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4 IN THE UNITED STATES DISTRICT COURT
5 FOR THE NORTHERN DISTRICT OF CALIFORNIA

6
7 IN RE: YOSEMITE NATIONAL PARK
HANTAVIRUS LITIGATION

Case No. [14-md-02532-MMC](#)

Individual Case No. 14-cv-0451 MMC

8
9 THIS DOCUMENT RELATES TO:

10 CHRISTOPHER J. HARRISON, et al.,
11 Plaintiffs

12 v.

13 DNC PARKS & RESORTS AT YOSEMITE,
INC., et al.
14 Defendants

**ORDER DENYING IN PART AND
DEFERRING RULING IN PART ON
DNC DEFENDANTS' MOTIONS TO
EXCLUDE OPINION TESTIMONY**

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17 Before the Court are two motions filed November 24, 2017, by Delaware North
18 Companies Inc., Delaware North Companies Parks & Resorts, Inc., and Delaware North
19 DNC Parks & Resorts at Yosemite, Inc. (collectively, "DNC Defendants"): (1) "Motion to
20 Exclude The Opinion Testimony of Plaintiffs' Expert, Branko Huisa-Garate M.D." ("Dr.
21 Huisa Mot."); and (2) "Motion to Exclude the Opinion Testimony of Matthew Arnold, M.D.,
22 Michael Geschwind, M.D., Karen Johnson, M.D., Nina Riggins, M.D., Grant Wang, M.D.,
23 and Scott Weisenberg, M.D." ("Treating Physicians Mot."). The motions have been fully
24 briefed. The matters came on regularly for hearing on January 26, 2018. Patrick S.
25 Schoenburg of Wood Smith Henning & Berman LLP and Kevin J. English of Phillips Lytle
26 LLP appeared on behalf of the DNC Defendants. James P. Collins of The Boccardo Law
27 Firm, Inc. appeared on behalf of plaintiffs Christopher J. Harrison and Felicia I.
28 Tornabene.

1 hantavirus (see Collins Decl. Decl. Doc. 267 Ex. 13 at 10-16, 19-21).¹

2 By the instant motions, DNC Defendants contend the above-described opinions
3 should be excluded under Rule 702 of the Federal Rules of Evidence and Daubert v.
4 Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), on the ground that plaintiffs
5 have failed to establish either such opinion is based on a scientifically reliable
6 methodology. See id. at 589 (holding district judge must ensure that "any and all
7 scientific testimony or evidence admitted" is "reliable"). DNC Defendants ask the Court to
8 exclude the experts' testimony "on the papers or hold a Daubert hearing." (See DNC
9 Defs.' Dr. Huisa Mot. at 18:6-7; DNC Defs.' Treating Physicians Mot. at 22:2-3.)

10 **A. General Causation**

11 As noted, plaintiffs' retained expert, Dr. Huisa, has opined that hantavirus can
12 cause neurological impairments. Dr. Huisa is a board-certified neurologist who presently
13 is a clinician and assistant professor in the neurosciences department at the University of
14 California, San Diego (see Collins Decl. Doc. 266 Ex. 5 at 1, Ex. 10 at 1-2), and who
15 previously was a clinician and assistant professor in the neurology department at the
16 University of New Mexico (see id. Ex. 5 at 1, Ex. 10 at 1).

17 DNC Defendants argue that plaintiffs cannot show Dr. Huisa's opinion is
18 "scientifically reliable," because, according to DNC Defendants, "[t]here are no peer
19 reviewed scientific or medical studies" and no "scientific or medical literature" finding that
20 hantavirus can cause neurological injuries. (See DNC Defs.' Dr. Huisa Mot. at 2:6-13.)

21 "One means of showing [an expert opinion is reliable] is by proof that the research
22 and analysis supporting the proffered conclusions have been subjected to normal
23 scientific scrutiny through peer review and publication." Daubert v. Merrell Dow
24 Pharmaceuticals, Inc., 43 F.3d 1311, 1318 (9th Cir. 1995). An expert opinion may,

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26 ¹To the extent the second of the two motions seeks to preclude treating physicians
27 Matthew Arnold, M.D. ("Dr. Arnold") and Grant Wang, M.D. ("Dr. Wang"), from offering
28 such opinions, the motion will be denied as moot, as plaintiffs, in their opposition, have
clarified that neither of those physicians will offer an opinion as to causation.

