

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEBRASKA

RICK JORN,

Plaintiff,

vs.

UNION PACIFIC RAILROAD COMPANY,

Defendant.

8:18CV138**MEMORANDUM AND ORDER**

This matter is before the Court on defendant Union Pacific Railroad Company's ("U.P." or "the Railroad") motion for summary judgment, [Filing No. 29](#), and its motions in limine to exclude the testimony of Dr. Ernest Chiodo and Dr. Hernando Perez, under [Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 \(1993\)](#), Filing Nos. 31 and 33. This is an action brought under the Federal Employers' Liability Act ("FELA"), [45 U.S.C. § 51](#) et seq., and the Federal Locomotive Inspection Act, [49 U.S.C. § 20701](#) et seq., for injuries suffered as a result of alleged toxic exposure. Jorn alleges his exposure to multiple toxic substances while working for U.P. and its predecessors caused him to develop renal cancer.

I. BACKGROUND

In its motions in limine, U.P. does not challenge the experts' qualifications, but contends the experts' methodology is not scientifically reliable. It also argues that Dr. Perez's testimony is speculative. It next contends that if either expert's testimony is excluded, the plaintiff cannot prove causation and U.P. is entitled to summary judgment. In response, Jorn argues that the defendant's Daubert challenge goes to the weight, not

the admissibility, of the evidence, and contends that genuine issues of fact preclude summary judgment.

As relevant herein, and for purposes of the motion for summary judgment, the parties agree to certain facts. [Filing No. 30](#), U.P. brief at 2-8; [Filing No. 44](#), plaintiff's response at 4-7; [Filing No. 46](#), U.P. reply brief at 3-5. The following facts are gleaned from the parties' agreed submissions and from the record. The plaintiff, Rick Jorn, began his railroad employment in 1976 as a brakeman for Missouri Pacific Railroad, U.P.'s predecessor. He became employed as a conductor in 1978 and continued to work in that position until 2017, when his railroad employment ended. Jorn has smoked one pack of cigarettes a day since 1978. In 2015, Jorn was diagnosed with chromophobe renal cell carcinoma.

He sued Union Pacific under the FELA, alleging he was exposed to various "toxic substances" while working for U.P., and these exposures caused him to develop renal cancer. The parties stipulate that the issues of exposure and causation in this case are limited to diesel exhaust and its subcomponents. Jorn has smoked one pack of cigarettes each day since 1978.

The plaintiff designated Dr. Chiodo to testify as to the nature and extent of the plaintiff's injuries and general and specific causation. [Filing No. 35-2](#), Ex. 2, plaintiff's expert disclosures. The record shows that Dr. Ernest Chiodo received an M.D. degree and a J.D. degree from Wayne State University. [Filing No. 43-2](#), Ex. 2, Dr. Chiodo Curriculum Vitae ("C.V.") at 2. He also has a master's degree in Public Health from Harvard University School of Public Health, a master's degree in Biomedical Engineering from Wayne State University College of Engineering and School of Medicine, a Master of

Science degree in Threat Response Management from the University of Chicago, and a Master of Science degree in Occupational and Environmental Health Sciences with a specialization in Industrial Toxicology from Wayne State University. *Id.* at 1-2. He has also obtained an M.B.A. from the University of Chicago and a Master of Science in Evidence-Based Health Care from the University of Oxford. *Id.* Dr. Chiodo is board certified in internal medicine, preventative medicine in occupational medicine, preventative medicine in public health, and is a toxicologist and certified industrial hygienist. *Id.* at 5. He is licensed to practice as a physician in Michigan, Illinois, Florida, and New York. *Id.* at 4. Dr. Chiodo has had numerous professorships and faculty appointments at Wayne State University, Wayne State University School of Medicine, Loyola University Chicago Law School, and John Marshall Law School. *Id.* at 6.

Dr. Chiodo interviewed Jorn and reviewed the complaint, answers to interrogatories, and medical bills and records, and Dr. Hernando Perez's industrial hygiene report. See [Filing No. 43-3](#), Ex. 3, Dr. Chiodo Report ("Rep't") at 2-3. Dr. Chiodo testified that he relied on his own industrial hygiene knowledge and experience but deferred to Dr. Perez's exposure opinion. See [Filing No. 43-4](#), Ex. 4, Deposition of Dr. Ernest Chiodo ("Dr. Chiodo Dep.") at 5. Dr. Chiodo also relied on general knowledge and on peer-reviewed literature in formulating his expert opinion on general causation. *Id.* at 29-31, 34-35, 40.

