VALENTINE, APPELLANT, *v.* CONRAD, ADMR.; PPG INDUSTRIES, INC. ET AL., APPELLEES.

[Cite as *Valentine v. Conrad*, 110 Ohio St.3d 42, 2006-Ohio-3561.]

Evidence – Expert opinion – Reliability – Evid.R. 702(C) – Expert opinions that chemical exposure in workplace caused disease and death of plaintiff's decedent not supported by scientific principles or methodology – No basis in literature for finding causal connection between exposure to particular chemicals and particular disease contracted by plaintiff's decedent — Opinions inadmissible.

(No. 2004-1619 – Submitted September 21, 2005 – Decided July 26, 2006.)

APPEAL from the Court of Appeals for Pickaway County,
No. 03CA17, 158 Ohio App.3d 615, 2004-Ohio-4521.

MOYER, C.J.

{¶ 1} The question presented in this appeal is whether Evid.R. 702(C) requires a scientifically valid connection between the opinion of an expert witness and the resources relied upon by the expert.

{¶ 2} David E. Valentine was employed by PPG Industries, Inc., from 1969 to 1997, and it is alleged that he was exposed to various toxic chemicals throughout his employment. In 1997, Mr. Valentine was diagnosed with glioblastoma multiforme, a form of brain cancer. As a result of the cancer, Mr. Valentine died in May 1999.

{¶ 3} Mr. Valentine's widow, Linda Valentine, appellant, filed a claim for death benefits with the Bureau of Workers' Compensation, alleging that her husband's exposure to chemicals throughout his employment with PPG Industries caused the development of his cancer and his resulting death. The Industrial

Commission denied the claim, and Valentine filed an administrative appeal in the Pickaway County Court of Common Pleas against appellee PPG Industries, Inc., the parent company of appellee PPG Industries Ohio, Inc.

{¶ 4} To establish that she qualified for workers' compensation benefits, Valentine was required to prove that her husband's illness was contracted in the course of his employment with PPG Industries. R.C. 4123.01(F); *State ex rel. Ohio Bell Tel. Co. v. Krise* (1975), 42 Ohio St.2d 247, 254, 71 O.O.2d 226, 327 N.E.2d 756. In an effort to establish that fact, Valentine presented expert testimony from two of her husband's treating physicians, Dr. Michael E. Miner and Dr. Herbert B. Newton, and from an industrial hygienist, Norman Brusk.

{¶ 5} Dr. Miner concluded that, based on a reasonable medical probability, Mr. Valentine's brain tumor was directly and proximately caused by his exposure to chemical toxins in his workplace and that his death was directly caused by that exposure. Dr. Newton similarly opined that, based on a reasonable medical probability, the development of the tumor and ultimate death were directly and proximately related to Mr. Valentine's chemical exposure. The doctors based their opinions on the totality of their experience as practitioners, their knowledge of Mr. Valentine's condition and background, medical and genetic research, animal studies, and epidemiologic studies. Additionally, both doctors considered it significant that a former coworker of Mr. Valentine, Harold McConnaughey Jr., developed glioblastoma multiforme and died within two weeks of Mr. Valentine. Both doctors acknowledged that no chemical is known to cause glioblastoma multiforme and that ionizing radiation, which is not involved in this case, is the only proven cause of the disease.

{¶ 6} Mr. Brusk opined that Mr. Valentine's employment with PPG Industries placed him at a heightened risk of developing brain cancer. Mr. Brusk based his opinion on his experience as an industrial hygienist, his assessment of Mr. Valentine's workplace, and epidemiological studies. Mr. Brusk did not render

a professional opinion regarding whether any specific chemical, or group of chemicals, is capable of causing glioblastoma multiforme.

{¶ 7} The trial court excluded the expert opinions as unreliable under Evid.R. 702(C). Because the expert testimony was inadmissible, the trial court found that Valentine was unable to establish causation and granted summary judgment for PPG Industries. The Fourth District Court of Appeals affirmed, holding that the trial court did not abuse its discretion when it excluded the expert testimony as unreliable.

{¶ 8} The matter is before this court upon the acceptance of a discretionary appeal.

