

# EXHIBIT C

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
SOUTHERN DIVISION  
NO. 7:23-CV-897**

**IN RE:**

**CAMP LEJEUNE WATER LITIGATION**

**[PROPOSED] ORDER**

**This Document Relates To:**

**ALL CASES**

On June 5, 2026, the Court (Chief Judge Myers, Judge Boyle, and Judge Dever) denied without prejudice the United States’ motion to exclude certain Plaintiffs’ Leadership Group’s (“PLG” or “plaintiffs”) expert opinions on general causation (D.E. 886).<sup>1</sup> As the Court held, “to the extent experts in this litigation premise their epidemiological conclusions on a reduced level of methodological rigor because this is a legal proceeding involving a claim where the burden of proof is equipoise, their opinion violates Rule 702.” *Id.* at 17. Further, when an expert uses causation methodologies such as the Bradford Hill factors and weight-of-the-evidence “to produce conclusions about a causal relationship, ‘any step that renders the analysis unreliable under [Rule 702] render’s the expert’s testimony inadmissible[,] . . . whether the step completely changes a reliable methodology or merely misapplies that methodology.” *Id.* at 13 (citations omitted). Chief Judge Myers, Judge Boyle, and Judge Dever further ordered the Parties to submit a joint proposed order within 21 days that identifies expert opinions to which the Order applies.

The Court has reviewed: the Parties’ submissions in response to the Order of June 5, 2026; the expert reports and deposition transcripts at issue, which have been filed on the Master Docket

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<sup>1</sup> Judge Flanagan will separately resolve these issues in her cases. *See* D.E. 886 at 1, 20.

in this litigation; and the entire record in this litigation. The Court has applied the legal principles and reasoning set out in its Order of June 5, 2026, and hereby ORDERS as follows:

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***Bladder Cancer Cases (Chief Judge Myers)***

The following expert opinions violate Rule 702 for the reasons set out in the Court’s Order of June 5, 2026 (D.E. 886) and are hereby inadmissible at trial in the Track 1 bladder cancer bellwether cases (i.e., *Criswell v. United States*, 7:23-cv-1482; *Dyer v. United States*, 7:23-cv-357; *Cagiano v. United States*, 7:23-cv-569; and *Laramore v. United States*, 7:23-cv-594):

**1) All general causation opinions by Dr. Steven M. Bird regarding bladder cancer;**

Dr. Steven Bird admitted that the Camp Lejeune Justice Act’s (“CLJA”) legal standard “has significant implications for the analysis at issue” in his Phase II report on bladder cancer. Bird GC Rep. (BC) at 7 (JA Ex. 67, D.E. [463-6](#)). Dr. Bird defines the Bradford Hill factor of strength of association as requiring only an odds ratio of 1.1 “given the lower standard at issue . . . of ‘as likely as not’ or ‘equipoise.’” Bird GC Rep. (KC) at 46 (JA Ex. 83, D.E. [464-4](#)). Dr. Bird does not require statistically significant associations before applying the remaining Bradford Hill factors. *Cf.* Bird GC Rep. (BC) at 50 (JA Ex. 67, D.E. [463-6](#)) (analyzing the strength of association factor for bladder cancer and vinyl chloride, but citing only a single study with a non-significant result). Thus, Dr. Bird failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702 in his initial report and supplemental report.

**2) All general causation opinions by Dr. Stephen Culp regarding bladder cancer; and**

Dr. Stephen Culp admitted in his Phase II report on bladder cancer that the “standard of proof for [his] review is determined by the Camp Lejeune Justice Act of 2022.” Culp Rep. (Bladder) at 2 (JA Ex. 70, D.E. [463-9](#)). In this “Mandate” section of his report, Dr. Culp explained that “[u]sing this standard[,]” his report examined “whether the published epidemiological literature on exposure to PCE, TCE, benzene, and the contaminated water at Camp Lejeune provides sufficient evidence to conclude that exposure to the same causes or is as likely as not a

cause of bladder cancer.” *Id.* At his deposition, Dr. Culp further explained “I don’t have legal training per se, but I have enough to understand the mandate. I do feel I am sufficiently capable of understanding the mandate that was presented.” Culp Dep. Tr. at 47:19–22 (JA Ex. 155, D.E. [469-9](#)). Incorporating the “mandate,” Dr. Culp also relied on the Agency for Toxic Substances and Disease Registry’s (“ATSDR”) use of the “at least as likely as not” standard to justify ignoring statistical significance. Culp Rep. (Bladder) at 4–5 (JA Ex. 70, D.E. [463-9](#)). Dr. Culp explained that “given that the same standard governs [his] analysis,” he agreed with ATSDR’s approach to ignore statistical significance and employed the same approach in his report. *Id.* at 5. Further, Dr. Culp took an inconsistent approach to considering statistical significance, selectively including confidence intervals for certain studies in his Bradford Hill analysis while failing to note the confidence intervals for other studies. *See id.* at 21–22; 32; 39; 44. Thus, Dr. Culp failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702.

