

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF FLORIDA
PENSACOLA DIVISION

IN RE: DEEPWATER HORIZON
BELO CASES

Case No. 3:19cv963-MCR-HTC

This Order Relates to:

Wesley Covert, Case No. 3:21cv3287
Jeffrey Lawrence, Case No. 3:23cv59
Taurus Lewis, Case No. 3:22cv18637
Gill McGee, Case No. 3:18cv2364

REPORT AND RECOMMENDATION

On April 20, 2010, the oil-drilling rig *Deepwater Horizon*, operated by BP in the Gulf of Mexico, exploded, resulting in the largest oil spill in the history of marine oil-drilling operations. The spill resulted in significant litigation brought by people exposed to chemicals associated with the spill and response effort. Although many litigants resolved their injury claims as part of a Master Settlement Agreement (“MSA”) in the multi-district litigation (“MDL”) pending in the Eastern District of Louisiana, litigants with later manifested physical conditions (“LMPC”) were allowed to file suit seeking compensation outside the MSA.¹

¹ LMPCs are defined as physical conditions diagnosed after the April 2012 cutoff date. This separate litigation of claims related to LMPCs is known as the “Back End Litigation Option” (“BELO”).

More than 500 BELO suits were remanded to this District by the MDL court. Of those cases, however, only a dozen or so remain pending. This is because in the intervening more than 10 years since the first BELO case was filed, this Court has advanced two sets of bellwether cases to judgment. Both sets of bellwether cases resulted in summary judgment for Defendants BP Exploration & Production Inc. and BP America Production Company (collectively, “BP”) after the Court excluded the plaintiffs’ experts under Federal Rule of Evidence 702.

This is the third set of bellwether cases to advance through expert discovery.² In this group of cases, Plaintiffs Wesley Covert, Jeffrey Lawrence, Taurus Lewis, and Gill McGee allege their exposure to chemicals during the *Deepwater Horizon* oil spill response caused them to develop chronic dermatitis or eczema. Specifically, Covert alleges he developed chronic hand dermatitis, Lawrence alleges he developed eczema hand dermatitis, Lewis alleges he developed eczema, and McGee alleges he developed chronic dermatitis. Plaintiffs designated Dr. Peter Elsner to confirm the diagnosis of their dermal conditions and to offer a general causation opinion. Dr. Elsner opines that exposure to petroleum compounds, dispersants, and aerosols that consist of petroleum hydrocarbons and dispersants can cause chronic dermatitis.

² To structure the expert work in a way that would present the causation issues efficiently and cost-effectively, the parties selected four test cases and the Court established a bifurcated procedure by which the issues of diagnosis and general causation would be resolved first. Doc. 613.

Plaintiffs also designated Dr. Michael Freeman to provide a general causation opinion. He concludes a general causal relationship exists between exposure to chemicals released into the environment during the spill and an increased risk of chronic eczema and dermatitis.

BP has moved under Federal Rule of Evidence 702 and *Daubert*³ to exclude the opinions of Dr. Elsner and Dr. Freeman. Docs. 686 & 687.⁴ BP argues Dr. Elsner's and Dr. Freeman's opinions are neither reliable nor helpful because, among other deficiencies, they improperly rely on studies establishing an association between exposure to certain toxins and acute skin irritation to show those same toxins can cause chronic dermatitis or eczema. In response to BP's criticisms, Plaintiffs make two arguments. First, Plaintiffs argue general causation for chronic dermatitis and eczema was established by the MSA. Second, Plaintiffs argue Dr. Elsner's and Dr. Freeman's opinions are both reliable and helpful because they are consistent with those of BP's experts and are generally accepted in the scientific community.

After reviewing the parties' submissions⁵ and the relevant law, the undersigned concludes: (1) neither Plaintiffs nor their experts can rely on the MSA

³ *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).

⁴ The "Doc." citations in this Report and Recommendation are to the docket entries in the master BELO case, 3:19cv963-MCR-HTC.

⁵ See Plaintiffs' responses, Docs. 703, 709, & 726, and BP's reply, Doc. 716.

to meet or lessen their burden of establishing general causation, and (2) Plaintiffs have not shown by a preponderance of the evidence that Dr. Elsner's and Dr. Freeman's general causation opinions are reliable and helpful. Thus, BP's: (1) motion to strike Plaintiffs' argument regarding general causation being established by the MSA, Doc. 704, should be GRANTED, and (2) BP's motions to exclude Dr. Elsner and Dr. Freeman, Docs. 686 & 687, should be GRANTED. Finally, because Plaintiffs have not presented admissible expert testimony on general causation, BP's motion for summary judgment, Doc. 688, should be GRANTED.

Considering these determinations, the Court need not address (1) Plaintiffs' motions to exclude BP's experts, Docs. 689, 690, 691, & 692; and (2) BP's motion to strike, Doc. 722, the declarations Plaintiffs attached to their replies to the motions to exclude. Thus, those motions should be DENIED AS MOOT.

I. Legal Standard

The Eleventh Circuit has divided cases involving allegedly toxic substances into two categories. *McClain v. Metabolife Int'l, Inc.*, 401 F.3d 1233, 1239 (11th Cir. 2005). In the first category, the medical community generally recognizes the substance at issue is toxic and can cause the injury the plaintiff alleges; examples "include toxins like asbestos, which causes asbestosis and mesothelioma; silica, which causes silicosis; and cigarette smoke, which causes cancer." *Id.* For this first category, "[t]he court need not undertake an extensive *Daubert* analysis on the

general toxicity question” because “the medical community recognizes that the agent causes the type of harm a plaintiff alleges.” *Id.*

In contrast, in the second category of cases, “the medical community does not generally recognize the agent as both toxic and causing the injury plaintiff alleges.” *Id.* These cases require an expert to establish both general causation (“whether the drug or chemical *can* cause the harm plaintiff alleges”) and specific causation (“was plaintiff exposed to enough of the toxin to cause the alleged injury and did the toxin in fact cause the injury”). *Id.*

Under Federal Rule of Evidence 702, as amended, expert opinion testimony is admissible only if “the proponent demonstrates to the court that it is more likely than not that: (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert’s opinion reflects a reliable application of the principles and methods to the facts of the case.” Fed. R. Evid. 702. Under Rule 702, the Court must act as a gatekeeper and ensure “that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.” *Daubert*, 509 U.S. at 597.

II. General Causation and the MSA

As an initial matter, Plaintiffs and their experts rely extensively on the MSA reached in the MDL to support the proposition that exposure to oil and dispersants can cause chronic dermatitis and eczema. They: (1) note the Specified Physical Conditions Matrix—which identified the conditions, proof requirements, and payment amounts for class members who sought compensation under the MSA—identified chronic contact dermatitis and chronic eczematous reaction as physical conditions class members could seek compensation for, if diagnosed before April 16, 2012, *see* Doc. 703-3 (the Matrix); and (2) claim the declarations submitted by Dr. Michael Harbut and Dr. Jessica Herzstein endorsing the Settlement Agreement support the existence of general causation.

Specifically, in response to BP’s motions to exclude Dr. Elsner and Dr. Freeman, Plaintiffs argue this is a category one case under *McClain* because it is generally accepted that exposure to oil can cause chronic dermatitis and eczema,⁶ as indicated by the MSA and the declarations of Drs. Harbut and Herzstein. *See* Doc. 703 at 5-11 (“[G]eneral causation for these dermal conditions is clearly already generally accepted.”). However, after BP moved to strike Plaintiffs’ references to

⁶ Although Plaintiffs suggest “[t]he epidemiological conclusion that oil and oil-based dispersants cause *chronic* dermal conditions is widely accepted by the medical community,” Doc. 703 at 6, Dr. Elsner testified the epidemiological studies of occupational contact dermatitis is “a field that has not been very well examined.” Doc. 686-5 (Elsner Dep., 99:17 – 100:14).

the MSA, arguing the Court previously found it did not constitute evidence of general causation, Doc. 704, Plaintiffs attempted to moderate their reliance on the MSA. Plaintiffs claim: (1) they only reference the declarations from Drs. Harbut and Herzstein as evidence to support the conclusions and methodologies of Drs. Elsner and Freeman; and (2) their argument that the declarations “support employing a ‘lighter’ *Daubert* analysis as a Type 1 case does not equate to arguing that general causation is stipulated to or that Plaintiffs need not even show general causation.” Doc. 709 at 11-12.