1 however, "still be reliable and admissible without peer review and publication." Wendell
2 v. GlaxoSmithKline, LLC, 858 F.3d 1227, 1235 (9th Cir. 2017). "This is especially true
3 when dealing with rare diseases that do not impel published studies." See id.; Daubert,
4 509 U.S. at 593 (noting "some propositions . . . are too particular, too new, or of limited
5 interest to be published"; declining to "set out a definitive checklist"); see, e.g., Wendell,
6 858 F.3d at 1236-37 (finding admissible, despite absence of published study, expert
7 opinion that prescription drug caused rare cancer; noting experts' reliance on "case
8 studies," their "own wealth of experience," and "literature").

9 Hantavirus rarely infects humans. (See English Decl. Doc. 272 Ex. 3) (stating,
10 "[c]ompared to other vector-borne pathogens, such as Lyme disease and West Nile virus,
11 the risk of contracting hantavirus is almost negligible".) Hantavirus was first recognized
12 in the United States in 1993 (see Collins Decl. Doc. 266 Ex. 3, Ex. 23 at 1), and, as of
13 that date, an average of only twenty-nine to thirty cases have been reported each year
14 (see id. Ex. 3; English Decl. Doc. 272 Ex. 1 at 3). Given the rarity of hantavirus
15 infections, the lack of peer reviewed studies or other publications finding a causal
16 connection between hantavirus and neurological impairments is neither surprising nor,
17 provided other indicia of reliability can be shown, a bar to admission. See Daubert, 509
18 U.S. at 593 (holding "publication . . . does not necessarily correlate with reliability").

19 Here, plaintiffs have offered evidence, undisputed by defendants, that viruses can
20 cause neurological impairments. (See, e.g., Collins Decl. Doc 267 Ex. 6 at 79:13-20,
21 118:19 - 119:6, 128:9-22; id. Ex. 12; Collins Decl. Doc. 275 Ex. 11 at 41:5-19, 45:2-21.)
22 With respect to hantavirus, Dr. Huisa relies on several case studies of patients who
23 developed neurological impairments following infection by hantavirus (see Collins Decl.
24 Doc 266 Exs. 5-6; id. Exs. 4, 11, 23, 24), as well as on a "longitudinal, prospective study"
25 of hantavirus survivors that reported 55% of the survivors had "short-term memory
26 difficulties" (see id. Exs. 6, 20), and his experience as a board-certified neurologist, in
27 particular, his work at the University of New Mexico "consult[ing] on patients having
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1 hantavirus infections" (see id. Ex. 5 at 3).² In challenging the sufficiency of plaintiffs'
2 showing, DNC Defendants have not identified any evidence showing hantavirus cannot
3 cause neurological impairments, and, indeed, at least one defense expert has "agree[d]
4 with Dr. Huisa's determination that inflammation of the brain is possible secondary to a
5 hantavirus exposure," albeit only in "very rare cases." (See Collins Decl. Doc. 266 Ex. 22
6 at 135:18-23.) Under such circumstances, the Court finds plaintiffs have sufficiently
7 demonstrated Dr. Huisa's general causation opinion is "not the type of 'junk science' Rule
8 702 was meant to exclude." See Wendell, 858 F.3d at 1237.

9 Accordingly, to the extent DNC Defendants seek, on the papers submitted, an
10 order excluding Dr. Huisa's opinion as to general causation, the motion will be denied.

11 The Court next considers DNC Defendants' alternative request that the Court
12 conduct a Daubert hearing before the jury is allowed to hear Dr. Huisa's testimony. An
13 evidentiary hearing under Daubert is not required where the parties' "briefing on [the
14 expert's] scientific expertise and proposed testimony" provides an "adequate record from
15 which the court could make its ruling" as to admissibility. See Millenkamp v. Davisco
16 Foods Int'l, Inc., 562 F.3d 971, 979 (9th Cir. 2009). Here, the Court finds the record
17 presented to date is adequate, and DNC Defendants have not identified in their papers or
18 at the hearing any additional information that could be offered to show Dr. Huisa's
19 general causation opinion is unreliable.

