

**IN THE COURT OF APPEALS OF IOWA**

No. 0-186 / 09-1419  
Filed May 26, 2010

**DEBORAH ANN FRANK,**  
Plaintiff-Appellee,

**vs.**

**GITS MANUFACTURING and  
ST. PAUL TRAVELERS INSURANCE,**  
Defendants-Appellants.

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Appeal from the Iowa District Court for Polk County, Carla T. Schemmel,  
Judge.

An employer and its insurer appeal from the district court's affirmance of  
the workers' compensation commissioner's award of benefits. **AFFIRMED.**

William D. Scherle, Alexander E. Wonio, and Jay D. Grimes of Hansen,  
McClintock & Riley, Des Moines, for appellants.

D. Brian Scieszinski of Bradshaw, Fowler, Proctor & Fairgrave, P.C., Des  
Moines, for appellee.

Heard by Vogel, P.J., and Potterfield and Danilson, JJ.

**POTTERFIELD, J.**

The employer and its insurer contend that we must view the claimant's expert's testimony—from which the commissioner found causation—through the lens of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 591–95, 113 S. Ct. 2786, 2796–97, 125 L. Ed. 2d 469, 481–84 (1993), and find it unreliable as a matter of law. We reject both the premise and the conclusion. Because the commissioner's causation finding is supported by substantial evidence, we must affirm.

**I. Background Facts and Proceedings.**

Deborah Frank began working for GITS Manufacturing in July 1997. She operated a welding machine for several years. In 2002 she began having respiratory irritations and breathing problems, which Frank associated with chemical and fume exposure at work. Her family nurse practitioner, Marval Blazek, placed her on a permanent restriction from working with oils and coolants at GITS. However, Frank continued to work in and around such substances and her breathing continued to worsen. She was referred to Dr. Katrina Guest in June 2004 after diagnostic imaging revealed lung abnormalities. Dr. Guest opined Frank's problems were due to some sort of obstructive lung disease, but declined to give a causation opinion.

Dr. Guest referred Frank to Dr. Joel Kline, a board certified pulmonologist and professor of medicine at the University of Iowa Hospital and Clinics. After extensive testing, including a January 31, 2006 surgical biopsy, Dr. Kline diagnosed Frank with chronic constrictive bronchiolitis causing shortness of breath or pulmonary dysfunction. After a surgical biopsy, Dr. Kline directed

Frank not to return to GITS and she was placed on medical leave. Frank's breathing has improved somewhat since leaving GITS, but she continues to experience shortness of breath.

Dr. Kline's clinical notes include the following January 22, 2007 entry:

She began working at GI[T]S in about 1996. Initially she did primarily welding (of automotive parts) until she developed recurrent complaints of irritation of the nose and throat and then she was moved to work as a riveter directly adjacent. She reports that the ventilation is poor and no personal protective equipment (e.g. respirator, leather aprons were provided to welders) was in use. She notes that the work station immediately next to the area that she worked in was recently moved to the other end of the building. She states this was the 'stinkiest' work station due to vaporization of cooling liquids and welding fumes. Her symptoms all began subsequent to starting this job.

The etiology of constrictive bronchiolitis (also known as bronchiolitis obliterans) is most likely due to occupational exposures in this case.

Dr. Kline also opined that Frank's condition was likely caused by her exposure to welding and other fumes and coolants at GITS and, regardless of the cause of her condition, her continued exposure to agents at GITS after the initial development of lung symptoms permanently worsened or aggravated the condition.

Frank filed a petition for workers' compensation benefits. GITS and its insurer, St. Paul Travelers Insurance Co. (collectively GITS), denied that Frank's employment caused her lung condition. At hearing, GITS argued that Dr. Kline's opinions lack objective scientific support and are not sufficiently reliable to establish causation.

