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CHESSON V. MONTGOMERY MUT. INS. CO.: EXPERT TESTIMONY BASED ON NOVEL SCIENTIFIC METHODOLOGY FAILED TO MEET THE FRYE-REED THRESHOLD FOR GENERAL ACCEPTANCE BECAUSE OF A FUNDAMENTAL DIVERGENCE OF OPINION IN THE SCIENTIFIC COMMUNITY ABOUT THE VALIDITY OF THE METHODOLOGY AND FLAWS IN THE UNDERLYING ANALYSIS.

By: Brett H. Philpotts

The Court of Appeals of Maryland held that an expert's theory based on a novel scientific methodology, which was not generally accepted in the relevant scientific community, failed the *Frye-Reed* standard. *Chesson v. Montgomery Mut. Ins. Co.*, 434 Md. 346, 75 A.3d 932 (2013). Finding continued controversy within the scientific field regarding the basis of the expert witness's theories, as well as flaws in his underlying analysis, the court deemed the expert's methodology too unreliable to be admitted as testimonial evidence. *Id.* at 380, 75 A.3d at 951.

On November 18, 2002, employees of the Baltimore Washington Conference of the United Methodist Church noticed a foul odor coming from the walls of their office building. Maintenance workers breached an interior wall and discovered *Aspergillus* and *Stachybotrys* mold. After allegedly developing non-respiratory symptoms such as memory loss, muscle aches, and joint pain, the employees sought the care and treatment of physician Dr. Ritchie Shoemaker.

To connect the symptoms exhibited by the employees to the discovered mold exposure, Dr. Shoemaker applied a novel technique he developed called "Repetitive Exposure Protocol." The first stage of the technique included identifying the presence of mold by sight, smell, or lab testing. Using a differential diagnosis, or process of elimination, the doctor ruled out alternative possible causes of the symptoms by physical examination of the patient, and the patients were treated by an off-label use of Cholestyramine to alleviate symptoms. The second stage of the technique involved diagnostic testing of the patients for biological markers, such as hormone response, immune response, and visual contrast sensitivity. Based upon this methodology, Dr. Shoemaker reached a diagnosis that ruled out alternative causes in order to establish workplace mold exposure as the direct cause of a patients' non-respiratory symptoms.

The employees each filed a claim with the Maryland Worker's Compensation Commission, alleging he or she had sustained "sick building syndrome" due to mold exposure. The commission denied two employees' claims, but awarded partial compensation to the remaining employees upon

finding that they had sustained accidental injury or occupational disease. The Circuit Court for Howard County granted the employees' petitions for review and consolidated their claims, denied Montgomery Mutual's request to exclude Dr. Shoemaker's testimony, and declined to hold a *Frye-Reed* hearing on Dr. Shoemaker's methodology. The jury found in favor of the employees, which Montgomery Mutual appealed. The Court of Special Appeals of Maryland affirmed the trial court's admission of Dr. Shoemaker's testimony again without holding a *Frye-Reed* hearing. Granting certiorari, the Court of Appeals of Maryland remanded to the circuit court to hold a *Frye-Reed* hearing, directing the lower court to consider whether Dr. Shoemaker's methodology was generally accepted in the relevant scientific community.

Finding Dr. Shoemaker's protocols sufficiently reliable, properly performed, and generally accepted, the circuit court allowed Dr. Shoemaker's methodology to prove causation for the employees' illnesses. Montgomery Mutual once again appealed, but this time the intermediate appellate court reversed, finding continued controversy in the scientific community and a lack of general acceptance for Dr. Shoemaker's methodology. The Court of Appeals of Maryland granted certiorari to determine whether the intermediate appellate court erred in finding Dr. Shoemaker's expert testimony inadmissible.