{¶ 9} The determination of the admissibility of expert testimony is within the discretion of the trial court. Evid.R. 104(A). Such decisions will not be disturbed absent abuse of discretion. *Miller v. Bike Athletic Co.* (1998), 80 Ohio St.3d 607, 616, 687 N.E.2d 735. "Abuse of discretion" suggests unreasonableness, arbitrariness, or unconscionability. Without those elements, it is not the role of this court to substitute its judgment for that of the trial court. *Calderon v. Sharkey* (1982), 70 Ohio St.2d 218, 222, 24 O.O.3d 322, 436 N.E.2d 1008.

{¶ 10} Evid.R. 702 provides:

{¶ 11} "A witness may testify as an expert if all of the following apply:

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

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

{¶ 14} "(C) The witness' testimony is based on reliable scientific, technical, or other specialized information."

{¶ 15} That the opinions related to matters beyond the knowledge and experience of laypersons is not disputed. See Evid.R. 702(A). Moreover, the credentials and experience of the witnesses clearly qualify them as experts under Evid.R. 702(B). In fact, the experience of Drs. Newton and Miner as Mr. Valentine's personal physicians makes them uniquely qualified to discuss his health. The sole issue in this case, then, is whether the testimony in question is reliable under Evid.R. 702(C).

{¶ 16} In determining whether the opinion of an expert is reliable under Evid.R. 702(C), a trial court examines whether the expert's conclusion is based on scientifically valid principles and methods. *Miller*, 80 Ohio St.3d 607, 687 N.E.2d 735, paragraph one of the syllabus. A court should not focus on whether the expert opinion is correct or whether the testimony satisfies the proponent's burden of proof at trial. Id. Accordingly, we are not concerned with the substance of the experts' conclusions; our focus is on how the experts arrived at their conclusions.

{¶ 17} The qualification and reliability requirements of Evid.R. 702 are distinct. Because even a qualified expert is capable of rendering scientifically unreliable testimony, it is imperative for a trial court, as gatekeeper, to examine the principles and methodology that underlie an expert's opinion. Cf. *Daubert v. Merrell Dow Pharmaceuticals, Inc.* (1993), 509 U.S. 579, 589, 113 S.Ct. 2786, 125 L.Ed.2d 469 ("under [Fed.R.Evid. 702] the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable"); *Gen. Elec. Co. v. Joiner* (1997), 522 U.S. 136, 142, 118 S.Ct. 512, 139 L.Ed.2d 508 (discussing the gatekeeping role of the trial judge under Fed.R.Evid. 702). It is that determination that ensures that the testimony will be helpful to the trier of fact.

{¶ 18} Experts often base their opinions on data and research from within their field of study. Evid.R. 702(C) requires not only that those underlying resources are scientifically valid, but also that they support the opinion. Although

scientists certainly may draw inferences from a body of work, trial courts must ensure that any such extrapolation accords with scientific principles and methods. In this respect, we find persuasive *Gen. Elec. Co. v. Joiner*. In *Joiner*, the United States Supreme Court, in discussing the reliability requirements of Fed.R.Evid. 702, stated, "A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." *Gen. Elec. Co. v. Joiner*, 522 U.S. at 146, 118 S.Ct. 512, 139 L.Ed.2d 508. Because expert opinion based on nebulous methodology is unhelpful to the trier of fact, it has no place in courts of law.

{¶ 19} Valentine asserts that this conclusion invades the province of the jury. This argument demonstrates a fundamental misunderstanding of the purpose and operation of Evid.R. 702. A decision not to admit expert evidence under Evid.R. 702 does not invade the province of the jury. Instead, such a decision prevents the jury from considering information that would not assist in rendering a verdict founded on reliable expert evidence.

{¶ 20} Valentine also asks us to impose an affirmative duty on a trial court to acquaint itself with the scientific literature that underlies an expert's opinion. The abuse-of-discretion standard, which applies to admissibility determinations, already targets the potential problem that this proposal attempts to avoid. To the extent that doing so is necessary to avoid making an unreasonable, arbitrary, or unconscionable decision, a trial court is obliged to apprise itself of the details of proffered evidence. There is no indication that the trial court failed to do so in this case.