This change in position is somewhat confusing, as Plaintiffs, themselves, and the caselaw indicate general causation is not at issue *at all* in a category one case. *See* Doc. 703 at 5 (As described by Plaintiffs, in a category one case “general causation is already established, leaving only specific causation at issue for trial.”); *see also Chapman v. Procter & Gamble Distrib., LLC*, 766 F.3d 1296, 1303 n.6 (11th Cir. 2014) (“The focus for cases in the first category is ‘individual causation to plaintiff’—‘was plaintiff exposed to the toxin, was plaintiff exposed to enough of the toxin to cause the alleged injury, and did the toxin in fact cause the injury?’”) (quoting *McClain*, 401 F.3d at 1239). Regardless, the MSA neither eliminates nor lessens Plaintiffs’ burden of establishing general causation.

This group of cases, like the other bellwether cases this Court has addressed, falls into category two under *McClain*. To try to claim otherwise this late in the

game is simply disingenuous. Plaintiffs must establish general causation through admissible expert testimony to get past summary judgment. As BP notes, the Court has twice rejected counsel's argument that the MSA and related filings move this group of cases into category one.

On December 12, 2019, the Court denied Plaintiffs' "Motion to Enforce Terms of MDL's Settlement Agreement on the Issue of General Causation," concluding the Matrix, "does not apply to BELO cases and did not establish general causation for use in BELO litigation regardless of when the condition manifested." Doc. 52 (noting "the Matrix was a tool of settlement only" and Judge Barbier, who presided over the MDL, found the language in the MSA was clear and "the Matrix does not apply to BELO suits"); *see also In re Deepwater Horizon Belo Cases*, 2020 WL 6689212, at *6 (N.D. Fla. Nov. 4, 2020) (noting "the Plaintiffs sought to avoid the general causation phase by moving to 'enforce' the Settlement Agreement, arguing that its terms effectively already established general causation for BELO suits that involve medical conditions stated on the Matrix" but "[t]he Court rejected the argument, finding that general causation was neither litigated previously nor conceded by BP's willingness to settle certain claims and compromise on the Matrix in the absence of litigation").

Similarly, the Court rejected this argument when counsel raised it in response to BP's motion for summary judgment in the first bellwether group of cases. Then, the Court stated:

This is a “second category” case under *McClain*, requiring a scientifically reliable opinion by a qualified expert. Plaintiffs argue that an extensive *Daubert* review is not required in this case because general causation was previously established as the “science of the case” through the declarations in support of the Settlement Agreement in the MDL. The Court previously rejected this argument and finds no reason to revisit it. The settlement declarations confirmed that the Matrix was consistent with science for purposes of achieving a settlement but the opinions were general in nature, were not issued for purposes of proof in an adversarial setting, and were never subject to a *Daubert* challenge. Importantly, the declarations were based on *assumptions* that the plaintiffs were exposed to sufficiently high levels of toxins. Also, those experts did not identify a generally accepted level at which any particular substance associated with the Deepwater Horizon spill was likely to increase the incidence of a specific medical condition. Therefore, the declarations do not represent a reliable expert opinion for purposes of establishing general causation in this case.

Id. at *9.

Thus, consistent with the Court's prior rulings, this is a *McClain* category two case and Plaintiffs must establish general causation through admissible, reliable expert testimony. *See In re Deepwater Horizon BELO Cases*, 2022 WL 104243, at *2 (11th Cir. Jan. 11, 2022) (“In a toxic-tort case like this one, a plaintiff must establish ... general ... causation through admissible, reliable expert testimony.”). Accordingly, BP's motion to strike Plaintiffs' references to the MSA should be

granted to the extent that neither the MSA nor the related declarations establish general causation.⁷

III. Opinions of Dr. Elsner & Dr. Freeman

Plaintiffs seek to meet their burden of establishing general causation through the testimony of a dermatologist, Dr. Elsner, and an epidemiologist, Dr. Freeman. Based on his review of the scientific literature, Dr. Elsner asserts exposure to “petroleum compounds, dispersants, and aerosols that consist of petroleum hydrocarbons and dispersant” may lead to the development of chronic dermatitis. Doc. 686-1 at 3.⁸ Similarly, Dr. Freeman asserts there is “a general causal relationship between exposure to chemicals released into the environment during the BP Deepwater Horizon oil spill and increased risk of chronic eczema and dermatitis.” Doc. 687-1 at 34. Both Drs. Elsner and Freeman rely on epidemiological studies to support their conclusions. Additionally, Dr. Freeman relies upon his analysis of health and exposure information collected from response workers.

BP does not dispute Dr. Elsner and Dr. Freeman are qualified to provide expert testimony but moves to exclude each expert’s general causation opinion as

⁷ To the extent Plaintiffs want to use the declarations from Drs. Harbut and Herzstein to support the admissibility of Dr. Elsner’s and Dr. Freeman’s opinions, they cannot reliably do so, for the reasons explained below.

⁸ Dr. Elsner issued separate reports for each of the four Plaintiffs. Docs. 686-1 – 686-4. The reports contain identical sections regarding general causation but unique sections regarding each Plaintiff’s diagnosis.

unreliable and unhelpful. Docs. 686, 687, & 718. The undersigned agrees. Both experts' general causation opinions are inadmissible because they do not identify a harmful dose of any chemical or mixture of chemicals, and they do not demonstrate they have a reliable basis for concluding exposure to weathered crude oil or dispersant can cause chronic dermatitis or eczema.⁹

A. Failure to Identify a Harmful Dose

As BP points out, this Court has repeatedly concluded that, under the current law in the Eleventh Circuit, to establish general causation an expert must identify a harmful dose of a toxin which can cause the complained of injury. *See In re Deepwater Horizon Belo Cases*, 2020 WL 6689212, at *9. Dr. Elsner and Dr. Freeman, however, provide no such opinions. They do not identify the level of exposure to any substance that can cause chronic dermatitis or eczema in humans.

Scientific knowledge of the harmful level of exposure to a chemical is a minimal fact necessary to sustain the plaintiff's burden in a toxic tort case. *McClain*, 401 F.3d at 1241; *see also Pinares v. Raytheon Techs. Corp.*, 2023 WL 2661521, at *4 (11th Cir. Mar. 28, 2023) ("Because Dr. Wylie didn't explain how much exposure to the Raytheon facility chemicals is 'too much,' his opinion wasn't sufficiently reliable under *Daubert* to be admissible expert testimony.") (citations omitted);

⁹ The undersigned has considered all arguments raised by the parties but finds the matters addressed herein dispositive of the issues before the Court. Thus, the undersigned does not find it necessary to address every argument the parties raised in this Report and Recommendation.