Dr. Chiodo described his methodology as consistent with that set out in the Federal Judicial Center's reference manual. *Id.* at 23. He testified he considered Jorn's exposures and performed a differential diagnosis in rendering his opinion. *Id.* at 9, 37, 47. In doing so, Dr. Chiodo "ruled in" plaintiff's cigarette smoking and employment with

the railroad as likely causes of Plaintiff's chromophobe renal cell carcinoma. *Id.* at 13, 41, 46. He ruled out obesity and family history as potential causes. *Id.* at 12-13. He stated that both cigarette smoking and diesel exhaust could independently be the sole cause of the cancer, if it were the only exposure, but did not do any apportionment. *Id.* at 47. In his report, Dr. Chiodo opined "to a reasonable degree of medical and scientific certainty that the exposures experienced by Mr. Rick Jorn during the course of his railroad employment were a significant contributing factor in his development of renal cancer." [Filing No. 43-3](#), Ex. 3, Dr. Chiodo Rep't at 9. Dr Chiodo also testified that Jorn's significant ongoing exposure to diesel exhaust and its component benzene was sufficient during the course of his railroad employment to have caused his renal cancer. [Filing No. 43-4](#), Ex. 4, Dr. Chiodo Dep. at 36-37, 40, 53. Dr. Chiodo declined to apportion between the various causes. *Id.* at 10, 47. He stated the apportionment was a task for the jury in an FELA case. *Id.* at 10.

Jorn designated Dr. Hernando Perez, Ph.D., MPH, CIH, CSP, to testify in connection with Jorn's working conditions, notice and foreseeability of hazards including exposure to carcinogens and the railroad industry's knowledge of those hazards. [Filing No. 41-3](#), Ex. 3, Dr. Perez Rep't at 1; [Filing No. 35-2](#), Ex. 2, plaintiff's expert disclosures at 1. Dr. Hernando Perez is an industrial hygiene and occupational health expert who opined on Jorn's workplace exposure to diesel exhaust and its component, benzene. [Filing No. 41-3](#), Ex. 3, Dr. Perez Rep't at 3-11. Dr. Perez has a Ph.D. in industrial hygiene from Purdue University and a Master of Public Health degree in environmental and occupational health from Emory University. [Filing No. 41-2](#), Ex. 2, Dr. Perez C.V. at 1. He is certified in the comprehensive practice of industrial hygiene by the American Board

of Industrial Hygiene and in the practice of safety by the Board of Certified Safety Professionals. [Id.](#) He has been employed as Lead Industrial Hygienist and Environmental Hygiene Program Manager for United States Citizenship and Immigration Services (“USCIS”) in the United States Department of Homeland Security since 2015. [Id.](#) at 2. In that capacity, he is responsible for coordination and performance of industrial hygiene activities at all USCIS facilities across the United States. [Id.](#) He was employed as full time faculty at the Drexel University School of Public Health from 2004 to 2014 and as Director of the Industrial Hygiene Consulting Service at the School from 2006 to 2014. [Id.](#)

Dr. Perez interviewed Jorn, reviewed Jorn’s deposition, reviewed pleadings and materials supplied by plaintiff’s counsel from this and other cases and performed a literature review. [Filing No. 41-3](#), Ex. 3, Dr. Perez Rep’t at 1; [Filing No. 41-4](#), Ex. 4, Deposition of Dr. Hernando Perez (“Dr. Perez Dep.”) at 6-13. He reviewed various journal articles, standard textbooks, and information from OSHA, NIOSH, EPA, ATSDR, MSHA, National Cancer Institute (NCI), National Institute of Environmental Health Sciences (NIEHS), and International Agency for Research on Cancer (IARC). [Filing No. 41-3](#), Ex. 3, Dr. Perez Rep’t at 1. He relied, in particular, on data in a study of diesel exhaust exposure. [Filing No. 41-4](#), Ex. 4, Dr. Perez Dep. at 46, 52-53; see [Filing No. 41-5](#), National Institutes of Health (“NIH”), Anjoeka Pronk Author Manuscript; [Filing No. 35-11](#), Ex. 11, Pronk study. Dr. Perez based the qualitative intensity of the diesel exposure on the plaintiff’s testimony, in part. [Filing No. 41-4](#), Ex. 4, Dr. Perez Dep. at 37, 47.