{¶ 21} The trial court concluded that the proffered opinions were not based on reliable scientific methodology, finding that the underlying conclusion of the experts' opinions (i.e., that the chemicals to which Mr. Valentine was exposed are capable of causing glioblastoma multiforme) was not scientifically reliable. None of the experts' opinions cited any studies showing a causal connection between chemical exposure and glioblastoma multiforme. The

epidemiological studies did not involve persons in the same industry in which Valentine worked and did not identify a particular chemical or group of chemicals that cause glioblastoma multiforme. Similarly, the animal studies cited did not indicate that brain tumors develop across species. Moreover, the fact that a number of the chemicals to which Mr. Valentine was exposed have been classified as carcinogens does not establish that they are capable, individually or collectively, of causing glioblastoma multiforme. To arrive at their opinions, the experts were required to extrapolate from the conclusions of the underlying materials. The trial court did not abuse its discretion in finding that the experts did not adequately explain the scientific basis for doing so.

{¶ 22} The experts relied heavily on differential diagnosis to reach their conclusions. "Differential diagnosis" describes the process of isolating the cause of a patient's symptoms through the systematic elimination of all potential causes. See *Hardyman v. Norfolk & W. Ry. Co.* (C.A.6, 2001), 243 F.3d 255, 260, quoting Federal Judicial Center, Reference Manual on Scientific Evidence (1994) 214. Although differential diagnosis is a standard scientific method for determining causation, see *Westberry v. Gislaved Gummi AB* (C.A.4, 1999), 178 F.3d 257, 262, its use is appropriate only when considering potential causes that are scientifically known. For example, in *Westberry*, the plaintiff alleged that breathing airborne talc caused aggravation of a preexisting sinus condition. Because the parties did not dispute that inhalation of high levels of talc causes irritation in mucous membranes, differential diagnosis was a valid method to establish causation. Id. at 264-265. In contrast, Drs. Newton and Miner were unable to establish that any of the chemicals to which Mr. Valentine was exposed are capable of causing glioblastoma multiforme. Accordingly, differential diagnosis is not a reliable method for determining legal causation in this case.

{¶ 23} Although the experts are highly qualified, their experience, by itself, does not establish the legal reliability of their opinions as applied to the

facts of this case. Nor does the contemporaneous death of Mr. Valentine's coworker, Harold McConnaughey, demonstrate reliability. "When an unusual event follows closely on the heels of another unusual event, the ordinary person infers a causal relation * * *. But lay speculations on medical causality, however plausible, are a perilous basis for inferring causality." *Rosen v. Ciba-Geigy Corp.* (C.A.7, 1996), 78 F.3d 316, 318. "[T]he courtroom is not the place for scientific guesswork, even of the inspired sort. Law lags science; it does not lead it." Id. at 319. Expert opinion based on unscientific principles and methodology is unhelpful to the trier of fact and has no place in courts of law. Accordingly, the trial court did not abuse its discretion when it excluded the expert testimony proffered by Valentine.

Judgment affirmed.

O'CONNOR, O'DONNELL and LANZINGER, JJ., concur.

RESNICK, PFEIFER and LUNDBERG STRATTON, JJ., dissent.

PFEIFER, J., dissenting.

{¶ 24} I concur in Justice Lundberg Stratton's thorough dissent, in which she sets forth the qualifications and testimony of the experts at issue. The expert testimony offered was of a quality that easily surpasses the standard for summary judgment, and the trial judge abused his discretion in finding otherwise. This case should have been decided by a jury weighing the competing testimony of qualified experts.

{¶ 25} This is a workers' compensation case, not a products-liability case. Therefore, Valentine need not prove that one specific chemical caused her husband's disease. She need not identify a specific product or manufacturer. Nor is this an intentional-tort case against PPG Industries, Inc. Valentine does not claim that PPG Industries knew of and ignored the dangers of the chemicals her husband worked with. She makes no claim that PPG Industries was negligent.

She claims only that her husband became ill because of his job. A neurosurgeon, a neuro-oncologist, and an industrial hygienist testified that workplace exposure did cause Valentine's husband's cancer.

