

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF INDIANA
SOUTH BEND DIVISION

DENNIS L. AURAND,)
)
 Plaintiff,)
)
 v.) Cause No. 3:08-CV-398-PPS
)
 NORFOLK SOUTHERN RAILWAY)
 COMPANY,)
)
 Defendant.)

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 STEPHEN GILLILAND,)
)
 Plaintiff,)
)
 v.) Cause No. 3:08-CV-480-PPS
)
 NORFOLK SOUTHERN RAILWAY)
 COMPANY,)
)
 Defendant.)

 KATHRYN LIPP,)
)
 Plaintiff,)
)
 v.) Cause No. 3:08-CV-485-PPS
)
 NORFOLK SOUTHERN RAILWAY)
 COMPANY,)
)
 Defendant.)

OPINION AND ORDER

Plaintiffs Aurand, Gilliland and Lipp each bring suit against defendant Norfolk Southern Railway Company under the Federal Employers' Liability Act, alleging that the railroad's negligence in operating the railyard where the plaintiffs worked caused each of them to develop

a form of cancer from exposure to dangerous chemicals. Plaintiffs Aurand and Lipp developed multiple myeloma. Plaintiff Gilliland developed chronic lymphocytic leukemia. The three plaintiffs are represented by the same counsel, and the same attorneys represent Norfolk Southern in each case so I have informally consolidated the disposition of these cases into one opinion. The railroad has filed four virtually identical motions in each of the three cases: 1) a motion to exclude the expert report and testimony of plaintiffs' witness, Richard Lipsey, Ph.D.; 2) a motion to strike any references to the report or opinions of plaintiffs' withdrawn expert, Dr. Barry Levy; 3) a motion for summary judgment; and 4) a motion for oral argument on the three intertwined motions.¹

The summary judgment motion contends that plaintiffs lack the necessary expert evidence supporting both general and specific causation. Norfolk Southern says this is because Dr. Lipsey's opinion is inadmissible, and each of plaintiff's treating physicians cannot express a causation opinion because no expert report was disclosed. Plaintiffs argue that Dr. Lipsey's testimony survives the railroad's challenge and that no expert report was required of the treating physicians because their causation opinion was formed during the course of their treatment of each plaintiff-patient.²

¹ In view of the parallel motions, when citing to materials of record I will generally cite (without a cause number reference) to the materials in the lowest-numbered *Aurand* case, except in any instances where the materials filed differ between cases. In such an instance, the citation to the record will specify the cause number.

² I have recently granted the motion for substitution in the case of now-deceased plaintiff Aurand in Cause No. 3:08cv398-PPS. Janice Aurand, the personal representative of Mr. Aurand's estate, has been named as the plaintiff in a first amended complaint that is otherwise unchanged in substance. Because the pleadings and arguments on behalf of each party are the same in the three cases, and because the motions were fully briefed on behalf of the plaintiff in *Aurand*, I will proceed with consideration of the motions now under submission.

I. NORFOLK'S CHALLENGE TO PLAINTIFFS' EXPERTS

A. Causation and Expert Testimony Generally

Dr. Lipsey is proffered by the three plaintiffs as an expert forensic toxicologist to testify on the issue of causation. Norfolk Southern argues that the methodology supporting Dr. Lipsey's conclusions fails to meet the criteria for admissibility under Rule 702 of the Federal Rules of Evidence and the Supreme Court's decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Fed.R.Evid. 702 permits opinion testimony by persons with "scientific, technical or other specialized knowledge [that] will assist the trier of fact to understand the evidence or to determine a fact in issue" if "(1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case."

In a FELA context, the Seventh Circuit has held that "when there is no obvious origin to an injury and it has 'multiple potential etiologies, expert testimony is necessary to establish causation.'" *Myers v. Illinois Central Railroad Company*, 629 F.3d 639, 643 (7th Cir. 2010) (quoting *Wills v. Amerada Hess Corp.*, 379 F.3d 32, 46-47 (2nd Cir. 2004)). And a toxic tort plaintiff must adduce evidence of both general and specific causation. *See, e.g., Avila v. Willits Environmental Remediation Trust*, 633 F.3d 828, 836 (9th Cir. 2011); *Junk v. Terminix Intern. Co.*, 628 F.3d 439, 450 (8th Cir. 2010). General causation addresses whether a particular agent *can* cause a particular illness. *Milward v. Acuity Specialty Products Group, Inc.*, 639 F.3d 11, 13 (1st Cir. 2011). Specific causation addresses whether that agent *in fact* caused the particular plaintiff's illness. *Id.*

So in toxic tort cases like this one “there is a two-step process in examining the admissibility of causation evidence in toxic tort cases. First, the district court must determine whether there is general causation. Second, if it concludes that there is admissible general-causation evidence, the district court must determine whether there is admissible specific-causation evidence.” *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 351 (5th Cir. 2007); *see also LeBlanc v. Chevron USA, Inc.*, 396 Fed.Appx. 94, 2010 WL 3824509, *97 (5th Cir. 2010) (“The LeBlanc family was therefore obligated to provide both a ‘general’ and a ‘specific’ causal link between the benzene exposure and the onset of Mr. LeBlanc’s [disease].”). *Lennon v. Norfolk and Western Railway Company*, 123 F.Supp.2d 1143, 1154 (N.D.Ind. 2000) (Sharp, J., noting that differential diagnosis, as a specific causation tool, “assumes that general causation has been proven”).