GITS relied on two experts in disputing causation: Wayne Sanderson, Ph.D., an industrial hygienist, who toured the GITS facility on November 10,

2006, with Dr. Nancy Sprince, a board certified occupational physician. Dr. Sanderson “was asked to evaluate Ms. Frank’s exposures associated with all the tasks she performed while employed by [GITS].” Dr. Sanderson noted that while working at GITS, Frank operated a fusion welding machine, a double drilling machine, and a pressure assembling machine. He also noted her work area was near baking ovens, a large metal grinding wheel, and a propane-powered forklift.

With respect to the fusion welding machine, Sanderson wrote:

This type of welding does not use welding rods or wire and very little metal fume is generated. Metal sparks are generated, but these sparks represent large metal particles which quickly fall away from the workers and no welding fume is observed in the breathing zone of the workers. The fusion welding machines are not enclosed and no local exhaust ventilation is provided around them. Free-standing, rotating-vane fans are located near these machines for cooling comfort and general air movement.

Dr. Sanderson noted that drill operators have skin contact with a cutting fluid that is 50% petroleum oil and 10% triethanolamine; the metal and coolant particles generated during metal grinding were “well contained”; and that while the propane forklift does create exhaust, “the engine exhaust in the workroom air would be expected to be much lower than any existing occupational exposure criteria for these agents.”

I did not collect any samples for potential exposures to gases, vapors, or airborne particles during my evaluation, however I was provided a copy of an industrial hygiene survey which was conducted by Iowa Environmental Services Inc. on June 11, 2003. This survey included two samples for welding fume. These samples were collected from two workers operating Tig welding machines. The results of these measurements were well below exposure criteria established by the Occupational Safety and Health Administration (OSHA) and the American Conference of Governmental Industrial Hygienists (ACHIH). This is not the type of welding which was conducted by Ms. Frank and her metals

exposures were probably much lower than those associated with the Tig welding operation.

Based on my evaluation of the work areas and operations at which Ms. Frank had been employed, I did not discover any exposures to agents which have been found to cause or be associated with bronchiolitis obliterans or constrictive bronchiolitis. Bronchiolitis obliterans has been associated with exposure to relatively high concentrations of chlorine, phosgene, radiation, ammonia, hydrogen sulfide, acids (hydrogen fluoride and nitric acid), nylon flock, and most recently food flavoring including the chemical diacetyl. Ms. Frank was not exposed to any of these agents during her employment at [GITS]. Bronchiolitis obliterans has also been associated with exposure to high concentrations of oxides of nitrogen (silo filler's lung) and bacterial and viral infections. She may have been exposed to very low levels of oxides of nitrogen from the propane engine exhaust, but certainly orders of magnitude lower than concentrations associated with entering silos. There was no evidence that she would have been exposed to any more than background levels [of] infectious agents through her work at [GITS]. Therefore, I see no evidence that Ms. Frank was occupationally exposed to any agents in concentrations that have previously been documented to cause bronchiolitis obliterans or constrictive bronchiolitis.

In addition to the facility tour, Dr. Sprince reviewed Frank's medical history, Dr. Kline's records, and Dr. Sanderson's report. On December 29, 2006, Dr. Sprince wrote:

In summary, the patient has constrictive bronchiolitis (also called bronchiolitis obliterans) causing severe lung disease. Review of the medical literature showed that there are many causes of constrictive bronchiolitis, including post-infectious, connective tissue diseases, inhalational injury, ingested toxins, allograft recipients, drugs, inflammatory bowel disease, neuroendocrine cell hyperplasia and multiple carcinoid tumorlets, and paraneoplastic pemphigus. Inhalation injury sources include nitrogen dioxide, sulfur dioxide, ammonia, chlorine, phosgene, fly ash, volatile butter-flavoring ingredients, and hydrogen fluoride. The inhalation injury is most frequently associated with relatively high dose exposure to the inhaled agent, followed by cough and progressive dyspnea days to weeks after the acute injury, associated with the development of constrictive bronchiolitis. . . . Neuroendocrine hyperplasia and tumorlets [which were noted by the Frank's biopsy pathologist's report] are not included in the description of the usual pathologic findings in constrictive

