

NELC JANUARY 6, 2017 SEMINAR OUTLINE FOR “EXPERT WITNESSES”

- I. Overview of the Rules of Evidence, Rules 103, 104, 702, 703, 704, & 705
 - copies attached

- II. Daubert case law discussion – specifics on needed elements to avoid exclusion and advocate the opinion
 - case law attached

The case of Daubert v. Merrell Dow Pharms. Inc., 509 U.S. 579 (1993) requires the trial judge to ensure that the expert’s testimony is “relevant to the task at hand” and that it rests “on a reliable foundation. *Id* at 584-587. A trial Court must find it more likely than not that the expert’s methods are reliable and reliably applied to the facts at hand.

Although the admission of expert testimony is governed by Evidence Rule 702, a threshold determination must first be made under Evidence Rule 104(A) concerning the qualifications of the witness to testify. Alexander v. Mt. Carmel Med. Ctr. (1978), 56 Ohio St.2d 155, 160. An expert witness is not required to be the best witness on the subject; the test is whether the expert will aid the trier of fact in the search for the truth. Pursuant to Rule 104(A), in Daubert supra the United States Supreme Court suggested that the following factors be considered:

1. Has the technique been tested in actual field conditions (not just a laboratory)?
2. Has the technique been subject to peer review and publication?
3. What is the known or potential rate of error?
4. Do standards exist for the control of the technique’s operation?
5. Has the technique been generally accepted within the relevant scientific community?

This kind of practice and consideration with your expert will illuminate any confidential or privileged areas that may need protection.

Case law review: State v. Orunwor, 2010-OHIO-5587; Ernes v. Northwest Ohio Eye Surgeons, 2006-OHIO-1466; Westfield Cos. O.K.L Can Line, 155 Ohio App.3d 747 (2003); State v. Shalash, 2015-OHIO-3836; State v. Duuque, 2005-OHIO-4187; Hetzen-Young v. Elano, 2014-OHIO-1104.

III. Use of experts – how to prepare your expert and cross examine theirs

● *Confidentiality and Privileged Communications with Experts*

1. When determining what to say or send to an expert, understand that anything you provide, electronically or on paper, can be reviewed by opposing counsel under the rules; see the attached Rule 26(B)5 and 26(B)6. Note specifically allowable items under Rule 26(B)5 (c), and (d).
2. There is an excellent discussion on the applicability of Rule 26(B)5 in *Nunley v. Nationwide Children's Hospital*, 2013-Ohio-5330, 10th Dist. (2013). Nationwide hired a medical expert to perform an independent medical examination, and turned over that report to the Plaintiff; the results were adverse to Nationwide's position. Nationwide filed a Motion for Protective Order and in Limine to prevent further discovery and use of that expert. The Court upheld that request, since the consulting expert "privilege" was intended to prevent "unfairness that could result from allowing an opposing party to reap the benefits of another party's efforts and expense" [citing *Plymovent v Air Technology Solutions*, 243 F.R.D. 139 (D.J. 2007)]. The Court also noted that the Plaintiff's own expert and treating physician was named as a witness. In *Johnson v Ernie*, Montgomery County C.P.Ct. Case No. 96-3443, unreported (Riley, J.) the Court granted a defendant's motion for a protective order prohibiting plaintiff from using a doctor, retained by the defendant to perform an independent medical examination, as an expert witness because the doctor was retained by the defendant in preparation for trial, citing *English v. Johns-Manville Sales Corp.*, 13 Ohio Misc.2d 22 (1984).
3. As a practical matter, when you are deposing a named opposing expert, file a Notice of Deposition with a Subpoena duces tecum to require the expert to bring his entire file, including all relevant research or literature, electronic media received, and all records and notes taken from records or depositions reviewed. Review it all carefully; consideration to attaching it all as an exhibit should be given since your own expert may find it helpful.

Be aware that you will be required to pay any opposing expert's fees or travel costs. *Robinson v. Larchmont East Apartments, Inc.*, 2014-Ohio-3517, 6th Dist. (2014). Rule 26(B)(5)e gives courts the power to control discovery under unfair circumstances where an expert may be paid by one party and deposed by the other party, who

would garner the benefit of information without paying for it. Siegl v. Birnbaum, 8th Dist. Cuyahoga Nos. 69105,69059, 1997 WL 72143, at *11 (Feb. 20, 1997).

4. As to your own expert, verbally discussed the case from the onset before you send records so that the scope of the review can be understood by the expert. Inform he or she that any notes or emails that detail conversations between you as the lawyer and he/she, can be discoverable and subject to be questioned about during a deposition and should be avoided as much as possible therefore. When sending records or depositions, avoid summaries or directives to the expert. Speak with the expert about his/her opinions prior to any report being prepared. Prepare your expert prior to any deposition by going over anticipated exhibits, specific areas of his/her opinions, including causation and damages.

Be sure to have provided all of the needed and requested documentation necessary for an opinion that is based on that individual's field, with consideration that there may be industry standards or protocol that dictate the formulation of an opinion. If scientific or data extrapolations are used, be sure to obtain the source of the testing or formulas as being generally accepted or previously utilized by experts in a court of law.

5. There can inquiry into an expert's personal financial background to determine if there is bias, whether financially motivated or otherwise. However, the inquiry must serve a legitimate and useful purpose to demonstrate bias or else it will be limited in scope by a Court under Evidence Rule 403(B). Calderon v. Sharley, 70 Ohio St.3d 218 (1982) dealt with the expert's pecuniary interest in performing IMEs that was limited is scope of cross-examination.
6. There are a lot of cases that provide support for not to evasive cross-examination of an expert's financial status. Syken v. Elkins (Fla. App. 1994, 644 So.2d 539, 545; see also, Abdel-Fattah v. Taub (Fla. 4th DCA 1993), 617 So.2d 439, 430; Ex Parte Morris (Ala. 1988), 530 So.2d 785, 787 (The Alabama Supreme Court reviewed an Order compelling an expert witness to produce income tax records and other information regarding his sources of income and reversed the trial court's Order requiring the expert witness to produce the financial information); In Re: IBM Peripheral EDB Devices Anti-Trust Litigation, (N.D. Cal. 1997), 77 F.R.D. 39, 42 (The Court concluded that while the old cry of "fishing expedition" does not preclude inquiry into facts underlying an opponent's case, the comes a point where "instead of

using a rod and reel, or even a reasonably sized net, [the requesting party] would drain the pond and collect the fish from the bottom.”); Jones v. Borman, (Kan. 1988), 243 Kan.444, 759 P.2d 953 (the Court considered a request for among other items, all medical reports made by the medical expert witness for the past six (6) years and the medical expert witness’ income tax returns. The Kansas Court held that where the sole purpose of the discovery request was to obtain evidence which could impeach the witness’ veracity, the information fell outside the scope of permissible discovery, particularly as Plaintiffs could have obtained needed evidence sought through other less obtrusive means); Mohn v. Hahnemann Medical College and Hospital (Pa. Super 1986), 357 Pa. Super 173, 515 A.2d 920, 924 (the Court held that requiring an expert to “lift his visor so that the jury could see who he was, what he represented, and what interests, if any, he had in the results of the trial so that the jury could appraise his credibility” did not encompass “the emptying of one’s pockets and them inside out so that one’s financial worth can be opened to scrutiny.”); Russell v. Young (1970), 452 S.W. 434 (the Texas Court protected plaintiffs’ treating physician from the burdensome discovery and held that no discovery would be had, for purposes of impeachment only, of financial and accounting records of a physician who is not a party to suit, but who treated claimant, and was scheduled to testify during trial as a medical expert for claimant, when discovery of such records was solely for the purpose of showing the physician’s alleged bias); Allen v. Superior Court, (1984), 151 Sal. App. 3d 447, 198 Cal. Rptr. 737 (the Court held that a Trial Court abused its discretion and reversed an Order requiring a defense medical expert witness to produce documents showing that extent of his practice for the defense and for insurance companies over the past five (5) years without a demonstration that the plaintiff’s object could not be accomplished through less intrusive means).

IV. Conflicts, Confidentiality & Fees concerning use of experts

- Be aware also of disclosing information that may be confidential to your client.

The Ohio Rules of Professional Conduct, Rule 1.6, covers the confidentiality of information by a lawyer. It is tantamount to a directive that a lawyer shall not reveal any information about the representation of a client unless he/she has informed consent from the client.

- *Work Product Doctrine*

A party waives its attorney-client privilege when it names an expert witness. Masters v. Kraft Foods, 2012-Ohio-5325, 6th Dist. (2012). That includes all documents that fall within the express scope of Rule 26(B)5b in that they pertain to facts known or opinion's held by the expert which are relevant to the stated subject matter. The Court in Nunley, supra at ¶12, noted: "The issue of confidentiality of non-testifying expert opinions in Civ. Rule 26(B)5(a) is more appropriately termed work product, rather than privileged materials. As noted above, it should not be held to be a waiver of the work product protection.

