

United States Court of Appeals,  
Third Circuit.

Grace A. HOLBROOK, Administratrix of the Estate of John P. Holbrook

v.

LYKES BROS. STEAMSHIP CO., INC.; Marine Transport Lines  
Inc.; Puerto Rico Marine Mgmt., Inc.; Sea-Land  
Service, Inc.; Second Shipmor Associates

v.

The BABCOCK & WILCOX COMPANY; Combustion Engineering, Inc.;  
Foster-Wheeler Energy Corporation; The General Electric  
Co.; Keene Corporation, Independently and as Successor in  
Interest to Ehret Magnesia Manufacturing Company,  
Baldwin-Hill Company and Baldwin-Ehret-Hill, Inc.;  
Owens-Corning Fiberglas Corp.; Pittsburgh Corning  
Corporation; Anchor Packing Company; AC & S, Inc.;  
Flexitallic Gasket Company, Inc.; Garlock, Inc.;  
Owens-Illinois Glass Company; Armstrong World Industries,  
Inc.; Hopeman Brothers, Inc.; Shook & Fletcher; National  
Gypsum Corp.; GAF Corporation, Third Party Defendants  
Grace A. HOLBROOK, Administratrix for the Estate of John P. Holbrook

v.

ACANDS, INC.; American Asbestos Products Co.; Anchor  
Packing Co.; A.P. Green Refractories Company; Armstrong  
World Industries, Inc.; Asarco; Asbestospray Corporation;  
Asbestos Textile Company; B.F. Goodrich Co.; Caroline  
Asbestos Company; Certainteed Corp.; Colts Patent Firearms  
Mfg. Co.; Combustion Engineering, Inc.; John  
Crane-Houdaille, Inc.; Dar Industrial Products, Inc.;  
Fibreboard Corporation; Flexitallic, Inc.; Foster Wheeler  
Company; GAF Corporation; Garlock, Inc.; Gatke Corp.;  
General Electric Co.; General Insulating and Mfg. Co.;  
Goodyear Tire And Rubber Company; Imo Delaval, Inc.;  
Kaiser Cement & Gypsum; Keene Corporation; National  
Manufacturing Sales; Owens-Corning Fiberglas Corp.;  
Owens-Illinois, Inc.; Philadelphia Asbestos Company; PPG  
Industries; Pabco Products; Pittsburgh Corning  
Corporation; Turner & Newall Plc.; Union Carbide Chemicals  
& Plastics Co., Inc.; U.S. Gypsum Company; U.S. Rubber  
Company; Westinghouse Electric Corp.; APMC, f/k/a National  
Gypsum Company  
Appeal of Grace Holbrook, Administratrix for the Estate of  
John P. Holbrook, Appellant.

No. 94-2148.

Argued Sept. 11, 1995.  
Decided March 21, 1996.

On Appeal from the United States District Court for the Eastern District of Pennsylvania, D.C. Civil Action No. 92-cv-01906; James T. Giles, District Judge.

Leonard C. Jaques, Donald A. Krispin, Michael Connor (argued) Jaques Admiralty Law Firm, Detroit, MI, for Appellant.

Faustino Mattioni, Mattioni, Mattioni & Mattioni, Philadelphia, PA, for Appellee Lykes Bros.

Robert B. Lawler, Mary Cook, Wilbraham, Lawler & Buba, Philadelphia, PA, for Puerto Rico Marine; Sea-Land; Second Shipmor; Acands; A.P. Green; Armstrong World; John Crane-Houdaille; Flexitallic; GAF; Garlock; Imo Delaval; National Gypsum; Turner Newall; Union Carbide; U.S. Gypsum; Westinghouse; Combustion Engineering; Foster-Wheeler; Owens-Corning; Shook & Fletcher.

Richard C. Binzley, Harold W. Henderson, Thompson, Hine & Flory, Cleveland, OH, for Appellees: Puerto Rico Marine; Sea-Land; Second Shipmor.

Alexander Ewing, Jr., Gollatz, Griffin, Ewing & McCarthy, Media, PA, for Appellee Acands.

Wesley R. Payne, IV, Law Office of Joseph P. Sullivan, Philadelphia, PA, for Appellee Houdaille.

John A. Turlik, Goldfein & Joseph, Philadelphia, PA, for Appellee Garlock.

Reeder R. Fox, Duane, Morris & Heckscher, Philadelphia, PA, for Appellee Imo Delaval.

Eric J. Kadish, McCarter & English, Cherry Hill, NJ, for Appellee Owens-Illinois.

Steven T. Johnson (argued), Johnson & Garvin, Seattle, WA, for Appellee Owens-Illinois.

William A. Jones, Sherr, Joffe & Zuckerman, West Conshohocken, PA, for Appellee Westinghouse.

John P. McShea, III, Eckert, Seamans, Cherin & Mellott, Philadelphia, PA, for Appellee Westinghouse.