The Court of Appeals of Maryland began its analysis by clarifying the purpose and importance of the Frye-Reed general acceptance test. Chesson, 434 Md. at 351, 75 A.3d at 934. A novel scientific technique must be "sufficiently established to have gained general acceptance in the particular field in which it belongs." Id. at 351, 75 A.3d at 934-35 (quoting Reed v. State, 283 Md. 374, 389, 391 A.3d 364, 372 (1978) (internal citations In situations where general acceptance in the scientific community was not so broadly established as to be taken by judicial notice. the court would consider testimonial evidence, journals from the legal and relevant scientific communities, and publications from other reliable sources when determining the degree of acceptance by experts in the relevant field. Chesson, 434 Md. at 356, 75 A.3d at 937. Although general acceptance does not require universal adoption, the presence of a divergence of opinion or a fundamental controversy necessitates the exclusion of such testimony. Id. at 356-57, 75 A.3d at 937-38 (citing U.S. Gypsum v. Baltimore, 336 Md. 145, 183, 647 A.2d 405, 424 (1994)).

Acknowledging that Dr. Shoemaker's methods were not so broadly established as to be taken by judicial notice, the court began by evaluating the degree of acceptance of Dr. Shoemaker's work within the relevant scientific community. *Chesson*, 434 Md. at 373, 75 A.3d at 947. The court evaluated the expert testimony and scientific literature proffered by both parties and determined that Dr. Shoemaker's methodology was controversial and not generally accepted within the relevant scientific field. *Id.* at 373-79, 75 A.3d at 947-51. Perhaps most damaging, in light of the fact that the

causes of action arose in 2002, Dr. Shoemaker acknowledged in a co-authored 2005 paper that his causal theory linking mold exposure to non-respiratory symptoms was controversial and not generally accepted. *Id.* at 373, 75 A.3d at 947. The argument that Dr. Shoemaker's theories and methods had later become generally accepted because scientific articles from 2007 discussed the lack of consensus about whether mold exposure could cause non-respiratory or non-allergic symptoms did not persuade the court. *Id.* at 377-79, 75 A.3d at 950-51. Accordingly, the court found that Dr. Shoemaker's theories on causation and methods of diagnosis remained controversial and not generally accepted in the relevant scientific field. *Id.*

Further, the court noted that other jurisdictions had found Dr. Shoemaker's testimony inadmissible. *Chesson*, 434 Md. at 379-80, 75 A.3d at 951 (citing *Young v. Burton*, 567 F. Supp. 2d 121, 130-31 (D.D.C. 2008)). The District of Columbia, Virginia, Florida, and Alabama had all rejected Dr. Shoemaker's theories regarding mold illnesses, and ultimately found his expert testimony inadmissible under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786 (1993), because his "Repetitive Exposure Protocol" was unreliable. *Chesson*, 434 Md. at 379-80, 75 A.3d at 951 (citing *Young*, 567 F. Supp. 2d at 131).

Finally, the court considered the requirement of the exclusion of expert testimony where the underlying methodology contains flaws, regardless of whether the testimony is based on broadly established or novel scientific methodology. Chesson, 434 Md. at 357, 75 A.3d at 938. Here, the court highlighted a fundamental flaw in Dr. Shoemaker's methodology concerning his failure to account for the level of mold exposure sustained by patients enrolled in his protocol. Id. at 373, 75 A.3d at 947. Two scientific articles stated that mold concentration must be measured in order to establish causality of illness, but Dr. Shoemaker had neglected to measure the concentration of mold in the affected building. Id. at 373-75, 75 A.3d at 947-49. As a result, Dr. Shoemaker's failure to account for levels of mold exposure constituted an "analytical gap" fatal to the admissibility of his testimony. Id. at 380, 75 A.3d at 951. After finding his testimony to be based on flawed methodology and his theories to lack general acceptance in the scientific community, the court ultimately found Dr. Shoemaker's testimony inadmissible because it failed to meet Frye-Reed's validity and reliability requirements. Id.

In *Chesson*, the Court of Appeals of Maryland reinforced the rigorous *Frye-Reed* standard for determining the admissibility of expert witness testimony. Considering the expense in litigating a *Frye-Reed* proceeding and in producing experts for hearings, Maryland practitioners should take appropriate steps to vet the testimony of expert witnesses and confirm the general acceptance of novel theories and methods.