THE USE OF EXPERT TESTIMONY IN ASBESTOS TRIALS

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A. INTRODUCTION

This paper focuses on the selection, development and presentation of the expert witness as a crucial portion of a trial. Strategies definitely will vary from jurisdiction to jurisdiction and even from trial to trial. They also will vary depending upon which side is sponsoring or opposing the expert. However, certain core principles apply. The practitioner is responsible for modifying the general notions in this paper to meet the unique facts and laws governing an individual matter.

Virtually every case can benefit from the inclusion of expert testimony at trial. This is true whether the trial is before a judge sitting without a jury or in a jury trial. Both triers of fact have limits upon their education and experience, making the correctly chosen expert helpful in resolving the dispute. Because virtually every case can benefit from expert testimony, every litigator should anticipate that his adversary also will rely on experts to counter crucial elements of his opponent's claim or defense.

Standard reference texts are readily available to catalog common issues where expert testimony is or is not required and is or is not admissible. See, e.g. West's Maryland Digest 2d, evidence Sections 471-501. The purpose of this paper is not to compile a comprehensive index of subject matters for expert testimony, but rather in a general sense to describe how best to find your experts, how best to protect them during the development of the case, including the discovery phase, and how best to present them at trial.

Planning, preparation and practice are key. As with all critical aspects of trial, hope for the best and plan for the worst.

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1 The statements and opinions expressed and any legal positions asserted in this presentation are those solely of the authors and do not necessarily reflect those of Miles & Stockbridge P.C., its other attorneys and its clients. The contribution of Roberto Vela, Esquire to the Frye discussion is gratefully acknowledged.
B.  RETENTION OF EXPERT WITNESSES

1.  General Principles

What is an Expert?

In most jurisdictions, the definition of an expert witness is simple and broad. Witnesses qualifying for recognition as experts need only demonstrate that they possess special, peculiar or technical knowledge in their field of expertise which is superior to the general expected experience of the trier of fact and which will assist the trier of fact in better understanding and deciding the matter in dispute. See e.g. Troja v. Black & Decker Mfg. Co., 62 Md. App. 101, 488 A.2d 516, cert. den., 303 Md. 471, 494 A.2d 939 (1985); Pennsylvania Threshermen & Farmer's Mutual Casualty Ins. Co. v. Messenger, 181 Md. 295, 29 A.2d 653 (1943); Boleski v. American Export Lines, Inc., 385 F.2d 69 (4th Cir. 1967).

What Differentiates a "Fact Witness" from an "Expert Witness"?

Fact witnesses are limited to testimony on matters about which the witness has personal knowledge. Absent an exception to the hearsay rule, the fact witness may not repeat or rely on hearsay evidence in presenting the testimony. While the lay witness may offer opinions on common subjects based on personal knowledge, he may not provide his opinion on matters of special, peculiar or technical matters. Galusca v. Dodd, 189 Md. 666, 57 A.2d 313 (1948); Brown v. Rogers, 19 Md. App. 562, 313 A.2d 547 (1974). An owner of property is competent to opine on its value; a vehicle driver is competent to estimate speed. As with any opinion evidence, it may be the subject of numerous objections, including foundation and relevance. It

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2 For the most part, citations are to Maryland law. Readers should “Shepardize” them to ensure continued viability and research their applicability in the jurisdiction where they are to be cited.
may be tested on cross-examination. In short, merely designating certain testimony as “expert opinion” does not lend any greater level of believability than any other type of evidence. However, experts may add a higher degree of weight even to mundane subjects. This is why finding the right expert is crucial to separate valuable opinions and conclusions from the background noise in a trial.

**Experts as Exception to Sequestration Order**

While non-party fact witnesses must be excluded from the courtroom during the testimony of others on a motion to sequester witnesses, an exception permits the expert witness to remain in the courtroom to observe the parties and to hear the evidence of the witnesses, including opposing expert witnesses. It should be proffered to the court that the presence of the expert is required to assist in the formation of his opinions and the presentation of them to the jury.

**Opinions Concerning the Possible vs. the Probable**

For the proponent of an expert, it is important to elicit those opinions on direct examination using the rubric "to a reasonable degree of probability [within the witness's field of expertise]". *Hines v. State*, 58 Md. App. 637, 473 A.2d 1335 (1984). Thus, the standard is only that it is more likely than not, or 50.1%, that the proposition is accurate. Opinions that are nothing more than speculation, guesswork or conjecture do not rise to the level of “probability.” Nevertheless, expert opinions expressed in terms of possibility may be admitted into evidence on direct examination, if one can infer what actually occurred from
facts evidencing a sequence of events, "plus proof of possible causal relationship . . ."

Charlton Brothers Transportation Co. v. Garretson, 188 Md. 85, 51 A.2d 642 (1947).

In general, possible causal sequences of facts occurring in the past may be admissible, whereas opinion as to future occurrences, such as the nature and cost of future medical care, future lost wages, future loss of earning capacity and the like, must be stated in terms of what is reasonable and probable. See, e.g., Pierce v. Johns-Manville Sales Corp., 296 Md. 656, 464 A.2d 1020 (1975).

**Opinions Based on Hypothetical Questions**

Hypothetical questions allow experts to testify beyond their personal knowledge of the facts. As useful a tool as the hypothetical questions can be, merely interjecting the term "hypothetical" into the question virtually always triggers a Pavlovian objection. These objections usually are based on failing to include all relevant facts in the hypothetical question, or including disputed or contradictory facts in the record. Counsel should take the time to write out, in full, every hypothetical question to defeat any anticipated objections. True, the resulting question becomes inordinately verbose and obtuse, but once the question is permitted, the witness can begin to break it into more manageable bites for the jury to digest.

Hypothetical questions can be useful tools to summarize the factual bases for the expert's opinion. To avoid pitfalls, one should preface the hypothetical with the request that the expert witness "presume the truth of the following facts." The facts thereafter recited should be clearly supported by the evidence and fairly characterize those facts. Kruszewski v. Holz, 265 Md. 434, 290 A.2d 534 (1972).
Restrictions of the content and completeness of hypothetical questions on cross-examination are more lax. There, "possibilities", disputed facts and even facts which will not be proven at trial may be included. However, matters which are argumentative, misleading or calculated to confuse the jury may be stricken. *Donnelly v. Donnelly*, 156 Md. 81, 143 A. 648 (1928).

**Opinions Going to the “Ultimate Issue”**

In the past, even expert witnesses were not supposed to express opinions upon the "ultimate issue" to be decided by the jury, *i.e.*, the guilt or innocence of the accused, or conclusions of law, *i.e.*, the negligence of the defendant. *Western Union Telegraph Co. v. Ring*, 102 Md. 677, 62 A.2d 801 (1906); *Burch v. Prudential Ins. Co. of America*, 184 Md. 664, 42 A.2d 671, 163 A.L.R. 1466 (1945). Such expressions were deemed to invade the province of the court and jury. The prohibition on opinion evidence concerning the ultimate issue largely has been supplanted by the federal or state codes, such as the Maryland Rules of Evidence, Rule 5-704.

Opinions constituting conclusions of law may still draw objections, but they are easily circumvented. The line between opinion from inferences drawn from underlying facts and opinions on the ultimate fact to be determined by the jury is increasingly blurred. *Cirincione v. State*, 75 Md. App. 166, 540 A.2d 1151 (1988). An expert witness, such as a highway patrolman, can testify that a driver appeared intoxicated, walked unsteadily, reeked of alcohol, had glassy eyes and slurred speech, or that he was observed driving in excess of 100 mph through a blizzard, at night without headlights, or that he was texting, tweeting, web browsing or reading Finnegan's Wake at the time of the collision. Even if the officer is
prevented from “concluding” that the driver was negligent, the jury will nevertheless glean his view on that ultimate issue. The point can be driven home in closing argument, where the trial attorney can “opine” on ultimate issues at will, not because he is an expert, but because the argument is not evidence.

**Competence vs. Admissibility of Opinion**

Even though the expert may be eminently qualified to offer an opinion and even though that opinion is totally supported by undisputed facts, the opinion nevertheless may be excluded on the ground that it is irrelevant or immaterial. In the example above dealing with the drunken, reckless or distracted driver, opinions relating to the negligence of the driver may be irrelevant in a products liability action against the manufacturer of faulty brakes which were the sole and proximate cause of injury. *See, Ritz v. Myers*, 85 Md. App. 714, 584 A.2d 1306 (1991).