Daubert itself was a toxic tort case in which plaintiffs offered experts in support of their theory that the ingestion of the anti-nausea drug Bendectin during pregnancy caused limb reduction birth defects. The Supreme Court remanded for further consideration in light of its conclusion that Fed.R.Evid. 702, and the rule’s requirement that scientific testimony be relevant and reliable, superseded the “general acceptance” test associated with *Frey v. United States*, 54 App.D.C. 46, 47 (1923). *Daubert*, 509 U.S. at 587, 589, 598. The Supreme Court’s discussion of applicable principles included the observation that when Rule 702 admits opinion testimony based on scientific knowledge, “‘scientific’ implies a grounding in the methods and procedures of science,” and “‘knowledge’ connotes more than subjective belief or unsupported speculation.” *Id.* at 590.

After remand by the Supreme Court, the Ninth Circuit in *Daubert II* considered the admissibility of the plaintiffs' expert testimony, noting that "[o]ur task...is to analyze not what the experts say, but what basis they have for saying it." *Daubert v. Merrell Dow Pharm., Inc.* (*Daubert II*), 43 F.3d 1311, 1316 (9th Cir. 1995). Courts are warned against the blind acceptance of a scientific expert's assurance that his conclusions are supported by reliable science. "[S]omething doesn't become 'scientific knowledge' just because it's uttered by a scientist; nor can an expert's self-serving assertion that his conclusions were 'derived by the scientific method' be deemed conclusive." *Id.* at 1315-16.

Where, as here, the proffered expert has not conducted research of his own but offers opinions based upon the work and conclusions of other scientists, the Supreme Court's caution in *Daubert* is instructive: "Rule 703 provides that expert opinions based on otherwise inadmissible hearsay are to be admitted only if the facts or data are 'of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject.'" *Daubert*, 509 U.S. at 595. So I must carefully review the specific sources and scientific results relied on by Dr. Lipsey to determine whether they appear to be valid and reasonably applicable to support his causation opinion.

B. Expert Testimony of Dr. Lipsey

The threshold issue presented by the batch of motions before me is the *Daubert* challenge to Dr. Lipsey, plaintiffs' expert toxicologist. Under Federal Rule of Evidence 702 the district court must engage in a three-step inquiry before admitting expert testimony. First, it must determine whether the witness is qualified; second, whether the expert's methodology is scientifically reliable; and third, whether the testimony will assist the trier of fact to understand

the evidence or to determine a fact in issue. *Myers*, 629 F.3d at 644. Under this standard, Dr. Lipsey's testimony is inadmissible because his opinions are not shown to be scientifically reliable in establishing either general or specific causation. I will take the shortcomings of Dr. Lipsey's opinions on the issues of general and specific causation in a moment, but first there are some initial questions about Dr. Lipsey's qualifications that must be addressed.

Dr. Lipsey sets out the basis for his claimed expertise in his report. It notes, among other things, that he has a PhD in toxicology, that he was a professor of toxicology, that he consulted in toxicology for the EPA and the Department of Agriculture, and that he is a member of the Society of Toxicology and the American College of Toxicology. DE 71-2, p. 2. Norfolk Southern raises some legitimate questions concerning Dr. Lipsey's qualifications and expertise as a toxicologist. DE 71, p.22. But more troubling is Dr. Lipsey's claim that he has been acting as an expert witness since 1976 and has "always passed Daubert and Frye hearings as an expert with solid scientific opinions based of (sic) good science." Lipsey's Report of August 19, 2009, DE 71-2, p. 2. But this simply isn't so. Norfolk Southern points me to four instances where Dr. Lipsey's opinion testimony has been rejected, and the plaintiffs make no reply to these assertions. DE 71, pp. 23-24. And most glaringly, while rejecting Dr. Lipsey as an expert witness, one district judge in Florida excoriated him:

[T]his is the worst example that I have seen in my 15 years experience in the courts as a judge demonstrating what's wrong with expert testimony in our courts of law. It's obvious you can get a Ph.D. to say anything, and this one is prepared to say anything, gratuitous or otherwise...It's just sheerly his opinion – and I do put that in quotes because, in my opinion, it's absolutely pure and simple, unadulterated speculation, guesswork, just blown-in. There's no scientific basis for any opinion that he has rendered, and I would consider him to be a false expert; and, therefore he will not be permitted in this court, unless the Eleventh Circuit directs otherwise.

Williams v. Orkin Exterminating Co., Cause No. 3:95CV30511-LC, DE 275, pp. 55-56.

But setting aside for the moment the concerns raised by Norfolk Southern about Dr. Lipsey's qualifications, there are many other problems with Dr. Lipsey's report and proposed testimony as it relates to the areas of general and specific causation. So that is where I now turn.

1. General Causation

Dr. Lipsey prepared two reports in the case. The first, dated August 19, 2009, offers the following opinion:

[T]here is a strong spatial and temporal correlation between the contamination of the air, water and soil with known human carcinogens at the site and the presence of the workers...and the development of their chemical contamination induced cancers. Based on my 33 years as a forensic toxicologist, I am sure, with a high degree of scientific certainty, that the adverse health effects suffered by the three workers are the result of chronic exposure to significant levels of toxic chemicals and carcinogenic chemicals at the work site. There is not a more probable source of the exposure to carcinogens known to cause their conditions.