20 Accordingly, to the extent DNC Defendants request a Daubert hearing in advance
21 of Dr. Huisa's testimony, the motion will be denied, without prejudice to the matter being
22 raised at a later stage upon a showing that Dr. Huisa's testimony is unreliable.³

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24 ²New Mexico has reported the "highest number of cases" of hantavirus infections
25 in the United States (see id.), and the University of New Mexico has treated more
26 hantavirus patients than any other hospital in North America (see English Decl. Doc. 254
27 Ex. 3 at 1).

28 ³As the Court noted at the hearing, if Dr. Huisa or any other expert does testify at
trial, and plaintiffs, upon proper objection, are unable to establish the reliability of the
opinion offered, such expert's testimony would be stricken and the jury instructed to
disregard it.

1 **B. Specific Causation**

2 With respect to the issue of specific causation, plaintiffs, as set forth above, have
3 disclosed, along with retained expert Dr. Huisa, four treating physicians, namely, Drs.
4 Geschwind, Johnson, Riggins, and Weisenberg, each of whom has offered the opinion
5 that Harrison's neurological impairments are the result of his having contracted
6 hantavirus. Dr. Geschwind is a Professor of Neurology at the University of California,
7 San Francisco, Memory and Aging Center, where he also is an attending physician. (See
8 Collins Decl. Doc. 267 Ex. 4.) Dr. Johnson, a board-certified psychiatrist who presently
9 maintains a private practice, is an Assistant Clinical Professor of Psychiatry at the
10 University of California, San Francisco, and previously was a Senior Scholar and Clinic
11 Scholar at Stanford University. (See id. Ex. 15.) Dr. Riggins, a board-certified
12 neurologist, is an Assistant Clinical Professor and the Director of Headache Inpatient
13 Service at the University of California, San Francisco. (See id. Ex. 9.) Dr. Weisenberg is
14 an internist affiliated with Alta Bates Summit Medical Center who is board-certified in
15 internal medicine and infectious diseases, and whose practice is "100 percent infectious
16 disease." (See id. Ex. 8 at 9:24 - 10:21, Ex. 11.)

17 DNC Defendants contend the above five doctors' specific causation opinions
18 should be excluded on the ground that the opinions are not the result of a reliable
19 method, because, defendants argue, the opinions are based solely on temporal proximity
20 and that no differential diagnosis was performed. In opposition, plaintiffs assert there is
21 ample evidence in the record to support a finding that the challenged opinions are based
22 on differential diagnoses.

23 For purposes of a Daubert analysis, an opinion based on a diagnosis is deemed
24 reliable where the expert "compiles a comprehensive list of hypotheses that might explain
25 the set of salient clinical findings under consideration" and "provides reasons for rejecting
26 alternative hypotheses using scientific methods and procedures." See Clausen v. M/V
27 New Carissa, 339 F.3d 1049, 1057-58 (9th Cir. 2003).