● *Fees and the Expert Opinion*

1. Rule 1.5 sets forth Fees and Expenses. The Supreme Court used the directive words "shall not" when a lawyer is making an agreement for, charge, or collects an illegal or clearly excessive fee. The Rule has provisions for what a reasonable fee is, although they are not exclusive, nor will each factor be relevant in each circumstance. Those factors are:

- a) The time and labor required, the novelty and difficulty of the questions involved, and the skill requisite to perform the legal service properly;
- b) The likelihood, if apparent to the client, that the acceptance of the particular employment will preclude other employment by the lawyer;
- c) The fees customarily charged in the locality for similar legal services;
- d) The amount involved and the results obtained;
- e) The time limitations imposed by the client or by the circumstances;
- f) The nature and length of the professional relationship with the client;
- g) The experience, reputation, and ability of the lawyer or lawyers performing the services.
- h) Whether the fee is fixed or contingent.

I would hold true to these principles with respect to any expert that you hire. You need to discuss up front with the expert his/her fees and anticipated time involved so as to make sure it is reasonable in comparison to other experts in his/her field. Be careful and look back into other cases if you have used this expert previously to determine what was charged there. Request the expert to keep an accurate and

detailing billing statement so as to show the Court and/or jury that the expert's work was done in a businesslike manner, and independent.

2. The Supreme Court does not mandate that the scope of a lawyer's representation be in writing although they did suggest that "preferably" it be so, and within a reasonable time after commencing representation. I would agree this would apply to experts as well, but having an engagement letter from your expert clearly adds to the professional businesslike manner for which he/she was hired. There must be an understanding as to the fees and expenses to be charged by the expert. As long as the client agrees in advance, a lawyer may seek reimbursement for the reasonable cost of expenses, such as an expert's fees.

Ohio Rules of Evidence

RULE 103. Rulings on Evidence

(A) Effect of erroneous ruling. Error may not be predicated upon a ruling which admits or excludes evidence unless a substantial right of the party is affected, and

(1) Objection. In case the ruling is one admitting evidence, a timely objection or motion to strike appears of record, stating the specific ground of objection, if the specific ground was not apparent from the context; or

(2) Offer of proof. In case the ruling is one excluding evidence, the substance of the evidence was made known to the court by offer or was apparent from the context within which questions were asked. Offer of proof is not necessary if evidence is excluded during cross-examination.

(B) Record of offer and ruling. At the time of making the ruling, the court may add any other or further statement which shows the character of the evidence, the form in which it was offered, the objection made, and the ruling thereon. It may direct the making of an offer in question and answer form.

(C) Hearing of jury. In jury cases, proceedings shall be conducted, to the extent practicable, so as to prevent inadmissible evidence from being suggested to the jury by any means, such as making statements or offers of proof or asking questions in the hearing of the jury.

(D) Plain error. Nothing in this rule precludes taking notice of plain errors affecting substantial rights although they were not brought to the attention of the court.

[Effective: July 1, 1980.]

Ohio Rules of Evidence

RULE 104. Preliminary Questions

(A) Questions of admissibility generally. Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege, or the admissibility of evidence shall be determined by the court, subject to the provisions of subdivision (B). In making its determination it is not bound by the rules of evidence except those with respect to privileges.

(B) Relevancy conditioned on fact. When the relevancy of evidence depends upon the fulfillment of a condition of fact, the court shall admit it upon, or subject to, the introduction of evidence sufficient to support a finding of the fulfillment of the condition.

(C) Hearing of jury. Hearings on the admissibility of confessions shall in all cases be conducted out of the hearing of the jury. Hearings on other preliminary matters shall also be conducted out of the hearing of the jury when the interests of justice require.

(D) Testimony by accused. The accused does not, by testifying upon a preliminary matter, become subject to cross-examination as to other issues in the case.

(E) Weight and credibility. This rule does not limit the right of a party to introduce before the jury evidence relevant to weight or credibility.

[Effective: July 1, 1980; amended effectively July 1, 2007.]

Ohio Rules of Evidence

RULE 702. Testimony by Experts

A witness may testify as an expert if all of the following apply:

(A) The witness' testimony either relates to matters beyond the knowledge or experience possessed by lay persons or dispels a misconception common among lay persons;

(B) The witness is qualified as an expert by specialized knowledge, skill, experience, training, or education regarding the subject matter of the testimony;

(C) The witness' testimony is based on reliable scientific, technical, or other specialized information. To the extent that the testimony reports the result of a procedure, test, or experiment, the testimony is reliable only if all of the following apply:

(1) The theory upon which the procedure, test, or experiment is based is objectively verifiable or is validly derived from widely accepted knowledge, facts, or principles;

(2) The design of the procedure, test, or experiment reliably implements the theory;

(3) The particular procedure, test, or experiment was conducted in a way that will yield an accurate result.

[Effective: July 1, 1980; amended effective July 1, 1994.]

Staff Note (July 1, 1994 Amendment)

Rule 702 Testimony by Experts

The amendment is intended to clarify the circumstances in which expert testimony is admissible, a subject on which the language of the pre-amendment rule has proved to be uninformative and, at times, misleading. Because the intention is to reflect the Ohio Supreme Court's interpretations of the rule's pre-amendment language, no substantive change from prior law is intended. In particular, there is no intention to change existing Ohio law regarding the reliability of expert testimony.

As originally adopted, Evid. R. 702 employed the same language as is used in the Federal Rules of Evidence to define the admissibility of expert testimony. That language permits a witness with the appropriate expertise to testify as an expert if the testimony "will assist the trier of fact." Evid. R. 702 (1980); F.R. Evid., Rule 702.

The "assist the trier" standard has been the subject of widely varying interpretations in the jurisdictions that have adopted it. In Ohio, however, decisions by the Supreme Court have established that the phrase incorporates two distinct admissibility requirements in addition to the witness's expertise.

First, as at common law, an expert's testimony "assist[s] the trier" only if it relates to a matter "beyond the ken" of the ordinary person. *State v. Koss* (1990), 49 Ohio St. 3d 213, 216 (expert testimony is not admissible "when such knowledge is within the ken of the jury"); *State v. Buell* (1980)k, 22 Ohio St. 3d 124, 131 (expert testimony is admissible if the subject is "sufficiently beyond common experience), cert denied, 479 U.S. 871 (1986); *State v. Thomas* (1981), 66 Ohio St. 2d 518, 521 (expert testimony is inadmissible if the subject is not "beyond the ken of the average lay person").

Ohio Rules of Evidence

Second, the expert's testimony "Assist[s] the trier" only if it meets a threshold standard of reliability, as established either by testimony or by judicial notice. (The trier of fact remains free, of course to make its own assessment of reliability and to accept or reject the testimony accordingly once it has been admitted.) See *State v. Bresson* (1990), 51 Ohio St. 3d 123, 128 (prior case-law establishing reliability of test sufficed to show reliability as a general matter, and test was admissible on a case-specific showing regarding the tester's qualifications and the reliability of the specific test administration); *State v. Williams* (1983), 4 Ohio St. 3d 53, 59 (expert testimony as to test was admissible "[I]n view of the un rebutted evidence of reliability of [the test] in general, and of [the witness's] analysis in particular"). See also *State v. Pierce* (1992), 64 Ohio St. 3d 490, 494-501 (scientific evidence was admissible where unreliability in specific case was not shown and where balance of probative value and reliability against risk of misleading or confusing the jury did not warrant exclusion).

As to the reliability requirement, the Ohio cases have not adopted a definitive test of the showing required for expert testimony generally. The Ohio cases have, however, clearly rejected the standard of *Frye v. United States* (D.C. Cir. 1923), 293 F. 1013, under which scientific opinions are admissible only if the theory or test in question enjoys "general acceptance" within a relevant scientific community. See *Williams, supra*, 4 Ohio St. 3d at 58; *Pierce, supra*, 64 Ohio St. 3d at 496. See also *Daubert v. Merrell Dow Pharmaceuticals, Inc.* (1993, ___ U.S. ___, 113 S. Ct. 2786 (similarly rejecting *Frye* and describing the reliability standard to be employed under the federal counterpart to Evid. R. 702.)

Under Ohio law it is also clear that reliability is properly determined only by reference to the principles and methods employed by the expert witness, without regard to whether the court regards the witness's conclusions themselves as persuasive or correct. See *Pierce, supra*, 64 Ohio St. 3d at 498 (emphasizing that unreliability could not be shown by differences in the conclusions of experts, without evidence that the procedures employed were "somehow deficient"). See also *Daubert, supra*, 113 S.Ct. at 2797 (the focus "must be solely on principles and methodology, not on the conclusions they generate").

In view of the interpretation given to the "assist the trier" standard by the Ohio Supreme Court's decisions, the rule's original language has been at best uninformative, and it appears to have been affirmatively misleading in some cases. It has been unhelpful to courts and attorneys seeking guidance on the admissibility of challenged testimony, often in the midst of trial, because the language itself does not self-evidently convey the specific content that has been given to it by authoritative judicial interpretations.

Moreover, a review of intermediate appellate decisions suggests that the language has been misleading to at least some Ohio lawyers and courts. In particular, in some cases, the parties and the courts have relied on decisions from other jurisdictions that have given a different content to the phrase "assist the trier," and they have as a result mistakenly assumed that Ohio law is in accord with the law of those other jurisdictions.

The amendment is intended to enhance the utility of the rule, and to reduce the occasions for mistaken interpretation, by substituting a codification of the above-noted Supreme Court holdings in place of the vague and misleading "assist the trier" language. Thus, the amended rule expressly states the three existing requirements for the admissibility of expert testimony:

(1) The witness must be qualified to testify by reason of specialized knowledge, skill, experience, training, or education. Evid. R. 702(B), incorporating original Evid. R. 702.