**Weight Accorded to Expert Testimony**

Experts are special witnesses. By virtue of their particularized knowledge and training, their opinions are singled out as helpful to the jury. Yet, even an expert's opinion is of no greater probative value than the soundness of the reasons given for it. *Anderson v. Sawyer*, 23 Md. App. 612, 329 A.2d 716 (1974). As the trial judge instructs at the conclusion of every case, the jury is at liberty to accept some, none or all of the testimony of any witness, including experts. *See, e.g.*, Maryland Civil Pattern Jury Instructions 2d Ed., Instruction Nos. 1:3, 1:4.
2. **Locating The Right Expert**

Case Evaluation

Most cases benefit from expert testimony. Some absolutely require it. The wrong expert, however, is worse than no expert at all. The goal and the art of the successful trial lawyer is understanding how and when to winnow the field of candidates, resulting in selection of the one individual embodying the perfect match of personality, experience and viewpoint compatible with the particular facts you must establish to prevail at trial.

Most trial lawyers jealously guard the actual identities and methods of procuring the services of expert witnesses. The quest for the correct expert begins as soon as the case file crosses the attorney's desk; this applies to the lawyer for the plaintiff as well as for the defendant.

Some early considerations in narrowing the focus for the appropriate expert witness are:

1. Jurisdiction where the action is or may be filed;
2. Skill and track record of opposing counsel, if known;
3. Sophistication, visibility and relative status of all of the parties to the litigation;
4. Demographics of the jury venire;
5. Case budget/cost-benefit analysis from investing in expert witnesses:
   a. Contingency fee cases;
   b. Insurance or other third party payer.
6. The message to be delivered by the expert;
7. The image to be projected by the expert witness.
When to Engage Expert Witness vs. When to Disclose Expert Witness

Many successful trial lawyers are perfectionists. Perfectionists in turn tend to be procrastinators. There is a tendency in developing a case to postpone decision making and to keep viable as many options as possible; perhaps even to deal with budget concerns of the client or insurer. Forcing oneself to select experts early in the life of the lawsuit is essential. Be pro-active in the case development, whether for the plaintiff or for the defense. You may even be able to control the pace and momentum of the dispute. The rule of thumb is the earlier the better.

Early selection of the expert is of particular importance when the area of expertise is narrow and the range of competent persons in that field is restricted. One can literally preempt the field by locking in the services of all or most of the premier expert witnesses before your opponent has the opportunity to engage them. Early selection of the expert also elongates the period during which the expert can educate the trial lawyer and plan for the successful organization of the facts and the presentation of those facts at trial. Plaintiffs clearly have the advantage because expert witness selection is a critical aspect of pre-filing investigation of the claim.

Even though selection of the expert can and should be made early in the process, disclosure of the expert by and large should await the controlling deadline under the rules or under a particular case management order of the court. This satisfies the natural desire to keep all options available and permits mid-course corrections, where earlier assumptions on the proper expert are invalidated by later developments or further investigation.


**Search Criteria**

Once initial case evaluation has identified the issues in need of an expert witness and the ideal characteristics of that witness, the search for the appropriate person can begin. Among the factors to be considered in deciding where to look for expert assistance are:

1. Local vs. Distant. Will the homegrown expert play better in your town than the international wunderkind with a foreign accent which the jury may not invest the effort and concentration to understand?

2. Nobel Laureate vs. Marcus Welby, M.D. What background will resonate truer with the expected make-up of the jury?

3. Prior Litigation Experience. In choosing between the professional witness and the well-qualified first-timer, the decision should lean toward the most effective communicator in the courtroom.

4. Time Constraints. One must allow for the time necessary to work up the expert's opinion within the limitations imposed under a discovery schedule and the other pressures on the schedule of the expert.

5. The Number of Experts Per Subject Matter. A "consensus" of one yields no internal conflict but two or more increase the likelihood of communicating successfully with jurors from vastly different backgrounds.

**Finding the Existing Expert Witness**

As indicated earlier, there is no want of persons hungry for fees as expert witnesses. Why is it that the ones you want most are also the ones that want nothing to do with lawyers? Why is it that the ones that advertise or bombard your inbox with spam are so unappealing?
Knowing where to find the correct expert is the key to a successful trial presentation. Do not count on your brothers and sisters at the trial bar to divulge their favorites. The search for the correct expert begins close to home and extends in ever widening circles.

1. Your Client. Start with the client who may know more about the facts in dispute and have greater expertise in his / her chosen field than anyone you could retain “cold.” The drawback is obvious: bias and interest obviously are fair game on cross-examination. If the client is a business concern, perhaps there are in-house experts knowledgeable on the subject matter. If not, expand the hunt to the independent consultants retained by the client.

2. Similar Case. Research court dockets and legal/litigation newsletter and published appellate decisions in similar cases -- locally and nationally. Trial summaries and answers to interrogatories and other discovery responses in similar law suits can provide leads for appropriate experts.

3. Attorney-to-Attorney Networking. The client may have actions pending in other jurisdictions or the subject matter of the litigation may extend nationwide, or at least outside of your own backyard. Contact counsel identified in reported cases, in specialty litigation reporters and in specialty bar organizations. You can develop relationships with other lawyers situated similarly to you.

4. Professional Organizations. This extends not only to legal organizations such as ATLA or DRI, with their expert witness banks, but also to professional organizations of the expert, such as the AMA, engineering societies and the like.
5. Learned Publications and Trade Journals. Literature searches can be conducted on such computerized data bases as NEXIS, Medline and in university and medical libraries in your vicinity. After identifying publications discussing the issues of your trial, the authors and researchers can be contacted as potential experts.

6. Direct Mail Solicitation. Increasingly, the trial lawyers' mailboxes are being filled with glossy brochures prepared for mass-mailing by the expert interested in breaking into the lucrative litigation business or by umbrella organizations touting the ability to deliver an expert on virtually any subject matter under the sun. Undoubtedly, some of them are worthy and strong candidates, but extra caution and vetting may be in order. How many of us have selected an investment consultant, a personal physician or insurance agent through mass mailing and cold calling? The same caution should be utilized with experts. If the expert is too "hungry", his effectiveness will be impaired and his bias easily uncovered. The advertising materials themselves may be discoverable and offer a fertile area of cross-examination.

Developing a New Expert

There are numerous occasions where due to the trial lawyer's own inexperience or the novelty of the subject matter in litigation, a tried and true slate of expert witnesses is not available. Successful expert witnesses in the courtroom have a limited shelf life (the more they testify, the more they earn and the more vulnerable to cross-examination on bias and interest they become). The search for new experts never ends. Utilizing the expanding search patterns described in the preceding section, new experts may also be identified. For
example, there is nothing untoward about approaching another well-travelled expert for his recommendation of a colleague almost as intelligent and persuasive as he is.

1. Qualifications and Experience. The first order of business in considering anyone as an expert witness is a thorough review of his or her qualifications and experience in the subject matter. Putting aside the niceties of image, personality and availability, the trial ultimately is the search for the truth and the successful trial lawyer wants to lead, not mislead, the jury to the correct conclusion.

2. Interest. The new expert has to be interested in working with you and working with your facts in bringing the case on for trial. If the attorney picks up vibrations from the expert that his or her heart is not in the case, all the experience in the world will not overcome that lack of commitment.

3. Availability. You may be able to locate the world's leading authority on “idiopathic mesothelioma” or “micro-architecture of the alveolus,” but if that individual is too busy teaching, conducting research and scratching himself, he will not make a good expert witness for you.

4. Personality. Note found in a fortune cookie, “Arrogance diminishes wisdom.” Who cares how smart an expert is if no one can stand to listen to him — and learn from him? The best expert witnesses are part detective, part teacher, and part interpreter. The expert needs the instinct and intuition of Boston Blackie or Sherlock Holmes to ferret out the strengths and weaknesses in the science that controls the outcome of trial. Great experts are gifted teachers, patient, understanding, and accessible. The witness needs to teach the jurors — not pontificate — because they are likely to ignore his opinion unless they can relate to
him as a person and understand why he has formed it. The unsuccessful expert pompously and condescendingly declaims that his opinions should be accepted just because he says so or because he knows what he is talking about and the jurors could never keep up intellectually. Good experts, on the other hand, simplify and interpret complex concepts into common sense principles. Scientific and technical vocabulary constantly has to be translated into language the jurors understand. By explaining the methodology of his investigation in a way that captures the jurors' interest, the expert can succeed in getting the jurors to accept his conclusions.

5. Income Expectations. In developing a new expert, it is critical that you and the witness have a clear understanding of the income expectations of the consultation. The rate and frequency of payment needs to be clearly enunciated. The source of payment, by the lawyer, by a third party, etc., needs to be presented and accepted. The ethics of contingent or premium billing depending on a successful outcome needs to be addressed. Finally, just as the lawyer needs a realistic budget in line with the damages sought in the litigation, so too the expert must realize he or she does not have carte blanche in reviewing documents, performing literature searches, writing reports and the like. In the rare case, where such budgets are not a factor, the expert needs to understand that thoroughness is not only acceptable but expected.