Taylor v. Mentor Worldwide LLC, 940 F.3d 582, 595 (11th Cir. 2019) (In “cases involving allegedly toxic drugs and chemicals[,]” “given the ‘importance of individual responses to toxins,’ a plaintiff must demonstrate both the level of exposure to the allegedly harmful chemical that is hazardous to a human being and the amount of the chemical to which the plaintiff was exposed.”) (quoting *McClain*, 401 F.3d at 1241-42).

i. Dr. Elsner

Plaintiffs argue Dr. Elsner cited three animal studies—a 2011 study by Stacey Anderson, a 2020 study by Jesse Kemp, and a 1991 study by B. Nowak—which identify a harmful dose.¹⁰ Doc. 703 at 16-17. However, Dr. Elsner’s report never discusses the doses used in those animal studies. Additionally, he admitted, “it’s difficult sometimes to transfer the animal data to the human situation.” Doc. 686-5 (Elsner Dep., 90:12-17). And he offers no rationale for why it is permissible to do so in this instance. *See* Doc. 686-10 at 7 (admitting “data on irritancy of Corexit 9500A in human skin in a long-term application are not known”); *see also Rider v. Sandoz Pharms. Corp.*, 295 F.3d 1194, 1202 (11th Cir. 2002) (affirming district court’s finding that there was no basis for extrapolating the results of animal studies

¹⁰ The Anderson study showed dermal exposure to COREXIT 9500A and one of its chemical components, dioctyl sodium sulfosuccinate, induced dose-responsive increases in dermal irritation in mice. The Kemp study exposed mice to weathered crude oil and noted “preliminary data and observations suggest[] that weathered crude oil is a skin irritant[.]” The Nowak study evaluated the effects of mineral oils on rabbit skin.

to humans when plaintiffs' experts admitted "what happens in an animal would not necessarily happen in a human being" and plaintiffs failed "to offer some rationale for the suggestion that the vascular structures of humans and animals are sufficiently similar in this context to conclude that bromocriptine's effects on animals may be extrapolated to humans").

Furthermore, these animal studies investigated acute skin irritation, not chronic dermal conditions. Because Dr. Elsner does not explain whether or how the doses used in the Anderson, Kemp, and Nowak animal studies would produce chronic dermatitis in humans, the studies do not provide a reliable basis for identifying a harmful dose of oil or dispersants in humans. *See id.* at 1201 (finding district court "was within its discretion in concluding that plaintiffs offered insufficient evidence on which that court could base a conclusion that the effect of bromocriptine would be the same on humans as it is on animals").

Plaintiffs and Dr. Elsner also assert the failure to identify a harmful dose is not fatal to his general causation opinion because "dose threshold is a specific causation inquiry due to every individual's unique dermal sensitivity (i.e., the same exposure may cause dermal symptoms in some individuals and not others)." Doc. 686-10 at 3-4. This argument, however, is inconsistent with Eleventh Circuit precedent and has been repeatedly rejected by this Court in the other bellwether cases. *See In re Deepwater Horizon Belo Cases*, 2022 WL 17721595, at *6-8 (N.D.

Fla. Dec. 15, 2022), *report and recommendation adopted*, 2023 WL 2711573 (N.D. Fla. Mar. 30, 2023) (providing a thorough discussion of the harmful level requirement); *In re Deepwater Horizon Belo Cases*, 2020 WL 6689212, at *15 (in case involving chronic dermatitis, noting “[a]n opinion on general causation ... is only helpful and a good ‘fit’ if it reliably shows ‘general toxicity for the harm Plaintiffs allege’ and establishes an exposure level that is considered ‘hazardous to human beings generally’”) (quoting *McClain*, 401 F.3d at 1239, 1241); *see also McGill v. BP Exploration & Prod., Inc.*, 830 F. App’x 430, 433 (5th Cir. 2020) (affirming exclusion of expert’s general causation opinion in BELO case when he failed to identify the level of oil or dispersant which is harmful to humans).

Dr. Elsner’s testimony further undermines Plaintiffs’ argument that they need not establish a harmful dose. According to Dr. Elsner, “for every chemical, there is some level below which you would not expect to see adverse effects,” which is known as the “no effects” level. Doc. 686-5 (Elsner Dep., 66:20 – 68:15, 140:4-19). The “no effects” level is used to ensure safety in fields such as cosmetology and is distinct from a particular individual’s threshold for disease. *Id.* (Elsner Dep., 66:20 – 68:15, 233:12-24). However, Dr. Elsner does not identify a “no effects” level for any substance associated with the oil spill. *Id.* (Elsner Dep., 66:20 – 68:15). His failure to make any effort to establish the levels of exposure that would cause

individuals to develop chronic dermatitis makes his general causation opinion both unreliable and unhelpful.

ii. Dr. Freeman

Dr. Freeman also does not identify the level of exposure at which any substance mentioned in his report could be expected to cause chronic dermatitis or eczema. Plaintiffs suggest, nonetheless, that he did so through his analysis of the NIOSH data,¹¹ which shows response workers “were at a statistically significant elevated risk for dermal conditions after just 12 days of work, and the risk expanded with each 30-day increase in employment.” Doc. 726 at 35. However, the NIOSH data only investigated workers’ acute skin problems, so it cannot be used to identify a dose capable of causing chronic dermatitis or eczema. In fact, the authors of the NIOSH report specifically state the assessments “were not intended to describe or investigate potential long-term or chronic health effects.” Doc. 687-4 at 6; *see In re Accutane Prods. Liab.*, 2009 WL 2496444, at *2 (M.D. Fla. Aug. 11, 2009) (“[W]hen an expert relies on the studies of others, he must not exceed the limitations the authors themselves place on the study.”).

¹¹ NIOSH data is data collected by the National Institute for Occupational Safety and Health. At the request of BP, NIOSH performed a health hazard evaluation (“HHE”) of onshore response workers. *In re Deepwater Horizon Belo Cases*, 2022 WL 17721595, at *20. The HHE involved observing working conditions and conducting a single survey of workers regarding their exposures and symptoms. *Id.* Workers were asked to self-report their symptoms and exposures to various substances, including dripping oils, tar balls, and dispersants. *Id.*

Regardless, “12 days of work” is not a reliable estimate of a harmful dose because there is no information regarding what chemicals the worker encountered or the amount of those chemicals. *See In re Deepwater Horizon Belo Cases*, 2022 WL 17721595, at *26 (noting Dr. Freeman’s “identification of a harmful dose in terms of days is still flawed in that it does not include consideration of the amount of exposure”). One individual who worked for 12 days could have vastly different types and amounts of exposure compared with another individual who worked 12 days. Thus, it is not a useful benchmark for a subsequent specific causation analysis to determine whether a plaintiff had sufficient exposure to cause injury, which is the very purpose of identifying a harmful dose in the first place.

Additionally, Dr. Freeman fails to identify any specific chemical substance which could have caused Plaintiffs’ conditions. Instead, Dr. Freeman bases his general causation opinion on “chemicals,” generally, that were released into the environment by the oil spill. As BP argues, this Court has previously found the failure of an expert to link any specific chemical to the condition complained of renders the opinion unhelpful. *See In re Deepwater Horizon Belo Cases*, 2022 WL 17721595, at *15, 26.

Relying on a case from the Middle District, *Vandestreek v. Lockheed Martin Corp.*, 2023 WL 6396087 (M.D. Fla. Sept. 27, 2023), Plaintiffs argue this Court erred when it concluded in the prior BELO decision that general causation requires

an expert to establish a harmful or threshold dose at which a specific substance can cause the injury alleged. Doc. 726 at 27-33. Plaintiffs misread Judge Dalton's opinion in *Vandestreek*. The *Vandestreek* opinion does not support the argument that a general causation expert need not identify a harmful dose; instead, what it supports is (1) a dose-response assessment need not be the primary method of establishing general causation; and (2) at the general causation stage, an expert need not identify the dose of plaintiff's exposure. *Vandestreek*, 2023 WL 6396087, at *4-5 (stating "'case-relevant exposure conditions' are part of the specific causation inquiry" and concluding "the Court cannot throw out Plaintiff's whole case at the general causation stage ... simply because Plaintiff's general causation expert was not yet asked to focus on the doses to which the decedent was exposed"). In fact, Judge Dalton excluded the general causation expert in that case because while the expert's "hypothesis that the substances in question cause glioblastoma may one day be proven," "the law lags science, and this science is not yet reliable enough to present to a jury."). *Id.* at *8.

Dr. Elsner's and Dr. Freeman's failure to identify a dose of a substance capable of causing Plaintiffs' conditions renders their opinions unreliable and unhelpful under Eleventh Circuit caselaw, and this failure, alone, warrants exclusion of their opinions.