The parties agree that Dr. Perez has never written a peer-reviewed study on diesel exhaust. Dr. Perez has never been in a railyard, and he is unfamiliar with the railyards

where the plaintiff worked. Dr. Perez did not perform any mathematical modeling in connection with his exposure calculations. Dr. Perez testified he performed a retrospective exposure assessment to determine the plaintiff's exposure to diesel exhaust. [Filing No. 41-4](#), Ex. 4, Dr. Perez Dep. at 33. Dr. Perez's retrospective assessment relies on a Plaintiff's own self-reports of his job duties and on the data provided by U.P. See [id.](#) at 23, 39-42, 50, 64-65. The parties agree that Dr. Perez did not report having contacted any other Union Pacific employees to corroborate Plaintiff's memory regarding his alleged occupational exposures. Dr. Perez did not know the makes or model of any locomotives that the plaintiff worked in. [Filing No. 41-4](#), Ex. 4, Dr. Perez Dep. at 72.

Dr. Perez compared the plaintiff's self-reports and the dynamics of diesel exhaust in the environment with exposure categories taken from A. Pronk, et al., Occupational Exposure to Diesel Engine Exhaust: A Literature Review ("Pronk study"), *J. Exposure Sci. & Env'tl. Epidemiology* (2009). [Filing No. 41-3](#), Dr. Perez Report at 10 n.1, 14; [Filing No. 35-11](#), Ex. 11, Pronk study. The Pronk study classifies levels of exposure to elemental carbon concentrations as high, intermediate, and low based generally on the context of enclosure—enclosed underground sites with heavy equipment, above ground semi-enclosed areas with smaller equipment, and outdoors or enclosed spaces separate from the exhaust source, respectively. [Filing No. 41-3](#), Dr. Perez Rep't at 10; [Filing No. 41-5](#), Pronk Author Manuscript at 9.

Dr. Perez states that Jorn was chronically exposed to diesel exhaust during his forty-year career with the Railroad. [Filing No. 41-3](#), Dr. Perez Rep't at 9; [Filing No. 41-4](#), Dr. Perez Dep. at 45-47. He offers the opinion that Jorn's "average exposures to diesel

exhaust while working as a brakeman and conductor on locomotives operating long hood first or while traveling on trailing locomotives were consistent with the intermediate range, with episodic excursions into the high range” and on other locomotives, Jorn’s average exposures to diesel exhaust were “consistent with the low range with excursions into the intermediate range.” [Filing No. 41-3](#), Dr. Perez Rep’t at 9. The parties agree that Dr. Perez has no evidence that Jorn ever requested any respiratory protection.

Based on his evaluation, Dr. Perez states that U.P. failed to provide Jorn a reasonably safe place to work in failing to provide air monitoring or otherwise determine Jorn’s level of exposure to diesel exhaust; failing to provide Jorn with appropriate personal protective equipment to prevent or lessen his exposure to diesel exhaust; failing to implement any administrative or engineering controls to reduce or prevent diesel exhaust exposure; and failing to provide adequate warnings, training, and information about the hazards of diesel exhaust. *Id.* at 19. He further opines that U.P. failed to comply with the OSHA General Duty Clause, OSHA Act Section 5(a)(1). *Id.*

In support of its motions, U.P. submits the declaration, expert report, and C.V. of its own expert, Samuel M. Cohen, M.D., Ph.D. [Filing No. 35-15](#), Ex. 15, Declaration; [Filing No. 35-16](#), Expert Rep’t; [Filing No. 35-17](#), Ex. 17, C.V. Dr. Cohen questions the other experts’ methodology and generally disagrees with their opinions. See *id.*

II. LAW

A. Summary Judgment

Summary judgment is appropriate when, viewing the facts and inferences in the light most favorable to the nonmoving party, “the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material

fact and that the movant is entitled to judgment as a matter of law.” [Fed. R. Civ. P. 56\(c\)](#); see also [Celotex Corp. v. Catrett](#), 477 U.S. 317, 322 (1986). “The movant ‘bears the initial responsibility of informing the district court of the basis for its motion, and must identify ‘those portions of [the record] . . . which it believes demonstrate the absence of a genuine issue of material fact.’” [Torgerson v. City of Rochester](#), 643 F.3d 1031, 1042, (8th Cir. 2011) (en banc) (quoting [Celotex](#), 477 U.S. at 323). If the movant does so, “the nonmovant must respond by submitting evidentiary materials that set out ‘specific facts showing that there is a genuine issue for trial.’” *Id.* (quoting [Celotex](#), 477 U.S. at 324).