William R. Hourican, Manta & Welge, Philadelphia, PA, for Appellee PPG Industries.

John L. Delany, III, Delany & O'Brien, Philadelphia, PA, for Appellee Combustion Engineering.

Joseph M. O'Neill, Marks, O'Neill, Reilly & O'Brien, Philadelphia, PA, for Appellee Foster-Wheeler.

E. Michael Keating, III, Clark, Ladner, Fortenbaugh & Young, Philadelphia, PA, for Appellee General Electric.

Robert N. Spinelli, Kelley, Jasons, McGuire & Spinelli, Philadelphia, PA, for Appellee Owens-

Corning.

Andrew J. Trevelise, Marilyn Heffley, Reed, Smith, Shaw & McClay, Philadelphia, PA, for Appellees: Pittsburgh Corning; Fibreboard.

Leslie A. Miller, Goldfein & Joseph, Philadelphia, PA, for Anchor Packing.

William G. Scarborough, Stradley, Ronon, Stevens & Young, Philadelphia, PA, for Appellee Hopeman Bros.

Before: MANSMANN, SCIRICA and NYGAARD, Circuit Judges.

## OPINION OF THE COURT

NYGAARD, Circuit Judge.

1

John Holbrook sued several shipping companies and manufacturers and suppliers of asbestos products, alleging that he developed mesothelioma from exposure to asbestos-containing products while working aboard the shipping companies' vessels. John Holbrook died in October of 1993, and his widow, Grace Holbrook ("Holbrook"), administratrix of his estate, was substituted as plaintiff. The jury found for defendants on liability. Holbrook now challenges several evidentiary rulings by the district court, including the court's rulings: 1) excluding testimony from the decedent's treating physician on his diagnosis of mesothelioma; 2) excluding testimony from a pulmonologist eliminating radiation as a cause of John Holbrook's mesothelioma; 3) allowing testimony by two defense experts on radiation exposure as a cause; and 4) redacting references to mesothelioma contained in various documents. Holbrook argues that the trial judge's conduct was unfair and requests a new trial before a different judge. We conclude that the court's conduct did not prevent a fair trial, but that the court committed reversible error by excluding testimony from appellant's experts. We will reverse and remand the cause for a new trial.

I.

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Holbrook served as a merchant seaman aboard the shipping companies' vessels from 1953 to 1991. He also served aboard ship in the South Pacific for seven months in 1962 during a government nuclear testing operation called "Dominic I." At trial, Holbrook sought to prove that John Holbrook died from mesothelioma as a result of asbestos exposure aboard the shipping vessels. The defendants contended that the exposure to asbestos, if any, was minimal and could not have caused mesothelioma, and that if John Holbrook suffered from mesothelioma, it resulted from radiation exposure during Dominic I. Both sides contested the admissibility of various experts' testimony.

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The district court excluded certain testimony by Dr. Carpenter, John Holbrook's treating physician, and by Dr. Altschuler, a board-certified physician in internal and pulmonary medicine. The court felt that they lacked the requisite specialization to testify as to certain matters. It based its ruling, in part, on its conclusion that mesothelioma and its cause are difficult to diagnose, and that only a few types of medical specialists would qualify to give expert opinion testimony about it.

A.  
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The Federal Rules of Evidence embody a "strong and undeniable preference for admitting any evidence having some potential for assisting the trier of fact." *DeLuca v. Merrell Dow Pharmaceuticals, Inc.*, 911 F.2d 941, 956 (3d Cir.1990). "Rule 702, which governs the admissibility of expert testimony, specifically embraces this policy," *United States v. Velasquez*, 64 F.3d 844, 849 (3d Cir.1995), and has a liberal policy of admissibility. *In re Paoli R.R. Yard PCB Litigation ("Paoli II")*, 35 F.3d 717, 741 (3d Cir.1994). Together, Rules 702 and 104(a) instruct the district court in determining the admissibility of expert testimony. Rule 702 provides:

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

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Under Rule 104(a), the district court makes preliminary determinations whether the proposed expert witness is qualified and whether the testimony to be given is admissible under Rule 702. See *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, ----, 113 S.Ct. 2786, 2796, 125 L.Ed.2d 469 (1993). This preliminary task ensures that the testimony meets a minimum threshold of reliability and relevance. *Id.* at ----, 113 S.Ct. at 2795; *Velasquez*, 64 F.3d at 849.

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Under Rule 702, (1) the proffered witness must be an expert; (2) the expert must testify about matters requiring scientific, technical or specialized knowledge; and (3) the expert's testimony must assist the trier of fact. *Paoli II*, 35 F.3d at 741-42. Holbrook's first allegation of error, the court's ruling excluding testimony by her experts, concerns the first requirement. The issue of the admissibility of the defense experts' testimony, discussed in section III, *infra*, involves the other two requirements.