Lipsey Report of 8/19/09, DE 71-2, pp. 3-4. Dr. Lipsey prepared a second report dated April 26, 2010, in which the same conclusions are stated but with additional references to sampling and inspection of the railyard by Dr. Lipsey and by the EPA. Lipsey Report of 4/26/10, DE 71-3. In his second report, Dr. Lipsey augments his ultimate conclusion as follows:

[B]ased on my 33 years as a forensic toxicologist, the scientific literature and my review of the files, I am sure, with a high degree of scientific certainty, that the adverse health effects suffered by the three workers were the result of chronic exposures to significant levels of human carcinogens and other toxic chemicals on the job and am convinced that these carcinogenic chemicals at the work site caused their chemically induced cancers. There is not a more probable source of exposure to carcinogens known to cause their conditions and they were all three in harms way in the rail yard daily and without training or safety equipment to prevent their chronic exposures to these human carcinogens.

Id. at 7.

These conclusions do not specifically identify the carcinogenic chemicals to which plaintiffs were exposed, nor do the conclusions state which agent or agents caused the plaintiffs' cancers. It is true that earlier in his August 19, 2009 report, Dr. Lipsey lists "chemicals found at the site: methylene chloride, carbon tetrachloride, trichloroethylene, diesel fuel, asbestos, benzene and poly aromatic hydrocarbons (PAH's), especially BAP." DE 71-2, p.2. And it is also true that Lipsey's April 26, 2010 report asserts that: "The soil and the ground water on site, from which the on site well water came, was contaminated with acetone, carbon tetrachloride, methylene chloride or dichloromethane, ethyl benzene, trichloroethylene, trichlorobenzene, chloroform, chloroform (sic), trichloromethane, trichlorethane, vinyl chloride, xylene and toluene." DE 71-3, p.2. But neither report gives any indication as to which of the listed chemicals Dr. Lipsey believes to be the causative agents responsible for plaintiffs' diseases.

The August 19, 2009 report lists the information and materials Dr. Lipsey reviewed in reaching his conclusions. DE 71-2, p.1. But there are no complete citations to specific scientific articles or texts. At one point in the list of "Miscellaneous" materials, it appears that Dr. Lipsey merely reports the nature of the online searches he made, referring to "PubMed Search for Multiple Myeloma, Non-Hodgkin's Lymphoma," to "Lymphoma and Occupational Exposure to Chemicals - Scientific Article Search" and to "Chemical Exposure and Myeloma (Multiple Myeloma) - Scientific Article Search." *Id.* Thereafter in the list, page numbers are referenced but without a complete citation identifying the authority referred to. So for example, Dr. Lipsey says the following: "Multiple Myeloma - Hematology and Oncology - pg. 1254, 1255" and "Lymphomas - pg. 846, 847." *Id.* What exactly this means, and where the references can be found, is a mystery. Later in the report, Dr. Lipsey states that he "also reviewed the latest

scientific literature on the toxicology and carcinogenicity of chemicals found at the site: methylene chloride, carbon tetrachloride, trichloroethylene, diesel fuel, asbestos, benzene and poly aromatic hydrocarbons (PAH's), especially BaP.” *Id.* at 2. But this statement is so general, it’s essentially meaningless.

Dr. Lipsey’s two expert reports are perfunctory, lacking in substance and notably unprofessional in form and organization. The reports offer no explanation of the science Dr. Lipsey purports to apply in arriving at his causation conclusions. No discussion of the toxicology of any carcinogens is provided. This is problematic because “expert medical opinion must have an epidemiological or scientific foundation.” *Cella v. United States*, 998 F.3d 418, 424 (7th Cir. 1993). The railroad questions the scientific underpinnings of Dr. Lipsey’s causation theory, pointing out that Dr. Lipsey himself has done no “research or testing outside of litigation on any of the chemical agents alleged in this suit, including diesel exhaust, benzene, trichloroethylene and carbon tetrachloride.” DE 71, p. 7. *See* Lipsey Deposition, DE 71-1, pp. 37-39. Nor has Dr. Lipsey published any peer-reviewed articles on benzene, diesel exhaust or their impact on railroad workers. *Id.* at 33-34.

Even in the absence of such work by Dr. Lipsey himself, his opinion on disease causation could be appropriately supported by the research of other scientists, if that research has been subjected to the normal scientific scrutiny through the process of peer review and publication. *Daubert II*, 43 F.3d at 1316. But Dr. Lipsey has failed to cite a single peer-reviewed scientific publication supporting his conclusion that exposures to certain chemicals on the job site contributed to causing the plaintiffs’ illnesses. For example, when questioned at his deposition about the scientific materials he relies upon, Dr. Lipsey merely affirmed that he did online

searches of the National Library of Medicine database – known as “Pub Med” – yielding materials “about a foot high,” consisting of “two or three hundred articles.” DE 71-1, p. 130. Lipsey was unable to further identify the medical texts to which his report referred by page number citations: “I think it – it’s either a text or a journal. And again, you’d have to look in Exhibit 20.” *Id.* at 131. Dr. Lipsey confirmed that the report’s general reference to review of “the latest scientific literature” was to “pretty much the same things” he had listed in the first page of his report. *Id.* at 132.

At his deposition, Dr. Lipsey referred to a batch of 43 articles on multiple myeloma and occupational exposure to benzene, and claimed to have relied on all of them. DE 71-1, p. 155. Dr. Lipsey testified that: “I can’t say which one makes my point or anything like that, no. I didn’t come prepared to do that...I’m just saying that all of these articles in Exhibit 20 involve this issue of exposures to these chemicals that are known to cause cancer.” *Id.* at 155-56.