6. Receptive to Criticism. The new expert, particularly in the long-running history of asbestos litigation, probably is inexperienced in the art of testifying at deposition and trial. While the trial lawyer may be largely unschooled in the technical knowledge and experience in the chosen field of the, the lawyer is an important link to having the views of
the expert be well received by the trier of fact. The confident bearing of the expert should not be permitted to get in the way of constructive criticism on how successful courtroom presentations are delivered and how common courtroom pratfalls are avoided. Practice sessions or mock examinations, whether or not on videotape for replay, need to be considered. This aspect of developing the new expert is related to his personality, interest and availability. As usual, the lawyer's case budget and income expectations of the expert are closely intertwined.

"Due Diligence"

Each time an expert is retained for a matter in litigation, the trial lawyer needs to do or redo a background check on the expert. Among the factors to be actively investigated and updated are:

1. Prior Litigation Experience.
   - For the plaintiff
   - For the defendant
   - For the court

2. Depositions and Trial Appearances.
   - Read all the transcripts carefully.

3. Publications. Read and force yourself to understand the expert’s articles and drafts of papers received for publication.

4. Lectures. Were they recorded? To what audience? Is he in the mainstream or out in left field?
5. Examine the CV Under a Microscope. Are there gaps in the chronology of employment, education, etc.? Have the degrees and certifications been verified by the issuing institutions?

6. Personal Life. Has your expert forgotten to mention that he has been indicted in a hit and run accident (don't laugh -- this is an actual case.)? Has he failed to pay his taxes, been held in contempt, driven his Escalade into a tree? Have you forgotten to ask, "Now, doctor, is there anything going on in your personal/domestic/financial life that would cause either of us embarrassment if it comes out at trial?"

**Expert Etiquette**

Expert witnesses are people too. Frequently, the trial lawyer needs the expert witness to go the extra mile, to juggle the all too busy schedule, to cool his or her heels on a bench outside the courtroom. Treating the expert witness with consideration and respect throughout the engagement is crucial. Some factors to consider from the perspective of the expert witness are:

1. It is his Livelihood. While working on your case may not be the only thing on the expert's schedule, it does distract him from everything else in his professional and personal life. The lawyer must not squander his meager supply of good will by setting unrealistic deadlines or crying wolf over false emergencies. Be flexible.

2. Time is a Commodity. For most expert witnesses the value of services provided is directly proportional to the time spent delivering them. If you need to make a preliminary appointment to interview the expert for potential use in your case, be prepared to
compensate him for the time spent. Be prepared to schedule an appointment of a pre-designated length with the expert's staff. Be prepared to compensate the expert for all of the time spent developing the case, including the time spent in portal-to-portal travel, travel expenses, time waiting before depositions and trial appearances.

3. Have an Early Warning System. Develop communication with the expert witness to alert him or her as far in advance as possible to the deadlines for providing the expert report, for sitting at the expert's deposition and for his use at trial. Obviously, accommodating the schedule of the expert on all of these events is a priority, but when such flexibility is curtailed by the dictates of the court or other factors, the expert needs to be advised well in advance so that appropriate arrangements in his or her schedule can be made. Nothing can be worse for the trial lawyer than to have developed the expert, worked assiduously to provide facts supporting the winning opinion and on the day of presentation of the expert to the jury, learn that the expert has an unavoidable conflict.

While it is no substitute for a personal appearance, the option of videotaping the trial presentation by a busy expert should be evaluated in every case.

4. Communication Skills: Yours, Not the Expert's. You must learn to speak as clearly to the expert as you hope the expert will speak to the jury. The trial lawyer cannot be too busy to spend the time with the expert that the expert requires to develop his opinions. The expert will not wish to be shunted off to your uninformed and ill-prepared underling. If you want to enjoy the fruits of a dynamic expert appearance at your trial, you must invest your own time and effort in providing the expert with personal access and an unvarnished assessment of the facts and expectations of the case.
5. **Garbage In/Garbage Out.** If you cannot deliver to your expert complete and accurate facts, you are building certain disaster into your case. An effective cross-examination always will be to undermine the expert's opinion which is based on erroneous facts. Therefore, great care must be made to provide the expert with all the documentation and all the factual support in the form of prior testimony that the expert needs not only to reach his own conclusions and opinions. Be sure the pathology slides in Mr. Jones' case do not really belong to Mrs. Smith. Also complete access to facts, helpful and harmful, is needed to fend off a vigorous cross-examination by opposing counsel. It is pennywise and pound foolish to scrimp on photocopying materials from the file for review by your expert.

6. **Listen to your Expert.** The expert knows vastly more about his subject matter than you do. If you are to translate the opinions to the jurors in your opening statements, closing arguments and examinations of the witnesses, you need to be educated by the expert. Just because this expert is working with you on your twentieth trial in the same general subject matter, does not mean that there is nothing new for you to learn.

7. **Avoid Monetary Distractions.** The expert usually understands that he is being hired by the lawyer, not by the client. He looks to the lawyer for prompt payment of his fees. He is no more interested in waiting endlessly for his invoices to be satisfied than you yourself would be. It is easy to destroy the interest and availability of your expert by distracting him from the task at hand with worry over receiving compensation. Take care to explain when an opposing party is responsible for payment of the expert's fee. The expert needs to understand that his fee needs to be "reasonable," in order to avoid problems with payment by the opposition. *See, e.g.,* Md. Rule 2-402(e)(3). Under the theory of what goes around comes
around, you should be diligent in processing the invoices of opposing expert witnesses when it is your obligation to pay.

8. Follow the Golden Rule. Again under the theory of what goes around comes around, one must be civil, polite and respectful to the opponent’s expert. This is so, whatever one’s personal opinion of the *bona* or *mala fides* of the opposing expert, however often one sees the same expert in the litigation, however much money the expert has earned, and regardless of how effective he has been against your client.

3. **Use Of Experts As Consultants And/Or Witnesses**

Once the identification of experts is accomplished, the role of the expert as either consultant, or witness, or both needs to be addressed. Some experts never occupy the witness box, whether because their consultations go to the process and not to the facts of the dispute, such as jury consultants, or because their opinions militate against continuing the dispute. Not every expert retained will fulfill the traditional functions of a witness.

**Expert as Consultant (Only)**

The law acknowledges and protects the necessity of the trial lawyer to explore the positive and negative aspects of the case without the attention and perhaps interference of the adversary. Maryland Rule 2-402 defines the scope of discovery. While that scope is broad, it is not without limitation. Privileged communications, including between attorney and expert, enjoy protection from disclosure. Maryland Rule 2-402(a) places restrictions upon the reach of discovery, "... if the matter sought is relevant to the subject matter involved in the action, whether it relates to the claim or defense of the party seeking discovery or to the
claim or defense of any other party." (Emphasis added.) With respect to experts consulted for the process, as with jury consultants, the subject matter of that consultation is not relevant to the facts in dispute and therefore beyond the scope of inquiry.

**Nearly Full Protection from Disclosure**

The trial lawyer who consults with an expert not expected to be called at trial concerning items relevant to the subject matter involved in the action has no absolute guaranty of nondisclosure of those communications under any circumstances. Maryland Rule 2-402(e)(2) provides:

"When an expert has been retained by a party in anticipation of litigation or preparation for trial but is not expected to be called as a witness at trial, discovery of the identity, findings, and opinions of the expert may be obtained only if (A) a showing of the kind required by Section (c) of this rule is made; or (B) in a condemnation proceeding, the expert at the request of the party has examined or appraised all or part of the property sought to be condemned for the purpose of determining its value or has prepared a report pertaining to its value."

The demonstration of need under subsection (c) of the rule requires a showing that the discovery is relevant to the subject matter involved in the litigation and "... that the party seeking discovery has substantial need for the materials in the preparation of the case and is unable without undue hardship to obtain the substantial equivalent of the materials by other means."

Adding possible solace and certain confusion to the trial practitioner is that portion of Maryland Rule 2-402(a) which absolutely protects, despite a showing of substantial need, undue hardship and the inability to obtain the substantial equivalent of the materials sought
by the opposition, the mental impressions, conclusions, opinions, and legal theories of the attorney or other representative of a party. Included among a party's representatives are consultants, sureties, indemnitors, insurers and agents. Maryland Rule 2-402(c).

The ramifications of discovery violations can be severe. Prudence dictates that the practitioner, in a quandary over whether nondisclosure of facts in the possession of an expert not expected to be called at trial could be sanctionable, pursue a protective order under Maryland Rule 2-403. The obvious risk in filing the motion for protective order is disclosing enough clues as to the identity of the expert and opinions to be protected that the disclosure is complete upon the filing of a motion to preclude such disclosure.