The evidence must be viewed in the light most favorable to the nonmoving party, giving the nonmoving party the benefit of all reasonable inferences. [Kenney v. Swift Transp., Inc.](#), 347 F.3d 1041, 1044 (8th Cir. 2003). If “reasonable minds could differ as to the import of the evidence,” summary judgment should not be granted. [Anderson v. Liberty Lobby, Inc.](#), 477 U.S. 242, 251 (1986). “In ruling on a motion for summary judgment, a court must not weigh evidence or make credibility determinations.” *Id.*

B. Expert Testimony

Federal Rule of Evidence 702 governs the admissibility of expert testimony and requires that: (1) the evidence must be based on scientific, technical or other specialized knowledge that is useful to the finder of fact in deciding the ultimate issue of fact; (2) the witness must have sufficient expertise to assist the trier of fact; and (3) the evidence must be reliable or trustworthy. [Kudabeck v. Kroger Co.](#), 338 F.3d 856, 859 (8th Cir. 2003). When faced with a proffer of expert testimony, trial judges are charged with the “gatekeeping” responsibility of ensuring that all expert evidence admitted is both relevant and reliable. [Kumho Tire Co. v. Carmichael](#), 526 U.S. 137, 147 (1999); see [Daubert](#), 509

U.S. at 589. Testimony is relevant if it is “sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute.” [Daubert, 509 U.S. at 591](#). Expert testimony assists the trier of fact when it provides information beyond the common knowledge of the trier of fact. [Kudabeck, 338 F.3d at 860](#). To satisfy the reliability requirement, the party offering the expert testimony must show by a preponderance of the evidence “that the methodology underlying [the expert’s] conclusions is scientifically valid.” [Barrett v. Rhodia, Inc., 606 F.3d 975, 980 \(8th Cir. 2010\)](#) (citations omitted).

In making the reliability determination, the court may consider:

(1) whether the theory or technique can be or has been tested; (2) whether the theory or technique has been subjected to peer review or publication; (3) whether the theory or technique has a known or potential error rate and standards controlling the technique’s operations; and (4) whether the theory or technique is generally accepted in the scientific community.

[Russell v. Whirlpool Corp., 702 F.3d 450, 456 \(8th Cir. 2012\)](#). Additional factors to consider include: “whether the expertise was developed for litigation or naturally flowed from the expert’s research; whether the proposed expert ruled out other alternative explanations; and whether the proposed expert sufficiently connected the proposed testimony with the facts of the case.” [Polski v. Quigley Corp., 538 F.3d 836, 839 \(8th Cir. 2008\)](#) (quoting [Sappington v. Skyjack, Inc., 512 F.3d 440, 449 \(8th Cir. 2008\)](#)). “This evidentiary inquiry is meant to be flexible and fact specific, and a court should use, adapt, or reject” these factors as the particular case demands. [Whirlpool, 702 F.3d at 456](#) (citation omitted). When making the reliability inquiry, the court should focus on “principles and methodology, not on the conclusions that they generate.” [Kuhn v. Wyeth, Inc., 686 F.3d 618, 625 \(8th Cir. 2012\)](#). However, “conclusions and methodology are not entirely distinct from one another. Trained experts commonly extrapolate from existing data.” [Gen. Elec. Co. v. Joiner, 522 U.S. 136, 146 \(1997\)](#).

The proponent of expert testimony bears the burden of providing admissibility by a preponderance of the evidence. [Lauzon v. Senco Prods.](#), 270 F.3d 681, 686 (8th Cir. 2001). “When the application of a scientific methodology is challenged as unreliable under Daubert and the methodology itself is sufficiently reliable, outright exclusion of the evidence is warranted only if the methodology ‘was so altered by a deficient application as to skew the methodology itself.’” [United States v. Gipson](#), 383 F.3d 689, 697 (8th Cir. 2004) (emphasis in original) (quoting [United States v. Martinez](#), 3 F.3d 1191, 1198 (8th Cir. 1993)). Generally, deficiencies in application go to the weight of the evidence, not its admissibility. See *id.* “As a general rule, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and it is up to the opposing party to examine the factual basis for the opinion in cross-examination.” [Bonner v. ISP Techs., Inc.](#), 259 F.3d 924, 929 (8th Cir. 2001) (quoting [Hose v. Chicago Nw. Transp. Co.](#), 70 F.3d 968, 976 (8th Cir. 1995)). “Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” [Daubert](#), 509 U.S. at 596.