B. Dr. Carpenter

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The first requirement of Rule 702--that the proposed witness be an expert--has been liberally construed by this Court. *Paoli II*, 35 F.3d at 741. "We have held that a broad range of knowledge, skills, and training qualify an expert as such," and have "eschewed imposing overly rigorous requirements of expertise." *Id.*; see also *Hammond v. International Harvester Co.*, 691 F.2d 646, 653 (3d Cir.1982) (permitting engineer with sales experience in automotive and agricultural equipment, who also taught high school automobile repair, to testify in products liability action involving tractors).

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*Velasquez*, 64 F.3d at 849.

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Dr. Carpenter, John Holbrook's treating physician, specializes in internal medicine. At trial, Dr. Carpenter described the medical procedures undertaken to diagnose and treat John Holbrook. In great detail, he described the treatment, including his injection of the chemotherapeutic agent fluorouracil into his patient's chest cavity. During Carpenter's direct examination, when the subject turned to

whether he designed the treatment for a specific malignancy, the court interrupted and stated:  
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He gave the treatment that he gave. This witness has not been qualified and he will not be permitted to give an opinion to a reasonable degree of medical certainty as to whether or not the cancer was mesothelioma.  
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The court prevented the treating physician from testifying: (1) that he made a diagnosis for which he treated Mr. Holbrook; (2) that his diagnosis was mesothelioma; (3) as to his preliminary impression of the decedent; (4) as to the diagnosis in the pathology report analyzing a tissue sample of Holbrook's lungs, a report which Dr. Carpenter requested and on which he relied in treating his patient; and (5) as to the decedent's symptoms. The court excluded this testimony because Dr. Carpenter was not an oncologist or a specialist in what the court inexplicably termed "definitive cancer diagnosis." Referring to Dr. Carpenter's reliance on the pathology report, the court interjected that Dr. Carpenter did not make his own diagnosis, despite the fact that Dr. Carpenter testified that he did exactly that.  
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Dr. Carpenter testified that he routinely relies on pathology reports to assist him in treating his patients, because pathologists have more experience examining and diagnosing tissue specimens. Specifically, Dr. Carpenter relied on the pathology report he had ordered to confirm his clinical impression and diagnosis of John Holbrook. Dr. Carpenter's reliance on the pathology report to confirm his diagnosis does not reflect negatively on his qualifications or ability to diagnose his patient; to the contrary, it reflects routine procedure in medical treatment, as recognized by Rule 703.  
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Because of our liberal approach to admitting expert testimony, most arguments about an expert's qualifications relate more to the weight to be given the expert's testimony than to its admissibility. Thus, witnesses may be competent to testify as experts even though they may not, in the court's eyes, be the "best" qualified. Who is "best" qualified is a matter of weight upon which reasonable jurors may disagree.  
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In Paoli II, we reversed the district court's finding that a witness was not qualified because we found that the doctor, "while arguably a relatively poor clinician and less than fully credible witness, qualifie[d] as an expert." 35 F.3d at 753. Similarly, in *In re Paoli R.R. Yard PCB Litigation* ("Paoli I"), 916 F.2d 829 (3d Cir.1990), we stated that  
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insistence on a certain kind of degree or background is inconsistent with our jurisprudence in this area. The language of Rule 702 and the accompanying advisory notes make it clear that various kinds of "knowledge skill, experience, training or education," Fed.R.Evid. 702, qualify an expert as such.  
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*Id.* at 855. Following this logic, it is an abuse of discretion to exclude testimony simply because the trial court does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate. *Id.* at 856.  
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The court's mistaken approach restricted Dr. Carpenter's testimony based on a requirement that the witness practice a particular specialty to testify concerning certain matters. In light of our liberal standard governing the qualifications of a proffered expert witness, and our acceptance of more general qualifications, we hold that the district court erred by finding that Dr. Carpenter was not qualified to render a diagnosis or to discuss the pathology report because he was not a pathologist, oncologist or expert in "definitive cancer diagnosis."<sup>1</sup>

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The Notes of the Advisory Committee on Rule 703, the corollary to Rule 702, refer to, inter alia, reliance on reports of others, and further illustrate the trial court's error. The Notes provide:

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a physician in his own practice bases his diagnosis on information from numerous sources and of considerable variety, including statements by patients and relatives, reports and opinions from nurses, technicians and other doctors, hospital records, and X rays. Most of them are admissible in evidence, but only with the expenditure of substantial time in producing and examining various authenticating witnesses. The physician makes life-and-death decisions in reliance upon them. His validation, expertly performed and subject to cross-examination, ought to suffice for judicial purposes.