While it is rather unclear, the all-encompassing “Exhibit 20” repeatedly referred to by Dr. Lipsey appears to be the tall stack of scientific literature gathered by Dr. Lipsey. *Id.* at 61. What appears to have occurred here is that, while professing reliance on the scientific literature, Dr. Lipsey merely amassed stacks of articles on “this issue of exposures to these chemicals that are known to cause cancer.” *Id.* at 156.³ But when defense counsel asked Dr. Lipsey “is there anything that you can point me to in the medical literature that says that railroad workers are at

³ At this point Dr. Lipsey refers to “43 [articles] that deal with multiple myeloma and benzene...59 articles that deal with chemical exposure and multiple myeloma of various kinds...Non-Hodgkin’s lymphoma and occupational exposure, there’s 467 articles...here’s 36 articles that came up in a Pub Med search of chemical exposure risk of multiple myeloma...And multiple myeloma and occupational exposures, there’s 51 articles...And chemical exposure risk of non-Hodgkin’s, 64 articles,” concluding with “Every time you do a search, as time goes on, you might get more and more articles.” DE 71-1, p. 156.

an increased risk of multiple myeloma or non-Hodgkin's lymphoma?," he answered, "Not off the top of my head no. Not without additional time to do the research." *Id.* at 165. When asked to pin down the articles supportive of his conclusions, Dr. Lipsey repeatedly referred generally to the large stack of articles (*e.g., id.* at 166, 170, 174) he had compiled, but acknowledged that not all of them supported his opinions.

The admission of opinion testimony by experts – a “relaxation of the usual requirement of firsthand knowledge” – is “premised on an assumption that the expert’s opinion will have a reliable basis in the knowledge and experience of his discipline.” *Daubert*, 509 U.S. at 592. Dr. Lipsey does not demonstrate that he is conversant in the scientific studies and other publications to which he generally refers as the basis for his opinions. Further, because neither plaintiffs nor their expert offers any details as to the scientific basis for the causation opinion they espouse, I cannot make even the “preliminary assessment” required of me by *Daubert*, namely an examination of “whether the reasoning or methodology underlying the testimony is scientifically valid and...whether that reasoning or methodology properly can be applied to the facts in issue.” *Daubert*, 509 U.S. at 592-93.

The type of review that is needed is demonstrated by *General Electric Company v. Joiner*, 522 U.S. 136 (1997) where the Supreme Court examined, in some detail, the studies plaintiffs’ causation experts relied upon to support the conclusion that exposure to PCB’s and their derivatives contributed to cause an electrician’s cancer. For each particular study, the Court considered its factual similarity to the circumstances alleged by the electrician, the specific findings of the particular study, and the applicability of the findings to the electrician’s theory of liability. *Id.* at 144-146. Ultimately the Supreme Court concluded that the district court had not

abused its discretion in excluding the expert testimony because there was “simply too great an analytical gap between the data and the opinion offered.” *Id.* at 146. Reliance on pre-existing science must be explained and not merely asserted: “Trained experts commonly extrapolate from existing data. But nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.” *Id.* Yet that’s what Dr. Lipsey wants the court to accept here. He offers nothing more than his own say-so – that reliable science has concluded that a number of chemicals cause cancer, and that he is confident that exposure to some or all of those chemicals caused cancer in these plaintiffs.

This is similar to the reasoning of experts attempted in *Knight v. Kirby Inland Marine, Inc.*, 482 F.3d 347 (5th Cir. 2007), and which was rejected. In that case, both the district court and the Fifth Circuit engaged in a specific analysis of the studies relied on by the plaintiffs’ expert (none other than the Dr. Barry Levy involved in this case) to support his conclusion that Mr. Knight’s exposure to benzene while working as a tankerman contributed to cause bladder cancer. The district court considered the more than fifty studies cited by Dr. Levy, and concluded that most failed to isolate benzene as a cause of cancer, and that the results of others were statistically insignificant. *Id.* at 350. The Court of Appeals also reviewed the particulars of the various studies and critiqued their reliability and their relevancy to the *Knight* case. *Id.* at 352-354.⁴

⁴ Rejecting Dr. Levy’s testimony in *Knight* on relevance grounds, the Fifth Circuit also noted that it failed two other *Daubert* factors in that it was not generally accepted and had not been subject to peer review, published or tested. *Id.* at 355.

Another recent example of the need for court review of particular studies relied upon in a toxic tort case is *LeBlanc v. Chevron USA, Inc.*, 396 Fed.Appx. 94, 2010 WL 3824509 (5th Cir. 2010). Plaintiff LeBlanc alleged that exposure to benzene while a tanker truck driver contributed to his diagnosis of myelofibrosis with myeloid metaplasia. With reference to the Supreme Court's approach in *Joiner*, the Court of Appeals reviewed the materials relied on by plaintiffs' expert, and found them insufficient support for various reasons – because the studies lacked statistically significant results, did not assess the relationship between benzene exposure and the plaintiff's disease, were not specific as to causative chemical agents, actually disclaimed the connection espoused by the expert witness, or were themselves secondary literature rather than “scientific evidence” in their own right. *Id.* at *4-5.

Plaintiffs and Dr. Lipsey offer me no opportunity to engage in such review here, as they fail to support his conclusions with reliance on particularly identified studies and other scientific sources. My task is to “carefully analyze the studies on which experts rely for their opinions before admitting their testimony.” *Knight*, 482 F.3d at 355 (citing *Joiner*, 522 U.S. at 146-47). Although challenged to do so by the summary judgment motion, plaintiffs have failed to demonstrate that the body of evidence relied upon by Dr. Lipsey is sufficient to support his opinion. This analytical gap requires the exclusion of Dr. Lipsey's testimony. The summary assertion of the scientific theory on which Lipsey's conclusions are based – that exposure to certain chemicals causes multiple myeloma and non-Hodgkins lymphoma – means that Dr. Lipsey fails to demonstrate that his underlying theory of general causation is scientifically reliable, that it is substantiated or that it is supported by the research or other findings of the relevant scientific community.