**Expert as Witness (Only)**

Where an expert has been consulted about the subject matter in dispute and is expected to be called at trial, the most prudent course of action is to expect that every communication, every writing and every fact supplied to that expert is fair game for disclosure to the other side. Maryland Rule 2-402(e)(1) declares:

"Discovery of findings and opinions of experts, otherwise discoverable under provisions of Section (a) of this Rule and acquired or developed in anticipation of litigation or for trial, may be obtained without the showing requiring under Section (c) of this Rule only as follows: (A) a party by interrogatories may require any other party to identify each person whom the other party expects to call as an expert witness at trial, to state the subject matter on which the expert is expected to testify, to state the substance of the findings and the opinions to which the expert is expected to testify, any summary of the grounds for each opinion, and to produce any written report made by the expert containing those findings and opinions; (B) a party may obtain further discovery, by deposition or otherwise, of the findings and opinions to which an expert
is expected to testify at trial, including any written reports made by the expert containing those findings and opinions."


As with other adverse rulings regarding disclosure of discovery materials, there is no right to an interlocutory appeal. The disputed production of discovery materials must go forward and the trial must proceed to final judgment before the aggrieved party can obtain appellate review on the merits of the pretrial disclosure. *Alford v. Commission of Motor Vehicles*, 227 Md. 45, 175 A.2d 23 (1961); *Public Service Commission v. Patuxent Valley Conservation League*, 300 Md. 200, 477 A.2d 759 (1984).

There is essentially no protection for an expert's work product where that expert is offered as a witness at trial. Full and complete discovery of the opinions and basis for each opinion is permitted. This extends to obtaining copies of notes, drafts, computer programs, raw test data and the like.

**Expert’s Reliance on all Underlying Facts (including hearsay)**

The Maryland Rules of Evidence, as do the analogs of many other States, codify the scope of information a jury may be permitted to hear from the expert. All facts and data reasonably provided to and relied upon by the expert if, in the court's discretion, they are trustworthy, necessary to illustrate testimony and not otherwise privileged, may come into evidence. Thus, the expert witness may rely on statements of other physicians and healthcare
providers in medical records in determining his opinions. He may recount the statements of
the plaintiff during medical examinations. He can repeat the observations of out-of-court
declarants. Similarly, he could describe conversations with members of the plaintiff's family
concerning symptoms and effects of injury for which the opinion is offered. Where the
proponent of an expert determines not to bring to light the full factual basis for the opinions,
cross-examination would permit a deeper inquiry, at the risk of the questioner eliciting
otherwise inadmissible hearsay.

**Whether to Introduce the Experts' Report into Evidence**

Whether to admit the written report of a testifying expert witness is commended to
the sound discretion of the trial judge. Some courts exclude the written report, because the
expert is present to provide full testimony on direct and cross-examination, making the
introduction of the report repetitive and unnecessary. The case law in the jurisdiction where
trial is conducted needs to be researched as to the introduction of the written report as a
summary of the experts' opinions and conclusions or as a business record.

It may make more sense not to introduce into evidence the reports prepared for
purposes of litigation by a testifying expert. The jury should concentrate on the oral
presentation and the attorneys should use direct- and cross-examination to score or
underscore key points and weaknesses. Permitting a technical report to go to the jury
deliberation room creates the risk of misreading the document or overemphasizing certain
portions out of context.
General Advice for Any Testifying Expert

Of course, your expert should be reminded of the general rules applicable to all witnesses.

1. Listen closely and completely understand the question being asked before responding.
2. Respond completely and directly but only to the question asked.
3. Do not guess at the answer to any question. An acceptable answer can be, "I do not know" or “I do not recall.”
4. Do not attempt to bedazzle counsel or the jury with fancy vocabulary when simple responses will suffice.
5. If it is absolutely necessary to supplement or explain an answer, then do so, but avoid volunteering information beyond the question.
6. Never argue with opposing counsel or the trial judge.
7. Do not try to win the case singlehandedly or out-lawyer the lawyers; experts are assets not advocates.
8. Tell the truth.

C. CHALLENGING THE EXPERT AT TRIAL

This section explores methods of limiting the effectiveness of the adversary's expert at trial. By understanding what the trial lawyer can do in this respect, he will also learn what to expect when his adversary attempts the same strategy. Forewarned is forearmed.

Traditionally, interposing timely objections and belated motions to strike testimony were the most used tools in controlling the flow and content of the adversary's case,
including expert testimony. Increasingly, battles over the content of expert testimony are waged out of the presence of the jury, even months before commencement of trial. This will define the evidence which the jury will consider, and may well spur early settlement or determine the more likely outcome of trial.

1. **Motion in Limine To Exclude Expert Testimony**

While frequently couched in terms of eliminating or limiting the opposing party's evidence, the motion *in limine* refers to its timing, not relief sought. The Latin term, *in limine*, literally is translated as, "at the threshold." Absent different instructions pursuant to a court's discovery schedule or pre-trial rulings, the motion *in limine* can be made at any time during a hearing or a trial and can be made either in writing or orally.

a. **Strategic Considerations in the Timing of the Motion in Limine**

Again, subject to contrary order of court, the practitioner needs to evaluate what is to be accomplished from the motion *in limine* in order to determine its most beneficial timing. Obtaining an order eliminating the opponent's principal expert witness long before trial on the basis, for example, that the opinions expressed do not comport with *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 113 S. Ct. 2786 (1993), may ring the death knell of the opponent's claim or defense. The earlier such a blow is struck, usually the cheaper the litigation costs to the client. Knocking out the opponent's expert certainly facilitates settling the dispute on favorable terms or perhaps obtaining summary judgment or voluntary dismissal of the action altogether.

Some courts will treat their "gatekeeper role" under *Daubert* proactively and will ferret out bogus and unscientific opinion as soon as the issue is fully developed. Other courts
will tend to keep the ball in play longer, assigning to the lawyer the conduct of a cross-
examination sufficient to apprise the jury of the lack of weight of opinion based on shaky
scientific foundations by expert witnesses. Knowing the jurist presiding over your case may
aid in the timing of the motion in limine.

A downfall obviously to an "early" motion in limine is that to present the issue fully
to the court, one of necessity tips one’s hand concerning weaknesses in the opponent's case.
Winning the battle in eliminating one expert may nevertheless result in the loss of the war, if
the opponent has sufficient time to regroup and consult with experts who "cure" the earlier
shortcoming.

On the other hand, delaying the filing of the motion in limine until too late in the
development of the case also has untoward effects. For example, deferring such a motion
until after your opponent has given the opening statement may permit a prejudicial, even if
unfulfilled, presentation to reach the jury's ears and perhaps unconsciously set up within the
court's mind the desirability of permitting cross-examination to determine the weight of
evidence, rather than ordering its outright exclusion. Electing to forego the motion in limine
and delaying a challenge to an expert witness's opinions until objection during direct
examination by the adversary or until cross-examination is dangerous and ineffective. The
objection, if overruled, of course is meaningless to stop the challenged evidence from
reaching the jury's attention. Even the sustained objection may follow a question detailed
enough to transmit the offending message to the jury. A motion to strike, by definition,
offers too little too late. The adage about not being able to unring a bell is particularly apt.
A timely motion *in limine* may also eliminate a ground for mistrial, an expensive and wasteful happenstance for all involved. *Medical Mutual v. Evans*, 330 Md. 1, 266 A.2d 103 (1993).

b. **Preservation of Ruling on Motion *in Limine* for Appellate Review**

Even though a motion *in limine* is fully argued and decided prior to trial or outside of the presence of the jury, such denial is not automatically — and certainly not immediately — reviewable on appeal. Maryland Rule 2-517 declares:

"(a) Objections to Evidence. An objection to the admission of evidence shall be made at the time the evidence is offered or as soon thereafter as the grounds for objection become apparent. Otherwise, the objection is waived." (Emphasis added)

i. **Motion Denied**. Where the proponent of the motion *in limine* fails to receive a favorable ruling, he must preserve the point for appellate review by objecting "contemporaneously" with the offer of the offending evidence. Failure to object then, ". . . or as soon thereafter as the grounds for objection become apparent," results in waiver of the objection. Md. Rule 2-517; *Collier v. Eagle-Picher Industries, Inc.*, 86 Md. App. 38, 585 A.2d 256 (1991).

Obtaining from the trial court permission for a continuing objection to a line of questions by an opposing party may preserve an issue for appellate review without the necessity of repeated interruptions, as long as the series of questions is clearly within the scope of the original objections. However, the continuing objection is not so broad as to guarantee preservation of the subject of a motion *in limine* for appellate review where the

**ii. Motion Granted.** Where a motion *in limine* is granted, the proponent of the excluded evidence also needs to take additional steps to preserve the point for appellate review. Md. Rule 2-517(c) declares in pertinent part:

"Objections to other rulings or orders. For purposes of review . . . on appeal of any other ruling or order, it is sufficient that a party, at the time the ruling or order is made or sought, makes known to the court the action that the party desires the court to take or the objection to the action of the court. The grounds for the objection need not be stated unless these rules expressly provide otherwise or the court so directs."

A person on the losing side of a motion *in limine* ruling in civil litigation needs to prepare a proffer of all the facts which would have been introduced, had the motion *in limine* been decided otherwise. Logically, the proffer should occur at that juncture of the trial where the evidence would have been introduced, but for the adverse ruling on the motion *in limine*. As long as the proffer is made prior to the conclusion of presentation of evidence, it is difficult to understand how an appellate court could find a waiver.