“[C]ases are legion” in the Eighth Circuit that “call for the liberal admission of expert testimony.” [Johnson v. Mead Johnson & Co.](#), 754 F.3d 557, 562 (8th Cir. 2014). “As long as the expert’s scientific testimony rests upon ‘good grounds, based on what is known’ it should be tested by the adversary process with competing expert testimony and cross-examination, rather than excluded by the court at the outset.” *Id.* (quoting [Daubert](#), 509 U.S. at 590). District courts are “not to weigh or assess the correctness of competing expert opinions.” *Id.* The jury, not the trial court, should be the one to ‘decide among the conflicting views of different experts.’” [Kumho Tire Co.](#), 526 U.S. at 153. Medical experts

often disagree on diagnosis and causation and questions of conflicting evidence must be left for the jury's determination. [Hose](#), 70 F.3d at 976.

C. The FELA

Railroads are liable in damages for an employee's "injury or death resulting in whole or in part from the Railroad's negligence." [45 U.S.C. § 51](#). Appraising negligence under FELA "turns on principles of common law . . . , subject to such qualifications [that Congress] introduces." [Consol. Rail Corp. v. Gottshall](#), 512 U.S. 532, 543-44 (1994) (noting the qualifications are the modification or abrogation of several common-law defenses to liability, including contributory negligence and assumption of risk). The FELA is to be liberally construed, but it is not a workers' compensation statute, and the basis of liability is "negligence, not the fact that injuries occur." [Id.](#) at 543.

The FELA imposes upon employers a continuous duty to provide a reasonably safe place to work. [Cowden v. BNSF Ry. Co.](#), 690 F.3d 884, 889 (8th Cir. 2012). The railroad's duty to provide a safe workplace is a duty of reasonable care. [CSX Transp., Inc. v. McBride](#), 564 U.S. 685, 703 (2011). However, "a relaxed standard of causation applies under FELA." [Gottshall](#), 512 U.S. at 543; see [Holloway v. Union Pac. R.R. Co.](#), 762 F. App'x 350, 352 (8th Cir. 2019). The test is simply whether the railroad's negligence played a part—no matter how small—in bringing about the injury. [McBride](#), 564 U.S. at 705; see also [Paul v. Mo. Pac. R.R. Co.](#), 963 F.2d 1058, 1061 (8th Cir. 1992) (stating that "[u]nder FELA, the plaintiff carries only a slight burden on causation."). In FELA cases, the negligence of the defendant need not be the sole cause or whole cause of the plaintiff's injuries. [Clair v. Burlington N.R.R. Co.](#), 29 F.3d 499, 503 (9th Cir. 1994).

Despite the lower causation standard under FELA, a plaintiff must still demonstrate some causal connection between a defendant's negligence and his or her injuries. [Brooks v. Union Pac. R.R. Co.](#), 620 F.3d 896, 899 (8th Cir. 2010). In order to avoid summary judgment, a FELA plaintiff is required to produce admissible evidence that the railroad's negligence played a part in causing his alleged injury. *Id.* If an injury has "no obvious origin, 'expert testimony is necessary to establish even that small quantum of causation required by FELA.'" [Brooks](#), 620 F.3d at 899 (quoting [Claar](#), 29 F.3d at 504); see also [Mayhew v. Bell S.S. Co.](#), 917 F.2d 961, 963 (6th Cir. 1990) ("[A]lthough a[n] FELA] plaintiff need not make a showing that the employer's negligence was the sole cause, there must be a sufficient showing (i.e. more than a possibility) that a causal relation existed.").