### **3) All general causation opinions by Dr. Benjamin Hatten regarding bladder cancer.**

Dr. Benjamin Hatten admitted that the CLJA’s legal standard was a “different lens for evaluating the total body of evidence, not that it’s less, necessarily less, but it is a different framework . . . or . . . a different, as I said, lens for evaluating the evidence.” Hatten GC Dep. Tr. at 222:15–223:13 (JA Ex. 158, D.E. [469-12](#)). In discussing his Bradford Hill analysis, he states that “[t]he following discussion evaluates the evidence to determine whether it is at least ‘as likely as not’ that this demonstrated association is causal.” Hatten GC Rep. (BC) at 18, 24, 29, 31 (JA Ex. 76, D.E. [463-15](#)). Dr. Hatten arbitrarily considered any effects estimate above 1.1 as “elevated” because of the CLJA’s legal standard. *Cf. id.* at 7 (“Furthermore, ‘an effect estimate was considered ‘near the null value’ if [less than or equal to] 1.10 and ‘elevated’ if [greater than] 1.10.” (no quotation provided)); *see also* Hatten SC Dep. Tr. at 92:14–93:9 (JA Ex. 583, D.E. [507-4](#))

(testifying that 1.18 is not “traditionally considered a strong positive association” but that “it is in the context of evaluating this . . . ” under “the framework that was set out by ATSDR . . . that identified a[n] elevated measure of association as greater than 1.1 and [I] used that consistently in evaluating the evidence”). Dr. Hatten stated in his report that the CLJA’s standard is “of particular import” in this litigation. Hatten GC Rep. (BC) at 5 (JA Ex. 76, D.E. [463-15](#)). Dr. Hatten also assumed that the CLJA’s legal standard permitted him to forego the use of confidence intervals or statistical significance. *Cf. id.* at 7 (“Of note, the ATSDR states that ‘we did not use confidence intervals to determine whether a finding was ‘statistically significant,’ nor did we use significance testing to assess the evidence for causality.’” (no quotation provided)). Dr. Hatten does not report confidence intervals in his report. *See generally id.* Thus, Dr. Hatten failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702.

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RICHARD E. MYERS II  
Chief United States District Judge

### ***Kidney Cancer (Judge Boyle)***

The following expert opinions violate Rule 702 for the reasons set out in the Court’s Order of June 5, 2026 (D.E. 886) and are hereby inadmissible at trial in the Track 1 kidney cancer bellwether cases (i.e., *Downs v. United States*, 7:23-cv-1145; *Fancher v. United States*, 7:23-cv-275; *Howard v. United States*, 7:23-cv-490; *Mousser v. United States*, 7:23-cv-667; and *Tukes v. United States*, 7:23-cv-1553):

#### **1) All general causation opinions by Dr. Steven M. Bird regarding kidney cancer;**

Dr. Steven Bird admitted that the CLJA’s legal standard “has significant implications for the analysis at issue” in his Phase II report on kidney cancer. Bird GC Rep. (KC) at 6 (JA Ex. 83, D.E. [464-4](#)). Dr. Bird defines the Bradford Hill factor of strength of association as requiring only an odds ratio of 1.1 “given the lower standard at issue . . . of ‘as likely as not’ or ‘equipoise.’” Bird GC Rep. (KC) at 46 (JA Ex. 83, D.E. [464-4](#)). Dr. Bird does not require statistically significant associations before applying the remaining Bradford Hill factors. *Cf.* Bird GC Rep. (KC) at 54 (JA Ex. 83, D.E. [464-4](#) (analyzing the strength of association factor for kidney cancer and total volatile organic compounds (“TVOC”), but citing only a single non-significant result). Thus, Dr. Bird failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702 in his initial report and supplemental report.

#### **2) All general causation opinions by Dr. Michael Freeman regarding kidney cancer;**

Dr. Michael Freeman admitted that he saw this litigation “as being a rather unique situation, in which . . . a different standard or a lower standard has made its way into, okay, how are we going to evaluate the scientific evidence? Not the way we normally would if we’re putting into the peer-reviewed literature, but we’re doing it in a way that we’re going to satisfy statutory language.” Freeman Dep. Tr. at 288:7–15 (JA Ex. 159, D.E. [469-13](#)). In the discussion of the Bradford Hill

factor of strength of association in his report, Dr. Freeman states that a “relative risk of [greater than] 2.0 implies that the exposure of interest caused the condition, and an attributable risk percent of [greater than] 50% carries the same implication.” Freeman GC Rep. (KC) at 24 (JA Ex. 86, [D.E. 464-7](#)). Dr. Freeman then explained further, “**The [CLJA] specified that claimants need only show that ‘a causal relationship is at least as likely as not.’** That level corresponds to the ATSDR classification ‘equipoise and above’ for which a relative risk of [greater than] 1.1 is sufficient.” *Id.* at 24 (emphasis in original). Thus, Dr. Freeman failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702.