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The Federal Rules of Evidence are meant to instruct the district courts in the sound exercise of their discretion in making admissibility determinations and should not be interpreted as exclusionary rules. It would be inconsistent with and run counter to the Rules' liberal policy of admissibility to allow an outside expert, hired solely for litigation purposes, to rely on and testify about a pathology report, but exclude testimony by the treating physician who ordered the report and relied on it for life-and-death decisions about the patient's treatment. Opinions by physicians who have neither examined nor treated a patient "have less probative force, as a general matter, than they would have if they had treated or examined him." *Wier ex rel. Wier v. Heckler*, 734 F.2d 955, 963 (3d Cir.1984). For example, in the context of social security disability cases, we afford greater weight to a treating physician's opinion. See *Dorf v. Bowen*, 794 F.2d 896 (3d Cir.1986); *Brewster v. Heckler*, 786 F.2d 581 (3d Cir.1986). "The rationale for giving greater weight to a treating physician's opinion is that he is employed to cure and has a greater opportunity to know and observe his patient...." *Sprague v. Bowen*, 812 F.2d 1226, 1230 (9th Cir.1987). We therefore conclude that the court erred by excluding the treating physician's testimony.

C. Dr. Altschuler

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The trial judge's ruling on Dr. Altschuler's qualifications suffers from the same flaw.<sup>2</sup> Dr. Altschuler is board-certified in and practices internal and pulmonary medicine. Dr. Altschuler described his primary practice area as follows:

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[P]ulmonary medicine involves the diseases of the chest and lungs. It involves medical treatment, certain procedures such as looking into the lungs of patients. It involves an expertise in reading chest x-rays and understanding pulmonary function tests which are breathing tests. It involves treatment of occupational diseases that affect the chest.

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Mesothelioma is a pulmonary disease.

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Dr. Altschuler testified that he was familiar with John Holbrook's occupational work history, medical history and records, and was also familiar with the literature on causal agents of mesothelioma, but was not aware that radiation had ever been linked to mesothelioma. At his deposition, he could not recall a firm linkage between mesothelioma and radiation. At trial, he stated that he had "found a few articles relating to sporadic rare cases out of the thousands of cases of mesothelioma each year, [and that] there are a few over the last 15 or 20 years that have shown some relationship to radiation." Read as a whole, Dr. Altschuler's testimony at trial suggests that his previous inability to recall specific literature linking radiation to mesothelioma resulted from his conclusion, based on his familiarity with the literature, that sporadic rare cases in the literature did not support radiation as a major causative factor. The district court, however, did not disallow testimony based on Dr. Altschuler's familiarity, or alleged lack thereof, with the literature on radiation and mesothelioma.

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When asked about radiation as a cause of mesothelioma, the court sustained a defense objection, ruling that Dr. Altschuler was not "qualified as a 'radiation expert' vis-a-vis cancer. He's not an oncologist," and that it would not allow him to discuss the relationship between radiation and mesothelioma. The court erroneously required that the expert have a specialization in cancer and radiation, despite his expertise in lung diseases, including mesothelioma. In placing restrictions on Dr. Altschuler's testimony because he did not possess the exact background the court deemed appropriate, it erred.

II.

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Holbrook next alleges that the court erred by allowing defense experts, Drs. Demopoulos and Browne, to testify that radiation caused John Holbrook's cancer, and by not preliminarily making a determination on admissibility of this testimony. Holbrook's position is that this testimony lacked a sufficient scientific basis under Rule 702, as interpreted by Daubert.

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The second requirement of Rule 702--that the expert testify to scientific, technical or other specialized knowledge--is intended to ensure the reliability or trustworthiness of the expert's testimony.

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Velasquez, 64 F.3d at 849 (citation omitted).

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Defendants sought to prove through these experts that John Holbrook's cancer resulted from exposure to radiation in Dominic I. Drs. Demopoulos and Browne were permitted to testify, over plaintiff's objections, that radiation exposure in 1962, as opposed to prolonged asbestos exposure, was a distinct possible cause, a very highly probable cause, and the most probable cause of his cancer diagnosed three decades later.

A.

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Under Daubert 's interpretation of Rule 104(a), a district court facing a proffer of scientific expert

testimony must as a preliminary matter assess whether the reasoning or methodology underlying the expert's testimony is scientifically valid. The court accomplishes this "by considering all relevant factors that may bear on the reliability of the proffered evidence." Velasquez, 64 F.3d at 849; see also Paoli II, 35 F.3d at 742. The reliability requirement, however, should not be applied too strictly. Helpfulness to the trier of fact remains the ultimate touchstone of admissibility. If the expert has "good grounds" for the testimony, the scientific evidence is deemed sufficiently reliable. A determination that the expert has good grounds assures that the expert's opinions are based on science rather than "subjective belief or unsupported speculation." Daubert, 509 U.S. at ----, 113 S.Ct. at 2795.