"The standard of causation under FELA and the standards for admission of expert testimony under the Federal Rules of Evidence are distinct issues and do not affect one another." [Claar](#), 29 F.3d at 503. Daubert's standards for determining the admissibility of expert testimony apply regardless of whether the plaintiff's burden to prove causation is reduced. [Wills v. Amerada Hess Corp.](#), 379 F.3d 32, 47 (2d Cir. 2004) (involving Jones Act and stating that "the standards for determining the reliability and credibility of expert testimony are not altered merely because the burden of proof is relaxed"); see also [Taylor v. Consol. Rail Corp.](#), No. 96-3579, 114 F.3d 1189 (Table), 1997 WL 321142, at *6–7 (6th Cir. June 11, 1997) (noting it is well established that the admissibility of expert testimony is controlled by Daubert, even in FELA cases); [Hose](#), 70 F.3d at 976 (applying Daubert in an FELA case).

A differential diagnosis is “an alternative method of establishing causation” that may be utilized where the particular facts of the case do not lend themselves to quantitative analysis. [Hardyman v. Norfolk & W. Ry. Co.](#), 243 F.3d 255, 261 (6th Cir. 2001) (rejecting defendant railroad’s argument that the only way the plaintiff could establish causation would be with the proffer of a known “dose/response relationship” or “threshold phenomenon[.]”). “In performing a differential diagnosis, a physician begins by ‘ruling in’ all scientifically plausible causes of the plaintiff’s injury. The physician then ‘rules out’ the least plausible causes of injury until the most likely cause remains.” [Glastetter v. Novartis Pharm. Corp.](#), 252 F.3d 986, 989 (8th Cir. 2001) (involving state-law products liability action and finding an FDA decision to remove a drug from marketplace was “unreliable proof of medical causation . . . because the FDA employs a reduced standard (vis-à-vis tort liability)” of proof on causation).

In the Eighth Circuit, differential diagnoses in general pass muster under the four considerations identified in Daubert. [Johnson](#), 754 F.3d at 564 (agreeing with other circuits that a differential diagnosis is a tested methodology, has been subjected to peer review/publication, does not frequently lead to incorrect results, and is generally accepted in the medical community). In fact, the Eighth Circuit has “termed an opinion [based on a differential diagnosis] ‘presumptively admissible,’ noting that a district court may not exclude such expert testimony unless the diagnoses are ‘scientifically invalid.’” *Id.* Also, the Eighth Circuit has “consistently ruled that experts are not required to rule out all possible causes when performing the differential etiology analysis.” *Id.* at 563. In the context of the FELA, a plaintiff need not necessarily prove the levels of a toxin to which

he or she was exposed.¹ See [Hardyman](#), 243 F.3d at 262-66 (reversing trial court's ruling that plaintiff could establish causation only by showing a "dose/response relationship" between exposure levels and risk of disease and finding that an expert need not possess specific dosage information in order to testify about causation in an FELA case); [Harbin v. Burlington N.R.R. Co.](#), 921 F.2d 129, 132 (7th Cir. 1990) (finding a plaintiff need not identify the specific composition and density of soot present in his work environment to survive a summary judgment—although "expert testimony documenting the hazards posed by the presence of so many parts per million of soot in the air would certainly enhance [the plaintiff's] case, it is not essential under the regime of the [FELA]."); [Higgins v. Consol. Rail Corp.](#), No. 1:06-CV-689 GLS/DRH, 2008 WL 5054224, at *4 (N.D.N.Y. Nov. 21, 2008) (finding an issue of fact on causation even in the absence of expert testimony, and stating that, and stating that, due to the slight burden of proof in FELA actions, a jury may make inferences in an FELA case that it otherwise could not); [Sunnycalb v. CSX Transp., Inc.](#), 926 F. Supp. 2d 988, 995-96 (S.D. Ohio 2013) (finding that the plaintiff's inability to establish a precise level of chemical exposure did not bar