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1 Here, the evidence submitted includes numerous medical records setting forth
2 other possible causes for Harrison's neurological impairments and subsequent rejection
3 thereof. (See, e.g., Collins Decl. Doc 266 Ex. 7 at 2 (entry in medical record by Mac L.
4 Sterling, M.D., treating physician at Alta Bates, finding there is "absolutely no evidence of
5 viral meningitis"; noting Harrison did not have "stiff neck" and "spinal fluid is normal");
6 Collins Decl. Doc. 275 Ex. 2 at CH001175 (notation in medical record by Nikki L. Martin,
7 M.D., treating physician at Alta Bates, "rul[ing] out West Nile virus" based on "diagnostic
8 impression"); Collins Decl. Doc. 266 Ex. 31 at 14-16 ("Neurological Report" by Dawn A.
9 Osterweil, Ph.D., summarizing Harrison's medical records, including: Alta Bates
10 physician's notation, upon review of CT scan, re: "no acute intracranial process"; entry by
11 Contra Costa Medical Center noting, based on review of ultrasound, "no evidence of DVT
12 [deep vein thrombosis] in upper arm"; Dr. Weisenberg's findings, based on results of lab
13 tests, no "HTVL I/II antibody," "B Henselae IgG IgM," "toxoplasma," "B Microtti Ab" or
14 "coccidioides Ab CF"; and Dr. Arnold's finding "minimal anemia" and "normal" B12 and
15 metabolic panel); English Decl. Doc. 272 Ex. 9 at 4 (defense expert acknowledging Dr.
16 Osterweil's consideration and exclusion of "malingering" and "suspect effort"); English
17 Decl. Doc 254 Ex. 9 (Geschwind Dep.) at 90:14-24 (testifying to initial consideration and
18 subsequent elimination of "post encephalitis" as cause, given Harrison's "spinal fluid did
19 not show any active inflammation"); English Decl. Doc 255 Ex. 5 at 7 (defense expert
20 acknowledging treating physician James Hirshberg, M.D.'s "consultation note" that
21 "Harrison's clinical picture was not consistent with meningitis or encephalitis"; also
22 acknowledging consulting physician David Perlman, MD.'s finding that "Harrison did not
23 have any evidence of meningitis or encephalitis"); English Decl. Doc. 254 Ex. 8 (Arnold
24 Dep.) at 18:10 - 20:3 (testifying Harrison's records included "pretty big work-up for cause
25 of headache that had been relatively negative" and that "a lot of things had been ruled
26 out" by other physicians); id. Ex. 11 (Weisenberg Dep.) at 85:18 - 86:2, 94:4-6 (testifying
27 to "negative results" for other "plausible infections and etiologies"; noting "imaging and
28 prior analyses in the hospital would make inflammation of the spinal fluid less likely" as

1 cause); Collins Decl. Doc. 267 Ex. 8 (Weisenberg Dep.) at 61:16 - 63:4 (testifying
 2 Harrison did not have "typical symptoms of severe sinusitis, such as high fevers or
 3 severe facial pain," and eliminating chronic sinus infection as cause, given symptoms
 4 remained after course of antibiotics); id. Ex. 8 at 71:17 - 72:15 (testifying Harrison's
 5 symptoms were not "consistent with a psychiatric cause"); English Decl. Doc. 254 Ex. 7
 6 (Wang Dep.) at 98:3-22 (noting lack of symptoms consistent with "general anxiety," e.g.,
 7 "gastrointestinal pain in the back, chest pains [and] shortness of breath"; ruling out "other
 8 neurological conditions" as cause in light of "radiology['s]" analysis of "brain scans".)

9 The Court next considers whether plaintiffs have made a sufficient showing that
 10 the above-listed five experts base their respective diagnoses on a reliable method,
 11 namely, differential diagnosis. See Clausen, 339 F.3d at 1057-58.

12 With respect to Dr. Huisa, his report indicates that, in forming his specific
 13 causation opinion, he considered Harrison's medical records, as well as the deposition
 14 testimony offered by four of Harrison's treating physicians (see Collins Decl. Doc. 266 Ex.
 15 5 at 4; see also English Decl. Doc. 272 Ex. 3 at 12:7-10, 18-21), and, at his deposition,
 16 he testified he made a differential diagnosis (see Collins Decl. Doc. 266 Ex. 12 at 125:21-
 17 23). In that regard, he testified he reviewed Harrison's medical records to determine what
 18 other causes Harrison's treating physicians had considered and ruled out (see id. Ex. 12
 19 at 175:15-19). As examples, he testified that he considered and ruled out "malingering"
 20 (see id. Ex. 12 at 175:19-25), which cause, as noted above, was considered and ruled
 21 out by Dr. Osterweil, whose report Dr. Huisa considered (see id. Ex. 5 at 4), and that he
 22 considered and ruled out a preexisting "psychiatric condition," based on his review of Dr.
 23 Johnson's records and the "emergency room" records (see English Decl. Doc. 272 Ex. 3
 24 at 108:14-28; Collins Decl. Doc. 266 Ex. 12 at 109:1-24). Under such circumstances, the
 25 Court finds plaintiffs have sufficiently shown Dr. Huisa's specific causation opinion is
 26 based on a reliable method.⁴

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 28 ⁴To the extent DNC Defendants may be contending that a physician cannot offer a
 specific causation opinion unless that physician has himself or herself ruled out each of

1 Accordingly, to the extent DNC Defendants seek to exclude Dr. Huisa's specific
2 causation opinion, the motion will be denied, without prejudice to the matter being raised
3 at a later stage upon a showing that Dr. Huisa's testimony is unreliable.