B.  
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Holbrook argues that the district court failed in its gatekeeping responsibility by allowing the jury to hear the radiation testimony without first determining its admissibility. The record shows otherwise. The court scheduled a pretrial Daubert hearing at plaintiff's request to determine if the expert testimony regarding radiation exposure as a cause of mesothelioma was admissible. Inexplicably, Holbrook's counsel seemed unprepared to proceed with that hearing, and the court therefore did not hold one. Despite this, the court nevertheless indicated to Holbrook's counsel that it would entertain counsel's motion at trial to strike the expert testimony.

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Although Daubert ordinarily could be construed to require that the court make the preliminary determination outside the jury's hearing, we cannot say that the court abused its discretion in the manner which it adhered to the requirements of Rules 104 and 702. The court adequately explained its reasoning when it stated:

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I will not have a hearing of such length while a jury is waiting to be selected.... This was your opportunity for a Daubert hearing today and tomorrow. It is improper to have jurors waiting for several days to be selected in a case that might go on for weeks.

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Counsel failed to prepare appropriately and the court exercised sound discretion in controlling the efficient and orderly disposition of this case to avoid unnecessary inconvenience to the jury.

C.  
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We also find no error in the court's refusal to strike the testimony. Dr. Demopoulos specializes in pathology--the study of disease. His research has focused largely on the study of cancer, a subject on which he has taught, and on which he has written articles. During his residency, he performed radiation studies on animals, and during a tenure with the National Institutes of Health, he studied radiation pathology. Currently, Dr. Demopoulos devises experiments to enhance the susceptibility of tumors to radiation and to enhance the protective effects in surrounding tissue to protect it from damage. His testimony revealed extensive knowledge of radiation oncogenesis, familiarity with the Dominic I Operation and familiarity with the radiation exposure history of John Holbrook.

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With this background, Dr. Demopoulos testified that, unlike exposure to asbestos, there is no threshold

exposure to radiation required to cause cancer, and that "[t]he most probable cause of Mr. Holbrook's cancer was the exposures that he sustained at Dominic I operations in 1962." He based his opinion on a review of Mr. Holbrook's medical records and exposure to radiation, and on his own research and study.

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Dr. Browne specializes in occupational lung disease and his research initially focused on mesothelioma. He has made presentations at scientific gatherings regarding threshold levels of exposure to asbestos and resulting mesothelioma, and has published several papers. At trial, he discussed his extensive knowledge about studies of radiation as a cause of cancer, including mesothelioma. He testified, based on the medical and scientific literature relating to radiation and cancer, that low doses of radiation can cause cancer, including mesothelioma, and that unlike asbestos exposure, there is no threshold requirement of exposure for radiation to cause cancer. He further testified that, in his opinion to a reasonable degree of medical certainty, radiation exposure could not be excluded as a cause of John Holbrook's cancer.

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Both experts' extensive backgrounds in the study of mesothelioma and its causes, including radiation, their review of the literature and their review of John Holbrook's history provided substance upon which they could offer scientific opinions that met the required threshold of reliability. As required by Daubert, their procedures for examining the facts presented to them and their own research methodologies were based on the methods of science and did not reveal opinion based merely on their own subjective beliefs.

D.

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In a related matter, Holbrook objects to portions of the defense experts' testimony, arguing that in several instances the testimony was not given to the degree of certainty required. Holbrook cites Paoli II and Schulz v. Celotex Corp., 942 F.2d 204 (3d Cir.1991), for the proposition that medical experts must testify to a reasonable degree of medical certainty.

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In one instance at trial, the court sustained a defense objection during cross-examination, questioning whether Dr. Browne could state with reasonable medical certainty that radiation exposure caused decedent's mesothelioma. The court ruled that the question was solely for the jury. Dr. Browne's answer would have helped the jury to evaluate the impact of his testimony on plaintiff's evidence that asbestos exposure caused John Holbrook's cancer. Although a specific degree of certainty may not be required, the court erred by not allowing Holbrook to pose the question.

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We have not required that when medical experts give their opinion, they recite the talismanic phrase that their opinion is given to "a reasonable degree of medical certainty," because "[c]are must be taken ... to see that the incantation does not become a semantic trap and the failure to voice it is not used as a basis for exclusion without analysis of the testimony itself." Schulz, 942 F.2d at 208. Nonetheless, as we stated in Schulz, the phrase "is a useful shorthand expression that is helpful in forestalling challenges to the admissibility of expert testimony." *Id.* It also assists a reviewing court in determining whether the jury has been given the appropriate standard by which to judge the opinion. The district court, therefore, erred by disallowing cross-examination of Dr. Browne to determine

whether his opinion met this degree of certainty.

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In another instance cited by Holbrook, the court overruled an objection to Dr. Browne's testimony, in which he stated

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that radiation is a distinct possible cause. I have no way of telling whether it is to a degree of medical certainty the cause.