¹ In contrast, under general negligence principles, in a toxic tort case, "at a minimum . . . there must be evidence from which the factfinder can conclude that the plaintiff was exposed to levels of [the toxic agent at issue] that are known to cause the kind of harm that the plaintiff claims to have suffered." [Mattis v. Carlon Elec. Prods.](#), 295 F.3d 856, 860 (8th Cir. 2002) (addressing causation in the context ordinary negligence and a proximate cause standard). To prove causation in a toxic tort case, a plaintiff must show both that the alleged toxin is capable of causing injuries like that suffered by the plaintiff in persons subjected to the same level of exposure as the plaintiff, and that the toxin was the cause of the plaintiff's injury. [Wright v. Willamette Indus.](#), 91 F.3d 1105, 1106 (8th Cir. 1996) (under Arkansas law, applying a proximate cause standard that required evidence from which a reasonable person could conclude that a defendant's emission had probably caused harm in order to recover). However, even under common-law negligence standards, a plaintiff does not need to produce a "mathematically precise table equating levels of exposure with levels of harm" to show that he was exposed to a toxic level of a chemical, but must only present "evidence from which a reasonable person could conclude that his exposure probably caused his injuries." [Bonner](#), 259 F.3d at 928 (emphasis added). "[W]hile precise information concerning the exposure necessary to cause specific harm to humans and exact details pertaining to the plaintiff's exposure are beneficial, [it must be recognized that] such evidence is not always available, or necessary, . . . and need not invariably provide the basis for an expert's opinion on causation." [Westberry v. Gislaved Gummi AB](#), 178 F.3d 257, 264 (4th Cir. 1999) (involving a strict liability, breach of warranty, and negligence action).

recovery under FELA—the evidence was sufficient for the jury to draw the reasonable inference that CSX's negligence played a part in plaintiff's injuries); [Payne v. CSX Transp., Inc.](#), 467 S.W.3d 413, 457 (Tenn. 2015) (“[S]tated simply, the Plaintiff's experts were not required to establish ‘a dose exposure above a certain amount’ before they could testify about causation.”); and [Russell v. Ill. Cent. R.R.](#), No. W2013-02453-COA-R3-CV, 2015 WL 4039982, *2-*5 (Tenn. Ct. App. 2015) (rejecting defendant railroad's contention that an expert's opinions were not reliable because the differential diagnoses on which they were based “did not consider the dose, frequency or duration” of the plaintiff's exposure to carcinogens at work).

III. DISCUSSION

The Court first finds the Railroad's motions to exclude the testimony of Dr. Chiodo and Dr. Perez should be denied. Both experts are clearly qualified to render their opinions and their opinions are relevant and reliable enough to pass muster under Rule 702 and Daubert. The Court rejects the defendant's contention that Dr. Chiodo's testimony is not supported by scientific literature or a reliable methodology. Dr. Chiodo testified that he relied on the plaintiff's descriptions of his employment in the context of peer-reviewed studies of exposure involving railroad workers and similar occupations. He based his testimony on an interview with the plaintiff, who described his work and his exposures, review of certain pleadings, review of the plaintiff's medical records, and on his own extensive knowledge, experience, and expertise in the field of occupational medicine and industrial hygiene.

He performed a differential diagnosis or etiology based on the plaintiff's statements, corroborated by a review of the scientific literature. The differential diagnosis

is a tested methodology that has been subjected to peer review/publication, has been shown not to frequently lead to incorrect results, and is accepted in the medical community. His finding that Jorn's chronic exposure to diesel exhaust was a significant factor in the development of renal cancer has an adequate factual basis. Dr. Chiodo properly extrapolated his opinion from the facts and scientific literature. Notably, Dr. Chiodo, who is also an attorney, testified that in an FELA case, he is not required to determine which of several potential causes was most likely to cause the plaintiff's renal cancer, characterizing that determination as a matter for resolution by a judge or jury. The Court agrees and finds Dr. Chiodo's testimony is sufficient with respect to specific and general causation.

Dr. Perez's testimony is similarly sufficient to withstand a Daubert challenge. The defendant's criticisms go to the weight, rather than the admissibility of his testimony. Dr. Perez interviewed the plaintiff and conducted a literature review. His methodology was reasonable in light of his familiarity with industrial hygiene standards. He has the qualifications and expertise to express an opinion on Jorn's working conditions and the standard of care.

Both experts' testimony will assist the trier of fact in determining the Railroad's potential liability in light of the requisite causation standard. The opinion testimony is relevant and reliable to show that U.P.'s allegedly negligent conduct in exposing Jorn to toxins over the course of forty years of employment played a part in causing Jorn's renal cancer. The lack of quantitative data is not fatal to the admissibility of the experts' opinions since the lack of such data is typical in epidemiological cases. Any shortcomings

in the experts' evaluations are properly the subject of cross-examination and do not call for exclusion of the testimony.