(2) the witness's testimony must relate to matters beyond the knowledge or experience possessed by lay persons, or dispel a misconception common among lay persons. Evid. R. 702(A), codifying *Koss, Buell, and Thomas, supra*. (The reference to "dispel[ling] a misconception" is a codification of the specific holding in *Koss, supra*, 49 Ohio St. 3d at 216, that the permissible subject matter of expert testimony includes not only matters beyond common knowledge, but also matters of common but mistaken belief.)

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(3) The witness's testimony must have its basis in reliable scientific, technical, or otherwise specialized knowledge. Evid. R. 702(C), codifying *Bresson* and *Williams, supra*. As to evidence regarding a "test, procedure, or experiment," reliability must be shown both as to the test generally (that is, the underlying theory and the implementation of the theory), Evid. R. 702(C)(1) and (2), and as to the specific application. Evid. R. 702(C)(3). See *Bresson, supra*; *Williams, supra*. See generally 1 P. Giannelli and E. Imwinkelried, *Scientific Evidence* 1-2 (2d ed. 1993).

Consistent with the intention to do no more than codify existing holdings on the admissibility of expert testimony, the amended rule does not attempt to define the standard of reliability but leaves that to further development through case law. The amendment also leaves unchanged Ohio's rejection of *Frye* as the exclusive standard of reliability. Similarly, the amendment does not purport to supplant existing case law as to the acceptable means for showing reliability, whether through judicial notice or testimony. Further, the law remains unchanged that the inquiry as to reliability is appropriately directed, not to the correctness or credibility of the conclusions reached by the expert witness, but to the reliability of the principles and methods used to reach those conclusions.

(While decisions under the federal rules of evidence are frequently inapposite to the interpretation of the Ohio rules, see Evid. R. 102, the federal counterpart to Evid. R. 702 has been interpreted as incorporating a reliability requirement. *Daubert, supra*. To that extent, the United States Supreme Court's discussion of the considerations that may be relevant to a reliability determination may also be helpful in construing the Ohio rule. See *id.*, 113 S. Ct. at 2795-2796.)

Because the amendment is not intended to change existing law, the procedure for challenging and determining the admissibility of expert proofs likewise remains unchanged. As has been true under the original rule, there may be cases where the issues raised by a proffer of expert testimony can be most efficiently resolved by pre-trial hearing, briefing, and argument. In other cases, however, the issues can be resolved as adequately by objection and decision during trial. In either case, these have been, and will continue to be, matters that are determined by the timing of the parties' motions and by the scheduling and supervisory authority of the trial court.

Ohio Rules of Evidence

RULE 703. Bases of Opinion Testimony by Experts

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

[Effective: July 1, 1980; amended effectively July 1, 2007.]

Ohio Rules of Evidence

RULE 704. Opinion on Ultimate Issue

Testimony in the form of an opinion or inference otherwise admissible is not objectionable solely because it embraces an ultimate issue to be decided by the trier of fact.

[Effective: July 1, 1980.]

Ohio Rules of Evidence

RULE 705. Disclosure of Facts or Data Underlying Expert Opinion

The expert may testify in terms of opinion or inference and give the expert's reasons therefor after disclosure of the underlying facts or data. The disclosure may be in response to a hypothetical question or otherwise.

[Effective: July 1, 1980; amended effectively July 1, 2007.]

Federal Rule 103. Rulings on Evidence

(a) Preserving a Claim of Error. A party may claim error in a ruling to admit or exclude evidence only if the error affects a substantial right of the party and:

(1) if the ruling admits evidence, a party, on the record:

(A) timely objects or moves to strike; and

(B) states the specific ground, unless it was apparent from the context; or

(2) if the ruling excludes evidence, a party informs the court of its substance by an offer of proof, unless the substance was apparent from the context.

(b) Not Needing to Renew an Objection or Offer of Proof. Once the court rules definitively on the record — either before or at trial — a party need not renew an objection or offer of proof to preserve a claim of error for appeal.

(c) Court's Statement About the Ruling; Directing an Offer of Proof. The court may make any statement about the character or form of the evidence, the objection made, and the ruling. The court may direct that an offer of proof be made in question-and-answer form.

(d) Preventing the Jury from Hearing Inadmissible Evidence. To the extent practicable, the court must conduct a jury trial so that inadmissible evidence is not suggested to the jury by any means.

(e) Taking Notice of Plain Error. A court may take notice of a plain error affecting a substantial right, even if the claim of error was not properly preserved.

NOTES

(Pub. L. 93-595, §1, Jan. 2, 1975, 88 Stat. 1930; Apr. 17, 2000, eff. Dec. 1, 2000; Apr. 26, 2011, eff. Dec. 1, 2011.)

Federal Rule 104. Preliminary Questions

(a) In General. The court must decide any preliminary question about whether a witness is qualified, a privilege exists, or evidence is admissible. In so deciding, the court is not bound by evidence rules, except those on privilege.

(b) Relevance That Depends on a Fact. When the relevance of evidence depends on whether a fact exists, proof must be introduced sufficient to support a finding that the fact does exist. The court may admit the proposed evidence on the condition that the proof be introduced later.

(c) Conducting a Hearing So That the Jury Cannot Hear It. The court must conduct any hearing on a preliminary question so that the jury cannot hear it if:

- (1) the hearing involves the admissibility of a confession;
- (2) a defendant in a criminal case is a witness and so requests; or
- (3) justice so requires.

(d) Cross-Examining a Defendant in a Criminal Case. By testifying on a preliminary question, a defendant in a criminal case does not become subject to cross-examination on other issues in the case.

(e) Evidence Relevant to Weight and Credibility. This rule does not limit a party's right to introduce before the jury evidence that is relevant to the weight or credibility of other evidence.

NOTES

(Pub. L. 93-595, §1, Jan. 2, 1975, 88 Stat. 1930; Mar. 2, 1987, eff. Oct. 1, 1987; Apr. 26, 2011, eff. Dec. 1, 2011.)

113 S.Ct. 2786
Supreme Court of the United States

William DAUBERT, et ux., etc., et al., Petitioners,
v.
MERRELL DOW PHARMACEUTICALS, INC.

No. 92-102.

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Argued March 30, 1993

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Decided June 28, 1993.

Infants and their guardians ad litem sued pharmaceutical company to recover for limb reduction birth defects allegedly sustained as result of mothers' ingestion of antinausea drug Bendectin. The United States District Court for the Southern District of California, 727 F.Supp. 570, granted company's motion for summary judgment, and plaintiffs appealed. The Court of Appeals, 951 F.2d 1128, affirmed. Plaintiffs filed petition for writ of certiorari, which was granted. The Supreme Court, Justice Blackmun, held that: (1) "general acceptance" is not necessary precondition to admissibility of scientific evidence under Federal Rules of Evidence, and (2) Rules assign to trial judge the task of ensuring that expert's testimony both rests on reliable foundation and is relevant to task at hand.

Vacated and remanded.

Chief Justice Rehnquist filed opinion concurring in part and dissenting in part in which Justice Stevens joined.

****2789 Syllabus***

579** Petitioners, two minor children and their parents, alleged in their suit against respondent that the children's serious birth defects had been caused by the mothers' prenatal ingestion of Bendectin, a prescription drug marketed by respondent. The District Court granted respondent summary judgment based on a well-credentialed expert's affidavit concluding, upon reviewing the extensive published scientific literature on the subject, that maternal use of Bendectin has not been shown to be a risk factor for human birth defects. Although petitioners had responded with the testimony of eight other well-credentialed experts, who based their conclusion *2790** that Bendectin can cause birth defects on animal studies, chemical structure analyses, and the unpublished "reanalysis" of previously published human statistical studies, the court determined that this evidence did not meet the applicable "general acceptance" standard for the admission of expert testimony. The Court of Appeals agreed and affirmed, citing *Frye v. United States*, 54 App.D.C. 46, 47, 293 F. 1013, 1014, for the rule that expert opinion based on a scientific technique is inadmissible unless the technique is "generally accepted" as reliable in the relevant scientific community.

Held: The Federal Rules of Evidence, not *Frye*, provide the standard for admitting expert scientific testimony in a federal trial. Pp. 2792-99.

(a) *Frye*'s "general acceptance" test was superseded by the Rules' adoption. The Rules occupy the field, *United States v. Abel*, 469 U.S. 45, 49, 105 S.Ct. 465, 467, 83 L.Ed.2d 450, and, although the common law of evidence may serve as an aid to their application, *id.*, at 51-52, 105 S.Ct., at 468-469, respondent's assertion that they somehow assimilated *Frye* is unconvincing. Nothing in the Rules as a whole or in the text and drafting history of Rule 702, which specifically governs expert testimony, gives any indication that "general acceptance" is a necessary precondition to the admissibility of scientific evidence. Moreover, such a rigid standard would be at odds with the Rules' liberal thrust and their general approach of relaxing the traditional barriers to "opinion" testimony. Pp. 2792-94.

(b) The Rules—especially Rule 702—place appropriate limits on the admissibility of purportedly scientific evidence by assigning 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. The reliability standard is established by Rule 702's requirement that an expert's testimony pertain to "scientific ... knowledge," since the adjective "scientific" implies a grounding in science's methods and procedures, while the word "knowledge" connotes a body of known facts or of ideas inferred from such facts or accepted as true on good

grounds. The Rule’s requirement that the testimony “assist the trier of fact to understand the evidence or to determine a fact in issue” goes primarily to relevance by demanding a valid scientific connection to the pertinent inquiry as a precondition to admissibility. Pp. 2794–96.