Finally, on the point of preservation of issues for appeal, the motion *in limine* should be detailed and complete. Ideally, the motion should be in writing, supported by a comprehensive legal memorandum and fleshed out with evidentiary support in the form of affidavits and/or excerpts of relevant depositions, documents, reports and other records obtained during discovery and copies of learned treatises and periodicals not likely to be available to an appellate court. A full evidentiary hearing may be necessary.
2. **Experts on the Witness Stand**

Where the motion *in limine* has not been successful in preventing the trier of fact from hearing the opinions of your opponent's expert witness, and with due regard for one’s cross-examination skills to expose the opposing expert's bias and incompetence, the trial presented by two evenly matched litigators frequently is distilled to a battle of experts. Each side, having done its homework, simply leaves to the jury the resolution of knotty scientific disputes which even the eminently and equally qualified experts are unable to resolve. If there is any weakness in the American jury system, it must relate to resolution of complex and technical areas by lay persons, carefully screened during *voir dire* to eliminate anyone with experience in the subject matter. The hapless juror is left to founder in a sea of technical data. The personality and teaching skills of the "better" expert is the likely tie-breaker.

a. **Preliminary Cross-Examination on the Expert's Qualifications and Competence (*Voir Dire*)**

In the usual case the proponent of an expert, "qualifies" him or her through a predictable and largely boring regurgitation of the expert's resume. "Where did you go to school? Where have you worked? What subjects do you teach? What publications have you authored? Where else have you testified?"

Thereafter, an equally predictable preliminary *voir dire* cross-examination as to qualifications only is conducted by opposing counsel. "So, doctor, you are not a radiologist, are you? So doctor, you are not a mineralogist, are you. So, doctor, you are not a . . .?" Whereupon, the court recognizes the witness as an expert in the proffered field(s). There may be a better way to proceed.
Unless the practitioner is certain the *voir dire* of the expert is likely to result in the preclusion of his testimony, such rote tactics are wasted. There is no procedural requirement that a challenge to the expert's qualifications and competence be made before opposing counsel's seeking to have him recognized by the Court as an expert. There should be no waiver of the opportunity for a vigorous cross-examination testing the age, expertise, experience, financial interest and bias of the opposing expert by electing to consolidate all attacks on the expert until cross-examination.

Out of an abundance of caution, it is prudent to inform the trial court of your reservation of cross-examination on qualifications until the conclusion of the direct. First, it alerts the lawyer to any odd notions of the trial court of the proper order of the examination of an expert. Second, it telegraphs to the jurors that you are saving your ammunition and that they should maintain their curiosity for later, when the first salvo is launched.

Following a successful "full-court press" on cross-examination, a motion to strike the expert's evidence on his lack of qualifications may be indicated, despite the court's earlier and as of then uncontested recognition of the expert as requested during the direct examination. *See Trimble v. State*, 300 Md. 387, 478 A.2d 1143 (1984).

b. **The Art of the Direct Examination of Experts**

In the battle of experts, the element most likely to be ignored is the direct examination of your expert. This is because your expert is such an old pro that no preparation is required. Right? Wrong!

The worst mistake for the trial attorney to make is to take his own witness for granted. Experts need to be informed of the particular "tone" that you hope to set through the
expert's presentation, as well as the unique "themes" of your case in opening statement and closing argument. These obviously vary case-by-case, making preparation for each and every appearance important. The exchange of mental impressions and work product between attorney and consultant is privileged and immune from disclosure during discovery. Why not take advantage of the protection to include your expert in your trial plans.

The expert wants to help, wants you to succeed and wants to avoid embarrassment. He needs to know what to expect from the other side, the judge and the jury. Importantly, he needs to know exactly which part or parts of your burden of proof he is supplying. If he is to "carry all the water," he needs to understand and prepare a one-man show. If he is to fill in one small segment and avoid global pronouncements, he needs to understand that reduced role too.

While this program is not specifically on trial tactics, a few allusions to the stagecraft of direct examination are appropriate here.

1. The trial is drama and experts are leading actors.
2. The expert is the star performer; the attorney plays a supporting role.
3. Preparation (rehearsal) is the key to a smooth performance for the entire cast of characters.
4. Know your star's strengths and weaknesses, playing to the former and blunting the latter.
5. Build each scene toward the denouement, by reverse-engineering the script from the closing argument backwards to the expert's direct examination.
6. Eliminate stage fright by alerting your expert well in advance of his trial appearance of exactly when and where he will be needed, what his direct examination will cover what his cross-examination is likely to cover and give him plenty of time (and plenty of your attention) to hone his presentation.

7. Theater is boring without sets, props and special effects. The expert's dry intonation of mathematical formulae, chemical reactions, medical procedures and the like need to be spiced up with colorful illustrations, demonstrations and reenactments. The best teachers “demonstrate” their opinions with anything from a simple white board and markers to sophisticated multi-media Powerpoints and computer simulations. The expert should never simply read canned lecture notes to his “students,” the jury.

8. Good drama zips along with the rapt audience oblivious to the passage of time. The trial attorney is like a stage director, establishing the pace of the production. The direct examination should be crisp, to the point, and unmistakable in its purpose.

c. **Identifying Pitfalls During the Expert's Testimony.**

Experts — except in legal malpractice cases — tend not to be practicing trial lawyers. The lawyers can enhance the credibility of their witnesses in the battle of the experts by teaching the applicable law to them. For instance, the current hot-buttons for scientific presentations are either the *Frye* or *Daubert* decisions. The experts need to be made to understand the benefits of expressing their views in jargon soothing to the "gatekeeper." Brilliant innovations in scientific method should be explained as being built upon solid foundations of accepted principles. They should not be described as "cutting-edge," novel or
experimental. Similarly, in states like Maryland that still apply the *Frey-Reed* test, the expert needs to understand the pertinent terminology and to phrase his evidence consistently.

Opinions based upon "reasoned estimates" and "extrapolations of data" are more likely to be admissible than ballpark guesses and rank speculation, although the distinction is sometimes hard to discern by the uninitiated.

Do not permit your witness' humility get in the way of his acceptance as an expert. Occasionally, you will encounter the expert who keeps his light under a bushel. The trick question, "Doctor, you don't consider yourself an expert in the field of radiology, do you?", can confuse the family practitioner intending to interpret the radiograph of the compound fracture of the plaintiff's femur. The witness might not apprehend that he does not have to be a board certified radiologist to do that which he competently does day in and day out in his own office.

Do not permit your expert to become flustered and defensive over the fact that he charges for his services and drives a nice car. Most people are reticent to discuss their income. Experts need to understand that the question of fees is coming and that the rates charged are both reasonable given the years of education and training involved and comparable to similarly situated peers.

Insist that your expert keep his explanations simple, especially on cross-examination. Precision of terminology is important, but equally important is simultaneous translation. The expert who is lured into a vocabulary bee with opposing counsel or who dazzles the readers of the transcript at the next medical society dinner is missing the point. If the jury does not get it, the point is lost no matter how correct.
In the final analysis, sound science, preparation and sincerity should win the day in a battle of experts.

3. Attacking Bogus Science in the Courtroom

The Frye Standard

For over seventy years the sole standard for admissibility of novel scientific evidence was the so-called Frye Doctrine. In *Frye v. United States*, 293 F. 1013, 1014 (D.C. Cir. 1923), the court refused to admit evidence derived from a crude precursor to the polygraph machine. In doing so, the Frye court required that "expert testimony deduced from a well-recognized scientific principle or discovery . . . must be sufficiently established to have gained general acceptance in the particular field in which it belongs." *Id.* This “general acceptance” test was the judicial standard of admissibility of expert testimony and scientific evidence until 1993, when the Supreme Court supplanted it with its interpretation of Federal Rule of Evidence, Rule 702. *Daubert v. Merrell Dow Pharmaceuticals Inc.*, 509 U.S. 579, 589 (1993).

States are not required to follow the Federal Rules of Evidence and many do not. *Daubert* has been adopted by almost 30 States. Several dozen others, however, continue to rely on some form of the *Frye* standard of general acceptance when considering the admissibility of expert or scientific evidence. In addition to case law setting out the tests for admitting expert

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3 The Appendix has a State-by-State compendium through 1999, published by the National Traffic Law Center showing jurisdictions applying *Daubert*, *Frye* or a hybrid test. As with all citations, and particularly given the age of the report, updated research is needed before citing these authorities.

evidence, there is a crazy-quilt of State and Federal codifications of the rules of evidence. Maryland, for example, has enacted rules of evidence that govern the admissibility of expert testimony that is unrelated to scientific issues. See MD. R. EVID. 5-702. A litigant attempting to introduce scientific evidence, on the other hand, must satisfy the Frye test of general admissibility, which was explicitly adopted by the Maryland Court of Appeals in 1978. See Reed v. State, 283 Md. 374, 399 (1978) (holding the use of spectrograms inadmissible in Maryland courts for failure to achieve, as of the time of the opinion, the general acceptance in the scientific community required by the Frye test).

