

**IN THE
COURT OF APPEALS OF MARYLAND**

SEPTEMBER TERM, 2006

NO. 110

Montgomery Mutual Insurance Company,

Petitioner,

v.

Josephine Chesson, et al.,

Respondents.

**ON WRIT OF CERTIORARI TO THE
COURT OF APPEALS OF MARYLAND**

**REPLY BRIEF OF *AMICI CURIAE*, MARYLAND DEFENSE COUNSEL, INC.,
NATIONAL ASSOCIATION OF HOME BUILDERS, AND
THE NATIONAL MULTI HOUSING COUNCIL**

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ARGUMENT

I. THE UNDISPUTED STATE OF THE ART ESTABLISHES THAT DR. SHOEMAKER'S NOVEL TECHNIQUES AND DIAGNOSES ARE NOT GENERALLY ACCEPTED IN THE SCIENTIFIC COMMUNITY.

As demonstrated in Amici's opening brief, the current state of the generally accepted science in cases of indoor mold exposure is set forth in *Damp Indoor Spaces and Health* by the Institute of Medicine of the National Academy of Sciences ("IOM Report"). Neither Appellees nor Amicus Curiae, Maryland Trial Lawyers Association (collectively, "Appellees") dispute that the IOM Report is the generally accepted state of the art related to mold exposure. Nor could they.

The Centers for Disease Control and Prevention, precisely in order to determine areas of consensus in the scientific community, asked the Institute of Medicine ("IOM") of the National Academy of Sciences to convene a committee of experts to "conduct a comprehensive review of the scientific literature regarding the relationship between damp or moldy indoor environments and the manifestation of adverse health effects...." INSTITUTE OF MEDICINE, COMMITTEE ON DAMP INDOOR SPACES AND HEALTH, *Damp Indoor Spaces and Health*, Washington D.C.: National Academies Press (2004) at 2 (E-257).¹ After reviewing hundreds of tests, studies, reports and papers, the IOM Report concluded that only a limited set of human health effects were generally accepted to be attributable to indoor mold exposure and only a certain set of diagnostic techniques were generally accepted as reliable for that purpose. Neither Dr. Shoemaker's novel diagnoses nor his novel diagnostic techniques are included. It is no wonder then that both Appellees and Amicus chose to ignore this 355-page state of the art report.

The IOM Report remains the most exhaustive and comprehensive review of the human health effects resulting from indoor mold exposure and, consequently, represents the current standard by which to judge whether techniques and diagnoses are generally accepted in the relevant scientific community. See Centers for Disease Control and

¹ As noted in Amici's Brief, the IOM Report was attached in full in the Appendix to Petitioner's Brief that was submitted in the Court of Special Appeals. References to the IOM Report as provided in Petitioner's Appendix shall be cited as (E-___).

Prevention, Morbidity and Mortality Weekly Report, *Mold Preventions Strategies and Possible Health Effects in the Aftermath of Hurricanes and Major Floods*, at 12 (June 9, 2006)(stating that the IOM Report “remains the most current and authoritative source of information on this subject.”)(attached as Exhibit E to Amici’s Brief). The IOM Report has taken conflicting studies and reports and has distilled what techniques and human health effects are generally accepted by the relevant scientific community. The IOM Report is exactly the type of nationally recognized, scientific publication that is appropriate for this Court to take judicial notice of its reliability. *See* Md. R. 5-201(b)(stating, “A judicially noticed fact must be one not subject to reasonable dispute that is...capable of accurate and ready determination by resort to resources whose accuracy cannot reasonably be questioned.”).

As demonstrated in Amici’s Brief, The IOM Report concluded that only a limited set of human health outcomes could be associated with mold exposure or damp building environments, including upper respiratory tract symptoms, asthma attacks triggered in persons with pre-existing asthma, hypersensitivity pneumonitis, wheeze and cough. The IOM Report also concluded that there was not enough evidence to support an association between any toxic effects and exposure to mold or damp buildings. *Id.* at 254 (E-508). Although Appellees would have this Court accept Dr. Shoemaker’s opinion that “sick building syndrome” is a disease (App. Brief at 1) or that mold is “toxic” (App. Brief at 12), these assertions are not generally accepted in the relevant scientific community. The IOM Report did not recognize “sick building syndrome” or Dr. Shoemaker’s “biotoxin-associated illness” as possible clinical diagnoses. To the contrary, the IOM Report specifically determined that “sick building syndrome” lacks consistent diagnostic criteria and is more appropriately considered a “term used to describe a combination of nonspecific symptoms.” *Id.* at 250 (E-504). The term “biotoxin-associated illness” was never referenced – demonstrating that the diagnosis not only lacks generally acceptance in the relevant scientific community, but that it was not even considered as an emerging alternative, even if as yet unaccepted, diagnosis.