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"Situations in which the failure to qualify the opinion have resulted in exclusion are typically those in which the expert testimony is speculative, using such language as 'possibility.' " Id. The Federal Rules of Evidence, however, do not require a particular phrase regarding the degree of certainty with which experts must form their opinions, but they certainly allow questions concerning the degree to which the opinion is held.

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Accordingly, while the particular phrase used should not be dispositive, it may indicate the level of confidence the expert has in the expressed opinion. Perhaps nothing is absolutely certain in the field of medicine, but the intent of the law is that if a physician cannot form an opinion with sufficient certainty so as to make a medical judgment, neither can a jury use that information to reach a decision.

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Id. at 209.

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In Schulz, the trial court excluded an expert's testimony because counsel failed to preface the question with the precise phrase. We found that the expert's testimony possessed the requisite degree of certainty for admissibility and reversed. The expert stated his opinion in unequivocal terms and his opinion was relied on extensively in the treatment of the plaintiff.

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It is true that in Paoli II, we reversed a summary judgment on certain claims because the plaintiff's expert had not testified to a degree of medical certainty. We required that degree of certainty in Paoli II because, under Pennsylvania law, the burden of proof required that degree of certainty.

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Here, the test is different. Drs. Demopoulos and Browne testified for the defense that radiation could not be excluded, as it was a distinct possible cause of John Holbrook's cancer. In fact, Dr. Browne testified on this issue to a reasonable degree of medical certainty. Although that testimony would have been insufficient to prove that radiation exposure caused the cancer, a burden which the defense did not bear, it was sufficiently certain and could help the jury to evaluate testimony by plaintiff's experts that asbestos exposure caused the cancer, an issue on which plaintiff bore the burden of proof. Therefore, the court did not err when it refused to strike the defense experts' testimony.

III.

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Holbrook also challenges the district court's ruling that references to mesothelioma in various documents must be redacted. Holbrook contends that she properly moved for admission of the death certificate, autopsy report and hospital records, including the references in them to mesothelioma, under Federal Rule of Evidence 803(6), (8)-(9). The court, however, required under Rule 403 that references to malignant mesothelioma be deleted because the authors of the documents did not testify about the bases of their diagnoses. In so ruling, the court stated that "[t]he diagnosis of mesothelioma is a diagnosis that must be subjected to cross-examination in order for it to be meaningful to a jury." Rule 803 does not mandate admission of this evidence, but rather allows evidence to be admitted when it would otherwise be objectionable hearsay. Thus, Rule 403 always remains as a potential bar to admissibility. *Daubert*, 509 U.S. at ----, 113 S.Ct. at 2798. Holbrook's statement that "[r]ecords of deaths are simply admissible 'as is,' " is simply wrong, and ignores our decisions in *Schulz and Pollard v. Metropolitan Life Ins. Co.*, 598 F.2d 1284 (3d Cir.1979). Although in *Schulz* we did not reach the issue whether the district court properly refused to admit a death certificate indicating asbestosis when the etiology of plaintiff's cancer was in dispute, we clearly indicated that the court's analysis under Rule 403 was in order. 942 F.2d at 209.

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"[A] trial judge's decision to admit or exclude evidence under [Rule 403] may not be reversed unless it is arbitrary and irrational," *Bhaya v. Westinghouse Elec. Corp.*, 922 F.2d 184, 187 (3d Cir.1990), but the trial court should articulate its balancing analysis. *Glass v. Philadelphia Elec. Co.*, 34 F.3d 188, 191 (3d Cir.1994). That a district court failed to take the opportunity to articulate its balancing does not constitute reversible error per se; however, it may require that the appellate court do so. See *id.* at 192.

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In *Pollard* we upheld the trial judge's redaction under Rule 403 of references to "accidental death" from a death certificate, coroner's certificate and pathologist's necropsy report. There, the decedent's widow sought benefits under a policy covering accidental death. The trial court found that statements in those documents could mislead the jury because the legal meaning of the phrase "accidental death," as defined and used in the insurance policy, could differ from its meaning as used in the medical reports. To avoid this problem, the court excised from the documents any reference to the death as accidental. We held that the court properly used Rule 403 to avoid unfair prejudice and confusion.

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In ruling that references to mesothelioma in various documents would be redacted, the district court articulated its Rule 403 balancing as follows:[T]he diagnosis of mesothelioma is a diagnosis that must be subjected to examination and cross-examination.... [I]t is my ruling that under Rule 403 that there is an unfair risk of unfair prejudice for you to be able to argue that 9 other doctors unexamined in this Court diagnosed mesothelioma, which at best has a--only a 90 percent chance of diagnosis as I understand the testimony through autopsy being correct. And a 60 percent chance at being correct if there is a tissue sample excised from the lung as opposed to a needle point examination where the risk of being right is--the chance of being right is only 40 percent.... [I]n terms of trustworthiness of the diagnosis, it's not like there was a bone that's broken, the bone is broken. Here you have a diagnosis of mesothelioma which is something that has to be examined as to method of diagnosis, technique of diagnosis, certainty of diagnosis.