bronchiolitis. On the contrary, neuroendocrine hyperplasia and tumorlets are described as one of the causes and underlying disorders associated with constrictive bronchiolitis, along with other causes such as inhalation injury, rheumatoid arthritis, and allograft recipients. Detailed review of Ms. Frank's exposures did not show evidence of inhalation of agents of the type and concentration that would be associated with inhalation injury leading to constrictive bronchiolitis. To a reasonable degree of medical certainty, workplace exposures did not cause Ms. Frank's condition of constrictive bronchiolitis.

Dr. Kline testified, however:

A. I believe to a reasonable degree of medical certainty that Ms. Frank's constrictive bronchiolitis has been caused by inhalation exposures that she has received while working at GITS Manufacturing.

Q. And did you identify any cause outside of work that would have been the cause of her respiratory problems? A. No, I did not.

Dr. Kline reviewed Dr. Sprince's medical report and Dr. Sanderson's evaluation of occupational exposure. He disagreed with Dr. Sprince "that there is not an association with the exposures that Ms. Frank received while working at [GITS]."

Citing several sources, Dr. Kline summarized,

[T]here are known associations between nitrosamines and neuroendocrine cell hyperplasia. There's known associations between neuroendocrine cell hyperplasia and bronchiolitis obliterans, and it is reasonable to conclude that exposure to metal working fluids can promote the development of bronchiolitis obliterans.

Now, I would note that bronchiolitis obliterans of any cause is a relatively uncommon diagnosis, and it is well established following many determinations of causality that not many of those exposed do develop the problem.

In fact, the most recent widely disseminated report of a cause of bronchiolitis obliterans is that of diacetyls, which are used in the making of artificial butter flavored microwave popcorn, and it was not until two workers exposed to diacetyls at one factory developed the same condition that the studies were carried out conclusively linking diacetyl exposure to bronchiolitis obliterans. Therefore, I would suggest that the lack of reports in the literature linking metal working fluid exposure and bronchiolitis obliterans is not evidence that a link does not exist. So I would conclude that

exposures in the workplace caused constrictive bronchiolitis to develop in this nonsmoking woman with no previous lung problems.

Following a hearing, the deputy found Deborah Frank to be credible, which “assessment was crucial to this decision which involved an alleged temporal relationship between Deborah’s lung symptoms and her exposure to irritants, fumes and visible smoke while at work.” The deputy found

[t]he causation views of Dr. Kline the most persuasive for many reasons. First, he is a board certified pulmonologist and his specialized training and experience in that specialty gives his views as to the cause of pulmonary disease greater weight than those of non-pulmonologists such as Dr. Sprince. Second, he has a greater knowledge of Deborah’s various clinical presentations over a two-year period. Third, the views of Dr. Sprince were largely influenced by the industrial hygienist’s observations at a single point in time more than two years after Deborah began having problems in the plant. At that time in November in this state, outside temperature may be hot or cold and the windows or doors may have been open or closed. There is no way of knowing. Also, Deborah indicated many times to Dr. Kline that conditions in the plant varied daily and again, there is no way of knowing whether the day Sanderson was there was similar to Deborah’s average day at GITS.

Finally, the identification of the exact chemical or irritant or mix of such substances in the GITS plant, was not important to Dr. Kline in arriving at his causation opinion, to a reasonable degree of certainty, because it is based upon the temporal relationship between the onset of symptoms and the history of when symptoms occurred provided by Deborah and his failure to find any other cause for her problems. The doctor was quite comfortable with his opinion, even if the exact cause remains a scientific uncertainty. He provided a likely or probabl[e] cause only. . . .

Therefore, I find that on or about February 1, 2006, Deborah suffered a lung injury or chronic constrictive bronchiolitis from exposure to fumes and chemicals at GITS. The injury date is the time she permanently left the employ of GITS due to her work-related constrictive bronchiolitis.