{¶ 26} Their testimony should have been enough to establish at least a genuine issue of material fact as to whether the decedent's cancer was caused by his exposure to cancer-causing substances in his workplace. It is true that Valentine's experts did not prove that one specific chemical caused his brain tumor. The trial judge's criticism of their methodology would be appropriate if the doctors had been required to prove such a link. Instead, they were charged with looking at the whole of Valentine's workplace environment and whether that environment contributed to cause his cancer.

{¶ 27} The death of Mr. Valentine's co-worker, McConnaughey, of the same rare disease at virtually the same time is the key element in the experts' conclusion that there was a connection between Mr. Valentine's workplace exposure to chemicals and his cancer. At the heart of their methodology are statistics – cold, hard numbers. It is enormously unlikely statistically that, simply by chance, two men who worked at the same job at the same location would die within a week of each other of the same rare brain cancer that causes only one in roughly every 14,000 deaths in the United States. Only 17 people worked with the same chemicals over the same duration of time at PPG Industries as Valentine and his colleague. The odds that two people from that same group of 17 workers would randomly contract this cancer are one in 1,442,206.

{¶ 28} Beyond the statistically extreme improbability that Mr. Valentine's and McConnaughey's cancers occurred as a result of chance, the experts identified compelling risk factors. Mr. Valentine and McConnaughey worked with benzene, a known human carcinogen. They worked with acrylonitrile and ethylene oxide, which cause brain tumors in rats. They worked in an environment with deficient personal protective equipment and ventilation. Lab workers no

longer use benzene because of its potential danger and have adopted safety procedures worlds away from those employed in the early years by Mr. Valentine and McConnaughey. Mr. Valentine used cancer-causing agents in a dangerous manner over a long period of time. McConnaughey did the same. They ended up with the same disease by chance?

{¶ 29} There is less than one chance in a million, quite literally, that the well-qualified doctors who testified on behalf of Valentine were wrong about the cause of her husband's death. The trial court seized upon that fraction of a speck of a chance to deny death benefits in this workers' compensation case, without ever giving a jury a chance to consider the testimony of the parties' experts. If three or four or five co-workers had died of the same brain cancer, would the court have allowed Valentine's experts to testify without a proven link between a particular chemical and glioblastoma multiforme? Applying the trial court's reasoning, the answer would have to be no. Statistics are irrelevant in the trial court's analysis.

{¶ 30} Statistics aided the experts' differential diagnosis, which is a reliable method for determining causation. "[T]he overwhelming majority of the courts of appeals that have addressed the issue have held that a medical opinion on causation based upon a reliable differential diagnosis is sufficiently valid to satisfy the first prong of the Rule 702 inquiry." *Westberry v. Gislaved Gummi AB* (C.A.4, 1999), 178 F.3d 257, 262. The Sixth Circuit is among the courts of appeals that have found differential diagnosis to be an "appropriate method for making a determination of causation for an individual instance of disease." *Hardyman v. Norfolk & W. Ry. Co.* (C.A.6, 2001)**,** 243 F.3d 255, 260. *Hardyman* describes the method:

{¶ 31} " 'A reliable differential diagnosis typically, though not invariably, is performed after "physical examinations, the taking of medical histories, and the review of clinical tests, including laboratory tests," and generally is accomplished

by determining the possible causes for the patient's symptoms and then eliminating each of these potential causes until reaching one that cannot be ruled out or determining which of those that cannot be excluded is the most likely.' " *Hardyman*, 243 F.3d at 260-261, quoting *Westberry*, 178 F.3d at 262, quoting *Kannankeril v. Terminix Internatl., Inc.* (C.A.3, 1997), 128 F.3d 802, 807.

{¶ 32} The differential diagnoses done by the doctors in this case were reliable and met the requirements of Evid.R. 702. A jury should have considered their testimony.

{¶ 33} Instead, the trial judge essentially tried the case on the merits at the summary judgment stage. It may be that the trial court found Valentine's experts unconvincing, but that is a far cry from their being unqualified to testify. A trial court's use of the magical word "methodology" can transform testimony that the trial judge does not agree with into testimony that is "unqualified." Does this court really believe that Evid.R. 702 was designed to keep experts in their field like Drs. Miner and Newton from testifying in a case like this? Or are we to believe that the real cancer experts are not at James Cancer Hospital but at the courthouse in Chillicothe?