B. Failure to Identify an Association with Chronic Dermatitis or Eczema

Even assuming Plaintiffs' experts were not required to identify the exposure level at which a particular substance can cause chronic dermatitis or eczema, their general causation opinions would nonetheless be inadmissible because they do not adequately explain how the studies and data they rely on provide a reliable basis for concluding the exposures associated with cleaning up an oil spill can cause chronic dermal conditions. *See Hendrix ex rel. G.P. v. Evenflo Co., Inc.*, 609 F.3d 1183, 1196-97 (11th Cir. 2010) (“[W]e will admit expert opinions pursuant to *Daubert* that are supported by epidemiological studies, provided the expert explains how the findings of those studies may be reliably connected to the facts of the particular case.”) (citations omitted).

Like the experts in the other bellwether cases, Dr. Elsner and Dr. Freeman attempt to use epidemiology to demonstrate a causal relationship between exposure to chemicals associated with an oil spill and chronic dermatitis or eczema. “Epidemiology, a field that concerns itself with finding the causal nexus between external factors and disease, is generally considered to be the best evidence of causation in toxic tort actions.” *Rider*, 295 F.3d at 1198.

“The first step in establishing causation through epidemiology is to demonstrate that exposure to a [chemical] is associated with a particular disease or adverse effect.” *In re Abilify (Aripiprazole) Prods. Liab. Litig.*, 299 F. Supp. 3d 1291, 1306 (N.D. Fla. 2018). However, “[b]ecause of the potential for data to show

associations through confounding or through random chance, epidemiologists must evaluate data to decide whether an observed association is from chance, from confounding, or from a causal relationship.” *In re Zantac (Ranitidine) Prods. Liab. Litig.*, 644 F. Supp. 3d 1075, 1186 (S.D. Fla. 2022). To perform that evaluation, epidemiologists rely on the Bradford Hill factors,¹² which are: (1) temporal relationship; (2) strength of the association; (3) dose-response relationship; (4) replication of the findings; (5) biological plausibility; (6) consideration of alternative explanations; (7) cessation of exposure; (8) specificity of the association; and (9) consistency with other knowledge. *Abilify*, 299 F. Supp. 3d at 1307 (citing the Reference Manual on Scientific Evidence (“Ref. Man.”) at 599-600).

Dr. Elsner’s and Dr. Freeman’s opinions fail the first step. None of the studies they rely on identified an association between an exposure and *chronic dermatitis or eczema*, the conditions for which they offer a general causation opinion. *See* Doc. 686-5 (Elsner Dep., 134:20 - 135:12) (admitting none of the studies he used to support his opinion specifically evaluated chronic dermatitis); Doc. 687-2 (Freeman Dep., 87:14-20) (agreeing the studies he relied on and the opinions he has relate to the development of acute symptoms).

¹² *See* Austin Bradford Hill, *The Environment and Disease: Association or Causation?*, 58 Proc. Royal Soc’y Med. 295 (1965).

Drs. Elsner and Freeman both rely on a study by Craig McGowan which examined the effects of the dispersants used in the response, Doc. 686-12, as well as a study by Jennifer Rusiecki related to members of the Coast Guard who participated in the response effort, Doc. 686-13. However, the McGowan study only considered whether participants experienced “skin irritation.” The definition of “skin irritation” came from the Gulf Long-term Follow-up (“GuLF”) study enrollment interviews, which asked participants whether they experienced two or more days of eczema, dermatitis, other skin rashes, sores, or blisters during: (1) their response work; and (2) during the 30 days preceding the enrollment interview, which occurred one to three years after the spill. Considering the breadth of this definition, the McGowan study did not identify an association between dispersant exposure and chronic dermal conditions.¹³ See Doc. 686-5 (Elsner Dep., 158:3 –159:15, 160:25 – 161:4, 165:22 – 166:4) (confirming the McGowan study’s definition of skin irritation includes more than chronic dermatitis and the study did not try to identify a relationship between dispersant exposure and any chronic condition).

Likewise, the cross-sectional component of the Rusiecki study only surveyed members of the Coast Guard regarding whether they experienced “skin rash or itching” during the response. The longitudinal component of the study, which was

¹³ Indeed, even if a GuLF study participant reported two or more days of dermatitis, it would not qualify as chronic dermatitis, as Dr. Elsner testified that for a diagnosis of chronic dermatitis to be made, the condition should last multiple weeks. Doc. 686-5 (Elsner Dep., 68:16 – 70:23).

based on clinical diagnoses rather than self-reported symptoms, compared the rates of “dermal conditions” in the first two-and-a-half years after the oil spill for responders versus non-responders and responders reporting exposure to oil versus responders reporting no exposure to oil. However, the definition of “dermal conditions” encompassed seven codes from the International Classification of Diseases, which, together, included 41 different skin diagnoses. While Dr. Elsner stated these codes included irritant dermatitis and chronic irritant dermatitis, he admitted: (1) he did not “look[] at each single [code]” and did not know how many diagnoses the seven codes included; (2) the codes include “far more dermatological conditions than those that [he] investigated” and “lots of things that we aren’t concerned with”; and (3) it is unclear how the exclusion of those other conditions would affect the already weak relative risks found in the study. Doc. 686-5 (Elsner Dep., 177:12 – 183:24). Given the overinclusive definition of “dermal conditions,” the longitudinal part of the Rusiecki study does not identify an association between oil exposure and chronic dermatitis.

In addition to the McGowan and Rusiecki studies, Dr. Elsner and Dr. Freeman rely on other studies that evaluated acute dermal symptoms to offer an opinion on the potential causes of chronic dermatitis and eczema. Dr. Elsner cites studies conducted by Kristin Svendsen (Doc. 686-14) and Gitte Jacobsen (Doc. 686-15), but

neither evaluated chronic dermatitis.¹⁴ See Doc. 686-5 (Elsner Dep., 146:14-20) (stating chronic irritant contact dermatitis is not mentioned in the Svendsen study); *id.* (Elsner Dep., 201:23 – 202:23) (stating the Jacobsen study did not examine chronic conditions). The Svendsen study, for example, was based on self-reported symptoms by individuals working as ship’s engineers. Participants were regarded as having “eczema,” “acne,” or “dry skin” if they reported having symptoms of these conditions every week during the prior year. The relative risk found for eczema (1.18) for engineers compared to non-engineers was not statistically significant. Doc. 686-5 (Elsner Dep., 141:21 – 143:21).

The study also evaluated “any dermatitis,” defined as having reported symptoms of eczema or dry skin at least once a week during the last year. However, the study authors noted identifying specific skin conditions was problematic: “For the more specific skin disorders, it is difficult to detect differences by use of a self-administered questionnaire. The participants obviously have problems in diagnosing their own skin diseases. Consequently, we can say very little about the types of skin disorders among the study participants.” And, because the “any dermatitis” analysis did not show any higher prevalence among the seamen than “dry

¹⁴ Plaintiffs criticize BP for arguing that Dr. Elsner relied on only four studies to support his general causation opinion and note Dr. Elsner cited a variety of other studies. Doc. 703 at 25. However, the Rusiecki, McGowan, Svendsen, and Jacobsen studies are the only ones Dr. Elsner referenced in his Bradford Hill analysis, and he testified those were the main studies he relies on. Doc. 686-5 (Elsner Dep., 204:25 – 206:15).

skin” alone, the authors concluded dry skin on the hands and arms was the most common skin problem among ship engineers. Accordingly, the Svendsen study does not provide reliable support for the conclusion that mineral oil, and by extension weathered crude oil, can cause chronic dermatitis.¹⁵

Dr. Freeman references two studies by Mark D’Andrea, but considering those studies only evaluated whether response workers self-reported “skin rash,” they cannot establish an association between an exposure and chronic dermatitis or eczema. Furthermore, neither D’Andrea study compared the skin rash rates of the response workers to those of the unexposed control group, which makes it impossible to calculate a relative risk or determine the existence of an association. *See Ref. Man.* at 218 (“Anecdotal evidence usually amounts to reports that events of one kind are followed by events of another kind. Typically, the reports are not even

¹⁵ The undersigned notes some of the studies Dr. Elsner and Dr. Freeman rely on surveyed individuals regarding their symptoms while the exposure of interest was ongoing. For example, the NIOSH surveys were completed during the response work, the ship’s engineers in Svendsen were currently working, and studies within the Jacobsen meta-analysis involved occupational exposures. In contrast, Plaintiffs’ claims involve chronic dermal conditions that were allegedly caused by exposures that ended many years ago. This difference makes these studies less relevant to the facts of the case and, thus, they do not provide reliable support for Dr. Elsner’s and Dr. Freeman’s general causation opinions. *Cf. Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 352-53 (5th Cir. 2007) (concluding study did “not appear to be very relevant to [the plaintiff’s] claim” and district court did not err when determining study “was unreliable as support” for general causation opinion when the plaintiff, “who worked as a tankerman for only one year, [did] not allege the type of exposure, either in terms of the chemicals involved or the length of exposure, experienced by ‘shipyard workers’ in the ... study”).

sufficient to show association, because there is no comparison group.”); *id.* at 602 (“Relative risk measures the strength of the association.”).