(c) Faced with a proffer of expert scientific testimony under Rule 702, the trial judge, pursuant to Rule 104(a), must make a preliminary assessment of whether the testimony’s underlying reasoning or methodology is scientifically valid and properly can be applied to the facts at issue. Many considerations will bear on the inquiry, including whether the theory or technique in question can be (and has been) tested, whether it has been subjected to peer review and publication, its known or potential error rate and the existence and maintenance of standards controlling its operation, and whether it has attracted widespread acceptance within a relevant scientific community. The inquiry is a flexible one, and its focus must be solely on principles and methodology, not on the conclusions that they generate. Throughout, the judge should also be mindful of other applicable Rules. Pp. 2796–98.

(d) Cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof, rather than wholesale exclusion under an uncompromising “general acceptance” standard, is the appropriate means by which evidence based on valid principles may be challenged. That even limited screening by the trial judge, on occasion, will prevent the jury from hearing of authentic scientific breakthroughs is simply a consequence of the fact that the Rules are not designed to seek cosmic understanding but, rather, to resolve legal disputes. Pp. 2798–99.

951 F.2d 1128 (CA9 1991), vacated and remanded.

****2791** BLACKMUN, J., delivered the opinion for a unanimous Court with respect to Parts I and II–A, and the opinion of the Court with respect to Parts II–B, II–C, III, and IV, in which WHITE, O’CONNOR, SCALIA, KENNEDY, SOUTER, and THOMAS, JJ., joined. REHNQUIST, C.J., filed an opinion concurring in part and dissenting in part, in which STEVENS, J., joined, *post*, p. —.

Attorneys and Law Firms

***581** Michael H. Gottesman, Washington, DC, for petitioners.

Charles Fried, Cambridge, MA, for respondent.

Opinion

582 ***582** Justice BLACKMUN delivered the opinion of the Court.

In this case we are called upon to determine the standard for admitting expert scientific testimony in a federal trial.

I

Petitioners Jason Daubert and Eric Schuller are minor children born with serious birth defects. They and their parents sued respondent in California state court, alleging that the birth defects had been caused by the mothers’ ingestion of Bendectin, a prescription antinausea drug marketed by respondent. Respondent removed the suits to federal court on diversity grounds.

After extensive discovery, respondent moved for summary judgment, contending that Bendectin does not cause birth defects in humans and that petitioners would be unable to come forward with any admissible evidence that it does. In support of its motion, respondent submitted an affidavit of Steven H. Lamm, physician and epidemiologist, who is a well-credentialed expert on the risks from exposure to various chemical substances.¹ Doctor Lamm stated that he had reviewed all the literature on Bendectin and human birth defects—more than 30 published studies involving over 130,000 patients. No study had found Bendectin to be a human teratogen (*i.e.*, a substance capable of causing malformations in fetuses). On the basis of this review, Doctor Lamm concluded that maternal use of Bendectin during the first trimester of pregnancy has not been shown to be a risk factor for human birth defects.

583 ***583** Petitioners did not (and do not) contest this characterization of the published record regarding Bendectin. Instead,

they responded to respondent's motion with the testimony of eight experts of their own, each of whom also possessed impressive credentials.² These experts had concluded that Bendectin can cause birth defects. Their conclusions were based upon "in vitro" (test tube) and "in vivo" (live) animal studies that found a link between Bendectin and malformations; pharmacological studies of the chemical structure of Bendectin that purported to show similarities between the structure of the drug and that of other substances known to cause birth defects; and the "reanalysis" of previously **2792 published epidemiological (human statistical) studies.

The District Court granted respondent's motion for summary judgment. The court stated that scientific evidence is admissible only if the principle upon which it is based is " 'sufficiently established to have general acceptance in the field to which it belongs.' " 727 F.Supp. 570, 572 (S.D.Cal.1989), quoting *United States v. Kilgus*, 571 F.2d 508, 510 (CA9 1978). The court concluded that petitioners' evidence did not meet this standard. Given the vast body of epidemiological data concerning Bendectin, the court held, expert opinion which is not based on epidemiological evidence 584 *584 is not admissible to establish causation. 727 F.Supp., at 575. Thus, the animal-cell studies, live-animal studies, and chemical-structure analyses on which petitioners had relied could not raise by themselves a reasonably disputable jury issue regarding causation. *Ibid.* Petitioners' epidemiological analyses, based as they were on recalculations of data in previously published studies that had found no causal link between the drug and birth defects, were ruled to be inadmissible because they had not been published or subjected to peer review. *Ibid.*

The United States Court of Appeals for the Ninth Circuit affirmed. 951 F.2d 1128 (1991). Citing *Frye v. United States*, 54 App.D.C. 46, 47, 293 F. 1013, 1014 (1923), the court stated that expert opinion based on a scientific technique is inadmissible unless the technique is "generally accepted" as reliable in the relevant scientific community. 951 F.2d, at 1129–1130. The court declared that expert opinion based on a methodology that diverges "significantly from the procedures accepted by recognized authorities in the field ... cannot be shown to be 'generally accepted as a reliable technique.' " *Id.*, at 1130, quoting *United States v. Solomon*, 753 F.2d 1522, 1526 (CA9 1985).

The court emphasized that other Courts of Appeals considering the risks of Bendectin had refused to admit reanalyses of epidemiological studies that had been neither published nor subjected to peer review. 951 F.2d, at 1130–1131. Those courts had found unpublished reanalyses "particularly problematic in light of the massive weight of the original published studies supporting [respondent's] position, all of which had undergone full scrutiny from the scientific community." *Id.*, at 1130. Contending that reanalysis is generally accepted by the scientific community only when it is subjected to verification and scrutiny by others in the field, the Court of Appeals rejected petitioners' reanalyses as "unpublished, not subjected to the normal peer review process and generated solely for use in litigation." *Id.*, at 1131. The 585 *585 court concluded that petitioners' evidence provided an insufficient foundation to allow admission of expert testimony that Bendectin caused their injuries and, accordingly, that petitioners could not satisfy their burden of proving causation at trial.

We granted certiorari, 506 U.S. 914, 113 S.Ct. 320, 121 L.Ed.2d 240 (1992), in light of sharp divisions among the courts regarding the proper standard for the admission of expert testimony. Compare, e.g., *United States v. Shorter*, 257 U.S.App.D.C. 358, 363–364, 809 F.2d 54, 59–60 (applying the "general acceptance" standard), cert. denied, 484 U.S. 817, 108 S.Ct. 71, 98 L.Ed.2d 35 (1987), with *DeLuca v. Merrell Dow Pharmaceuticals, Inc.*, 911 F.2d 941, 955 (CA3 1990) (rejecting the "general acceptance" standard).

II

A

In the 70 years since its formulation in the *Frye* case, the "general acceptance" test has been the dominant standard for determining the admissibility of novel scientific evidence at trial. See E. Green & C. Nesson, *Problems, Cases, and Materials on Evidence* 649 (1983). Although under increasing attack of late, the rule continues to be followed by a **2793 majority of courts, including the Ninth Circuit.³

The *Frye* test has its origin in a short and citation-free 1923 decision concerning the admissibility of evidence derived from a systolic blood pressure deception test, a crude precursor to the polygraph machine. In what has become a famous (perhaps infamous) passage, the then Court of Appeals for the District of Columbia described the device and its operation and declared:

“Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages 586 *586 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.*” 54 App.D.C., at 47, 293 F., at 1014 (emphasis added).

Because the deception test had “not yet gained such standing and scientific recognition among physiological and psychological authorities as would justify the courts in admitting expert testimony deduced from the discovery, development, and experiments thus far made,” evidence of its results was ruled inadmissible. *Ibid.*

^[1] The merits of the *Frye* test have been much debated, and scholarship on its proper scope and application is legion.⁴ 587 *587 Petitioners’ primary attack, however, is not on the content but on the continuing authority of the rule. They contend that the *Frye* test was superseded by the adoption of the Federal Rules of Evidence.⁵ We agree.

^[2] ^[3] We interpret the legislatively enacted Federal Rules of Evidence as we would any statute. *Beech Aircraft Corp. v. Rainey*, 488 U.S. 153, 163, 109 S.Ct. 439, 446, 102 L.Ed.2d 445 (1988). Rule 402 provides the baseline:

“All relevant evidence is admissible, except as otherwise provided by the Constitution of the United States, by Act of Congress, **2794 by these rules, or by other rules prescribed by the Supreme Court pursuant to statutory authority. Evidence which is not relevant is not admissible.”

“Relevant evidence” is defined as that which has “any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.” Rule 401. The Rule’s basic standard of relevance thus is a liberal one.

Frye, of course, predated the Rules by half a century. In *United States v. Abel*, 469 U.S. 45, 105 S.Ct. 465, 83 L.Ed.2d 450 (1984), we considered the pertinence of background common law in interpreting the Rules of Evidence. We noted that the Rules occupy the field, *id.*, at 49, 105 S.Ct., at 467, but, quoting Professor Cleary, the Reporter, 588 *588 explained that the common law nevertheless could serve as an aid to their application:

“ ‘In principle, under the Federal Rules no common law of evidence remains. “All relevant evidence is admissible, except as otherwise provided....” In reality, of course, the body of common law knowledge continues to exist, though in the somewhat altered form of a source of guidance in the exercise of delegated powers.’ ” *Id.*, at 51–52, 105 S.Ct., at 469.