As mentioned, the Frye test requires a trial judge to determine whether the methodology used has been generally accepted by the applicable scientific community. A court considering evidence pursuant to the Frye test does not focus so much with the reliability and validity of the scientific issues involved, as with whether the methodology for reaching the conclusions uses generally accepted principles. This is typically shown through learned treatises and applicable technical literature, such as peer-reviewed journal articles and the like. See, e.g., United States v. Horn, 185 F.Supp.2d 530, 552, n.39 (D. Md. 2002).

The Daubert standard, on the other hand, requires a judge to analyze the validity, reliability, relevance, and scope of highly-specialized matters. Daubert at 554, n.41 (“The main difficulty with the Daubert case is that courts are ill equipped to make independent judgments on the validity of science.”)

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In practice, a scientific opinion is inadmissible pursuant to the Frye test if its validity is disputed in the relevant scientific community, or if it is regarded as experimental or results from a subjective judgment that merely appears objective because of sophisticated machinery involved. Reed, 391 A.2d at 381, 385. As the Court of Appeals summarized, “as long as the scientific community remains significantly divided, results of controversial techniques will not be admitted.” Id. at 388.

In Keene Corp. v. Hall, 96 Md. App. 636, 626 A. 2d 997 (1993), the defense moved in limine to bar expert opinion evidence by Dr. Gerritt Schepers on the causation of Mr. Hall’s laryngeal cancer under the Frye/Reed test. Plaintiff produced no evidence from the scientific and medical fields showing that anyone besides this doctor used his bizarre technique. The trial court nevertheless denied the motion and permitted Dr. Schepers to testify to the jury about his use of polarized light microscopy (PLM) to visualize uncoated asbestos fibers in the biopsied lung tissue of the plaintiff. From that “observation,” he opined, over objection, that asbestos caused plaintiff to develop his disease. On appeal, the Court of Special Appeals reversed the lower court, holding:

Because Dr. Schepers use of PLM to identify asbestos in undigested human tissue was not demonstrated to be generally accepted in the relevant scientific and medical communities, we must reverse the judgment and remand the case for a new trial.

Id., 96 Md. App. At 660.

That said, recent case law shows a tendency in some courts to stretch the Frye analysis to be almost coextensive with Daubert, stopping just short enough to avoid reversing years of precedent. In Maryland, for example, courts increasingly have focused on the reliability and
validity of scientific methods underlying an expert opinion, and even excluded testimony on
grounds that it was unreliable regardless of whether it was generally accepted. See Giant Food,
inc. v. Booker, 152 Md. App. 166, 183-84 (2003) (excluding expert testimony because it was not
“the product of reliable principles and methods”).

Even though the Maryland Court of Appeals maintains that the Frye standard still
governs, case law is instructing trial judges to qualify the admissibility of expert testimony so
that general acceptance in the scientific community is not the single determining factor. See
Clemons v. State, 392 Md. 339 (2006) (holding that scientific evidence is inadmissible when a
genuine controversy exists within the scientific community about the reliability and validity of
the technique in question). This and the codified rules of evidence are “hybridizing” Frye.

The holding articulated in Frye became referred to as the "general acceptance" test and
served as the majority rule in both federal and state courts for expert testimony based upon new
scientific theories. With the promulgation of the 1975 Federal Rules of Evidence, many within
the legal community questioned whether the Frye test was still in force or whether it had,
instead, been superseded by the Federal Rules. Most federal courts attempted to read the
"general acceptance" test in a manner consistent with the requirements of Rules 702 and 703.
There were, however, a few courts (most notably in the Second and Third Circuits) that held that
Frye was not compatible with the Federal Rules. These courts held that the Federal Rules
required the trial court to look at a variety of factors to determine whether the novel scientific
theory was reliable and relevant to proving causation. See generally, United States v. Williams,
583 F.2d 1194 (2d Cir. 1978), cert. denied, 439 U.S. 1117 (1979) (the court refused to apply
Frye stating that the Federal Rules of Evidence govern the admissibility of expert testimony). In
United States v. Downing, 753 F.2d 1224 (3rd Cir. 1985) the court held that reliability of scientific evidence should be determined by;

1. the method's potential rate of error;
2. the existence and maintenance of standards for the method;
3. the care and concern with which a scientific technique has been employed, and whether it appears to lend itself to abuse;
4. the relationship between the scientific technique and other types of scientific techniques routinely admitted into evidence; and
5. the presence of "fail safe" characteristics.

The Daubert Standard

Over time and seemingly in lock-step with advances in science and technology, courts steadily eroded the Frye doctrine, riddling it with clarifications and exceptions. States supplemented the Frye holdings with codifications of the rules of evidence, including those governing expert testimony. Seventy years after Frye, the Supreme Court of the United States moved the inquiry beyond Frye’s mere general acceptance test in Daubert v. Merrell Dow Pharmaceutical, 113 S.Ct. 2786 (1993).

In Daubert, the Supreme Court held that Rule 702 of the Federal Rules of Evidence superseded Frye and the "general acceptance" test. Id. at 2786. In this case, the families of two children who were born with deformed limbs sued Merrell Dow Pharmaceutical. Id. at 2790. They alleged that Bendectin, a drug manufactured by Merrell Dow Pharmaceutical to treat nausea during pregnancy caused the deformities. To support their claim, the plaintiffs' experts relied on animal studies, chemical structure analysis and "reanalysis" of previously
unpublished epidemiological studies. Merrell Dow's experts countered the plaintiffs' experts with testimony concerning more than thirty epidemiological studies which concluded that there was no statistically significant correlation between Bendectin and birth defects. Id. at 2791. The United States District Court for the Southern District of California ruled that the plaintiffs' evidence was insufficient under the "general acceptance" test. Id. at 2792. The U.S. Court of Appeals for the Ninth Circuit relying on precedent that embraced Frye, affirmed the lower court's holding. Id. The Supreme Court granted certiorari, eventually reaching the conclusion that the general acceptance of a scientific theory was no longer a prerequisite for admissibility of expert scientific evidence.

Thus, it appeared, the common law standard had been supplanted by the more liberal Federal Rules of Evidence. With Daubert's embrace of the Federal Rules of Evidence, the following developments with respect to the admissibility of novel scientific evidence now control:

1. The Federal Rules of Evidence do not contain a requirement that scientific evidence be generally accepted in the field to be admissible in trial.
2. Federal Rule of Evidence 702 requires that trial judges ensure that an expert's testimony is based on scientific knowledge and will assist the trier of fact.
3. The "scientific knowledge" requirement establishes the standard of evidentiary reliability for expert testimony.
4. Under Federal Rule of Evidence 104(a), a trial judge must determine whether the expert is proposing to testify to scientific knowledge that will assist the trier of fact.
Factors to use are: Whether the scientific knowledge or theory has been subject of peer review or publication; the known or potential error rate; and whether it has gained general acceptance in the field. *Daubert v. Merrell Dow Pharmaceutical Inc. Introduction and Overview*, Product & Safety Liability Reporter, BNA, Vol. 21, No. 30 (1993).

For the first time in *Daubert*, the Supreme Court finally clarified that Rule 702, not *Frye*, controlled the admission of expert testimony in the federal courts. The Supreme Court held that when expert evidence based upon “scientific knowledge” is offered at trial, the judge, upon proper motion by a litigant who challenges the admissibility of the testimony, should act as a gatekeeper and first determine whether the proffered evidence is “reliable”—whether it is evidence that can be trusted to be scientifically valid. For almost a decade after *Daubert*, courts continued to address the unresolved issue whether the *Daubert* factors by which reliability was to be tested should also be applied to experts offering opinion testimony that was not based on clearly identified scientific principles, but which sprung from “technical or other specialized knowledge.” Perhaps to establish uniformity and predictability, Federal Rule of Evidence 702 was amended in 2000 to include:

1. that to be admissible, expert testimony must be adequately based upon reliable facts or data.
2. that to be admissible, expert testimony must be product of reliable principles and methods, and
3. that to be admissible, the expert witness must demonstrate that he has applied the principles and methods reliably to the facts of the case.
Before the 2000 amendment to Rule 702 was effective, but certainly while it was well-known and understood by the Supreme Court, it Court clarified its Daubert opinion in the case of *Kumho Tire Co. v. Carmichael*, 119 S.Ct. 1167 (1999). Seeming to give advance benediction over the proposed rule change, the *Kuhmo* court reiterated that trial judges continue to be “gatekeepers,” allowing only reliable expert opinion evidence to reach a jury. The court widened the scope of Daubert gate-keeping duties all forms of expert testimony.

