–45; *Gardner v. United States*, 140 A.3d 1172, 1184 (D.C. 2016) (imposing limits on experts’ statements of certainty).

As the opinion of the court explains, the ultimate concern of the courts is with evidentiary reliability. *Ante*, at 7. But, “[i]n a case involving scientific evidence”—or evidence held out as scientific evidence—“*evidentiary reliability* will be based on *scientific validity*.” *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 590 n.9 (1993); *see also* PCAST Report, *supra*, at 19 (explaining that “scientific validity” encompasses both “foundational validity” and “validity as applied”).

APPENDIX**LIST OF COUNSEL**

Terrence J. Dee argued for appellants. The following were on the brief: *Laura Sierra*, *Scott A. Elder* (pro hac vice pending), and *David Venderbush* (admitted pro hac vice) for appellant Cellco Partnership d/b/a Verizon Wireless, Bell Atlantic Mobile, Inc., and Verizon Wireless Inc.; *Jennifer G. Levy*, *Terrence J. Dee* (admitted pro hac vice), and *Michael B. Slade* (admitted pro hac vice) for appellant Motorola, Inc.; *Thomas Watson*, *Curtis S. Renner*, and *Lauren Boucher* for appellants AT&T Inc., AT&T Wireless Services Inc., Cingular Wireless LLC, and related entities; *Paul Scrudato* (pro hac vice pending) and *Thomas M. Crispi* (pro hac vice pending) for appellant Apple Inc., a defendant in other related cases Nos. 2012 CA 008537 B, 2013 CA 007805 B, 2013 CA 007620 B, and 2014 CA 0004171 B; *Seamus C. Duffy* (pro hac vice pending) and *Michael Daly* (pro hac vice pending) for appellants AT&T Inc., AT&T Wireless Services Inc., Cingular Wireless LLC, and related entities; *Howard N. Feldman* for appellant Audiovox Communications Corporation; *Howard D. Scher*, *Patrick T. Casey*, and *John Korn* for appellant Cellular One Group; *Michael D. McNeely* and *Vicki L. Dexter* for appellant Cellular Telecommunications & Internet Association; *Paul Farquharson* and *Scott Phillips* for appellant Cricket; *Ralph A. Taylor, Jr.*, and *Rosemarie Ring* (admitted pro hac vice in D.C. Superior Court only) for appellant HTC America, Inc., a defendant in other related cases Nos. 2012 CA 008533 and 2014 CA 002797; *Sean Reilly* for appellant LG Electronics MobileComm U.S.A., Inc., a defendant in other related cases Nos. 2014 CA 002521, 2012 CA 003241, 2012 CA 004068, 2013 CA 007620, 2013 CA 008192, 2014 CA 001425, and 2014 CA 002797; *Steven M. Zager*, *Amanda R. Johnson*, *Stanley E. Woodward Jr.*, and *Richard W. Stimson* (admitted pro hac vice) for appellant Microsoft Mobile Oy; *Francis A. Citera* (pro hac vice pending), *Matthew A.C. Zapf* (pro hac vice pending), and *Precious Murchison* for appellants Qualcomm Inc. and Sony Electronics Inc.; *John B. Isbister* and *Jaime W. Luse* for appellant Samsung Telecommunications America, LLC; *J. Stan Sexton* (pro hac vice pending), *Patrick N. Fanning* (pro hac vice pending), and *John A. Turner, III*, for appellants Sprint Nextel Corporation f/k/a Nextel Communications and Sprint Spectrum, L.P. d/b/a Sprint PCS; *Paul H. Vishny*, *Paul E. Freehling* (admitted pro hac vice), and *Rhett E. Petcher* for appellant Telecommunications Industry Association; *Michael Scoville* and *Mary Rose Hughes* for appellant T-Mobile USA, Inc.; and *Eugene A. Schoon* (admitted pro hac vice) and *Tamar B. Kelber* for appellant United States Cellular Corporation.

James F. Green and *Jeffrey B. Morganroth* argued for appellees. The following were on the brief: *James F. Green* and *Michelle A. Parfitt* co-counsel for appellees *Prischman, Kidd, Solomon, Brown, and Noroski*; *Jeffrey B. Morganroth, Mayer Morganroth, and Jill A. Gurfinkel* lead counsel for appellees *Murray, Cochran, Agro, Keller, Schwamb, Schofield, and Bocook*, and co-counsel for *Marks*; *Hunter Lundy, Rudie R. Soileau Jr., and Kristie Hightower* lead counsel for appellees *Prischman, Kidd, Solomon, and Brown*, and co-counsel for *Marks*; *Victor H. Pribanic* and *Matthew Doebler* lead counsel for appellee *Noroski*; *Jeffrey S. Grand* co-counsel for appellee *Solomon*; *Laura Bishop Knoll, Jerold Edward Knoll, Jerold Edward Knoll, Jr., and Edmond H. Knoll* co-counsel for appellees; and *Steven R. Hickman* co-counsel for appellees.

Brief of *amicus curiae* Business and Medical Coalition in support of appellants was filed by *Steven P. Lehotsky* and *Sheldon Gilbert* for Chamber of Commerce of the United States of America, *Amar D. Sarwal* for Association of Corporate Counsel, and *Joe G. Hollingsworth* and *Eric G. Lasker* for all amici.

Brief of *amici curiae* D.C. Defense Lawyers' Association and DRI in support of appellants, reversal, and the adoption of Rule 702 and *Daubert* to modernize the standard for admission of expert opinions was filed by *Kelly Hughes Iverson, Kamil Ismail, Craig S. Brodsky, Erin Christen Miller, and Meghan Hatfield Yanacek* for D.C. Defense Lawyers' Association; and *John Parker Sweeney* for DRI – The Voice of the Defense Bar.

Brief of *amicus curiae* Product Liability Advisory Council, Inc., in support of appellants' request for reversal of order admitting expert testimony was filed by *Terri S. Reiskin, Marilyn S. Chappell, L. Michael Brooks, Jr., Mary A. Wells, and Hugh F. Young, Jr.*

Brief of *amicus curiae* Public Defender Service in support of appellants was filed by *James Klein, Alice Wang, Jason Tulley, and Emily Voshell*, Public Defender Service.

Brief of *amicus curiae* Trial Lawyers Association of Metropolitan Washington, D.C., in support of appellees and affirmance was filed by *John Vail*.

Joint Brief of *amici curiae* United States of America and the District of Columbia in support of appellants was filed by *Ronald C. Machen Jr.*, United States Attorney at the time the brief was filed, and *Elizabeth Trosman* and *John P.*

Mannarino, Assistant United States Attorneys; and *Karl A. Racine*, Attorney General for the District of Columbia, *Todd S. Kim*, Solicitor General, and *Loren L. AliKhan*, Deputy Solicitor General.