We found the common-law precept at issue in the *Abel* case entirely consistent with Rule 402’s general requirement of admissibility, and considered it unlikely that the drafters had intended to change the rule. *Id.*, at 50–51, 105 S.Ct., at 468–469. In *Bourjaily v. United States*, 483 U.S. 171, 107 S.Ct. 2775, 97 L.Ed.2d 144 (1987), on the other hand, the Court was unable to find a particular common-law doctrine in the Rules, and so held it superseded.

^[4] Here there is a specific Rule that speaks to the contested issue. Rule 702, governing expert testimony, provides:

“If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.”

Nothing in the text of this Rule establishes “general acceptance” as an absolute prerequisite to admissibility. Nor does respondent present any clear indication that Rule 702 or the Rules as a whole were intended to incorporate a “general acceptance” standard. The drafting history makes no mention of *Frye*, and 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.” *Beech Aircraft Corp. v. Rainey*, 488 U.S., at 169, 109 S.Ct., at 450 (citing Rules 701 to 705). See also Weinstein, *589 Rule 702 of the Federal Rules of Evidence is 589Sound; It Should Not Be Amended, 138 F.R.D. 631 (1991) (“The Rules were designed to depend primarily upon lawyer-adversaries and sensible triers of fact to evaluate conflicts”). Given the Rules’ permissive backdrop and their inclusion of a specific rule on expert testimony that does not mention “ ‘general acceptance,’ ” the assertion that the Rules somehow assimilated *Frye* is unconvincing. *Frye* made “general acceptance” the exclusive test for admitting expert scientific testimony. That austere standard, absent from, and incompatible with, the Federal Rules of Evidence, should not be applied in federal trials.⁶

B

¹⁵¹ ¹⁶¹ That the *Frye* test was displaced by the Rules of Evidence does not mean, ****2795** however, that the Rules themselves place no limits on the admissibility of purportedly scientific evidence.⁷ Nor is the trial judge disabled from screening such evidence. To the contrary, under the Rules the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.

¹⁷¹ ¹⁸¹ ⁹¹ ¹⁰¹ ¹¹¹ ¹²¹ ¹³¹ The primary locus of this obligation is Rule 702, which clearly contemplates some degree of regulation of the subjects and theories about which an expert may testify. “If *scientific, technical, or other specialized knowledge will assist the trier of fact* to understand the evidence or to determine a fact in issue” an expert “may testify *thereto*.” (Emphasis added.) The subject of an expert’s testimony must ⁵⁹⁰ ***590** be “scientific ... knowledge.”⁸ The adjective “scientific” implies a grounding in the methods and procedures of science. Similarly, the word “knowledge” connotes more than subjective belief or unsupported speculation. The term “applies to any body of known facts or to any body of ideas inferred from such facts or accepted as truths on good grounds.” Webster’s Third New International Dictionary 1252 (1986). Of course, it would be unreasonable to conclude that the subject of scientific testimony must be “known” to a certainty; arguably, there are no certainties in science. See, e.g., Brief for Nicolaas Bloembergen et al. as *Amici Curiae* 9 (“Indeed, scientists do not assert that they know what is immutably ‘true’—they are committed to searching for new, temporary, theories to explain, as best they can, phenomena”); Brief for American Association for the Advancement of Science et al. as *Amici Curiae* 7–8 (“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” (emphasis in original)). 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.⁹

¹⁴¹ ¹⁵¹ ¹⁶¹ ⁵⁹¹ ***591** Rule 702 further requires that the evidence or testimony “assist the trier of fact to understand the evidence or to determine a fact in issue.” This condition goes primarily to relevance. “Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.” 3 Weinstein & Berger ¶ 702[02], p. 702–18. See also *United States v. Downing*, 753 F.2d 1224, 1242 (CA3 1985) (“An additional consideration ****2796** under Rule 702—and another aspect of relevancy—is whether expert testimony proffered in the case is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute”). The consideration has been aptly described by Judge Becker as one of “fit.” *Ibid.* “Fit” is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes. See Starrs, *Frye v. United States* Restructured and Revitalized: A Proposal to Amend Federal Evidence Rule 702, 26 *Jurimetrics J.* 249, 258 (1986). The study of the phases of the moon, for example, may provide valid scientific “knowledge” about whether a certain night was dark, and if darkness is a fact in issue, the knowledge will assist the trier of fact. However (absent creditable grounds supporting such a link), evidence that the moon was full on a certain night will not assist the trier of fact in determining whether an individual was unusually likely to have behaved irrationally on that night. Rule 702’s “helpfulness” ⁵⁹² ***592** standard requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility.

¹⁷¹ ¹⁸¹ That these requirements are embodied in Rule 702 is not surprising. Unlike an ordinary witness, see Rule 701, an expert is permitted wide latitude to offer opinions, including those that are not based on firsthand knowledge or observation. See Rules 702 and 703. Presumably, this relaxation of the usual requirement of firsthand knowledge—a rule which represents “a ‘most pervasive manifestation’ of the common law insistence upon ‘the most reliable sources of information,’ ” Advisory Committee’s Notes on Fed. Rule Evid. 602, 28 U.S.C.App., p. 755 (citation omitted)—is premised on an assumption that the expert’s opinion will have a reliable basis in the knowledge and experience of his discipline.

¹⁹¹ ²⁰¹ ²¹¹ ²²¹ ²³¹ Faced with a proffer of expert scientific testimony, then, the trial judge must determine at the outset, pursuant to Rule 104(a),¹⁰ whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue.¹¹ This entails a preliminary assessment of whether the reasoning or methodology ***593** underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue. We are confident that federal judges possess the capacity to undertake this review. Many factors will bear on the inquiry, and we do not presume to set out a definitive checklist or test. But some general observations

are appropriate.

^[24] Ordinarily, a key question to be answered in determining whether a theory or technique is scientific knowledge that will assist the trier of fact will be whether it can be (and has been) tested. “Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified; indeed, this methodology is what distinguishes science from other fields of human inquiry.” Green 645. See also C. Hempel, *Philosophy of Natural Science* 49 (1966) **2797 (“[T]he statements constituting a scientific explanation must be capable of empirical test”); K. Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge* 37 (5th ed. 1989) (“[T]he criterion of the scientific status of a theory is its falsifiability, or refutability, or testability”) (emphasis deleted).

^[25] ^[26] ^[27] Another pertinent consideration is whether the theory or technique has been subjected to peer review and publication. Publication (which is but one element of peer review) is not a *sine qua non* of admissibility; it does not necessarily correlate with reliability, see S. Jasanoff, *The Fifth Branch: Science Advisors as Policymakers* 61–76 (1990), and in some instances well-grounded but innovative theories will not have been published, see Horrobin, *The Philosophical Basis of Peer Review and the Suppression of Innovation*, 263 *JAMA* 1438 (1990). Some propositions, moreover, are too particular, too new, or of too limited interest to be published. But submission to the scrutiny of the scientific community is a component of “good science,” in part because it increases the likelihood that substantive flaws in methodology will be detected. See J. Ziman, *Reliable Knowledge: An Exploration* 594 *594 of the Grounds for Belief in Science 130–133 (1978); Relman & Angell, *How Good Is Peer Review?*, 321 *New Eng.J.Med.* 827 (1989). The fact of publication (or lack thereof) in a peer reviewed journal thus will be a relevant, though not dispositive, consideration in assessing the scientific validity of a particular technique or methodology on which an opinion is premised.

^[28] Additionally, in the case of a particular scientific technique, the court ordinarily should consider the known or potential rate of error, see, e.g., *United States v. Smith*, 869 F.2d 348, 353–354 (CA7 1989) (surveying studies of the error rate of spectrographic voice identification technique), and the existence and maintenance of standards controlling the technique’s operation, see *United States v. Williams*, 583 F.2d 1194, 1198 (CA2 1978) (noting professional organization’s standard governing spectrographic analysis), cert. denied, 439 U.S. 1117, 99 S.Ct. 1025, 59 L.Ed.2d 77 (1979).

^[29] ^[30] Finally, “general acceptance” can yet have a bearing on the inquiry. A “reliability assessment does not require, although it does permit, explicit identification of a relevant scientific community and an express determination of a particular degree of acceptance within that community.” *United States v. Downing*, 753 F.2d, at 1238. See also 3 Weinstein & Berger ¶ 702[03], pp. 702–41 to 702–42. 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,” *Downing*, 753 F.2d, at 1238, may properly be viewed with skepticism.

^[31] ^[32] ^[33] The inquiry envisioned by Rule 702 is, we emphasize, a flexible one.¹² Its overarching subject is the scientific validity *595 and thus the evidentiary relevance and reliability—of the principles that underlie a proposed submission. The focus, of course, must be solely on principles and methodology, not on the conclusions that they generate.