With amendment of Rule 702 in 2000, the specific factors demonstrated by the Daubert Court are:

1. whether the expert’s theory or technique can be challenged in some objective or in a subjective sense, conclusory approach that cannot reasonably be assessed for reliability;
2. whether the technique or theory has been subject to peer review and publication;
3. the known or potential rate of error of the technique or theory when applied;
4. the existence and maintenance of standards and controls; and
5. whether the technique or theory has been generally accepted in the scientific community.

Rather than standardizing the expert evidence inquiry, *Kumho* unwittingly may have made the issue more complicated. Daubert analyses now extend to all forms of expert opinion testimony. Rather than insisting to rote adherence to these standards, *Kuhmo* diluted the “standards” to “guidelines, imbuing the trial court/gatekeeper with broad discretion to fashion flexible tests to meet the type of expertise at hand. Not all experts are scientists or physicians
and different means may be used to permit an assessment of the reliability of the nonscientific expert opinion testimony. The Court specifically declared that the gate-keeping function of trial judges applies not only to testimony based on scientific knowledge, but also to knowledge based on technical and other specialized knowledge. Every specialty or expertise encompassed by “other specialized knowledge” will be difficult to predict or limit.

The Daubert Court in 1993 explicitly stated that trial judge’s focus must be towards examining the “principles and methodology, not on the conclusions they generate”. Yet, just a few years later, the Court changed its opinion from this announced position and recognized that “conclusions and methodology are correlated and not entirely distinct from one another.” General Electric v. Joiner, 522 U.S. 136 (1997). The language of the new Rule 702 covers both methodology as well as the conclusion, in that it directs a trial court to determine not only whether the methods used by an expert and the principles upon her analysis rests have been determined to be reliable, but also whether “the witness has applied the principles and methods reliably” to the facts that are in controversy in the particular case.

**The Reliability Factors In Daubert**

The trial courts make a preliminary determination of admissibility. This job involves a preliminary assessment of whether the evidence is relevant, competent, and material. In short, can the evidence be properly applied to the facts in this case? This is the traditional "gate keeping" function of courts. A number of reliability factors can enter into this and subsequent hearings using the Daubert standard:

1. Has the scientific theory or technique been empirically tested?
(2) Has the scientific theory or technique been subjected to peer review and publication?

(3) What is the known or potential error rate?

(4) What is the expert's qualifications and stature in the scientific community?

(5) Does the technique rely upon the special skills and equipment of one expert, or can it be replicated by other experts elsewhere?

(6) Can the technique and its results be explained with sufficient clarity and simplicity so that the court and the jury can understand its plain meaning?

As discussed above, although Daubert remains the standard by which admissibility in federal cases is measured under Federal Rule of Evidence 702, states remain free to apply Frye and other evidentiary standards, and over two dozen States, many with substantial asbestos dockets, currently do.

**Current Trends in Expert Opinion Evidence in Asbestos Litigation**

At the center of the debate over causation in asbestos litigation, particularly those cases alleging mesothelioma, is the admissibility and sufficiency of expert testimony. The uncertainty surrounding causation in these claims has made the need for sound expert testimony that much more vital. Some courts permit plaintiffs’ experts to opine that every exposure to asbestos stood alone as a substantial contributing factor to a plaintiff’s disease. Under this “single fiber” theory, because the precise amount of exposure required to cause an individual’s disease is unknown, even the slightest contact or those most limited in duration cannot be ruled out as a substantial contributing factor in the asbestos-related disease.
In recent years, courts have begun to realize that more must be done to prevent bogus science from influencing verdicts. Many have come to the realization that, in what is universally conceded to be a “dose-response” illness, dose does matter. The question is not simply whether “asbestos” in all its forms causes the response.\(^5\) In an order dated September 24, 2008, the Pennsylvania Court of Common Pleas in *In re Asbestos Litigation, Certain Asbestos Friction Cases Involving Chrysler LLC*, No. 0001-084682, 2008 Phila. Ct. Com. Pl. LEXIS 229 (Pa. Ct. Com. Pl. Sept. 24, 2008) precluded plaintiffs’ experts from asserting that “each and every exposure” to asbestos was a substantial factor in causing the plaintiffs’ disease.\(^6\)

The court reasoned that the experts failed to cite generally accepted scientific methodologies in support of their conclusions and that their reports were unsupported by methodology and lacking consideration of the “Lohrmann”\(^7\) substantial factor test as to the frequency, regularity, and proximity of a plaintiff’s exposure evidence. Judge Tereshko noted that the experts’ “claimed methodology simply [did] not exist or [was] so convoluted and inherently contradictory so as to defy any comprehension.” *Id.* Moreover, he recognized the contradictory nature of the phrase “each and every breath of asbestos is a substantial factor in plaintiff’s disease,” *id.* at 49, stating that “the general population is exposed to asbestos in one

\(^5\) See, e.g., *Gregg v. V-J Auto Parts, Inc.*, 943 A.2d 216, 226-27 (Pa. 2007) (It is not “a viable solution to indulge in a fiction that each and every exposure to asbestos, no matter how minimal in relation to other exposures, implicates a fact issue concerning substantial factor causation[.]”); *Borg-Warnor v. Flores*, 232 S.W.3d 765, 772-74 (Tex. 2007) (Exposure to “some” respirable asbestos fibers was insufficient to establish asbestos-containing product as a substantial cause of plaintiff’s disease.)

\(^6\) The court excluded the opinions of Drs. Eugene Mark, Jonathan Gelfand, Arthur Frank and Mr. William Longo.

\(^7\) *Lohrmann v. Pittsburgh Corning Corp.*, 782 F.2d 1156 (4th Cir. 1986.) (Where an element of plaintiff’s burden of proof is identifying specific defendants’ products in addition to the 3-factor exposure test.)
form or another whether it is a background rate or a discrete exposure, some get an asbestos related disease, some do not. Therefore, not all asbestos exposures cause disease.” *Id.* at 50.

The court went on to examine the shortcomings of the plaintiffs’ experts’ methods, concluding that the experts did not employ any scientific methodology to reach their conclusion. With regard to their purported methodologies, Judge Tereshko noted that, “within this maze, no recognizable methodology was found . . . The mere mention of methodologies . . . without a detailed explanation of how [they] were used in arriving at certain conclusions, produces scientifically incoherent opinions based upon scientifically incoherent methodologies and such are not generally accepted in the relevant scientific community.” *Id.* at 102-03.

Judge Tereshko’s order solidified earlier Pennsylvania decisions. In *Vogelsberger v. Owens-Illinois, Inc.*, 2006 WL 2404008, at *13 (Pa. Ct. Com. Pl. Aug. 17, 2006), the court, applying *Frye*, precluded plaintiffs’ experts*8 from opining that each and every exposure to asbestos was a substantial contributing factor in the development of the plaintiffs’ asbestos related disease. The court held that “there is no medical authority or generally accepted methodology that would support the conclusion that . . . ‘each and every exposure’ substantially contributed to a particular plaintiff’s disease.” *Id.*, at *13. Reasoning that the “each and every exposure” theory was, at most, a “best guess” approach not suitable for courtroom testimony, the court enunciated:

In the end, my decision ultimately rests upon whether the plaintiffs’ experts’ opinions were based upon methodologies utilizing discrete and specific scientific principles logically applied in a manner that can be affirmatively articulated, referenced, reviewed, and tested, and empirically verified or whether the testimony was based upon the “best estimate,” the “gut instinct,” or

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*8 The testimony of Drs. John Maddox and David Lemen were excluded.*
the “educated guess” of the experts. Thorough review of the transcripts and the various authorities relied upon by the plaintiffs’ experts’ foundational opinions are based upon the latter rather than the former.

*Id.* at *2.*

The court rejected the “each and every exposure” theory, in part, because it is inconsistent with the fact that background exposures and ambient concentrations of asbestos do not cause disease. The court asserted that plaintiffs’ experts have to identify a relevant, causative dose above the ambient concentrations in the air:

No one, including the plaintiffs’ experts, proffers an opinion that this level of exposure creates an increased risk of the development of any asbestos-related disease. Accordingly, this background or ambient exposure is simply not sufficient to allow experts to causally attribute asbestos-related disease to it. Everyone, including the plaintiffs’ experts, agrees that something greater is required. The argument in this *Frye* challenge, in part, revolves around the questions of how much greater quantity of exposure is necessary to permit the causal attribution of an asbestos-related disease to a particular asbestos exposure.

*Id.* at *3.* Likewise, in *Summers v. CertainTeed Corp.*, the Superior Court of Pennsylvania made the following analogy:

[S]uppose an expert said that if one took a bucket of water and dumped it in the ocean, that was a “substantial contributing factor” to the size of the ocean. Dr. Gelfand’s statement saying every breath is a “substantial contribution factor” is not accurate.