4 As to the four other physicians disclosed as experts by plaintiffs, the Court first
5 notes that treating physicians are not required to prepare written expert reports. See
6 Fed. R. Civ. P. 26(b)(2)(B). The only source of information the Court has at this time as
7 to the bases for the treating physicians' specific causation opinions is contained in the
8 parties' respective, selected excerpts from deposition testimony, none of which reflects
9 whether the witness was provided an opportunity to set forth the full extent of the
10 witness's reasoning.

11 With respect to Dr. Weisenberg, when, at his deposition, he was asked if his
12 specific causation opinion was "based on the assumption that there's nothing else in
13 [Harrison's] reports to [him] that could indicate what . . . caused" Harrison's current
14 symptoms, he answered that his opinion was based on Harrison's "positive result for
15 hantavirus and negative results for other plausible infectio[n]s and etiologies for his
16 original syndrome." (See Collins Decl. Doc. 267 Ex. 8 at 85:18 - 86:2.) Although Dr.
17 Weisenberg apparently was not asked to identify the "other plausible" causes he
18 considered and ruled out, he did provide some examples, specifically, and as noted
19 above, that, "imaging and prior analyses in the hospital would make inflammation of the
20 spinal fluid less likely" (see English Decl. Doc. 254 Ex. 11 94:4-6), that he ruled out
21 chronic sinus infection, given Harrison's symptoms remained after a course of antibiotics
22 (see Collins Decl. Doc. 267 Ex. 8 at 61:16 - 63:4), and that he ruled out a "psychiatric
23 cause," given Harrison's symptoms were not consistent therewith (see id. Ex. 8 at 71:17 -
24 72:15).⁵ Under such circumstances, the Court finds plaintiffs have sufficiently shown Dr.

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26 the other possible causes, the Court is unpersuaded. Indeed, it stands to reason that a
27 physician would rely on the findings of other physicians, particularly where those other
28 physicians specialize in areas different from that in which such physician practices.

⁵Additionally, as further noted above, Harrison's medical records include findings by Dr. Weisenberg that, based on results of lab tests, Harrison had no "HTVL I/II

1 Weisenberg's specific causation opinion is based on a reliable method.

2 Accordingly, to the extent DNC Defendants seek to exclude Dr. Weisenberg's
3 specific causation opinion, the motion will be denied, without prejudice to the matter
4 being raised at a later stage upon a showing that Dr. Weisenberg's testimony is
5 unreliable.

6 Next, Dr. Geschwind, at his deposition, testified that when he began to treat
7 Harrison, he followed his usual practice of "review[ing] the outside records," such as
8 "laboratory tests including imaging, blood, urine, spinal fluid, [and] whatever might be
9 available," then "tak[ing] [from the patient] an extensive history of the current symptoms
10 and problems," next "investigat[ing] the patient's "social history" and "family history," also
11 "do[ing] a brief general exam [and] a more detailed neurological exam," and, lastly,
12 "try[ing] to take all that information and come up with an assessment of what is going on."
13 (See Collins Decl. Doc. 267 Ex. 6 at 21:9-23; Ex. 7 at 1.) Although Dr. Geschwind
14 apparently was not asked at his deposition to identify each possible cause he considered
15 and rejected, he did provide some examples, specifically, that, based on the results of a
16 blood test he ordered, he considered and ruled out "systematic inflammation" (see Collins
17 Decl. Doc. 275 Ex. 11 at 44:3-13), as well as "post encephalitis" because Harrison's
18 "spinal fluid did not show any active inflammation" (see English Decl. Doc 254 Ex. 9 at
19 90:14-24.) Under such circumstances, the Court finds plaintiffs have sufficiently shown
20 Dr. Geschwind's specific causation opinion is based on a reliable method.