^[34] Throughout, a judge assessing a proffer of expert scientific testimony under Rule 702 should also be mindful of other applicable rules. Rule 703 provides that expert opinions based on otherwise inadmissible **2798 hearsay are to be admitted only if the facts or data are “of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject.” Rule 706 allows the court at its discretion to procure the assistance of an expert of its own choosing. Finally, Rule 403 permits the exclusion of relevant evidence “if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury....” Judge Weinstein has explained: “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.” Weinstein, 138 F.R.D., at 632.

III

^[35] We conclude by briefly addressing what appear to be two underlying concerns of the parties and *amici* in this case. Respondent expresses apprehension that abandonment of “general acceptance” as the exclusive requirement for admission will result in a “free-for-all” in which befuddled juries are confounded by absurd and irrational pseudoscientific assertions. *596 In this regard respondent seems to us to be overly pessimistic about the capabilities of the jury and of the adversary

system generally. 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. See *Rock v. Arkansas*, 483 U.S. 44, 61, 107 S.Ct. 2704, 2714, 97 L.Ed.2d 37 (1987). Additionally, in the event the trial court concludes that the scintilla of evidence presented supporting a position is insufficient to allow a reasonable juror to conclude that the position more likely than not is true, the court remains free to direct a judgment, Fed.Rule Civ.Proc. 50(a), and likewise to grant summary judgment, Fed.Rule Civ.Proc. 56. Cf., e.g., *Turpin v. Merrell Dow Pharmaceuticals, Inc.*, 959 F.2d 1349 (CA6) (holding that scientific evidence that provided foundation for expert testimony, viewed in the light most favorable to plaintiffs, was not sufficient to allow a jury to find it more probable than not that defendant caused plaintiff's injury), cert. denied, 506 U.S. 826, 113 S.Ct. 84, 121 L.Ed.2d 47 (1992); *Brock v. Merrell Dow Pharmaceuticals, Inc.*, 874 F.2d 307 (CA5 1989) (reversing judgment entered on jury verdict for plaintiffs because evidence regarding causation was insufficient), modified, 884 F.2d 166 (CA5 1989), cert. denied, 494 U.S. 1046, 110 S.Ct. 1511, 108 L.Ed.2d 646 (1990); Green 680–681. These conventional devices, rather than wholesale exclusion under an uncompromising “general acceptance” test, are the appropriate safeguards where the basis of scientific testimony meets the standards of Rule 702.

^{136]} Petitioners and, to a greater extent, their *amici* exhibit a different concern. They suggest that recognition of a screening role for the judge that allows for the exclusion of “invalid” evidence will sanction a stifling and repressive scientific orthodoxy and will be inimical to the search for truth. See, e.g., Brief for Ronald Bayer et al. as *Amici Curiae*. It is true that open debate is an essential part of both legal and scientific analyses. Yet there are important differences between the quest for truth in the courtroom and the quest 597 *597 for truth in the laboratory. Scientific conclusions are subject to perpetual revision. Law, on the other hand, must resolve disputes finally and quickly. The scientific project is advanced by broad and wide-ranging consideration of a multitude of hypotheses, for those that are incorrect will eventually be shown to be so, and that in itself is an advance. Conjectures that are probably wrong are of little use, however, in the project of reaching a quick, final, and binding legal judgment—often of great consequence—about a particular set of events in the past. We recognize that, in practice, a gatekeeping role for the judge, no matter how flexible, inevitably on occasion will prevent the jury from learning of authentic **2799 insights and innovations. That, nevertheless, is the balance that is struck by Rules of Evidence designed not for the exhaustive search for cosmic understanding but for the particularized resolution of legal disputes.¹³

IV

To summarize: “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.

The inquiries of the District Court and the Court of Appeals focused almost exclusively on “general acceptance,” as gauged by publication and the decisions of other courts. Accordingly, *598 the judgment of the Court of Appeals is vacated, and the case is remanded for further proceedings consistent with this opinion.

It is so ordered.

Chief Justice REHNQUIST, with whom Justice STEVENS joins, concurring in part and dissenting in part.

The petition for certiorari in this case presents two questions: first, whether the rule of *Frye v. United States*, 54 App.D.C. 46, 293 F. 1013 (1923), remains good law after the enactment of the Federal Rules of Evidence; and second, if *Frye* remains valid, whether it requires expert scientific testimony to have been subjected to a peer review process in order to be admissible. The Court concludes, correctly in my view, that the *Frye* rule did not survive the enactment of the Federal Rules of Evidence, and I therefore join Parts I and II–A of its opinion. The second question presented in the petition for certiorari necessarily is mooted by this holding, but the Court nonetheless proceeds to construe Rules 702 and 703 very much in the abstract, and then offers some “general observations.” *Ante*, at 2796.

“General observations” by this Court customarily carry great weight with lower federal courts, but the ones offered here suffer from the flaw common to most such observations—they are not applied to deciding whether particular testimony was or was not admissible, and therefore they tend to be not only general, but vague and abstract. This is particularly unfortunate

in a case such as this, where the ultimate legal question depends on an appreciation of one or more bodies of knowledge not judicially noticeable, and subject to different interpretations in the briefs of the parties and their *amici*. Twenty-two *amicus* briefs have been filed in the case, and indeed the Court’s opinion contains no fewer than 37 citations to *amicus* briefs and other secondary sources.

599 *599 The various briefs filed in this case are markedly different from typical briefs, in that large parts of them do not deal with decided cases or statutory language—the sort of material we customarily interpret. Instead, they deal with definitions of scientific knowledge, scientific method, scientific validity, and peer review—in short, matters far afield from the expertise of judges. This is not to say that such materials are not useful or even necessary in deciding how Rule 703 should be applied; but it is to say that the unusual subject matter should cause us to proceed with great caution in deciding more than we have to, because our reach can so easily exceed our grasp.

But even if it were desirable to make “general observations” not necessary to decide **2800 the questions presented, I cannot subscribe to some of the observations made by the Court. In Part II–B, the Court concludes that reliability and relevancy are the touchstones of the admissibility of expert testimony. *Ante*, at 2794–95. Federal Rule of Evidence 402 provides, as the Court points out, that “[e]vidence which is not relevant is not admissible.” But there is no similar reference in the Rule to “reliability.” The Court constructs its argument by parsing the language “[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, ... an expert ... may testify thereto....” Fed.Rule Evid. 702. It stresses that the subject of the expert’s testimony must be “scientific ... knowledge,” and points out that “scientific” “implies a grounding in the methods and procedures of science” and that the word “knowledge” “connotes more than subjective belief or unsupported speculation.” *Ante*, at 2794–95. From this it concludes that “scientific knowledge” must be “derived by the scientific method.” *Ante*, at 2795. Proposed testimony, we are told, must be supported by “appropriate validation.” *Ante*, at 2795. Indeed, in footnote 9, the Court decides that “[i]n a case involving scientific evidence, evidentiary reliability *600 will be based upon *scientific validity*.” *Ante*, at 2795, n. 9 (emphasis in original).

Questions arise simply from reading this part of the Court’s opinion, and countless more questions will surely arise when hundreds of district judges try to apply its teaching to particular offers of expert testimony. Does all of this *dicta* apply to an expert seeking to testify on the basis of “technical or other specialized knowledge”—the other types of expert knowledge to which Rule 702 applies—or are the “general observations” limited only to “scientific knowledge”? What is the difference between scientific knowledge and technical knowledge; does Rule 702 actually contemplate that the phrase “scientific, technical, or other specialized knowledge” be broken down into numerous subspecies of expertise, or did its authors simply pick general descriptive language covering the sort of expert testimony which courts have customarily received? The Court speaks of its confidence that federal judges can 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.” *Ante*, at 2796. The Court then states that a “key question” to be answered in deciding whether something is “scientific knowledge” “will be whether it can be (and has been) tested.” *Ante*, at 2796. Following this sentence are three quotations from treatises, which not only speak of empirical testing, but one of which states that the “ ‘criterion of the scientific status of a theory is its falsifiability, or refutability, or testability, ’ ” *Ante*, at 2796–97.

I defer to no one in my confidence in federal judges; but I am at a loss to know what is meant when it is said that the scientific status of a theory depends on its “falsifiability,” and I suspect some of them will be, too.

I do not doubt that Rule 702 confides to the judge some gatekeeping responsibility in deciding questions of the admissibility of proffered expert testimony. But I do not think 601 *601 it imposes on them either the obligation or the authority to become amateur scientists in order to perform that role. I think the Court would be far better advised in this case to decide only the questions presented, and to leave the further development of this important area of the law to future cases.

All Citations

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Footnotes

* The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States v. Detroit Lumber Co.*, 200 U.S. 321, 337, 26 S.Ct. 282, 287, 50 L.Ed. 499.