**3) All general causation opinions by Dr. Benjamin Hatten regarding kidney cancer; and**

Dr. Benjamin Hatten admitted that the CLJA’s legal standard was a “different lens for evaluating the total body of evidence, not that it’s less, necessarily less, but it is a different framework . . . or . . . a different, as I said, lens for evaluating the evidence.” Hatten GC Dep. Tr. at 222:15–223:13 (JA Ex. 158, [D.E. 469-12](#)). In discussing his Bradford Hill analysis, he states that “[t]he following discussion evaluates the evidence to determine whether it is at least ‘as likely as not’ that this demonstrated association is causal.” Hatten GC Rep. (KC) at 14, 21, 27, 31, 34 (JA Ex. 90, [D.E. 464-11](#)). Dr. Hatten arbitrarily considered any effects estimate above 1.1 as “elevated” because of the CLJA’s legal standard. *Cf. id.* at 7 (“Furthermore, ‘an effect estimate was considered ‘near the null value’ if [less than or equal to] 1.10 and ‘elevated’ if [greater than] 1.10.” (no quotation provided)); *see also* Hatten SC Dep. Tr. at 92:14–93:9 (JA Ex. 583, [D.E. 507-4](#)) (testifying that 1.18 is not “traditionally considered a strong positive association” but that “it is in the context of evaluating this . . .” under “the framework that was set out by ATSDR . . . that identified a[n] elevated measure of association as greater than 1.1 and [I] used that consistently in evaluating the evidence”). Dr. Hatten stated in his report that the CLJA’s standard is “of

particular import” in this litigation. Hatten GC Rep. (KC) at 5 (JA Ex. 90, [D.E. 464-11](#)). Dr. Hatten also assumed that the CLJA’s legal standard permitted him to forego the use of confidence intervals or statistical significance. *Cf. id.* at 7 (“Of note, the ATSDR states that ‘we did not use confidence intervals to determine whether a finding was ‘statistically significant,’ nor did we use significance testing to assess the evidence for causality.’” (no quotation provided)). Dr. Hatten does not report confidence intervals in his report. *See generally id.* Thus, Dr. Hatten failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702.

**4) All general causation opinions by Dr. Timothy Mallon regarding kidney cancer.**

Dr. Timothy Mallon used an arbitrary odds ratio of 1.1 or above as “evidence of causation” in his methodology. Mallon Dep. Tr. at 215:7-9 (JA Ex. 151, [D.E. 469-5](#)) (noting that a summary risk estimate is “1.1, which is greater than our criteria that we used to say that there was evidence of causation”). In fact, Dr. Mallon admitted that an odds ratio as low as 1.07 or even 1.06 would “round[] up to 1.1.” *Id.* at 194:3–11. Dr. Mallon changed his methodology based on the CLJA’s legal standard. *See* Mallon GC Rep. (KC) at 17 (JA Ex. 92, [D.E. 464-13](#)) (“Studies with [standard mortality ratios] SMRs / [risk ratios] RRs above 1.1 meets [sic] my definition of equipoise and above. This is also the threshold used by ATSDR in their determinations of what epidemiological studies were significant in their 2017 Assessment of the Evidence.”). Thus, Dr. Mallon opined that any odds ratio of 1.1 or more was, due to the CLJA’s legal standard, “evidence of causation of an increased risk.” Mallon Dep. Tr. at 214:18–19 (JA Ex. 151, [D.E. 469-5](#)); *see also* Mallon Dep. Tr. at 218:2–8 (“I mean, a point estimate of 1.1, and, from my definition, I would say it meets the criteria for evidence of causation.”) (JA Ex. 151, [D.E. 469-5](#)). Dr. Mallon also interpreted studies that did not have statistically significant risk estimates as evidence of causation. *See, e.g.,* Mallon Dep. Tr. at 171:7-173:16 (JA Ex. 151, [D.E. 469-5](#)) (testifying that four studies that did not have

statistically significant risk estimates “show[] increased risk” from benzene and “were evidence of causation”) (referencing studies cited in Mallon GC Rep. (KC) at 28 (JA Ex. 92, [D.E. 464-13](#))). Thus, Dr. Mallon failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702.