The IOM Report also conducted an exhaustive review of diagnostic and exposure assessment techniques used to diagnose alleged mold-related health claims. *See id.* at 90-124 (E-374 – E-378) (identifying and assessing diagnostic and exposure-assessment techniques). Again, the absence of any reference to Dr. Shoemaker’s VCS test and CSM treatment demonstrates that his diagnostic techniques are not generally accepted techniques for diagnosing mold-related illness. The use of these techniques for this purpose is unique to Dr. Shoemaker.

Appellees fail to offer any critique or countervailing arguments to the research, analyses and conclusions of the IOM Report. Appellees instead focus solely on critiquing the authors of position papers published by the American Academy of Allergy, Asthma and Immunology (“AAAAI”) and the American College of Occupational and Environmental Medicine (“ACOEM”). See MTLA Brief at 5-11. These ad hominem attacks provide no evidence that Dr. Shoemaker’s reliance on VCS tests and CSM treatment or his diagnoses of “sick building syndrome” or “biotoxin associated illness” are generally accepted in the relevant scientific community.

II. THE PROPER STANDARD OF REVIEW REGARDING APPLICATION OF *FRYE-REED* IS *DE NOVO*, NOT ABUSE OF DISCRETION.

Appellees incorrectly assert that the Court’s review is limited to whether the trial court abused its discretion in refusing to apply *Frye-Reed* to Dr. Shoemaker’s testimony. Although the admissibility of expert testimony is a matter generally committed to the discretion of the trial court, appellate review of a trial court’s decision regarding admissibility under *Frye-Reed* is *de novo*, not abuse of discretion. *Clemons v. State*, 392 Md. 339, 359, 896 A.2d 1059, 1071 (2006)(citing *Wilson v. State*, 370 Md. 191, 201 n. 5, 803 A.2d 1034, 1040 n.5 (2002)). Prior to exercising discretion to admit novel expert testimony, the court must first determine that the testimony at issue is reliable as a matter of law. *Wilson*, 370 Md. at 201, 803 A.2d at 1039. In *Wilson*, this Court held that the admissibility of novel expert testimony, even in the absence of a *Frye-Reed* hearing, was subject to *de novo* review. *Id.* This Court’s *de novo* review is “not limited to the

information contained in the record and [the Court] can and should take judicial notice of law journal articles, articles from reliable sources in scientific journals and other publications bearing on the acceptance by recognized experts that a particular process has achieved.” *Clemons*, 392 Md. at 359, 896 A.2d at 1071 (internal citations removed). Under *Frye-Reed*, Dr. Shoemaker’s novel techniques and diagnoses based upon those techniques must be subjected to the *de novo* review of this Court.

An abuse of discretion standard of review would never be appropriate for the threshold *Frye-Reed* determination. Under the abuse of discretion standard, as the Court of Special Appeals has explained, the appellate court could be “dealing with that 80% bulge of the bell-shaped curve wherein the trial judge, within her discretion, could have gone either way and still been affirmed.” *CSX Transp. v. Miller*, 159 Md. App. at 198; 858 A.2d at 1068-69 (analyzing review of the trial court’s decision in *Wood v. Toyota*, 143 Md. App. 512, 760 A.2d 315 (2000)). This Court, to the contrary, has provided that inconsistent rulings on the reliability of novel scientific techniques or processes and opinions based on those techniques and processes “would be intolerable.” *Reed v. State*, 283 Md. 374, 388, 391 A.2d 364, 371 (1978). This problem is avoided by vigorous and consistent applications of the *Frye-Reed* test, which ensures that “[a]s long as the scientific community remains significantly divided, results of controversial techniques will not be admitted and all [litigants] will face the same burdens.” *Id.* The abuse of discretion standard may apply to other determinations regarding the admissibility of expert testimony under Maryland Rule 5-702 (e.g., assistance to the trier of fact, whether the witness is qualified, the appropriateness of the expert, etc.), but only after the threshold *Frye-Reed* analysis for novel scientific evidence is satisfied.

III. THE CORRECT APPLICATION OF *FRYE-REED* DEMANDS THE EXCLUSION OF DR. SHOEMAKER’S TESTIMONY OR, IN THE ALTERNATIVE, A *FRYE-REED* HEARING TO DETERMINE WHETHER HIS TESTIMONY IS RELIABLE.