- 1 Doctor Lamm received his master’s and doctor of medicine degrees from the University of Southern California. He has served as a consultant in birth-defect epidemiology for the National Center for Health Statistics and has published numerous articles on the magnitude of risk from exposure to various chemical and biological substances. App. 34–44.
- 2 For example, Shanna Helen Swan, who received a master’s degree in biostatistics from Columbia University and a doctorate in statistics from the University of California at Berkeley, is chief of the section of the California Department of Health and Services that determines causes of birth defects and has served as a consultant to the World Health Organization, the Food and Drug Administration, and the National Institutes of Health. *Id.*, at 113–114, 131–132. Stuart A. Newman, who received his bachelor’s degree in chemistry from Columbia University and his master’s and doctorate in chemistry from the University of Chicago, is a professor at New York Medical College and has spent over a decade studying the effect of chemicals on limb development. *Id.*, at 54–56. The credentials of the others are similarly impressive. See *Id.*, at 61–66, 73–80, 148–153, 187–192, and Attachments 12, 20, 21, 26, 31, and 32 to Petitioners’ Opposition to Summary Judgment in No. 84–2013–G(I) (SD Cal.).
- 3 For a catalog of the many cases on either side of this controversy, see P. Giannelli & E. Imwinkelried, *Scientific Evidence* § 1–5, pp. 10–14 (1986 and Supp.1991).
- 4 See, e.g., Green, *Expert Witnesses and Sufficiency of Evidence in Toxic Substances Litigation: The Legacy of Agent Orange and Bendectin Litigation*, 86 *Nw.U.L.Rev.* 643 (1992) (hereinafter Green); Becker & Orenstein, *The Federal Rules of Evidence After Sixteen Years—the Effect of “Plain Meaning” Jurisprudence, the Need for an Advisory Committee on the Rules of Evidence, and Suggestions for Selective Revision of the Rules*, 60 *Geo.Wash.L.Rev.* 857, 876–885 (1992); Hanson, *James Alphonzo Frye is Sixty-Five Years Old; Should He Retire?,”* 16 *West.St.U.L.Rev.* 357 (1989); Black, *A Unified Theory of Scientific Evidence*, 56 *Ford.L.Rev.* 595 (1988); Imwinkelried, *The “Bases” of Expert Testimony: The Syllogistic Structure of Scientific Testimony*, 67 *N.C.L.Rev.* 1 (1988); *Proposals for a Model Rule on the Admissibility of Scientific Evidence*, 26 *Jurimetrics J.* 235 (1986); Giannelli, *The Admissibility of Novel Scientific Evidence: Frye v. United States, a Half-Century Later*, 80 *Colum.L.Rev.* 1197 (1980); *The Supreme Court, 1986 Term*, 101 *Harv.L.Rev.* 7, 119, 125–127 (1987).
Indeed, the debates over *Frye* are such a well-established part of the academic landscape that a distinct term—“*Frye*-ologist”—has been advanced to describe those who take part. See Behringer, *Introduction, Proposals for a Model Rule on the Admissibility of Scientific Evidence*, 26 *Jurimetrics J.* 237, 239 (1986), quoting Lacey, *Scientific Evidence*, 24 *Jurimetrics J.* 254, 264 (1984).
- 5 Like the question of *Frye*’s merit, the dispute over its survival has divided courts and commentators. Compare, e.g., *United States v. Williams*, 583 F.2d 1194 (CA2 1978) (*Frye* is superseded by the Rules of Evidence), cert. denied, 439 U.S. 1117, 99 S.Ct. 1025, 59 L.Ed.2d 77 (1979) with *Christophersen v. Allied-Signal Corp.*, 939 F.2d 1106, 1111, 1115–1116 (CA5 1991) (en banc) (*Frye* and the Rules coexist), cert. denied, 503 U.S. 912, 112 S.Ct. 1280, 117 L.Ed.2d 506 (1992), 3 J. Weinstein & M. Berger, *Weinstein’s Evidence* ¶ 702[03], pp. 702–36 to 702–37 (1988) (hereinafter Weinstein & Berger) (*Frye* is dead), and M. Graham, *Handbook of Federal Evidence* § 703.2 (3d ed. 1991) (*Frye* lives). See generally P. Giannelli & E. Imwinkelried, *Scientific Evidence* § 1–5, at 28–29 (citing authorities).
- 6 Because we hold that *Frye* has been superseded and base the discussion that follows on the content of the congressionally enacted Federal Rules of Evidence, we do not address petitioners’ argument that application of the *Frye* rule in this diversity case, as the application of a judge-made rule affecting substantive rights, would violate the doctrine of *Erie R. Co. v. Tompkins*, 304 U.S. 64, 58 S.Ct. 817, 82 L.Ed. 1188 (1938).
- 7 THE CHIEF JUSTICE “do[es] not doubt that Rule 702 confides to the judge some gatekeeping responsibility,” *post*, at 2800, but would neither say how it does so nor explain what that role entails. We believe the better course is to note the nature and source of the duty.
- 8 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.
- 9 We note that scientists typically distinguish between “validity” (does the principle support what it purports to show?) and “reliability” (does application of the principle produce consistent results?). See Black, 56 *Ford.L.Rev.*, at 599. Although “the difference between accuracy, validity, and reliability may be such that each is distinct from the other by no more than a hen’s kick,” Starrs, *Frye v. United States Restructured and Revitalized: A Proposal to Amend Federal Evidence Rule 702*, 26 *Jurimetrics J.* 249, 256 (1986), our reference here is to *evidentiary* reliability—that is, trustworthiness. Cf., e.g., *Advisory Committee’s Notes on Fed.Rule Evid. 602*, 28 U.S.C.App., p. 755 (“‘[T]he rule requiring that a witness who testifies to a fact which can be perceived by the senses must have had an opportunity to observe, and must have actually observed the fact’ is a ‘most pervasive manifestation’ of the common law insistence upon ‘the most reliable sources of information’ ” (citation omitted)); *Advisory Committee’s Notes on Art. VIII of Rules of Evidence*, 28 U.S.C.App., p. 770 (hearsay exceptions will be recognized only “under circumstances supposed to furnish guarantees of trustworthiness”). In a case involving scientific evidence, *evidentiary reliability* will be based upon *scientific validity*.
- 10 Rule 104(a) provides:
“Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege, or the admissibility of evidence shall be determined by the court, subject to the provisions of subdivision (b) [pertaining to conditional admissions].”

In making its determination it is not bound by the rules of evidence except those with respect to privileges.” These matters should be established by a preponderance of proof. See *Bourjaily v. United States*, 483 U.S. 171, 175–176, 107 S.Ct. 2775, 2778–2779, 97 L.Ed.2d 144 (1987).

¹¹ Although the *Frye* decision itself focused exclusively on “novel” scientific techniques, we do not read the requirements of Rule 702 to apply specially or exclusively to unconventional evidence. Of course, well-established propositions are less likely to be challenged than those that are novel, and they are more handily defended. Indeed, theories that are so firmly established as to have attained the status of scientific law, such as the laws of thermodynamics, properly are subject to judicial notice under Federal Rule of Evidence 201.

¹² A number of authorities have presented variations on the reliability approach, each with its own slightly different set of factors. See, e.g., *Downing*, 753 F.2d, at 1238–1239 (on which our discussion draws in part); 3 Weinstein & Berger ¶ 702[03], pp. 702–41 to 702–42 (on which the *Downing* court in turn partially relied); McCormick, *Scientific Evidence: Defining a New Approach to Admissibility*, 67 Iowa L.Rev. 879, 911–912 (1982); and Symposium on Science and the Rules of Evidence, 99 F.R.D. 187, 231 (1983) (statement by Margaret Berger). To the extent that they focus on the reliability of evidence as ensured by the scientific validity of its underlying principles, all these versions may well have merit, although we express no opinion regarding any of their particular details.

¹³ This is not to say that judicial interpretation, as opposed to adjudicative factfinding, does not share basic characteristics of the scientific endeavor: “The work of a judge is in one sense enduring and in another ephemeral.... In the endless process of testing and retesting, there is a constant rejection of the dross and a constant retention of whatever is pure and sound and fine.” B. Cardozo, *The Nature of the Judicial Process* 178, 179 (1921).

TITLE V. DISCOVERY

RULE 26. General Provisions Governing Discovery

(A) Policy; discovery methods. It is the policy of these rules (1) to preserve the right of attorneys to prepare cases for trial with that degree of privacy necessary to encourage them to prepare their cases thoroughly and to investigate not only the favorable but the unfavorable aspects of such cases and (2) to prevent an attorney from taking undue advantage of an adversary's industry or efforts.

Parties may obtain discovery by one or more of the following methods: deposition upon oral examination or written questions; written interrogatories; production of documents, electronically stored information, or things or permission to enter upon land or other property, for inspection and other purposes; physical and mental examinations; and requests for admission. Unless the court orders otherwise, the frequency of use of these methods is not limited.

(B) Scope of discovery. Unless otherwise ordered by the court in accordance with these rules, the scope of discovery is as follows:

(1) In General. Parties may obtain discovery regarding any matter, not privileged, which is relevant to the subject matter involved in the pending action, whether it relates to the claim or defense of the party seeking discovery or to the claim or defense of any other party, including the existence, description, nature, custody, condition and location of any books, documents, electronically stored information, or other tangible things and the identity and location of persons having knowledge of any discoverable matter. It is not ground for objection that the information sought will be inadmissible at the trial if the information sought appears reasonably calculated to lead to the discovery of admissible evidence.

(2) Insurance agreements. A party may obtain discovery of the existence and contents of any insurance agreement under which any person carrying on an insurance business may be liable to satisfy part or all of a judgment which may be entered in the action or to indemnify or reimburse for payments made to satisfy the judgment. Information concerning the insurance agreement is not by reason of disclosure subject to comment or admissible in evidence at trial.