21 Accordingly, to the extent DNC Defendants seek to exclude Dr. Geschwind's
22 specific causation opinion, the motion will be denied, without prejudice to the matter
23 being raised at a later stage upon a showing that Dr. Geschwind's testimony is unreliable.

24 Dr. Johnson, however, when asked at her deposition if her "diagnosis of a
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26 antibody," "B Henselae IgG IgM," "toxoplasma," "B Microtti Ab" or "coccidioides Ab CF."
27 (See Collins Decl. Doc. 266 at 15.) Dr. Weisenberg was not, at least in the excerpts from
28 his deposition provided to the Court, asked about those results and what causes he ruled
out based thereon.

1 connection between hantavirus and . . . Harrison's symptoms is primarily based on the
2 temporal relationship," answered "yes." (See id. Ex. 6 at 65:1-4.) She apparently was
3 not asked to identify any other bases for her specific causation opinion and, unlike Dr.
4 Weisenberg and Dr. Geschwind, she did not testify that she reviewed Harrison's medical
5 records to determine what possible causes his other treating physicians had considered
6 and ruled out. Given the paucity of information provided to the Court, the Court is unable
7 to determine whether Dr. Johnson engaged in a differential diagnosis of any type. As the
8 present record does not appear to preclude a finding that Dr. Johnson made a differential
9 diagnosis, however, the Court, as set forth below, will afford plaintiffs leave to file a
10 detailed offer of proof as to the bases for her specific causation opinion.

11 Accordingly, to the extent the motion seeks an order excluding Dr. Johnson's
12 specific causation opinion, the Court will defer ruling.

13 Lastly, although Dr. Riggins testified at her deposition that she did a "complete
14 review" of Harrison's medical records (see Collins Decl. Doc. 275 at 21:11-20), she also
15 testified that "timeline-wise, it makes sense that [a] person had exposure, which was
16 documented from blood work, and reports intense headache after that" (see Collins Decl.
17 Doc. 267 Ex. 10 at 29:13-16). Given the above testimony, an inference can be drawn
18 that temporal proximity is a factor supporting Dr. Riggins' opinion. Whether her opinion is
19 based on anything more than temporal proximity, however, does not appear to have been
20 addressed at her deposition. As the present record does not preclude a finding that Dr.
21 Riggins made a differential diagnosis, the Court, as set forth below, will afford plaintiffs
22 leave to file a detailed offer of proof as to the bases for her specific causation opinion.

23 Accordingly, to the extent the motion seeks to exclude Dr. Riggins' specific
24 causation opinion, the Court will defer ruling.

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1 **CONCLUSION**

2 For the reasons stated above:

3 1. DNC Defendants' motion to exclude the causation opinion testimony of Dr.
4 Huisa is hereby DENIED.

5 2. DNC Defendants' motion to exclude the causation opinion testimony of Drs.
6 Arnold, Geschwind, Johnson, Riggins, Wang, and Weisenberg is hereby DENIED in part
7 and DEFERRED in part, as follows:


8 a. To the extent the motion seeks to exclude the causation opinion
9 testimony of Dr. Arnold and Dr. Wang, the motion is DENIED as moot.

10 b. To the extent the motion seeks to exclude the causation opinion
11 testimony of Dr. Weisenberg and Dr. Geschwind, the motion is DENIED.

12 c. To the extent the motion seeks to exclude the causation opinion
13 testimony of Dr. Johnson and Dr. Riggins, the Court DEFERS ruling thereon, and
14 plaintiffs, if they intend to call those physicians to offer causation opinion testimony at
15 trial, shall file, no later than March 6, 2018, a detailed offer of proof as to the bases for
16 their respective opinions, which submissions will be addressed at the Pretrial
17 Conference.

18 **IT IS SO ORDERED.**

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20 Dated: February 23, 2018


MAXINE M. CHESNEY
United States District Judge

United States District Court
Northern District of California