U.P. mistakenly relies on caselaw involving toxic tort actions, without recognizing that this case is a toxic tort case under the FELA. The defendant's position would have more force if the case required a showing of proximate cause. If the plaintiff had to prove the exposure proximately caused the injury, the experts' testimony would be less relevant and would not necessarily be sufficiently tied to the facts of the case to assist the jury. Under the FELA, however, the plaintiff need not demonstrate the railroad's conduct was the proximate cause, but only that it played a part—no matter how small—in the injury.

The Court finds the experts' opinions are tied to the facts of the case and are supported by accepted scientific theories. The record shows the experts based their opinions on medical records, peer-reviewed studies, and evidence of exposures that covered a long period of time. They also relied on their education and experience in the fields of statistics, toxicology, and industrial hygiene. The defendant's criticisms go to the weight, rather than the admissibility of the testimony.

Moreover, the Court finds the defendant's reliance on the exclusion of Dr. Chiodo's testimony in other cases in this district is unavailing. See [Harder v. Union Pac. R.R. Co., No. 8:18CV58, 2020 WL 469880, at *1 \(D. Neb. Jan. 29, 2020\)](#) (excluding Dr. Chiodo's testimony because he was unaware of the plaintiff's length of exposure, concentration of exposure, and the atmosphere of exposure), appeal docketed, No. 20-1417 (8th Cir. Mar. 2, 2020); [McLaughlin v. BNSF Ry. Co., No. 4:18-CV-3047, 2020 WL 641729, at *6 \(D. Neb. Feb. 11, 2020\)](#) (excluding the causation testimony of Mark Wilkenfeld, M.D., because the expert failed to adequately rule in diesel exhaust as a cause, however small,

of the carman plaintiff's lung cancer and failed to adequately rule out thirty-year, pack-and-a-half-a-day cigarette smoking as the sole cause of the lung cancer), appeal docketed, No. 20-1494 (8th Cir. Mar. 10, 2020); [West v. Union Pac. R.R. Co., No. 8:17CV36, 2020 WL 531994, at *5 \(D. Neb. Feb. 3, 2020\)](#) (excluding the causation testimony of Dr. Chiodo as speculation based only on the job the plaintiff held, without reliance on the testimony of an industrial hygiene expert or other facts or data), appeal docketed, No. 20-1422 (8th Cir. Mar. 4, 2020). This Court is not bound by those decisions, they involved different facts and evidence, and they have been appealed. Also, Dr. Chiodo's and Dr. Perez's testimony has been found to satisfy Daubert in other cases in this district and in an FELA case in another jurisdiction. See [Raney v. Union Pac. R.R. Co., No. 8:18cv59, Filing No. 52 \(D. Neb. June 5, 2020\)](#); [Lemburger v. Union Pac. R.R. Co., No. 18cv64, Filing No. 74 \(D. Neb. May 29, 2020\)](#); [Minic v. BNSF Ry. Co., No.18-01931, Filing No. 45, Courtroom Minutes \(D. Colo. Feb. 26, 2020\)](#).

IV. CONCLUSION

In conclusion, the Court's review of the record shows that the scientific testimony at issue rests on "appropriate validation—i.e., 'good grounds', based on what is known," [Daubert, 509 U.S. 590](#), and "should be tested by the adversary process with competing expert testimony and cross-examination, rather than excluded by the court at the outset." [Johnson, 754 F.3d at 562](#). The experts' opinion are not so "fundamentally unsupported that [the testimony] can offer no assistance to the jury." [Bonner, 259 F.3d at 929–30](#).

The Court finds the methodology employed by the plaintiff's experts is scientifically valid, can properly be applied to the facts of this case, and is reliable enough to assist the trier of fact. This is not the sort of junk science that Daubert addresses.

With the admission of the expert testimony, there is an issue of fact for the jury on the exposures and whether the exposures contributed to Jorn's renal cancer. U.P. has not shown as a matter of law that Jorn cannot establish that U.P.'s negligence "played a part" in his cancer. Accordingly, the Court finds the defendant's motion for summary judgment should also be denied.

IT IS ORDERED:

1. The defendant's motion for summary judgment ([Filing No. 29](#)) is denied.
2. The defendant's motions in limine (Filing Nos. 31 and 33) are denied.

Dated this 22nd day of October, 2020.

BY THE COURT:

s/ Joseph F. Bataillon
Senior United States District Judge