(3) Trial preparation: materials. Subject to the provisions of subdivision (B)(5) of this rule, a party may obtain discovery of documents, electronically stored information and tangible things prepared in anticipation of litigation or for trial by or for another party or by or for that other party's representative (including his attorney, consultant, surety, indemnitor, insurer, or agent) only upon a showing of good cause therefor. A statement concerning the action or its subject matter previously given by the party seeking the statement may be obtained without showing good cause. A statement of a party is (a) a written statement signed or otherwise adopted or approved by the party, or (b) a stenographic, mechanical, electrical, or other recording, or a transcription thereof, which is a substantially verbatim recital of an oral statement which was made by the party and contemporaneously recorded.

(4) Electronically stored information. A party need not provide discovery of electronically stored information when the production imposes undue burden or expense. On motion to compel discovery or for a protective order, the party from whom electronically stored information is sought must show that the information is not reasonably accessible because of undue burden or expense. If a showing of undue burden or expense is made, the court may nonetheless order production of electronically stored information if the requesting party shows good cause. The court shall consider the following factors when determining if good cause exists:

(a) whether the discovery sought is unreasonably cumulative or duplicative;

(b) whether the information sought can be obtained from some other source that is less burdensome, or less expensive;

(c) whether the party seeking discovery has had ample opportunity by discovery in the action to obtain the information sought; and

(d) whether the burden or expense of the proposed discovery outweighs the likely benefit, taking into account the relative importance in the case of the issues on which electronic discovery is sought, the amount in controversy, the parties' resources, and the importance of the proposed discovery in resolving the issues.

In ordering production of electronically stored information, the court may specify the format, extent, timing, allocation of expenses and other conditions for the discovery of the electronically stored information.

(5) Trial preparation: experts.

(a) Subject to the provisions of division (B)(5)(b) of this rule and Civ.R. 35(B), a party may discover facts known or opinions held by an expert retained or specially employed by another party in anticipation of litigation or preparation for trial only upon a showing that the party seeking discovery is unable without undue hardship to obtain facts and opinions on the same subject by other means or upon a showing of other exceptional circumstances indicating that denial of discovery would cause manifest injustice.

(b) As an alternative or in addition to obtaining discovery under division (B)(5)(a) of this rule, a party by means of interrogatories may require any other party (i) to identify each person whom the other party expects to call as an expert witness at trial, and (ii) to state the subject matter on which the expert is expected to testify. Thereafter, any party may discover from the expert or the other party facts known or opinions held by the expert which are relevant to the stated subject matter. Discovery of the expert's opinions and the grounds therefor is restricted to those previously given to the other party or those to be given on direct examination at trial.

(c) Drafts of any report provided by any expert, regardless of the form in which the draft is recorded, are protected by division (B)(3) of this rule.

(d) Communications between a party's attorney and any witness identified as an expert witness under division (B)(5)(b) of this rule regardless of the form of the communications, are protected by division (B)(3) of this rule except to the extent that the communications:

(i) relate to compensation for the expert's study or testimony;

(ii) identify facts or data that the party's attorney provided and that the expert considered in forming the opinions to be expressed; or

(iii) identify assumptions that the party's attorney provided and that the expert relied on in forming the opinions to be expressed.

(e) The court may require that the party seeking discovery under division (B)(5)(b) of this rule pay the expert a reasonable fee for time spent in responding to discovery, and, with respect to discovery permitted under division (B)(5)(a) of this rule, may require a party to pay another party a fair portion of the fees and expenses incurred by the latter party in obtaining facts and opinions from the expert.

(6) Claims of Privilege or Protection of Trial-Preparation Materials.

(a) Information Withheld. When information subject to discovery is withheld on a claim that it is privileged or subject to protection as trial preparation materials, the claim shall be made expressly and shall be supported by a description of the nature of the documents, communications, or things not produced that is sufficient to enable the demanding party to contest the claim.

(b) Information Produced. If information is produced in discovery that is subject to a claim of privilege or of protection as trial preparation material, the party making the claim may notify any party that received the information of the claim and the basis for it. After being notified, a receiving party must promptly return, sequester, or destroy the specified information and any copies within the party's possession, custody or control. A party may not use or disclose the information until the claim is resolved. A receiving party may promptly present the information to the court under seal for a determination of the claim of privilege or of protection as trial preparation material. If the receiving party disclosed the information before being notified, it must take reasonable steps to retrieve it. The producing party must preserve the information until the claim is resolved.

(C) Protective orders. Upon motion by any party or by the person from whom discovery is sought, and for good cause shown, the court in which the action is pending may make any order that justice requires to protect a party or person from annoyance, embarrassment, oppression, or undue burden or expense, including one or more of the following: (1) that the discovery not be had; (2) that the discovery may be had only on specified terms and conditions, including a designation of the time or place; (3) that the discovery may be had only by a method of discovery other than that selected by the party seeking discovery; (4) that certain matters not be inquired into or that the scope of the discovery be limited to certain matters; (5) that discovery

be conducted with no one present except persons designated by the court; (6) that a deposition after being sealed be opened only by order of the court; (7) that a trade secret or other confidential research, development, or commercial information not be disclosed or be disclosed only in a designated way; (8) that the parties simultaneously file specified documents or information enclosed in sealed envelopes to be opened as directed by the court.

If the motion for a protective order is denied in whole or in part, the court, on terms and conditions as are just, may order that any party or person provide or permit discovery. The provisions of Civ. R. 37(A)(4) apply to the award of expenses incurred in relation to the motion.

Before any person moves for a protective order under this rule, that person shall make a reasonable effort to resolve the matter through discussion with the attorney or unrepresented party seeking discovery. A motion for a protective order shall be accompanied by a statement reciting the effort made to resolve the matter in accordance with this paragraph.

(D) Sequence and timing of discovery. Unless the court upon motion, for the convenience of parties and witnesses and in the interests of justice, orders otherwise, methods of discovery may be used in any sequence and the fact that a party is conducting discovery, whether by deposition or otherwise, shall not operate to delay any other party's discovery.

(E) Supplementation of responses. A party who has responded to a request for discovery with a response that was complete when made is under no duty to supplement his response to include information thereafter acquired, except as follows:

(1) A party is under a duty seasonably to supplement his response with respect to any question directly addressed to (a) the identity and location of person having knowledge of discoverable matters, and (b) the identity of each person expected to be called as an expert witness as trial and the subject matter on which he is expected to testify.

(2) A party who knows or later learns that his response is incorrect is under a duty seasonably to correct the response.

(3) A duty to supplement responses may be imposed by order of the court, agreement of the parties, or at any time prior to trial through requests for supplementation of prior responses.

[Effective: July 1, 1970; amended effective July 1, 1994; amended effective July 1, 2008; July 1, 2012.]

Staff Note (July 1, 2012 Amendment)

Civ.R. 26(B)(5) is amended to clarify the scope of expert discovery and align Ohio practice with the 2010 amendments to the Federal Rules of Civil Procedure relating to a party's ability to obtain discovery from expert witnesses who are expected to be called at trial. The amendment provides work product protection for draft reports and communications between attorneys and testifying experts, except for three categories of communications: communications that relate to compensation for the expert's study or testimony; communications containing facts or data that the party's attorney provided and that the expert considered in forming the opinions to be expressed; and communications containing any

assumptions that the party's attorney provided and that the expert relied upon in forming the opinions to be expressed.

Staff Note (July 1, 2008 Amendment)

Several provisions of the rule are amended to clarify that discovery of electronically stored information is permitted.

Civ. R. 26(A), (B)(1) and (B)(3) include explicit references to discovery of electronically stored information, a type of discovery that was arguably covered in the broad definition of discoverable materials previously articulated in the rule.

Civ. R. 26(B)(4) is new language that tempers the virtually unlimited discovery traditionally authorized by Rule 26(B)(1) by providing that, as is the case with all discovery, a party is not required to produce electronically stored information if production is too burdensome or expensive compared to the potential value of the discovery. These provisions also provide guidance to trial courts for resolving disputes over claims of excessive burdensomeness and expense. The last sentence of this section reiterates the power that trial judges inherently possess to regulate discovery of electronically stored information, including allocating costs and other details related to production of electronically stored information.

Existing Rule 26(B)(4) is renumbered as 26(B)(5) but no other changes are made.

Civ. R. 26(B)(6)(a) and (b) apply to all discovery not just electronically stored information. Rule 26(B)(6)(a) establishes procedures parties must follow when withholding documents (including electronically stored information) based on privilege.

Civ. R. 26(B)(6)(b) provides a mechanism for a party to retrieve inadvertently produced documents from an opponent. This is often called a "clawback" provision. A similar provision is included in the federal rules and the rules of other states that have modified their civil rules to accommodate e-discovery. It applies to all materials produced by a party, not just electronically stored information.

The rule directs a party that has inadvertently provided privileged documents to an opponent to notify the opponent. Once notification is received, the recipient must "return, sequester, or destroy" the inadvertently proceeded information and not use the information in any way. A procedure is also provided for the court to resolve the claim of privilege relating to the materials. The amendments to Rule 26(B)(6)(b) do not conflict with the new Ohio Rule Prof. Conduct 4.4(b) requirement that an attorney who "knows or reasonably should know that the document was inadvertently sent" must "promptly notify the sender." Rather, the two rules work in concert: Rule 26(B)(6)(b) is triggered when actual notification is received from the sender that the material was inadvertently sent, and Ohio Rule Prof. Conduct 4.4(b) is animated when the recipient realizes that the material provided by an opponent is likely privileged.