Even in opposition to the motion challenging Dr. Lipsey, plaintiffs do not cite to any particular articles or reports in the scientific literature, but merely – as Dr. Lipsey does in his reports and deposition testimony – refer generally to the literature as “summarized in Levy’s report.” DE 72, p. 10.⁵ Without actually identifying or citing to any scientific authorities, plaintiffs’ opposition asserts: “Lipsey relies upon several peer-reviewed scientific articles which demonstrate a causal relationship [between] benzene exposures and multiple myeloma. He also cites studies that demonstrate increased benzene exposures accelerate the latency period.” *Id.* at 12. But “the expert’s bald assurance of validity is not enough. Rather, the party presenting the expert must show that the expert’s findings are based on sound science, and this will require some objective independent validation of the expert’s methodology.” *Daubert II*, 43 F.3d at 1316.

Here plaintiffs propose an expert witness who has done no research of his own and fails to discuss the science of others on which he relies so as to demonstrate its reliability and its applicability to the facts at hand. Instead, for example, to help establish general causation, Dr. Lipsey relies dubiously on what a jury found in some other case. Here’s the revealing exchange:

Q: I believe you subscribe to the opinion that diesel exhaust, or at least some of the components of diesel exhaust, can cause cancer?

A: Yes.

Q: What types of cancer?

A: Well, the Macon, Georgia case was Norfolk Southern. And I forget the widow’s name. But that was nasopharyngeal cancer induced by

⁵ Plaintiffs’ memoranda acknowledge that Dr. Barry Levy, plaintiffs’ withdrawn expert, provided to Dr. Lipsey his report on each plaintiff’s “medical history, habits, hobbies, family history, residential history, occupational history, as well as publications in the medical and scientific literature that address the associations [between] benzene exposure, and diesel fuel and diesel exhaust (which contains benzene) and multiple myeloma..., which Lipsey relies upon for his opinions.” DE 72, p. 2.

formaldehyde exposure in diesel exhaust fumes. And I forget how many million she got in that one. And I was the expert. I brought you the deposition from that.

DE 71-1, p. 59. To be plain about it, what a jury found in some other case does not amount to evidence of general causation.

On this record, I can only conclude that plaintiffs have not established that Dr. Lipsey's testimony as to general causation is admissible under Rule 702. As the Ninth Circuit observed in *Daubert II*: "We've been presented with only the experts' qualifications, their conclusions and their assurances of reliability. Under *Daubert*, that's not enough." *Id.* at 1319.

2. Specific Causation

In addition, the railroad correctly notes that Dr. Lipsey does not offer a scientifically reliable opinion as to specific causation, that is, on whether the exposure to certain chemicals actually caused the illnesses of plaintiffs Aurand, Lipp and Gilliland.⁶ Specific causation in a toxic tort case is usually supported by evidence of the plaintiff's exposure to a particular causative agent and the dose or amounts thereof, the temporal relationship between the exposure and the occurrence of the disease, scientific conclusions as to the amount of exposure necessary to cause the disease, and the elimination of other possible causes or explanations for the plaintiff's disease. Here's the problem that can arise as explained by one commentator:

An expert who opines that exposure to a compound caused a person's disease engages in deductive clinical reasoning. In most instances, cancers and other diseases do not wear labels documenting their causation. The opinion is based on an assessment of the individual's exposure, including the amount, the temporal relationship between the exposure and disease, and other disease-causing factors. This information is then compared with scientific data on the relationship

⁶ Under the rubric identified in *Knight*, consideration of specific causation is unnecessary if plaintiffs have no admissible evidence of general causation. In the interest of completeness, I address the issue, as the parties have done.

between exposure and disease. The certainty of the expert's opinion depends on the strength of the research data demonstrating a relationship between exposure and the disease at the dose in question and the absence of other disease-causing factors.

Bernard D. Goldstein & Mary Sue Henifin, Federal Judicial Center, *Reference Manual on Scientific Evidence: Reference Guide on Toxicology*, pp. 422-23 (2nd ed. 2000).

Dr. Lipsey's specific causation opinions in this case are lacking on all prongs of this analysis. I have earlier discussed the weakness of his scientific support for the chemical etiology of multiple myeloma and non-Hodgkins lymphoma generally. He similarly fails to offer an opinion with any scientific support as to the amount of exposure necessary to cause the cancers at issue. Dr. Lipsey's opinions are also not shown to be supported by the necessary facts and data as to the plaintiffs' exposure to sufficient amounts of any particular chemicals, by the timeline of exposure and disease development, and by consideration and elimination of other possible health factors.

On the subject of familiarity with the plaintiffs' toxic exposures and other potentially contributory health factors, Dr. Lipsey's deposition testimony is not reassuring: "The tox evaluation that I did March the 1st in the hotel with the two surviving workers was not really a tox evaluation, simply because we didn't have that much time. But I just asked them a few questions and then hoped I'd get a medical questionnaire filled out for them, which I didn't get." DE 71-1, pp. 68-69. Dr. Lipsey does not hazard any quantitative estimates of the plaintiffs' exposure to particular chemicals:

We don't have clinical proof of exposure in the three people, as far as blood tests and levels of these carcinogens known to cause multiple myeloma. But based on the EPA document of 2009, and based on my observation of the yard, which is a highly contaminated yard, even today, and based on my tox evaluations, I think my opinion's pretty firm. That they were exposed to those chemicals in the yard.