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TERRENCE W. BOYLE  
United States District Judge

***Leukemia and Non-Hodgkin's Lymphoma ("NHL") (Judge Dever)***

The following expert opinions violate Rule 702 for the reasons set out in the Court's Order of June 5, 2026 (D.E. 886) and are hereby inadmissible at trial in the Track 1 leukemia and NHL bellwether cases (i.e., *Amsler v. United States*, 7:23-cv-284; *Connard v. United States*, 7:23-cv-1557; *Gleesing v. United States*, 7:23-cv-1486; *Hill v. United States*, 7:23-cv-28; *Carter v. United States*, 7:23-cv-1565; *Davis v. United States*, 7:23-cv-43; *Keller v. United States*, 7:23-cv-1501; and *Kidd v. United States*, 7:23-cv-1489):

**1) All general causation opinions by Dr. Steven M. Bird regarding leukemia and NHL;**

Dr. Steven Bird admitted that the CLJA's legal standard "has significant implications for the analysis at issue" in his Phase II report on leukemia and NHL. Bird GC Rep. (L-NHL) at 7 (JA Ex. 103, [D.E. 465-8](#)). Dr. Bird defines the Bradford Hill factor of strength of association as requiring only an odds ratio of 1.1 "given the as likely as not standard applicable to Camp Lejeune." *Id.* at 53. Dr. Bird does not require statistically significant associations before applying the remaining Bradford Hill factors. *Cf. id.* at 61-62 (analyzing the strength of association factor for PCE and leukemia and relying in part on a non-significant result in a single study (i.e., Aschengrau 1993) with an extremely broad confidence interval of 0.98 to 22.97). Thus, Dr. Bird failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702 in his initial report and supplemental report.

**2) All general causation opinions by Dr. Lukasz Gondek regarding leukemia and NHL;**

Dr. Lukasz Gondek admitted that PLG "provided . . . the [CLJA] and the standard that I should form my opinion based on, which has made my interpretation or different standard at what [sic] we used to use in legal cases." Gondek GC Dep. Tr. at 250:2-10 (JA Ex. 160, [D.E. 469-14](#)). Further, he admitted that he understood that "equipoise" meant that "if the consensus is not reached

whether – let’s say the weight of evidence cannot determinate there is association or there is not association, that’s equipoise. And everything at this level and above would meet the standard set by Camp Lejeune Act and ATSDR.” *Id.* at 284:3–14. Dr. Gondek admitted that was the standard that he considered in this case. *Id.* at 284:15–17; *see also* Gondek GC Rep. at 4–5 (JA Ex. 96, [D.E. 465-1](#)) (equating “equipoise” and the CLJA’s “as likely as not” legal standard). Thus, Dr. Gondek failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702.

**3) All general causation opinions by Dr. Timothy Mallon regarding leukemia and NHL.**

Dr. Timothy Mallon used an arbitrary odds ratio of 1.1 or above as “evidence of causation” in his methodology. Mallon Dep. Tr. at 215:7-9 (JA Ex. 151, [D.E. 469-5](#)) (noting that a summary risk estimate is “1.1, which is greater than our criteria that we used to say that there was evidence of causation”). In fact, Dr. Mallon admitted that an odds ratio as low as 1.07 or even 1.06 would “round[] up to 1.1.” *Id.* at 194:3-11. Dr. Mallon changed his methodology based on the CLJA’s legal standard. *See* Mallon GC Rep. (KC) at 17 (JA Ex. 92, [D.E. 464-13](#)) (“Studies with SMRs / RRs above 1.1 meets [sic] my definition of equipoise and above. This is also the threshold used by ATSDR in their determinations of what epidemiological studies were significant in their 2017 Assessment of the Evidence.”); *see also, e.g.*, Mallon GC Rep. (Leuk.) at 34 (JA Ex. 98, [D.E. 464-3](#)) (referencing a study’s result for TCE, PCE, and leukemia as “above equipoise at 1.1”). Thus, Dr. Mallon opined that any odds ratio of 1.1 or more was, due to the CLJA’s legal standard, “evidence of causation of an increased risk.” Mallon Dep. Tr. at 214:18-19 (JA Ex. 151, [D.E. 469-5](#)); *see also* Mallon Dep. Tr. at 218:2-8 (“I mean, a point estimate of 1.1, and, from my definition, I would say it meets the criteria for evidence of causation.”) (JA Ex. 151, [D.E. 469-5](#)). Dr. Mallon also did not require consistent statistically significant associations in analyzing the strength of association factor under the Bradford Hill methodology. *See* Mallon GC Rep. (Leuk.) at 17–18

(JA Ex. 98, [D.E. 464-3](#)) (opining that the strength of association factor was met for TCE and leukemias even though the cited epidemiological data was largely non-significant). Thus, Dr. Mallon failed to apply a reliable methodology in reaching his epidemiological opinions under Rule 702.

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JAMES C. DEVER III  
United States District Judge