The deputy found GITS’s experts’ opinions unconvincing.

Their respective disciplines demand that the causative agents be scientifically identified so harm can be prevented. This approach is, however, unnecessary in a workers’ compensation analysis which is more concerned with probabilities and likelihoods in

compensating individuals for disability. As long as it was scientifically possible, a temporal relationship is sufficient to show causation in the absence of any other causes or harmful exposures outside the work place.

The deputy “found that claimant carried the burden of proof and demonstrated by the greater weight of the evidence that she suffered an injury on February 1, 2006, arising out of and in the course of employment with GITS.” The deputy further found that the injury was a proximate cause of disability, the extent of which could not yet be determined because Frank had not reached maximum medical improvement.

On intra-agency appeal, the workers’ compensation commissioner adopted the deputy’s proposed decision.

GITS filed a petition for judicial review in the district court. The court noted that GITS asked the court in a post-hearing brief to use *Daubert* principles to evaluate and assess the credibility of Dr. Kline’s expert opinions in the context of industrial exposure/occupational disease. The district court noted that in *Leaf v. Goodyear Tire & Rubber Co.*, 590 N.W.2d 525, 533 (Iowa 1999), the supreme court did not require trial courts to apply the *Daubert* analysis, but allowed that it might be helpful. The district court further noted that it was the agency’s duty, not the reviewing court’s, to “determine the credibility of the witnesses, weigh the evidence, and decide the facts in issue.” *Arndt v. City of Le Claire*, 728 N.W.2d 389, 394-95 (Iowa 2007). The court concluded the deputy applied the correct standard and found causation was proved by a preponderance of the evidence, and that there was substantial evidence to support the causation finding. The district court thus affirmed.



GITS now appeals, arguing the commissioner erred as a matter of law in accepting Dr. Kline's causation opinion.

## **II. Scope and Standard of Review.**

A district court reviews agency action pursuant to the Iowa Administrative Procedure Act. *Id.* at 393. When we review a district court decision reviewing agency action, our task is to determine if we would reach the same result as the district court in our application of the Act. *Id.*

## **III. Analysis.**

The appellants "invite the Court to adopt [the *Daubert*] standard as the law in Iowa." The supreme court has specifically rejected the invitation. *Leaf*, 590 N.W.2d at 533 ("We hold that trial courts are not required to apply the *Daubert* analysis in considering the admission of expert testimony. Nevertheless, trial courts may find it helpful, particularly in complex cases, to use one or more of the relevant *Daubert* 'considerations' in assessing the reliability of expert testimony."). Recently, in *Ranes v. Adams Laboratories, Inc.*, 778 N.W.2d 677, 685-86 (2010), our supreme court again affirmed its commitment to a liberal view on the admissibility of expert testimony and restated its suggestion that trial courts "consider the *Daubert* factors to assess the reliability of expert evidence by evaluating the scientific validity of the reasoning and methodology."<sup>1</sup>

GITS argues that because constrictive bronchiolitis may have several possible causes, "the etiology of Ms. Frank's . . . constrictive bronchiolitis is

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<sup>1</sup> GITS does not challenge Dr. Kline's qualifications as an expert "by knowledge, skill, experience, training, or education" under Iowa Rule of Evidence 5.702, and acknowledges that, as a treating physician, his testimony would be admissible under our workers' compensation statute.

clearly uncertain.” GITS contends there is no current medical literature linking constrictive bronchiolitis to exposure to metal coolants and thus Dr. Kline’s opinion as to causation is mere speculation. We disagree.