Dr. Freeman also relies on a study of the *Hebei Spirit* oil spill response by Min Seob Sim, but that study only surveyed workers regarding whether they experienced “skin lesions including erosion, blisters, and rash” in the 7 to 14 days after the spill. And in his analysis of the NIOSH data, Dr. Freeman defined response workers as having “skin problems” if they reported itchy skin, red skin, rash, or hot and dry skin during the cleanup.¹⁶ Doc. 687-1 at 16; Doc. 687-2 (Freeman Dep., 91:5-22) (admitting he has no evidence any of the workers who filled out the NIOSH surveys have ever been diagnosed with either chronic eczema or chronic dermatitis). Thus, none of the studies or data Dr. Elsner and Dr. Freeman rely on establish an association between an exposure and chronic dermatitis or eczema.

Nevertheless, Plaintiffs and their experts argue studies and data related to acute dermal symptoms can be used to form an opinion on the cause of chronic dermatitis and eczema. Dr. Elsner suggests relying on acute symptoms is permissible because, in his opinion, oil and dispersants may cause skin inflammation

¹⁶ As stated above, Dr. Freeman also analyzed the GuLF study data, which was collected by the National Institute of Environmental Health Sciences. The GuLF study data was the same data used in the McGowan study, which only evaluated reports of “skin irritation.” Thus, it suffers from the same definitional problem as the McGowan study. In addition, Dr. Freeman’s report devotes several paragraphs to discussing a study by Kaitlyn Lawrence which evaluates the risk of asthma among response workers. Doc. 687-1 at 25-26. It is unclear why this study is included in Freeman’s report, as it has no discernible connection to dermal conditions.

which manifests as acute dermatitis, which may become chronic dermatitis over time. Doc. 686-1 at 3. He adds, “it is generally accepted that repeated acute irritant exposures may lead to chronic dermatitis.” Doc. 686-10 at 2. Similarly, Dr. Freeman asserts “the chain of causation between the acute and chronic symptoms in the populations studied over time is clearly established, and contiguous.” Doc. 687-1 at 31. However, neither Dr. Elsner nor Dr. Freeman attempt to explain under what circumstances, and with what frequency, skin irritation from exposure to oil or dispersants develops into chronic dermatitis. *See In re Deepwater Horizon Belo Cases*, 2022 WL 17721595, at *21 (noting “not all acute illnesses develop into chronic ones, as symptoms may resolve on their own or cease when exposure to an irritant ends”).

In addition, some of the very studies and data these experts rely on demonstrate why studies about acute symptoms cannot reliably be used to draw conclusions about chronic conditions. While the McGowan study found a positive association (adjusted prevalence ratio of 1.34) between dispersant exposure and skin irritation during the response, it found an inverse association (adjusted prevalence ratio of 0.84) between dispersant exposure and skin irritation one to three years later.¹⁷ Indeed, Dr. Freeman stated in his deposition that he “can’t say more likely

¹⁷ Although McGowan and his co-authors found these results difficult to explain, Dr. Elsner suggests the results could be due to the “hardening phenomenon,” whereby: (1) skin is able to adapt to repeated exposure to irritants; and (2) the symptoms of a high percentage of individuals

than not that anybody who had acute dermatitis at the time of cleanup would go on more often than not to develop a chronic eczema or chronic dermatitis.” Doc. 687-2 (Freeman Dep., 93:7-25). As Dr. Freeman acknowledged, the data would not support that conclusion. *Id.* Thus, studies relating to acute symptoms cannot be reasonably relied upon to support a general causation opinion on chronic conditions.

Dr. Freeman also conducted his own analysis of the GuLF study, which showed “significant associations between skin or clothing contact with oil/tar/oily water, dispersants, and cleaning chemicals and having self-reported irritated skin for 2 or more days *at [the] time of the BPDWH oil spill.*” Doc. 687-1 at 28 (emphasis added). During his deposition, however, Dr. Freeman admitted his analysis also showed a statistically significant decrease in the prevalence of skin symptoms *one to three years after the spill* for individuals reporting contact with these substances compared to individuals reporting no such contact.¹⁸ Doc. 718-1 (Freeman Dep., 82:18 – 83:1, 86:15 – 87:2).

exposed to an irritant will resolve and not develop into chronic dermatitis, even if the exposure continues. Doc. 686-1 at 18; Doc. 686-5 (Elsner Dep., 162:14 – 163:24).

¹⁸ Plaintiffs note Dr. Freeman’s analysis of the GuLF study data reveals: (1) 17.7% of response workers experienced irritated skin for at least two days during the cleanup, and 39.3% of that 17.7% reported dermatitis, eczema, or inflamed skin all or most of the time one to three years after the spill; and (2) “the strongest predictor of dermatologic outcomes 1 to 3 years after the spill was acute dermatologic symptoms during the response work[.]” which “provides strong evidence that acute dermatologic symptoms can lead to chronic problems.” Doc. 687-1 at 28, 31. However, these analyses are not linked to any exposure and, thus, they provide no insight into whether an exposure is associated with a dermal condition years after the exposure. Moreover, as BP argues, Dr. Freeman’s analysis of the GuLF study data was not peer-reviewed and does not account for several omissions in the data such as how long the survey respondents may have experienced

Taken together, the findings from the McGowan study, Dr. Elsner's explanation for those findings, and the results of Dr. Freeman's analysis show : (1) elevated rates of acute dermal symptoms at the time of an exposure will not necessarily translate to elevated rates of dermal symptoms years after an exposure; and (2) studies identifying an association between an exposure and acute skin irritation cannot be reliably used to conclude an association exists between that exposure and chronic dermatitis or eczema, particularly when the exposure has long since ended. *See In re Deepwater Horizon BELO Cases*, 2022 WL 104243, at *2-3 (finding Court did not err in excluding BELO expert when some of the "oil spill studies" she relied on "documented symptoms and primarily acute health effects experienced over a period of less than a year after exposure, not chronic conditions, as are alleged here") (cleaned up). Moreover, these findings: (1) contradict Dr. Freeman's assertion that "the chain of causation between the acute and chronic symptoms in the populations studied over time is clearly established, and contiguous"; and (2) undermine the conclusion that a cause-and-effect relationship exists between chronic dermatitis or eczema and exposure to oil and dispersants.

Accordingly, because Dr. Elsner and Dr. Freeman have not identified an association in the literature between an exposure and *chronic dermatitis or eczema*,

dermal symptoms, whether any suffered from pre-existing conditions, or whether any had been diagnosed with chronic conditions.

their general causation opinions are not a reliable product of the epidemiological method and are inadmissible. *See In re Deepwater Horizon Belo Cases*, 2020 WL 6689212, at *12 (concluding expert’s report fell “woefully short of the *Daubert* and Rule 702 standards based on her failure to identify *relevant* statistically significant associations in the epidemiologic literature”) (emphasis in original).