886 A.2d 240, 244 (Pa. Super. 2005). The court went on to point out:

If someone walks past a mechanic changing brakes, he or she is exposed to asbestos. If the person worked for thirty years at an asbestos factory making lagging, it can hardly be said that the one whiff of the asbestos from the brakes is a “substantial” factor in causing the disease.

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9 In *Summers*, the court excluded the opinion of Dr. Jonathan Gelfand.
In *Gregg v. V-J Auto Parts, Inc.*, 943 A.2d 216 (Pa. 2007), the court recognized:

[O]ne of the difficulties courts face in the mass tort cases arises on account of a willingness on the part of some experts to offer opinions that are not fairly grounded in a reasonable belief concerning the underlying facts and/or opinions that are not couched within accepted scientific methodology.

*Id.* at 226. *See also Basile v. Am. Honda Motor Co.*, No. 11484 CD 2005 at 11 (Pa. Ct. Com. Pl. Feb. 22, 2007) (excluding the testimony of Dr. Maddox based on the fact that his opinion offered “no methodology to support a ‘single fiber’ opinion, much less general acceptance of any such methodology.”)

Courts in other jurisdictions also have tossed the testimony of experts trying to sell this unsupported causation theory. A trial court in Washington granted defendant’s motion in limine to disallow several of plaintiffs’ experts from testifying that each and every exposure was a substantial cause of the plaintiff’s disease.\(^{10}\) In reaching its conclusion, the court in *Free v. Ametek*, No. 07-2-04091-9-SEA (Wash. King County Super. Ct. Feb. 29, 2008), stated:

Conventional wisdom is that there is no safe level of exposure to asbestos. A more accurate statement of conventional wisdom, however, would be that there is no known safe level of exposure, just as there is no known threshold level for causation of asbestos-related disease. Dr. Hammar’s hypothesis, therefore, is not supported by replicable, scientific methodology. While it may be assumed to be accurate and sufficient for purposes of connecting asbestos exposure to mesothelioma in general, the assumption that every exposure to asbestos over a life’s work history, even every exposure greater than 0.1 [fiber years], is a substantial factor contributing to development of an asbestos related disease, is not a scientifically proved proposition that is generally accepted in the

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\(^{10}\) The court excluded the opinions of Drs. Carl Brodkin and Samuel Hammar.
field of epidemiology, pulmonary pathology, or any other field relevant to this case.

There is no known threshold; there is no known level of exposure. That does not mean none exists; it simply means modern science has not and cannot, with current scientific expertise or relying on existing studies, determine what that level of exposure is. Dr. Hammar may not testify that any exposure at the level of 0.1 [fiber years] or less is a substantial contributing factor to the development of mesothelioma.

Id., at 3-4; see also Anderson v. Asbestos Corp., Ltd., No. 05-2-04551-5 SEA (Wash. King County Super. Oct. 31, 2006) (Transcript of Bench Ruling, at 144-45).

Dr. Samuel Hammar was also stopped from testifying on this point, where he “posited that all asbestos fibers caused mesothelioma because all asbestos fibers have the ability to cause cancer-inducing mutations in cells and it is not possible to pinpoint which particular fibers actually caused the mutations.” Georgia-Pacific Corp. v. Stephens, 239 S.W.3d 304, 320 (Tex. App.-Hous. 2007). In rejecting Dr. Hammar’s position, the court held that Dr. Hammar “failed to show . . . that the ‘any exposure theory’ is generally accepted in the scientific community—that any exposure to a product that contains asbestos results in a statistically significant increase in the risk of developing mesothelioma.” Id. at 321. The court further articulated:

Each of the experts acknowledged at trial that mesothelioma, like asbestosis, is dose responsive — some non de minimis occupational exposure must occur to increase one’s risk of developing the disease. Although the lay testimony presented at trial is sufficient to show that [Plaintiff] worked in close proximity to Georgia-Pacific joint compound so as to be exposed to enough of its asbestos to increase his risk of developing mesothelioma. The record does not contain any quantitative estimate of [Plaintiff’s] exposure to Georgia-Pacific’s joint compound[.]
The *Stephens* court relied on the reasoning set forth in *Borg-Warner Corp. v. Flores*, 232 S.W.3d 765 (Tex. 2007), in which the Texas Supreme Court held that the lower court erred in finding, “if there is sufficient evidence that the defendant supplied any of the asbestos to which the plaintiff was exposed, then the plaintiff has met the burden of proof.” *Id.* at 774 (Tex. 2007). In rejecting the notion that “some” exposure from a defendant’s product was sufficient to meet the plaintiff’s burden, the court announced:

> It is not adequate simply to establish that “some” exposure occurred. Because most chemically induced adverse health effects clearly demonstrate “thresholds,” there must be reasonable evidence that the exposure was of sufficient magnitude to exceed the threshold before a likelihood of “causation” can be inferred.

*Id. (omitting citations).* See also *In re Asbestos*, No. 2004-3,964 at 3 (Tex. Dist. Ct. Jul. 18, 2007) (Letter Ruling) (stating that the “one fiber” theory “confuses the difference between a potential cause and a substantial cause, and encourages speculation on how little exposure, and how infrequently the exposure must take place before causation can be said to have been proven.”); *In re Asbestos*, No. 2004-03964 at 4 (Tex. Dist. Ct., 11th Dist., Harris Country Jan. 20, 2004) (Letter Ruling) (excluding Dr. Eugene Mark as a witness because “while it is true that any exposure to an asbestos product increases the risk of mesothelioma or some other asbestos disease, the extent to which any type of asbestos does so is not measurable nor is it scientifically verifiable”).

In state court in Mississippi and in federal court in Ohio, judges also have rejected the notion that any exposure to asbestos could be considered a substantial factor in causing an asbestos-related disease. In *Brooks v. Stone Architecture*, 934 So.2d 350, 354 (Miss. Ct. App.

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11 Plaintiff’s insufficient evidence included the testimony of Dinah Bukowski and Barry Castleman.
2006), the Court of Appeals of Mississippi rejected the opinion of Dr. Gaeton Lorino who asserted that mesothelioma is not a dose-related disease. In rendering its decision, the court stated that the doctor’s opinion lacked “the necessary factual foundation required to reach that conclusion.” In addition, the court made it clear that:

[C]ourts are not required to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert, because self-proclaimed accuracy by an expert is an insufficient measure of reliability.

*Id.* (Internal quotations omitted). In *Bartel v. John Crane Inc.*, Judge Polster for the United States District Court for the Northern District of Ohio held:

It is not sufficient to assert, as did Plaintiff’s expert Dr. Frank, that even one asbestos fiber that got into [Plaintiff’s] lungs could have caused his mesothelioma, and that there is, therefore, no medically safe level of asbestos exposure. This is a strict liability standard, which the law does not impose upon manufacturers of products containing asbestos. This argument would completely obviate the “substantial factor” and the “proximate cause” standards, which Sixth Circuit case law directs me to apply.


With thousands of asbestos cases still pending in dozens of busy state courts, and with Judge Eduardo C. Robrêno vowing to clear out the logjam of cases in MDL 875, by returning viable cases that cannot be settled to the transferor courts, controlling how expert opinion evidence will be handled at trial is as important as ever. Reason and reliability are the gold standards for judges handling asbestos dockets, so the trends in guarding the gates to keep junk science from reaching the jurors needs to continue.
APPENDIX

STATE STANDARDS FOR ADMITTING SCIENTIFIC EVIDENCE

The following chart indicates the standard by which each state admits scientific testimony into evidence, either Frye, the FRE or some other standard. The first column of the chart lists the states and the District of Columbia. The next two columns separate those states into two categories: those that have adopted the opinion of the U.S. Supreme Court in Daubert and those states that follow the Frye standard (in some instances the decision preceded Daubert and its continued validity may be open to question).

Each of those columns is separated further into two more columns. Under the "Follow FRE" column, an "X" under "Adopted FRE" means that the state has adopted an evidence code exactly like or similar to the Federal Rules of Evidence and follows the rationale of the Daubert Court by abandoning the Frye standard. An "X" under "Did not adopt FRE" means that although the state does not have an FRE-type evidence code, it follows the Daubert rationale anyway, unless otherwise noted.

Under the "Follow Frye" column, an "X" under "Adopted FRE" means that although the state has adopted an FRE-type evidence code, it continues to adhere to the Frye standard despite the Daubert ruling. An "X" under the "Did not adopt FRE" indicates the state has not adopted a FRE-type evidence code and continues to follow Frye.

The last column gives the case name and cite of the seminal case in that state dealing with the admissibility standard for scientific evidence. You will notice that many of the states that have adopted FRE-type evidence codes but continue to follow Frye have cases that may pre-date Daubert. Unless otherwise noted, the case cited is the last case in the jurisdiction to address the admissibility of scientific evidence. Until a state court renders a decision either expressly rejecting or adopting the Daubert rationale, it is assumed that the Frye standard remains the scientific standard in that jurisdiction.

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