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It may be argued that the difficulty of the diagnosis affects the weight to be accorded the documents' contents, not their admissibility. This is not necessarily so. The difficulty of the diagnosis does indeed go more to the weight than to the admissibility of the evidence, but that does not make it irrelevant to

admissibility in light of Rule 403. In addition to the independent Rule 403 hurdle, Rule 803(6) and Rule 803(8) expressly contemplate exclusion based on untrustworthiness.

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The court, based on its determination that mesothelioma is difficult to diagnose, determined that the risk of unfair prejudice, by leaving references to mesothelioma in documents not testified to by their authors nor relied on by qualified experts, outweighed the probative value. Because of problems in accurately diagnosing mesothelioma, the court determined that the unexamined references were not helpful to and could potentially have misled the jury. The court's ruling requiring that references to mesothelioma in various documents be redacted was neither arbitrary nor irrational, and accordingly, will be affirmed.

IV.

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Because we find that the court erred by excluding certain testimony, we can affirm the jury's verdict on liability only if those errors were harmless. See *Advanced Medical, Inc. v. Arden Medical Systems, Inc.*, 955 F.2d 188 (3d Cir.1992). "A determination of harmless error depends on whether it is highly probable that the error did not contribute to the judgment." *Id.* at 199.

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In *McQueeney v. Wilmington Trust Co.*, 779 F.2d 916, 923 (3d Cir.1985), we found that the district court's refusal to admit evidence impaired the defendants' ability to discredit a central element of the plaintiff's case, was critical for defense against liability, was potentially the defendants' best evidence and was not cumulative. As a result, we could not say that it was highly probable that the failure to admit the evidence did not affect the defendants' substantial rights, and we reversed the district court. Hence, if including the improperly excluded testimony makes it more likely that the jury would have reached a different decision, the error is not harmless.

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Here, the testimony by plaintiff's experts bore on the critical issue of whether John Holbrook had mesothelioma caused by exposure to asbestos, and the treating physician's testimony about his diagnosis may have been Holbrook's best evidence on the existence of mesothelioma. Likewise, Dr. Altschuler's testimony eliminating radiation as a cause was crucial to a finding that asbestos, not radiation, caused John Holbrook's mesothelioma. This makes it difficult to say that it is improbable that admitting this evidence would not have affected the outcome. To the contrary, it appears that it would. Because we cannot say that these errors were harmless, Holbrook is entitled to a new trial.<sup>4</sup>

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Holbrook also asserts as a ground for a new trial that the trial judge's conduct at trial prejudiced her case. Holbrook urges us to examine her attempts to conduct direct examination of her medical experts. According to Holbrook, "[t]he actions of the trial judge, taken as a whole, effectively communicated to the jury that the judge had a low opinion of plaintiff's case and her counsel."

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Unquestionably, bias and improper conduct by a trial judge may be grounds for a new trial if a party was unfairly prejudiced. Active participation by a district judge in trial proceedings, however, is in itself neither improper nor unfair.

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Desjardins v. Van Buren Community Hospital, 969 F.2d 1280 (1st Cir.1992).

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The district court's conduct (as distinguished from its evidentiary rulings) does not warrant a new trial. The court interrupted counsel for both sides repeatedly and tried to instruct both sides on the proper procedure to follow in certain lines of questioning. Although the court's demeanor may have been gruff at times, Holbrook's counsel seemed to be testing the court by pursuing issues on which the court had previously made its rulings clear. This conduct falls squarely within the judge's role of controlling the court proceedings, and cannot be fairly characterized as prejudicing plaintiff or humiliating counsel. The trial judge's role is to preside over the trial, passively if possible, but aggressively when indicated. The judge's efforts must vary with the exigencies of the trial. Inadequately prepared or overly aggressive advocates may indeed require that the trial court interpose itself more actively and even forcefully in the proceedings to ensure fairness. That, we are convinced, is what the trial court did here.<sup>5</sup>

V.

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In sum, because we conclude that the district court committed reversible error by precluding the treating physician's testimony about his diagnosis of mesothelioma and his reliance on the pathology report and by restricting the pulmonologist's testimony eliminating radiation as a cause of the mesothelioma, we will reverse the judgment in favor of defendants and remand the cause for a new trial. Holbrook's request that we reassign the case to a new judge on remand is denied.

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**SCIRICA, Circuit Judge, concurring in part and dissenting in part:**

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Although I join in Parts II and III of the opinion I do not believe the district court's rulings on the testimony of Dr. Carpenter and Dr. Altschuler require granting a new trial.

I.