DE 71-1, p.79.

What's more, at several other points in his deposition testimony, Dr. Lipsey disclaims knowledge of any quantitative information about the plaintiffs' exposure to hazardous chemicals: "All you can say is 'Yes, they were exposed.' But if you want to know the levels of formaldehyde, the levels of benzene and the levels of BAP, Norfolk Southern did not do the sampling to show what those three individuals were exposed to... So, that knowledge is not known, or that information is not known." DE 71-1, p. 67. As to whether in the railyard "permissible exposure limits for the components of diesel exhaust were exceeded at any time," Dr. Lipsey responded: "I have no clinical proof, because Norfolk Southern didn't do the sampling." *Id.* at 71.

As for the soil sampling Dr. Lipsey himself performed at the rail yard, his report does not ultimately cite to or rely upon any results from his soil sampling to support the conclusion that plaintiffs' cancers were caused by exposure to certain chemicals. Indeed, the results seem to cut the other way. As he acknowledged in his deposition, the soil samples Dr. Lipsey took and had analyzed did not yield results demonstrating the presence of benzene and other chemicals alleged to have caused plaintiffs' diseases. DE 71-1, pp. 117-119. So far from supporting his opinions, the soil samples taken by Dr. Lipsey actually undermine those opinions. In sum, all these admissions demonstrate the lack of data as to plaintiffs' exposures to particular chemicals and therefore a lack of evidence of specific causation.

As to temporal relationship between exposure and disease, Dr. Lipsey is no more specific, as his wandering deposition testimony demonstrates:

Q: ...Do you believe there were exposures since June 1st, 1999 that, to a reasonable degree of scientific certainty, caused multiple myeloma and non-Hodgkin's lymphoma?

A: ...I think the many, many spills of toxic chemicals documented in the boxes of files that produced toxic chemicals in the air that these three workers would be breathing, yes, I believe that's a source of exposure. Leaking diesel fuel and the benzene off-gassing, the other components off-gassing, could it be and was it harmful to them? Yes, I think it – they were exposed to it on a regular basis and it affected them.

Now when you limit it to multiple myeloma, the answer is more likely than not the major time of exposure causing lymphoma and multiple myeloma would have been pre-June 1999. But since you have a latency period of maybe five to nine years for known causes of multiple myeloma, then there is possibly a contributor – probably a contributor, possibly a cause of multiple myeloma in those people that worked there from 1999 until they were diagnosed with it, if it's say within five years.

But you have to remember, and you made an exhibit of the articles that say, "the higher the dose, the more chronic the exposure, the higher the dose, the shorter the latency period." That's a fact of science.

That's about all I can say on that subject right now. That, yes, exposures from 1999 to current, they were on a regular basis with known carcinogens, benzene for sure, and the diesel exhaust, that could aggravate their multiple myeloma or lymphoma if they had it, or they could have caused it if they didn't have it in '00. It could have caused it between 1999 and when they were diagnosed.

Can I prove it clinically? No. Because you don't know when they actually started developing the cancer cells.

DE 71-1, pp. 76-77. Dr. Lipsey does not demonstrate that he has reliable data as to plaintiffs' exposure to particular chemicals in sufficient doses to conclude, based on scientific authority, that, given the timing, they developed multiple myeloma and non-Hodgkins lymphoma as a result.

There's more: on the one hand, Dr. Lipsey recognizes that he is "not qualified to give opinions in legal cases on medical causation." DE 71-1, p.24. *See also id.* at 52-53, 100. Yet at his deposition Dr. Lipsey expressed the view that benzene exposure was the probable cause of Aurand's multiple myeloma, although he could also have been "exposed to those other

chemicals that are known to cause multiple myeloma that were found in the yard by EPA.” DE 71-1, p.143. Then when asked what those chemicals were, Dr. Lipsey’s non-responsive answer was: “I would have to go to Exhibit 20. Also, I think Dr. Levy had a really good summary of chemicals associated with multiple myeloma. Let me start there before I go to my stack of something like 4,000 pages. From page eight to page 22 of Dr. Levy’s report on Dennis, he’s almost totally talking about benzene exposure.” *Id.* This is one of many examples indicating that Dr. Lipsey was not, even at the time of his deposition, conversant in the area of these plaintiffs’ workplace chemical exposures. In other words, Dr. Lipsey’s opinions essentially add nothing to proof of specific causation.

In *Zamecnik v. Indian Prairie School District #204*, 636 F.3d 874, 881 (7th Cir. 2011), where an expert’s report was long on credentials (29 pages) and short on analysis in support of opinions (2½ pages), the Seventh Circuit found that it did not satisfy any of the Rule 702 requirements for admissible expert testimony. The Court of Appeals found that:

In the idiom of Rule 702, the expert’s report contains no indication of the “facts or data” relied on, no indication that the testimony based on the report would be “the product of reliable principles and methods,” and no indication that in formulating his opinion the expert “applied the principles and methods reliably to the facts of the case.” Dr. Russell is an expert, but fails to indicate, however sketchily, how he used his expertise to generate his conclusion. Mere conclusions, without a “hint of an inferential process,” are useless to the court.

Id.

Dr. Lipsey’s opinions are similarly lacking in sufficient supporting facts and data and in the demonstrated application of reliable principles and methods to such facts to yield an admissible expert opinion. Dr. Lipsey’s opinions on both general and specific causation of the illnesses of plaintiffs Aurand, Lipp and Gilliland are unsupported and unreliable. So for all the

foregoing reasons, the motion to exclude the opinions and testimony of Dr. Lipsey will be granted.