Like the previous rounds of BELO bellwether cases, the reality is that the evidence and science simply are not there to support Plaintiffs’ claims. *See* Doc. 726-2 at 5 (Dr. Freeman acknowledging “there have not been any studies that have systematically evaluated chronic dermatologic outcomes among clean-up responders like the subject plaintiffs” and there is a “lack of evidence of a link between exposures to oil spill-associated chemicals and these diseases ... ”); *see also Rider*, 295 F.3d at 1202 (“The courtroom is not the place for scientific guesswork, even of the inspired sort. Law lags science; it does not lead it.”) (quoting *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 319 (7th Cir. 1996)).

C. Flawed Bradford Hill Analysis

Dr. Elsner’s and Dr. Freeman’s failure to identify a harmful dose and failure to identify a relevant association in the literature provide two independent bases for excluding their general causation opinions. *See* Ref Man. at 599 n.141 (noting that considering the Bradford Hill factors in the absence of an association identified in epidemiologic studies “does not reflect accepted epidemiologic methodology”).

Thus, while the undersigned finds it unnecessary to engage in an exhaustive discussion of each flaw in these experts' analysis of the Bradford Hill factors, the undersigned will discuss a few of those deficiencies below. These deficiencies cast further doubt on the reliability of the experts' opinions and lend additional support for the Court to exclude their opinions.¹⁹

i. Temporality

Dr. Elsner's report states "[t]emporality is given by the fact that skin symptoms in persons exposed to oil spill and dispersants developed following the exposures," Doc. 686-1 at 19, and Dr. Freeman's report states, "the temporal relationship described in the literature is appropriate in sequence and proximity," Doc. 687-1 at 32. Dr. Freeman cites the longitudinal portion of the Rusiecki study as establishing temporality, and Dr. Elsner testified it was the only study he relied on that could establish temporality. Doc. 686-5 (Elsner Dep., 187:15 – 188:9). However, as discussed above, that portion of Rusiecki used an overinclusive definition of "dermal conditions" that did not focus on chronic dermatitis or eczema.

Dr. Freeman also asserts temporality is established by his analysis of the GuLF study data, which "revealed the strongest predictor of dermatologic outcomes 1 to 3 years after the spill was acute dermatologic symptoms during the response

¹⁹ The undersigned recognizes the Bradford Hill factors only provide guidance for determining whether an association is causal and not every factor must be satisfied to conclude a causal relationship exists.

work.” Doc. 687-1 at 33. However, this analysis was not tied to any particular exposure and, thus, cannot establish temporality, which relates to whether an exposure precedes a disease. *See* Ref. Man. at 601.

Furthermore, in the Bradford Hill analysis sections of their reports, both Dr. Elsner and Dr. Freeman neglect to mention most of the studies and data they rely on are cross-sectional.²⁰ Doc. 686-1 at 19; Doc. 687-1 at 32-33. “In a cross-sectional study, ‘both exposure and disease are determined in an individual at the same point in time,’ and therefore, ‘it is not possible to establish the temporal relation between exposure and disease’ from this type of study.” *In re Deepwater Horizon Belo Cases*, 2020 WL 6689212, at *9 n.30 (quoting Ref. Man. at 560); *see also* Doc. 686-5 (Elsner Dep., 187:25 – 188:5) (admitting the McGowan study and the cross-sectional component of the Rusiecki study could not establish temporality). And “[c]ross-sectional studies are rarely useful in identifying toxic agents.” Ref. Man. at 556.

ii. Strength of Association

Dr. Elsner’s report states “strength of the association is given by effect size and the statistical significance of the association.” Doc. 686-1 at 19. Dr. Freeman’s report asserts “abundant evidence ... demonstrated substantial statistically

²⁰ The following sources are cross-sectional: (1) the McGowan study; (2) the survey component of the Rusiecki study; (3) the Svendsen study; (4) the parts of both D’Andrea studies regarding skin rash; (5) the Sim study; (6) the NIOSH data; and (7) the GuLF study data.

significant associations between exposure to products of the BPDWH oil spill and skin problems like eczema and dermatitis.” Doc. 687-1 at 32 (citing his analysis of the NIOSH and GuLF study data, which examined symptoms during the response, to support this assertion). However, as discussed, none of the associations the experts identified relate to chronic dermatitis or eczema.

Furthermore, Dr. Elsner admitted during his deposition: (1) the studies he relied upon showed three weak associations and one moderate association; and (2) “it would be desirable that we have a stronger strength of association.” Doc. 686-5 (Elsner Dep., 196:10 – 197:7). Nonetheless, Dr. Elsner does not address these deficiencies in his analysis of the Bradford Hill factors. And neither Dr. Elsner nor Dr. Freeman address the inverse association found in McGowan in their strength of association analyses.

iii. Dose-Response Relationship

Dr. Elsner’s report concedes a dose-response relationship “was not proven” in the epidemiological studies he relied on but says it can be inferred from the experimental animal studies. Doc. 686-1 at 19. However, the animal studies only showed a dose-response relationship for skin irritation, not chronic dermatitis.²¹ *See*

²¹ Similarly, Dr. Freeman cites his analysis of the NIOSH data as establishing the biological gradient factor, but as his report notes, that analysis only “revealed significant dose-response relationships between the duration and frequency of exposure and self-reported *acute skin problems*.” Doc. 687-1 at 33.

Doc. 686-10 at 10 (Dr. Elsner noting “[t]here are few animal studies on chronic irritant dermatitis comparable to human long-term exposure because mouse and rat studies are impossible due to the limited life expectancy of rodents”). In addition, as previously indicated, Dr. Elsner never explains why the results of the animal studies can be extrapolated to humans. *See Kilpatrick v. Breg, Inc.*, 613 F.3d 1329, 1339 (11th Cir. 2010) (noting expert who relied on rabbit study but “could not explain the possible differences in dose-response relationship between humans and rabbits” put the methodology of his “general causation opinions in question”).

iv. Consistency (Replication of Findings)

Dr. Elsner states the consistency factor is satisfied “since consistent findings were observed” in the Rusiecki study and McGowan study. Elsner Report ¶ 33. But the two studies did not have consistent findings. Indeed, the studies did not even evaluate the same exposure; the Rusiecki study evaluated exposure to oil, while the McGowan study evaluated exposure to dispersants. Doc. 686-5 (Elsner Dep., 154:3-6, 172:7-12). Because the studies reviewed exposures to different substances, the findings between the studies cannot establish consistency.

Furthermore, the studies did not evaluate the same outcomes. The term “dermal conditions” used in the Rusiecki study was defined differently from the term “skin irritation” in the McGowan study. *See* Doc. 686-5 (Elsner Dep., 35:9 – 36:18, 100:15 – 101:14, 132:4-12) (noting it is difficult to compare epidemiological studies

involving dermal conditions, including the studies he relies on, because dermal conditions are not defined uniformly). Lastly, the longitudinal part of the Rusiecki study found weak positive associations between oil exposure and response work and dermal conditions, and the McGowan study found an inverse association between dispersant exposure and skin irritation one to three years after the spill. Based on these significant differences, the findings in the studies cannot be considered consistent.

Dr. Freeman claims his analysis of the NIOSH data and the GuLF study data, as well as the findings from the cross-sectional component of the Rusiecki study, “demonstrate consistent associations between exposure to products of the BPDWH oil spill and skin problems like eczema and dermatitis.” Doc. 687-1 at 32. However, much like Dr. Elsner, Dr. Freeman fails to acknowledge the analyses he references did not evaluate the same exposure. For example, he cites an association he derived from the NIOSH data between skin problems and exposure to, collectively, four different substances. *See* Doc. 687-1 at 32 (noting his analysis of the NIOSH data showed 20.3% of workers that reported any exposure to dripping oil, tar balls, dispersant, or dust reported skin problems while 4.0% of workers reporting no exposure to the four substances reported skin problems). He claims this association is consistent with three separate associations he identified in the GuLF study data for workers that reported skin or clothing contact with: (1) oil/tar/oily water; and (2)

dispersants, and cleaning chemicals. Because the associations did not involve the same substance, they cannot be considered consistent. Furthermore, the NIOSH data, the GuLF study data, and the Rusiecki study did not use a uniform definition for the dermal outcomes they evaluated.

v. Coherence

Dr. Freeman does not provide any meaningful discussion of the coherence factor. He simply states, “it certainly ‘makes sense’ that dermatologic exposure to chemical irritants can cause acute and chronic skin problems like eczema and dermatitis.” Doc. 687-1 at 33. He cites no sources to support this statement and its conclusory nature does not reflect a measured consideration of the coherence factor.