The deputy commissioner made detailed findings regarding the reliability of Dr. Kline’s methodology, citing Dr. Kline’s differential diagnosis, accompanied by a strong temporal relationship between the work environment and the disease. We agree with the Third Circuit’s decision in a case involving respiratory problems linked to carpets that “[b]oth a differential diagnosis and a temporal analysis, properly performed, would generally meet the requirements of *Daubert*. . . .” *Heller v. Shaw Industries, Inc.*, 167 F.3d 146, 154 (3rd Cir. 1999); see also *Turner v. Iowa Fire Equip. Co.*, 229 F.3d 1202, 1208 (8th Cir. 2000) (“We agree that a medical opinion about causation, based upon a proper differential diagnosis, is sufficiently reliable to satisfy *Daubert*.”).

GITS is also critical of Dr. Kline’s reference to animal studies, as opposed to data on human beings. A medical expert need not “always cite published studies on general causation in order to reliably conclude that a particular object caused a particular illness.” *Turner*, 229 F.3d at 1208–09 (citing *Heller*, 167 F.3d at 155). See *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 262 (4th Circuit 1999) (holding that a reliable differential diagnosis alone provides valid foundation for causation opinion, even when no epidemiological studies, peer-reviewed published studies, animal studies, or laboratory data are offered in support of the opinion).

The analysis of general and specific causation in toxic-tort cases in *Ranes* does not change our opinion. 778 N.W.2d at 688. Even if we assume that this is

the type of case to which *Daubert* considerations may be appropriate,<sup>2</sup> general causation, that is, a showing that the drug or chemical is capable of causing the type of harm, was established by Dr. Kline who testified to the “known associations” between neuroendocrine cell hyperplasia and bronchiolitis obliterans, citing several sources. The specific causation prong of the bifurcated analysis, that is evidence that the drug or chemical “in fact caused the harm from which the individual suffers,” was established by Dr. Kline’s opinions. Dr. Kline’s differential diagnosis and the temporal relationship between the exposure and the illness are substantial evidence of specific causation, corroborated by Frank’s credible testimony.

With regard to its industrial hygienist expert, Dr. Sanderson, GITS argues the deputy was not justified in rejecting the “uncontroverted objective data, as developed, tested, and determined by actual observation from a trained expert.” First, we believe GITS overstates the strength of its expert’s opinion. Dr. Sanderson did make observations at GITS, which included his observations that, in the welding area, metal fume is generated, as are metal sparks; drill operators have skin contact with a cutting fluid that is 50% petroleum oil and 10% triethanolamine; during metal grinding, metal and coolant particles are generated; and the propane forklift does create exhaust. There is no evidence at what levels Frank was exposed to any of these substances. Dr. Sanderson specifically

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<sup>2</sup> The *Daubert* analysis may be helpful in “difficult scientific cases.” *Ranes*, 778 N.W.2d at 686. However, it is not applicable in “cases involving ‘technical[ ] or other specialized knowledge,’” *id.* (citing *Johnson v. Knoxville Cmty. Sch. Dist.*, 570 N.W.2d 633, 639 (Iowa 1997)), or with regard to “general medical issues.” *Id.* We note, too, that the rules of evidence in administrative contested cases are different than in a civil action in district court. See Iowa Code § 17A.14 (2005).

states with respect to the propane-powered forklift that “I did not collect any gas measurements,” yet he concludes that engine exhaust in “the workroom air would be expected to be much lower” than occupational criteria. And later in his report he again notes, “I did not collect any samples for potential exposures to gases, vapors, or airborne particles during my evaluation.” Yet based upon a 2003 environmental survey, which indicated measurements were below exposure criteria established by OSHA, Dr. Sanderson concludes, “I did not discover any exposures to agents which have been found to cause or be associated with bronchiolitis obliterans.”

The fact that OSHA criteria are not exceeded does not negate the possibility that a worker could still be harmed by exposure to substances in the workplace. The worker might be more sensitive to a particular substance than other workers. Or, the harmful nature of a substance might not be known.

With respect to GITS’s experts, the deputy correctly noted they had examined the facility one time, years after Frank left her employment there, and neither had examined Ms. Frank. In weighing the expert opinions, the deputy found that the respective disciplines of Dr. Sanderson and Dr. Sprince “demand that the causative agents be scientifically identified so harm can be prevented,” but that the focus of workers’ compensation is on “probabilities and likelihoods.” We agree.