C. Causation Opinions of Treating Physicians

Next I must consider the challenge to plaintiffs' use of their treating physicians as expert witnesses on the issue of causation. Norfolk Southern invokes the requirements of Fed.R.Civ.P. 26(a)(2) and argues that plaintiffs failed to designate the doctors as expert witnesses pursuant to Rule 26(a)(2)(A) and failed to produce written expert reports from the doctors as required by Rule 26(a)(2)(B). Plaintiffs respond that the physicians were adequately disclosed and that no expert report is required when a treating physician reaches a causation opinion in the course of treatment of a patient.

As to whether the treating doctors were disclosed as experts, they are listed in plaintiffs' Rule 26(a)(2) disclosures under the heading "Rule 26(a)(2)(A)" applicable to witnesses intended to be used to present evidence under Federal Rule of Evidence 702, 703 or 705. DE 69-4, pp. 2-3. For each doctor, the disclosure stated that his testimony would concern "diagnosis, causation, permanency, restrictions, prognosis and future medical care." *Id.* So the portion of Norfolk Southern's challenge based solely on disclosure as an intended expert witness is without merit.

The Seventh Circuit has recently had occasion to address – in the context of a FELA case – when a Rule 26(a)(2) report is required of a treating physician who offers a causation opinion. In *Meyers v. National Railroad Passenger Corporation*, 619 F.3d 729 (7th Cir. 2010), the Seventh Circuit held that "a treating physician who is offered to provide expert testimony as to the cause of the plaintiff's injury, but who did not make that determination in the course of providing treatment, should be deemed to be one 'retained or specially employed to provide

expert testimony in the case,’ and thus is required to submit an expert report in accordance with Rule 26(a)(2).” *Id.* at 734-35. In *Meyers*, where two treating doctors prepared letters stating their causation opinions only at the request of the plaintiff’s attorney, and there was no evidence that either doctor had previously considered causation issues during the course of their treatment of the plaintiff, Rule 26(a)(2) reports were required. *Id.* at 735. The doctors’ “sparse” letters lacked the basis and reasons for their causation conclusions and so were insufficient to satisfy the Rule 26(a)(2) requirements, and the doctors’ testimony was therefore properly excluded. *Id.*

Because no expert reports were produced in these cases, in order to escape the exclusion of causation opinions from their treating physicians, plaintiffs must demonstrate that their opinions on causation were made in the course of providing treatment to the plaintiffs. Plaintiffs acknowledge that this is the standard applicable to the issue. DE 73-1, pp. 19-20. Mr. Aurand’s treating physician was Dr. Abonour who testified that he had discussed Mr. Aurand’s chemical exposures at the railyard in considering the cause of his cancer, noted that the medical literature supports the conclusion that benzene causes multiple myeloma and noted that Aurand was without family history of the disease and was young for such a diagnosis. *Id.* at 21-22. Even accepting this characterization of the doctor’s testimony, it does not establish the critical fact – that Dr. Abonour reached a causation opinion *in the course of his treatment of his patient*. My review of the portions of the doctor’s depositions submitted to the court leads me to conclude that Dr. Abonour is not shown to have formulated a specific causation opinion in the course of his treatment of Mr. Aurand.

Further, although this borders on a determination that Dr. Abonour’s causation opinion would also be inadmissible on *Daubert* grounds, I note that in toxic tort cases such as these,

plaintiffs often confront what the Court of Appeals has identified as a familiar scenario: “an expert can testify that a chemical can cause the plaintiff’s malady but he may not be qualified to testify that *this* chemical caused *this* particular plaintiff’s malady.” *Myers*, 629 F.3d at 643-44. “Differential etiology” is a methodology commonly used to determine the cause of an ailment. “[I]n a differential etiology, the doctor rules in all the potential causes of a patient’s ailment and then by systematically ruling out causes that would not apply to the patient, the physician arrives at what is the likely cause of the ailment.” *Id.* at 644. Whether such a methodology supporting a causation opinion is reliable is determined “on a case-by-case basis, focused on which potential causes should be ‘ruled in’ and which should be ‘ruled out.’” *Id.*

In *Myers*, where treating physicians’ causation opinions were offered without a demonstration that they had engaged in a reliable differential etiology analysis, the opinions were properly excluded. The Court noted that “the law demands more than a casual diagnosis,” and that a mere common sense assumption was just an “informed guess,” when not based on analysis of a patient’s medical history, the working conditions at the railyard, and the systematic ruling in and ruling out of potential causes. *Id.* at 644-45. In the absence of the necessary specific causation evidence, summary judgment was properly granted in favor of the railroad. *Id.* at 645.

Here, too, it does not appear that Dr. Abonour sought or had sufficiently specific information about Mr. Aurand’s exposures at the railyard in order to support his specific causation opinion. The doctor’s willingness *at the time of his deposition* to opine on the cause of Aurand’s multiple myeloma appears to be the type of “informed guess” found to be inadequate in *Myers*. Neither does it appear that the formulation of a causation opinion was in any way

integral to or necessitated by his treatment of Mr. Aurand. Instead, Dr. Abonour's only discussion of the matter with his patient was in response to the patient's general curiosity about why he developed the disease. As Dr. Abonour himself testified: "Well, I mean, I think once the diagnosis is made, my role is to treat the cancer and because obviously taking the exposure away is too late in terms of changing the course of the patient. So I think I try to address chemical exposures or the like because I think always the patient has, you know, wonder why me and why did I get the disease[.]." DE 73-10, p. 7. As the railroad notes: "Plaintiff has not and cannot submit as evidence any medical records to support the proposition that Dr. Abonour formed his opinions as to causation at the time that he treated Plaintiff, as no such records are in existence." DE 78, p. 9 (emphasis in original).