D. Other Problems with Dr. Freeman’s Opinion

Dr. Freeman’s opinion also suffers from additional deficiencies. While the deficiencies identified below might not independently require the exclusion of an expert, cumulatively, they show the opinions are unreliable.

i. Cherry Picking of Data

Dr. Freeman cherry-picked which analyses of the GuLF study data he included in his report. *See In re Lipitor (Atorvastatin Calcium) Mktg., Sales Practices & Prods. Liab. Litig.*, 892 F.3d 624, 634 (4th Cir. 2018) (“Result-driven analysis, or cherry-picking, undermines principles of the scientific method and is a quintessential example of applying methodologies (valid or otherwise) in an

unreliable fashion.”). Specifically, he included the analyses which show positive associations “between skin or clothing contact with oil/tar/oily water, dispersants, and cleaning chemicals and having self-reported irritated skin for 2 or more days at [the] time of the BPDWH oil spill,” Doc. 687-1 at 28, but excluded the analyses which show inverse associations between contact with these substances and having skin irritation one to three years after the spill.

Plaintiffs claim Dr. Freeman “thoroughly explained” why he excluded the long-term analyses from his report during his deposition. Doc. 726 at 41. Dr. Freeman testified that: (1) “with regard to the exposure and skin symptoms, there’s a problem with the data as far as using the unexposed group as an actual control”; (2) he believed the exposure information was “incomplete” and “because he [does not] have all of the information that was queried in the McGowan data, he [does not] know if there are other exposures that are not contemplated in this dataset”; and (3) “I wasn’t looking at exposure information because I know the exposure information is not well related to the change in symptoms[.]” Doc. 718-1 (Freeman Dep., 83:2 – 84:21).

However, this testimony does not reasonably explain why the associations Dr. Freeman identifies between exposures and skin irritation at the time of the spill are reliable and support his opinion, while the unfavorable—and more relevant—associations between exposures and skin irritation years after the spill from the same

dataset are unreliable and can be disregarded. His failure to include the results of these pertinent analyses in his report undermines the reliability of his opinion. *See In re Lipitor*, 892 F.3d at 634 (“Courts have consistently excluded expert testimony that ‘cherry-picks’ relevant data because such an approach does not reflect scientific knowledge, is not derived by the scientific method, and is not ‘good science.’”) (cleaned up) (citations omitted).

ii. Failure to Focus on a Single Substance

Dr. Freeman’s report does not focus on any single chemical or substance. He references studies which evaluated the effects of exposure to oil and the dispersant COREXIT, and his analysis of data collected by NIOSH and NIEHS includes information about exposures to dust and cleaning chemicals. *See* Doc. 687-2 (Freeman Dep., 64:19-24) (“[A]side from describing the components that are in the [dispersants] and the weathered oil, I did not go into detail and I certainly didn’t pick out something and say this is the thing that’s most likely causing it.”). While Dr. Freeman is not necessarily required to identify a particular chemical in oil or dispersant that can cause Plaintiffs’ injuries, his failure to focus his analysis on a single substance poses problems, as alluded to in the discussion of the consistency factor. Specifically, citing multiple studies which show associations between different substances and an outcome provides less support for a causation opinion

than citing multiple studies which show associations between the same substance and an outcome.

E. Material Safety Data Sheets

Plaintiffs' experts also rely on the material safety data sheets ("MSDS") for weathered crude oil and COREXIT to support their general causation opinions. Specifically, the experts note the MSDSs show these substances can cause acute dermal symptoms and show mineral oil is considered a surrogate for weathered crude oil.²²

However, "in the absence of a statistical association supported by an epidemiologic[al] study, 'secondary' evidence ... such as biological plausibility, case studies, adverse event reports, animal and *in vitro* studies, standing alone or in the aggregate, are 'insufficient proof of general causation.'" *In re Deepwater Horizon Belo Cases*, 2020 WL 6689212, at *10 (citations omitted). Because Dr. Elsner and Dr. Freeman do not identify an association between an exposure and chronic dermatitis in the epidemiological literature, the MSDSs cannot rescue their general causation opinions.

²² The MSDS for "Mississippi Canyon 252 Weathered Crude Oil" indicates it causes skin irritation and "prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis." Doc. 703-7. The MSDS for COREXIT indicates: (1) it is a skin irritant; (2) it can cause moderate irritation; (3) it is harmful if absorbed through skin; and (4) "skin contact may aggravate an existing dermatitis condition." Doc. 703-8.

Moreover, the MSDSs for weathered crude oil and COREXIT do not indicate they can cause chronic dermatitis. Docs. 703-7 & 703-8; Doc. 686-5 (Elsner Dep., 117:21 – 118:12, 124:12 – 127:22). And the fact that the MSDSs for weathered crude oil and COREXIT indicate they can cause skin irritation and acute dermatitis does not establish that the substances can cause chronic dermatitis because, as was previously explained, acute symptoms or conditions are not a reliable proxy for chronic conditions.²³ See *Byous v. L.M. Scofield Co.*, 2009 WL 10664903, at *4 (N.D. Ga. Jan. 27, 2009) (noting the MSDS for Cureseal-S, which stated it could irritate the respiratory tract, cause asthma, and aggravate conditions such as “respiratory (asthma-like) disorders,” spoke only “generally about the irritating effects of Cureseal-S” and did not show the substance had been demonstrated to cause reactive airway dysfunction syndrome). Thus, the MSDSs for weathered crude oil and COREXIT do not provide reliable support for the conclusion that these substances can cause chronic dermatitis. See *Beyer v. Anchor Insulation Co.*, 238 F. Supp. 3d 270, 283 (D. Conn. 2017) (“MSDSs that warn consumers of potential adverse effects should not automatically be treated as admissions establishing scientific causation—even where causal language is used—because such warnings

²³ In addition, the MSDSs for COREXIT describe the effects of being exposed to undiluted concentrations of dispersants. See *In re Deepwater Horizon Belo Cases*, 2020 WL 6689212, at *4 (noting “the MSDS toxicity information ‘relates to the effects that might occur if an individual is exposed to the pure, undiluted Corexit products, at sufficient levels and for sufficient duration’ and are much less likely to occur after the dispersants have been diluted from application to an oil spill in the ocean”).

must be given even where there is only an association and causation has not (yet) been proven.”); *see also id.* (“Permitting recitation of product label warnings or MSDS sheets as an admission of causation ‘as a policy matter ... might stifle free discussion of adverse event reports and potential label changes, and discourage ... manufacturers from open discourse, if such discussion might later be held to concede the issue of general causation.’”) (quoting *In re Mirena IUD Prods. Liab. Litig.*, 202 F. Supp. 3d 304, 319 (S.D.N.Y. 2016)).

Dr. Elsner also tries to use the MSDS for weathered crude oil to show epidemiological studies related to mineral oil are relevant to this case.²⁴ The MSDS states no occupational exposure limits for weathered crude oil have been established, but under “other applicable exposure limit values,” it lists the exposure limits for mineral oil set by ACGIH, NIOSH, and OSHA. Doc. 703-7 at 4. Nevertheless, the MSDS, standing alone, does not support the proposition that epidemiological studies regarding exposure to mineral oil and dermatitis can be used to infer causation between exposure to weathered crude oil and chronic dermatitis. Dr. Elsner admits he did not independently assess the similarities between weathered oil and mineral oil, Doc. 686-5 (Elsner Dep., 110:10-16), and his report does not explain why mineral oil would be expected to produce the same dermal effects as weathered crude

²⁴ Mineral oil was one of the substances the ship’s engineers in the Svendsen study were exposed to and the Nowak study evaluated the effects of mineral oil on rabbit skin.

oil.²⁵ See *Johnson v. Arkema, Inc.*, 685 F.3d 452, 465 (5th Cir. 2012) (“[I]n exercising its discretion as a gatekeeper, a court may refrain from treating a MSDS as reliable until it is presented with scientific evidence justifying the relevant statements found within the MSDS.”) (citation omitted).