In this case, the Court of Special Appeals, relying solely upon its own precedents, crafted two exceptions to the *Frye-Reed* inquiry to justify the admission of

Dr. Shoemaker's novel medical testimony: (1) that expert opinions based in part upon generally accepted practices were not subject to the *Frye-Reed* inquiry and (2) that expert opinions concerning the cause or origin of an individual's condition are not subject to *Frye-Reed* at all. See Brief of Amici Curiae at 25. Appellees rely heavily on these exceptions to avoid the application of the *Frye-Reed* inquiry here, but do not attempt to reconcile these exceptions with this Court's *Frye-Reed* case law.

Appellees concede *Frye-Reed* is the standard for determining the reliability of novel scientific evidence offered at trial. *Reed v. State*, 283 Md. 374, 381, 391 A.2d 364, 368 (1978). In adopting the *Frye* standard, this Court held that both novel techniques and opinions based upon novel techniques are equally subject to the "general acceptance" standard. *Id.* at 388, 391 A.2d at 371. This Court has further established the *Frye-Reed* inquiry must be applied unless the trial court's judicial notice can establish the reliability, or not, of scientific testimony based upon novel scientific techniques and methodologies. See *Wilson v. State*, 370 Md. 191, 201803 A.2d 1034, 1039-40 (2002); see also *Clemons*, 392 Md. at 364, 896 A.2d at 1073. There is no support in this Court's rulings for the Court of Special Appeals' general exceptions to the *Frye-Reed* rule.

A. Novel Scientific Evidence Based "In Part" on Non-Novel Techniques from Frye-Reed Analysis.

Appellees assert that *Clemons v. State* is not instructive to the application of *Frye-Reed* in this case. MTLA at 24. To the contrary, this Court's most recent analysis of the application of *Frye-Reed* in Maryland courts is highly instructive in this matter. In *Clemons*, this Court excluded expert testimony based on comparative bullet lead analysis ("CBLA") because there was a lack of general acceptance of the process in the scientific testimony. *Clemons*, 392 Md. at 371, 896 A.2d at 1078. Importantly, in *Clemons*, the issue was not the admissibility of the tests themselves, it was the admissibility of the expert opinion testimony based upon CBLA evidence. In determining admissibility of the expert's testimony under *Frye-Reed*, the Court conducted an extensive *de novo* review of multiple academic and forensic journals, commission reports and studies, and

judicial decisions excluding CBLA evidence. *Id.* at 364-71, 896 A.2d at 1074-78. The Court, citing contradictions in the scientific literature, excluded the expert opinion testimony in *Clemons* “because several, but not all, of the fundamental assumptions underlying the expert’s testimony [were] not generally accepted by the relevant scientific community.” *Id.* at 372, 896 A.2d at 1079.

The *Clemons* case serves as a model for the *Frye-Reed* analysis in Maryland courts. The *Clemons* opinion is instructive on the method of reviewing novel scientific testimony, and on the threshold determination of general acceptance that serves as the basis for excluding novel scientific expert testimony. Under *Clemons*, when a review of the relevant scientific evidence demonstrates an ongoing debate in the relevant scientific community regarding the fundamental assumptions underlying an expert’s testimony, that expert testimony must be excluded under *Frye-Reed*. Moreover, the *Clemons* decision established that the novel scientific techniques underlying an expert’s opinion cannot be immunized from *Frye-Reed* analysis by the expert’s simultaneous reliance upon other generally accepted scientific techniques. If some, but not all, of the fundamental assumptions underlying an expert’s testimony are not generally accepted by the relevant scientific community, then that expert’s testimony should be excluded under *Frye-Reed* – regardless of whether the expert employs some generally accepted techniques.

B. Expert Medical Causation Testimony Is Equally Subject to *Frye-Reed* Scrutiny.

Appellees, like the Court of Special Appeals, attempt to rely on *CSX Transportation, Inc. v. Donald E. Miller*, 159 Md. App. 123, 858 A.2d 1025 (2004), *cert. dismissed*, *CSX Transp., Inc. v. Miller*, 387 Md. 351 (2005) and *Myers v. Celotex Corporation, et al.*, 88 Md. App. 442, 594 A.2d 1248 (1991), *cert. denied*, *Fibreboard Corp. v. Myers*, 325 Md. 249 (1992) to establish a general exception for expert medical causation opinions. Neither *Miller* nor *Myers* creates this general exception or is otherwise instructive on the application of *Frye-Reed* in this matter.