Plaintiff Gilliland opposes the exclusion of causation testimony by four treating physicians, Drs. Abonour, Ansari, Borders and Taber, by summarily claiming that they formed their opinions in the course of treating Mr. Gilliland. But as Norfolk Southern points out, the conclusory assertion is not supported by *any* deposition testimony *or* medical records as to Mr. Gilliland. Cause No. 3:08cv480, DE 66, p.7.

With respect to plaintiff Kathryn Lipp, expert causation testimony by treating physician Dr. Todd Zimmerman is at issue. Ms. Lipp resists its exclusion by reliance upon Dr. Zimmerman's deposition testimony. As with the other plaintiffs' treating physicians, no medical records are offered to support the contention that causation determinations were made in the course of treatment. Dr. Zimmerman's deposition testimony reflects that he has no specific recollection of discussions of causation with Ms. Lipp, but (as did Dr. Abonour) he acknowledged that patients often ask what brought on their cancer. Cause No. 3:08cv485, DE

65-10, pp. 23-24. In that context, Dr. Zimmerman testified that he “will generally say that we think there is somehow environmental exposures involved in developing it. And we don’t really have much discussions beyond that, because that’s outside the area of my expertise.” *Id.* at 24. Dr. Zimmerman appears not to offer a specific causation opinion as to Ms. Lipp’s cancer, and so obviously did not formulate such an opinion in the course of her treatment.

Because I conclude that none of the treating physicians is shown to have developed an opinion on causation in the course of their treatment of plaintiffs Aurand, Lipp or Gilliland, plaintiffs were required to disclose a written report from each such “expert” under Rule 26(a)(2)(B). And because no such reports were produced, none of the treating physicians will be permitted to offer causation opinion testimony.

D. Dr. Levy and Request for Hearing

Because my conclusions concerning Dr. Lipsey’s testimony are reached without regard to his challenged reliance on Dr. Levy’s report and conclusions, the motion to strike any references to Dr. Levy’s report or opinions will be denied as moot. I will also deny the motion for oral argument, as I have determined that no argument was necessary to my consideration and ruling on the parties’ motions.

II. NORFOLK SOUTHERN’S SUMMARY JUDGMENT MOTION

To avoid summary judgment in a toxic tort case, a plaintiff needs expert testimony on the issue of both general and specific causation. *Myers*, 629 F.3d at 645 (“The district court did not abuse its discretion by excluding the testimony of Myers’s physicians, and because that was the only evidence offered for specific causation, the district court did not err in granting summary

judgment for the Railroad.”); *see also Meyers*, 619 F.3d at 735. So in this case, plaintiffs need expert testimony that their cancers were caused by exposure to carcinogens in their work for Norfolk Southern. Having concluded that Dr. Lipsey may not testify as an expert, and that none of the treating physicians may give expert causation testimony, the plaintiffs’ cases are subject to summary judgment.

I am sympathetic to plaintiffs and their families, and share the widespread concern of the modern public about the risks and dangers of our exposure to myriad chemicals in our daily lives at home, school and work. But I am also mindful of the words of Justice Breyer in his concurring opinion in *Joiner*:

Yet modern life, including good health as well as economic well-being, depends upon the use of artificial or manufactured substances, such as chemicals. And it may, therefore, prove particularly important to see that judges fulfill their *Daubert* gatekeeping function, so that they help assure that the powerful engine of tort liability, which can generate strong financial incentives to reduce, or to eliminate, production, points toward the right substances and does not destroy the wrong ones.

Joiner, 522 U.S at 148 (Breyer, J., concurring). Because there simply is no evidence demonstrating that the Plaintiffs’ various cancers were caused by toxic exposures at Norfolk Southern’s railyard, Norfolk Southern’s motions for summary judgment will be granted.

Conclusion

Accordingly,

Defendant Norfolk Southern Railway’s **motions to exclude** the report and testimony of Dr. Richard Lipsey, Ph.D. [DE 70 in 3:08cv398; DE 58 in 3:08cv480; DE 62 in 3:08cv485] are granted.

Defendant Norfolk Southern Railway's **motions for summary judgment** [DE 68 in 3:08cv398; DE 55 in 3:08cv480; DE 60 in 3:08cv485] are granted.

Defendant Norfolk Southern Railway's **motions to strike** any references to the report or opinions of plaintiffs' withdrawn expert, Dr. Barry Levy [DE 75 in 3:08cv398; DE 63 in 3:08cv480; DE 67 in 3:08cv485] are denied without prejudice as moot.

Defendant Norfolk Southern Railway's **motions for hearing** [DE 79 in 3:08cv398; DE 67 in 3:08cv480; DE 71 in 3:08cv485] are denied.

Duplicative filings of defendant Norfolk Southern Railway's **motion to exclude** the report and testimony of Dr. Richard Lipsey, Ph.D. and **motion for summary judgment** [DE 54 and DE 57 in 3:08cv480], both from the *Aurand* case but mistakenly filed in the *Gilliland* case, are denied without prejudice.

The Clerk shall **enter judgment** in each case in accordance with this opinion and order.

SO ORDERED.

ENTERED: July 18, 2011.

s/ Philip P. Simon
PHILIP P. SIMON, CHIEF JUDGE
UNITED STATES DISTRICT COURT