RESNICK and LUNDBERG STRATTON, JJ., concur in the foregoing opinion.

LUNDBERG STRATTON, J., dissenting.

{¶ 34} I believe that the trial court abused its discretion when it excluded the opinions of plaintiff's expert witnesses. The opinions were sufficiently reliable to establish a genuine issue of material fact on causation in order for the issue to withstand summary judgment. Therefore, I respectfully dissent.

{¶ 35} The decedent worked with and was exposed to a number of chemicals in the workplace, including toxic agents and carcinogens, on a daily basis for 30 years. He succumbed to an extremely rare form of brain cancer, glioblastoma multiforme, at age 52. He did not smoke or abuse alcohol and had

no family history of brain cancer. He was in excellent health until his diagnosis. Within seven days of Valentine's death, a laboratory co-worker, Hal McConnaughey, who had been exposed to the same chemicals, also died of the same rare brain tumor, at age 49. These two deaths are significant in that glioblastoma multiforme occurs in approximately 1.5 of every 10,000 males in the United States.

{¶ 36} Three expert witnesses offered opinions that the decedent's disease was directly and proximately caused by his long-term exposure to toxic chemicals in the workplace. Two of the witnesses were his treating physicians; the third was an industrial hygienist who had evaluated his work environment. It is not disputed that these experts are eminently qualified professionals and that their opinions related to "matters beyond the knowledge" of laypersons. Evid.R. 702(A). The trial court, however, concluded that the opinions were not based on reliable scientific information.

{¶ 37} These experts used their professional knowledge to synthesize and extrapolate information from various sources to connect the decedent's exposure to toxic chemicals in the workplace with his brain tumor. I believe that these opinions reached the threshold level of admissibility of evidence under Evid.R. 702 and that it was arbitrary and unreasonable for a judge to summarily dismiss their conclusions as unreliable.

Norman Brusk

{¶ 38} Norman Brusk, a certified industrial hygienist with more than 30 years' experience in this field, evaluated the decedent's work environment and concluded that he had "unquantifiable, but significant exposures to cancer causing and potentially cancer causing chemicals via airborne, skin absorption and ingestion routes of exposure." During the earlier years, in the 1960s and 1970s, the decedent did not wear any protective clothing or use protective equipment

while working, so his exposure to carcinogens would have been even greater then than in later years.

{¶ 39} Brusk also cited a number of studies in which clusters of workers who had been exposed to toxic chemicals were diagnosed with brain cancer. At a petrochemical research facility, "patterns suggest that the brain cancer excess resulted from occupational exposures." A study comparing chemists with architects "supports the suggestions that chemical exposure is a cause of both leukemic and hematopoetic tumors and brain tumors and thus indicates the occupational hazards in chemical work." Another study of petrochemical workers indicated an excessive number of brain tumors and that they are likely to be occupational-related. A study of women in China concluded that persons in occupations in which they were exposed to organic solvents had a significantly elevated risk for brain cancer.

{¶ 40} Brusk concluded, "Based on my assessment of Mr. Valentine's workplace, the above studies, my experience as an industrial hygienist as well as a chemist, and the occurrence of clusters of brain cancers in chemical related fields, it is my professional opinion that Mr. Valentine had a higher risk of developing brain cancer because of his position as a laboratory technician than of employees in the general workforce and of the population as a whole.

Dr. Michael Miner

{¶ 41} Dr. Michael Miner has practiced neurosurgery for more than 25 years. He is a professor of neurological surgery and Director of the Division of Neurosurgery at the Ohio State Medical School. He has "worked extensively with patients with glioblastoma multiforme" and has performed "extensive research on people with brain tumors both clinically and in the laboratory."

{¶ 42} Dr. Miner relied on his 25 years of neurosurgical practice, his research, medical literature on genetics, animal studies, and human epidemiological studies to conclude that the decedent's brain tumor was directly

and proximately caused by extensive exposure to a combination of chemical toxins in the workplace. In support of his opinion, Dr. Miner cited genetic research that documented the impact of the carcinogen benzene on the P53 suppressor gene in animals. Animals exposed to benzene developed the type of brain tumor that the decedent developed. The decedent had been exposed to benzene, a substance no longer commonly used in laboratories because of its potential danger.