F. Declarations from Drs. Harbut and Herzstein

Plaintiffs also suggest the declarations Drs. Harbut and Herzstein submitted in the MDL are consistent with their experts’ opinions on general causation and support the opinions’ admissibility. As with the MSDSs, however, because the experts have not offered a reliable general causation opinion based on epidemiological evidence, the declarations cannot save the admissibility of the opinions. See *Chapman*, 766 F.3d at 1308 (“Because these experts have failed to demonstrate the primary methods for proving the zinc in Fixodent causes myelopathy, their secondary methodologies, including plausible explanations, generalized case reports, hypotheses, and animal studies are insufficient proof of general causation.”).

²⁵ Dr. Elsner’s report states BP, based on the testimony of its corporate representative, David Dutton, has conceded “mineral oil is a scientifically accurate and reliable surrogate to use when conducting industrial hygiene testing.” Doc. 686-1 at 12. While Dutton testified mineral oil was a derivative of crude oil, he also testified mineral oil and weathered oil are “not identical” and the occupational exposure limit for mineral oil “was the best thing we had at the time” and “was a reasonable replacement for weathered oil because [an] occupation exposure limit for weathered oil doesn’t exist.” *Culliver v. BP Exploration & Prod. Inc.*, Case No. 3:21cv4942-MCR-HTC, Doc. 185-3 (N.D. Fla.) (Dutton Deposition Excerpt).

Furthermore, while the declarations contain general statements indicating exposure to substances associated with the oil spill and response could cause the conditions listed in the Matrix, they do not contain detailed discussions regarding general causation.²⁶ The declarations do not specify what evidence supports the relevant opinions. The declarations do not discuss the epidemiological literature, identify which studies showed associations between an exposure and a disease, or analyze any such associations using the Bradford Hill factors. Indeed, as the Court previously stated, the declarations: (1) “were general in nature, were not issued for purposes of proof in an adversarial setting, and were never subject to a *Daubert* challenge”; (2) “did not identify a generally accepted level at which any particular substance associated with the Deepwater Horizon spill was likely to increase the incidence of a specific medical condition”; and (3) “do not represent a reliable expert opinion for purposes of establishing general causation in this case.” *In re Deepwater Horizon Belo Cases*, 2020 WL 6689212, at *9.

²⁶ Dr. Harbut’s declaration states: (1) he found “the conditions in the SPC matrix to reflect the state of the science and conform with the world’s medical literature in regard to the health effects of exposure to petroleum and/or petroleum-based dispersants”; (2) “[a] person who is exposed to oil and/or petroleum-based dispersant via direct skin contact is at risk of contracting either chronic contact dermatitis or chronic eczematous reaction because of the chemical insult which occurs at the cellular level.” Doc. 703-4. Dr. Herzstein’s declaration states: (1) the chronic conditions identified in the Matrix “consist of those conditions for which there is a medical basis to conclude that contact with oil and/or dispersants caused them if there were exposure to sufficient amounts of such substances for a sufficient duration of time.” Doc. 703-6.

In addition, although Plaintiffs cite the declarations as generally supporting the proposition that oil and dispersant exposure can cause chronic dermatitis and eczema, Dr. Elsner and Dr. Freeman provide no critical analysis of the opinions found in the declarations. If the sources Drs. Harbut and Herzstein appended to their declarations support Dr. Elsner's and Dr. Freeman's general causation opinions, they should have identified those sources and explained why they constitute reliable evidence for their opinions. *See id.* at *12 (“An expert opinion, even if supported by a lengthy list of case studies and treatises, is not reliable without an explanation of the logical steps supporting it.”) (citing *In re Abilify*, 299 F. Supp. 3d at 1359-60 (finding a lengthy appendix of scientific literature insufficient to substantiate a qualified expert's opinion, despite the expert's considerable expertise, because he failed to directly connect the publications to his own analysis)). Simply referencing another subject-matter expert's declaration, without evaluating the scientific basis for the declaration, does not provide reliable support for a general causation opinion.

IV. Conclusion

Federal Rule of Evidence 702 was amended, effective December 1, 2023, “to clarify and emphasize (1) the applicability of the ‘preponderance of the evidence standard,’ that is, ‘expert testimony may not be admitted unless the proponent demonstrates to the court that it is more likely than not that the proffered testimony meets the admissibility requirements set forth in [FRE 702],’ and (2) that ‘each

expert opinion must stay within the bounds of what can be concluded from a reliable application of the expert's basis and methodology.” *Mills v. City of Philadelphia*, 2024 WL 1253688, at *2, n.5 (E.D. Pa. Mar. 22, 2024) (quoting Fed. R. Evid. 702, Advisory Comm. Notes, 2023 Amendments). “The amendment was motivated by the Advisory Committee’s observation that in a number of federal cases ... judges did not apply the preponderance standard of admissibility to Rule 702’s requirements of sufficiency of basis and reliable application of principles and methods, instead holding that such issues were ones of weight for the jury[,]” which is “an incorrect application of Rules 702 and 104(a).” *Allen v. Foxway Transp., Inc.*, 2024 WL 388133, at *3 (M.D. Pa. Feb. 1, 2024) (quotation marks and citations omitted).

Based on the foregoing, Plaintiffs have not met their burden of showing Dr. Elsner’s and Dr. Freeman’s general causation opinions are admissible. Dr. Elsner and Dr. Freeman did not reliably use epidemiology to conclude that substances associated with the oil spill can cause chronic dermatitis or eczema, and they failed to identify a harmful level of exposure to any substance. And without admissible expert testimony regarding causation, Plaintiffs cannot prevail on their claims. *See In re Deepwater Horizon BELO Cases*, 2023 WL 2711573, at *1 (“To succeed in this toxic tort context, Plaintiffs must show through expert testimony that a chemical or mixture of chemicals from the oil spill caused their LMPCs.”) (citation omitted).

Thus, summary judgment should be entered in BP's favor. *See Chapman*, 766 F.3d at 1313 ("Evidence inadmissible at trial cannot be used to avoid summary judgment.") (quoting *Corwin v. Walt Disney Co.*, 475 F.3d 1239, 1249 (11th Cir. 2007)).

Accordingly, it is RECOMMENDED:

1. That BP's motion to exclude Dr. Elsner, Doc. 686, be GRANTED.
2. That BP's motion to exclude Dr. Freeman, Docs. 687, be GRANTED.
3. That BP's motion to strike, Doc. 704, be GRANTED only to the extent that the Settlement Agreement from the MDL, and the declarations submitted in support thereof, do not establish general causation.
4. That Plaintiffs' motions to exclude BP's experts, Docs. 689, 690, 691, & 692, be DENIED AS MOOT.
5. That BP's motion to strike improper expert reports filed as exhibits to Plaintiffs' reply memoranda, Doc. 722, be DENIED AS MOOT.
6. That BP's motion for summary judgment, Docs. 688, be GRANTED.
7. That the clerk be directed to enter judgment in favor of BP and close the file.

At Pensacola, Florida, this 25th day of June, 2024.



HOPE THAI CANNON
UNITED STATES MAGISTRATE JUDGE

NOTICE TO THE PARTIES

Objections to these proposed findings and recommendations must be filed within **fourteen (14) days** of the date of the Report and Recommendation. Any different deadline that may appear on the electronic docket is for the court's internal use only and does not control. An objecting party must serve a copy of its objections upon all other parties. A party who fails to object to the magistrate judge's findings or recommendations contained in a report and recommendation waives the right to challenge on appeal the district court's order based on the unobjected-to factual and legal conclusions. See 11th Cir. Rule 3-1.