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Dr. Carpenter, a specialist in internal medicine, was John Holbrook's treating physician. The district court did not permit Dr. Carpenter to state that he diagnosed Holbrook with mesothelioma because pathologists at Holy Cross Hospital rather than Dr. Carpenter actually "made" the diagnosis. ("[Carpenter] himself did not make the diagnosis. He may have relied upon a report of a diagnosis."). While the district court's ruling may reflect too rigid a view of the diagnostic process, I do not believe its limitation of Dr. Carpenter's testimony constituted reversible error. Reversal and remand for a new trial is justified only where a trial judge's erroneous exclusion of evidence is not harmless. Fed.R.Civ.P. 61 provides in part:

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No error in either the admission or the exclusion of evidence ... is ground for granting a new trial or for setting aside a verdict ... unless refusal to take such action appears to the court inconsistent with substantial justice.

Although the district court excluded testimony by Dr. Carpenter, there still was substantial evidence from other sources that Holbrook suffered from mesothelioma. Most important was the testimony of Dr. Reineke,<sup>1</sup> a board certified pathologist and the chief of pathology at Holy Cross Hospital, who testified Holbrook had mesothelioma.<sup>2</sup>

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The crucial issue at trial was causation--whether John Holbrook died from mesothelioma as a result of asbestos exposure or as a result of radiation exposure. Given the ample evidence that John Holbrook suffered from mesothelioma, it is highly probable the district court's refusal to allow Dr. Carpenter to state his diagnosis did not contribute to the judgment of the jury. Any error was harmless.

II.

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At a pretrial deposition, Dr. Altschuler, who was board certified in internal and pulmonary medicine, admitted he had no familiarity with the medical literature on the relationship between radiation and mesothelioma. He said he was not aware that radiation had ever been linked to mesothelioma. Nevertheless, the district court did not preclude Dr. Altschuler from testifying based on knowledge derived from medical literature he read subsequent to his deposition but prior to trial. ("You may ask him what literature he refers to with respect to radiation and what does it say, if you choose."). In short, although the court refused to qualify Dr. Altschuler as an expert on radiation, it allowed him to testify about what he knew.

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In view of Dr. Altschuler's background and the court's admission of his testimony on radiation and mesothelioma, I cannot conclude the district court abused its discretion in refusing to qualify Dr. Altschuler as an expert on radiation and limiting his testimony. Moreover, plaintiff called Francis Masse, director of the radiation protection programs at the Massachusetts Institute of Technology, and Dr. David Hoel, chairman of the Department of Biometry and Epidemiology at the Medical University of South Carolina, to testify that radiation did not cause her husband's illness. In light of their testimony, the district court's limitation on Dr. Altschuler's testimony was harmless.

III.

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For the foregoing reasons, I would deny plaintiff's request for a new trial.

1

Federal Rule of Evidence 102 provides:

These rules shall be construed to secure fairness in administration, elimination of unjustifiable expense and delay, and promotion of growth and development of the law of evidence to the end that the truth may be ascertained and proceedings justly determined.

Our approach to expert qualifications comports with the liberal policy of admissibility embodied in the rules and with the mandate of Rule 102. The district court's approach, however, would unjustly increase litigation costs by requiring litigants in countless cases to hire a host of experts out of fear that their

treating physicians, in whom they entrusted their health and lives, would not "make the grade" when it came time to testify in court.

2

Defendants do not address the court's ruling on Dr. Altschuler's testimony, other than to argue that Holbrook was allowed to ask questions regarding the literature on radiation and mesothelioma, that Dr. Altschuler is not very knowledgeable in the field, and that he makes a habit of testifying on behalf of plaintiffs

3

Rule 403 provides:

Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.

4

Holbrook makes other assignments of error, and argues, without further analysis, that the rulings were an abuse of discretion and that the "multitude of error requires reversal and a new trial." As we have stated, we will grant Holbrook a new trial. The unsupported allegations of error are generally without merit, and even if error, they would not require a new trial. Following our course in Schulz, we leave these issues for further development at the next trial

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*Liteky v. United States*, --- U.S. ----, 114 S.Ct. 1147, 127 L.Ed.2d 474 (1994) supports the proposition that we have the power to assign the case to another judge on remand if we determine recusal is necessary or if we determine that reassignment is required for "further proceedings to be had as may be just under the circumstances." *Id.* at ----, 114 S.Ct. at 1157. "[J]udicial rulings alone almost never constitute valid basis for a bias or partiality motion." *Id.* at ----, 114 S.Ct. at 1157. In view of our holding here, however, we need not spend more time on Holbrook's request for retrial before a different judge. Her request is rejected

1

The testimony of Dr. Reineke was taken by videotape and presented at trial

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Despite the district court's rulings, evidence presented to the jury included unredacted references to mesothelioma in hospital medical records. Furthermore, Dr. Demopoulos, a board certified pathologist, testified that the autopsy report listed "malignant mesothelioma" as the cause of Holbrook's death