{¶ 43} Dr. Miner also pointed to laboratory studies that documented brain tumors in rats that had been exposed to acrylonitrile and ethylene oxide. These are substances to which the decedent was exposed and that are known to either cause or have the potential to cause changes in human cells that result in cancer.

{¶ 44} Dr. Miner relied upon epidemiological studies that documented a higher than expected incidence of brain tumors in people exposed to carcinogens like those to which the decedent had been exposed. The studies indicated an increased risk of cancer, including brain cancer, in laboratory technicians and chemists who had routinely handled solvents. Dr. Miner cited studies of persons who had worked in the petroleum industry. Those studies also documented an increased risk of brain tumors from exposure to solvents, especially benzene.

{¶ 45} Dr. Miner explained that the decedent and McConnaughey worked with the same carcinogens for a number of years in the same environment, and both developed an extremely rare form of brain cancer. There were few, if any, other people at PPG Industries, Inc., who had worked in the same environment for a similar number of years. Epidemiological studies usually involve a large group of people and would not reveal the significance of these tumors, because the two men would have been subsumed in a large group of employees who did not work in the identical environment. Dr. Miner explained that epidemiological studies are not designed to examine small groups. Furthermore, recreating the exact

chemical exposure that these men sustained over such a long period would be impossible.

{¶ 46} Dr. Miner concluded that "cumulative evidence in medical literature and experience does provide substantial basis to state that long term excessive exposure to the solvents and other cancer causing chemicals identified in Mr. Valentine's specific working environment can cause brain cancer (glioblastoma multiforme)."

Dr. Herbert Newton

{¶ 47} Dr. Herbert Newton is Director of the Division of Neuro-Oncology at the Ohio State University Medical Center and the James Cancer Hospital. He is also an associate professor of neurology and pediatrics in the Department of Neurology at Ohio State. During his tenure at the James Cancer Hospital, Dr. Newton has diagnosed and cared for more than 1,000 patients with brain tumors, over half of them with glioblastoma multiforme.

{¶ 48} Dr. Newton also opined that, based on a reasonable medical probability, the decedent's brain tumor was directly and proximately related to his exposure to numerous potentially neurocarcinogenic chemicals over many years. He noted that the decedent's type of brain tumor is rare; it is responsible for approximately seven of every 100,000 deaths per year in the United States. Furthermore, it takes decades for a brain tumor to develop. Dr. Newton concluded that these facts are consistent with the decedent's history of chronic toxic exposure for over 30 years at PPG Industries. Dr. Newton also noted the death of McConnaughey, the decedent's co-worker.

{¶ 49} Dr. Newton's opinion relied on epidemiological evaluations of "clusters" of persons in the petroleum and chemical industries who developed brain tumors. In one cluster, 19 persons from the same plant with long-term exposure to many solvents were diagnosed with brain tumors. Another cluster consisted of six chemists from the same building who developed gliomas. The

study concluded that the employees at the complex had a risk of developing a brain tumor eight times that of the general population.

{¶ 50} Dr. Newton acknowledged the limitations of human epidemiological research in the study of brain tumors. Brain tumors are uncommon in the general population. It is difficult to define a group to evaluate in terms of amount and duration of toxic exposure. And it would be difficult and inherently inaccurate to reconstruct employees' chemical exposures in the workplace for purposes of a study.

{¶ 51} Ohio favors the admission of expert evidence so long as it is relevant and reliable and will assist the trier of fact. *State v. Nemeth* (1998), 82 Ohio St.3d 202, 211, 694 N.E.2d 1332. Evid.R. 702. Evidence should not be excluded merely because it is questionable or confusing. *Miller v. Bike Athletic Co*. (1998), 80 Ohio St.3d 607, 614, 687 N.E.2d 735. These experts' opinions would be subject to cross-examination, and the credibility of the conclusions should be matters for the trier of fact. *Nemeth*, 82 Ohio St.3d at 211, 694 N.E.2d 1332.