The workers’ compensation claimant must prove by a preponderance of the evidence that a causal connection exists between the conditions of employment and the asserted injury. *Miedema v. Dial Corp.*, 551 N.W.2d 309, 311 (Iowa 1996). For workers’ compensation purposes, a cause is proximate if it

is a substantial factor in bringing about the result. *Blacksmith v. All-American, Inc.*, 290 N.W.2d 348, 354 (Iowa 1980). “It only needs to be one cause; it does not have to be the only cause.” *Armstrong Tire & Rubber Co. v. Kubli*, 312 N.W.2d 60, 64 (Iowa Ct. App. 1981). “A preponderance of evidence exists when the causal connection is probable rather than merely possible.” *Sherman v. Pella Corp.*, 576 N.W.2d 312, 321 (Iowa 1998).

“Whether an injury has a direct causal connection with the employment or arose independently thereof is essentially within the domain of expert testimony.” See *Dunlavey v. Economy Fire & Casualty Co.*, 526 N.W.2d 845, 853 (Iowa 1995). However, “[l]ay witness testimony is relevant and material on the issue of cause and extent of an injury.” *Terwilliger v. Snap-On Tools Corp.*, 529 N.W.2d 267, 273 (Iowa 1995).

The district court or an appellate court can only grant appellate relief from the commissioner’s decision if a determination of fact by the commissioner “is not supported by substantial evidence in the record before the court when that record is viewed as a whole.” Iowa Code § 17A.19(10)(f). Where causation rests on conflicting medical testimony, the issue is for the commissioner to determine as a question of fact. *Iowa Beef Processors, Inc., v. Burmeister*, 301 N.W.2d 768, 770 (Iowa Ct. App. 1980).

Our supreme court has recently reiterated:

The Iowa Administrative Procedure Act defines substantial evidence as:

the quantity and quality of evidence that would be deemed sufficient by a neutral, detached, and reasonable person, to establish the fact at issue when the consequences resulting from the establishment of

that fact are understood to be serious and of great importance.

Iowa Code § 17A.19(10)(f)(1). . . . The commissioner was entitled to give the medical records the weight he felt they deserved.

Making a determination as to whether evidence “trumps” other evidence or whether one piece of evidence is “qualitatively weaker” than another piece of evidence is not an assessment for the district court or the court of appeals to make when it conducts a substantial evidence review of an agency decision. It is the commissioner’s duty as the trier of fact to determine the credibility of the witnesses, weigh the evidence, and decide the facts in issue. The reviewing court only determines whether substantial evidence supports a finding “*according to those witnesses whom the [commissioner] believed.*”

*Arndt*, 728 N.W.2d at 394–95 (citations omitted).

Here, the deputy relied upon Frank’s own knowledge of “when she experienced her symptoms and what she observed and smelled at the time her symptoms occurred or worsened.” Frank did not have irritation or breathing problems before 2002 and reported problems with chemical and fume exposure at work. The deputy found Frank credible, and in conjunction with Dr. Kline’s work with Frank and his specialized knowledge as a pulmonologist, the deputy accepted Dr. Kline’s opinion that Frank’s chronic bronchiolitis was likely caused by exposure to welding and other fumes and coolants at GITS. The commissioner adopted these findings.

Substantial evidence supports the commissioner’s findings and we must therefore affirm. *Cf. IBP, Inc. v. Burress*, 779 N.W.2d 210, 218 (Iowa 2010) (finding substantial evidence supported the commissioner’s finding that the worker “probably acquired brucellosis from contact with infected hog blood”).

**IV. Conclusion.**

We agree with the district court that there is substantial evidence supporting the agency's determination that Frank's chronic bronchiolitis was causally connected to her employment at GITS.

**AFFIRMED.**