{¶ 52} I agree that, to be admissible, an expert's opinion must be based on valid, reliable information in light of the multitude of professional experts in our litigious society known as "hired guns." And with advances in science and technology, courts must ensure that the underlying basis of expert testimony meets the legal standard for admissibility of evidence under Evid.R. 702. However, in our zealousness to curb abuse, we cannot permit a court to unreasonably and arbitrarily exclude expert evidence.

{¶ 53} In *Wilson v. CSX Transp., Inc.* (Tenn.App.2003), No. E 2002-00291-COA-R9-CV, 2003 WL 1233536, a Tennessee court of appeals ruled that the testimony of three expert witnesses was admissible to establish a genuine issue of material fact regarding the cause of the death of Ricky J. Wilson, a carman for CSX. Wilson was diagnosed at age 40 with the same type of brain

tumor as Valentine's, a glioblastoma multiforme, and leukemia. He died two years later.

{¶ 54} Wilson's widow alleged that his exposure to various toxic chemicals at work, such as benzene and other carcinogens, caused or contributed to cause his brain cancer and leukemia. She presented testimony of a chemist, a pathologist-toxicologist, and a physician. The trial court had permitted the testimony of the chemist and the pathologist-toxicologist, but had excluded the testimony of the physician, claiming that his testimony lacked studies or statistical data to back up the opinion.

{¶ 55} Applying the Tennessee standard of admissibility of expert evidence, that a court "must assure itself that the opinions are based on relevant scientific methods, processes, and data, and not upon an expert's mere speculation," the court concluded that the opinion was based on valid and relevant science, not speculation. Id. at *5. The CSX experts offered opinions in opposition to the plaintiff's experts; however, the appellate court explained that the weight and credibility of the competing scientific views are matters appropriately left to the trier of fact. Id. See, also, *Hand v. Norfolk S. Ry. Co.* (Tenn.App.1998), No. 03A01-9704-CV-00123, 1998 WL 281946, *4, in which the court allowed expert testimony that Hand's exposure to certain solvents, including benzene and other carcinogens, during his 25 years with the railroad caused or contributed to the glioblastoma multiforme, of which he died at age 58.

{¶ 56} Like Judge Abele in the court below, I, too, am troubled by the application of the law to the facts of this case. Three highly qualified expert witnesses proffered opinions based upon information, experience, and science that cumulatively supported their conclusions. Two of the experts were the decedent's treating physicians, who are associated with outstanding medical institutions, the Ohio State University School of Medicine and the James Cancer Hospital. The third expert, Norman Brusk, has more than 30 years' experience in industrial

hygiene. These witnesses were not "hired guns." They did not use unscientific principles and methodology. These opinions are not "junk science."

{¶ 57} I believe that the opinions of experts Miner, Newton, and Brusk were sufficiently reliable for admission and that the trial court abused its discretion when it excluded their testimony. Therefore, I respectfully dissent and would reverse the judgment of the court of appeals and remand for further proceedings.

RESNICK and PFEIFER, JJ., concur in the foregoing opinion.

Larrimer & Larrimer and Terrence W. Larrimer; Young, Tootle & Dumm and Gary Dumm, for appellant.

Thompson Hine, L.L.P., Timothy J. Coughlin, and Karen E. Rubin; Habash, Reasoner & Frazier, L.L.P., and Stephen J. Habash; Shoemaker, Howarth & Taylor and Kevin Shoemaker, for appellees.

Jim Petro, Attorney General, Douglas R. Cole, State Solicitor, Elise W. Porter, and René L. Rimelspach, Assistant Solicitors, for amicus curiae Ohio Attorney General.

Stewart Jaffy & Associates Co., L.P.A., Stewart R. Jaffy, and Marc J. Jaffy, urging reversal for amicus curiae Ohio AFL-CIO.

Paul W. Flowers Co., L.P.A., and Paul W. Flowers; Philip J. Fulton Law Office and Philip J. Fulton, urging reversal for amicus curiae Ohio Academy of Trial Lawyers.

Squire, Sanders & Dempsey, L.L.P., William M. Todd, and Greta M. Kearns, urging affirmance for amici curiae Ohio Chamber of Commerce, Ohio Manufacturers Association, National Federation of Independent Business/Ohio, and Ohio Chemistry Technology Council.
