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6 **IN THE UNITED STATES DISTRICT COURT**
7 **FOR THE DISTRICT OF ARIZONA**
8

9 Helen Doe, et al.,

10 Plaintiffs,

11 v.

12 Thomas C Horne, et al.,

13 Defendants.
14

No. CV-23-00185-TUC-JGZ

ORDER

15 Pending before the Court is Intervenor-Defendants' Motion to Exclude Expert
16 Testimony and Reports of Dr. Daniel Shumer. (Doc. 265.) Defendant Horne joined the
17 Motion. (Doc. 273.) Intervenor-Defendants allege that "Dr. Shumer's opinions are not
18 reliable because he plagiarized them, he lacks the qualifications to offer them, and he has
19 presented no objective proof that his opinions represent good science." (Doc. 265 at 2.)¹
20 The Motion is fully briefed. (Docs. 272, 277.) For the reasons stated below, the Court will
21 deny Intervenor-Defendants' Motion.²

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23 ¹ Record citations refer to the page numbers generated by the Court's CM/ECF filing
24 system.

25 ² As Plaintiffs correctly point out, Intervenor-Defendants' Motion is in violation of LRCiv
26 7.2(m)(2), which requires "[a]n objection to (and any argument regarding) the admissibility
27 of evidence offered in support of . . . a motion [] be presented in the objecting party's
28 responsive or reply memorandum and not in a separate motion to strike or other separate
filing. If the underlying motion is a motion for summary judgment, an objection may be
included in a party's response to another party's separate statement of material facts . . ."
(Doc. 272 at 15 n.6.) Nevertheless, Plaintiffs do not object to the Motion on this basis.
Plaintiffs intend to rely on Dr. Shumer's Report in their motion for summary judgment.
Therefore, the Court will decide the issue prior to the parties filing cross motions for
summary judgment.

1 **I. Background**

2 **A. Dr. Shumer's Report**

3 Plaintiffs retained Dr. Daniel Shumer, M.D., M.P.H., to prepare an expert report
4 ("Shumer Report") in this case. (Doc. 265-2 at 1–15 ("Shumer Rep.")). The Shumer
5 Report, signed on October 10, 2024, covers 14 pages, contains 50 paragraphs, and is
6 divided into 5 sections. (*Id.*) The five sections are titled: (1) "Qualifications and
7 Experience"; (2) "Medical and Scientific Background on Gender Identity and Gender
8 Dysphoria"; (3) "The Medical Treatment of Gender Dysphoria in Adolescents"; (4) "Sports
9 and Gender"; and (5) "Plaintiffs and Arizona's Ban on Transgender Girls in Sports." (*Id.*)

10 1. Section One: Qualifications and Experience

11 The first section of the Shumer Report describes Dr. Shumer's education, training,
12 and experience in medicine and academia.³ (*Id.* ¶¶ 1–11.) Dr. Shumer is a pediatric
13 endocrinologist with clinical expertise in transgender medicine. (*Id.* ¶¶ 1, 3.) Dr. Shumer
14 received his medical degree from Northwestern University in 2008 and completed a
15 residency in pediatrics at Vermont Children's Hospital in 2011. (*Id.* ¶ 2.) In 2015, Dr.
16 Shumer received his Master of Public Health degree from Harvard University and finished
17 his clinical fellowship in pediatric endocrinology at Harvard University's Boston
18 Children's Hospital, where he worked at the Gender Management Services Clinic and
19 conducted research on gender identity and the evaluation and management of transgender
20 children and adolescents. (*Id.* ¶¶ 2–3.)

21 In October 2015, Dr. Shumer founded the Child and Adolescent Gender Services
22 Clinic ("CAGS") at the C.S. Mott Children's Hospital in Ann Arbor, Michigan, where he
23 currently serves as Clinical Director. (*Id.* ¶¶ 4–5.) CAGS has treated over 600 gender-
24 diverse and transgender children and adolescents since its founding. (*Id.* ¶ 5.) Dr. Shumer
25 has personally evaluated and treated over 400 patients for gender dysphoria. (*Id.*) Dr.
26 Shumer is also an Assistant Professor of Medicine and Medical Director of the
27 Comprehensive Gender Services Program ("CGSP") at the University of Michigan. (*Id.* ¶¶

28 ³ Dr. Shumer's curriculum vitae ("CV") is attached as an exhibit to his report. (Doc. 265-
2 at 16–24.)

1, 7.) As of the date of the Shumer Report, Dr. Shumer has co-authored 26 peer-reviewed journal articles on topics relating to transgender medicine and mental health concerns specific to transgender youth, including articles titled “Advances in the Care of Transgender Children and Adolescents” and “The Effect of Lesbian, Gay, Bisexual, and Transgender-Related Legislation on Children.” (*Id.* ¶¶ 5, 8; Doc. 265-2 at 21–23.) Dr. Shumer regularly speaks and gives lectures on the topics of his research and clinical work. (Shumer Rep. ¶¶ 7, 9–10; Doc. 265-2 at 19–21.) Dr. Shumer is licensed to practice medicine in Michigan, certified by the American Board of Pediatrics, and a member of the Pediatric Endocrine Society, where he serves on the Gender Identity Special Interest Group’s Education Committee. (Shumer Rep. ¶ 11; Doc. 265-2 at 17, 20.)

Dr. Shumer states that in preparing his report he “relied on [his] scientific education and training, [his] research experience, and [his] knowledge of the scientific literature in the pertinent fields,” and that “[t]he materials [he] relied upon . . . are the same types of materials that experts in [his] field of study regularly rely upon when forming opinions on these subjects.” (Shumer Rep. ¶ 12.) Dr. Shumer did not meet or speak with Plaintiffs or their parents in preparing his report. (*Id.* ¶ 13.) He states that his opinions “are based solely on the information that [he has] been provided by Plaintiffs’ attorneys as well as [his] extensive background and experience treating transgender patients.” (*Id.*) Dr. Shumer has provided expert testimony in at least 13 other cases on behalf of transgender plaintiffs and is being compensated for his time spent on this case. (*Id.* ¶¶ 14–15.)

2. Section Two: Medical and Scientific Background on Gender Identity and Gender Dysphoria

The second section of the Shumer Report discusses gender identity and gender dysphoria. (*Id.* ¶¶ 16–27.) Dr. Shumer defines gender identity, differentiates between gender identity and gender roles, and states that living consistently with one’s gender identity is critical for health and well-being and attempts to force a transgender individual’s gender identity into alignment with their birth sex are harmful and ineffective. (*Id.* ¶¶ 16–23.) Dr. Shumer describes the components of a person’s sex, how sex is assigned at birth, and how an incongruence between gender identity and assigned sex leads to gender

1 dysphoria. (*Id.* ¶¶ 24–26.) Finally, Dr. Shumer states that transgender adolescents can
2 thrive and grow into healthy adults when provided with medical treatment and parental and
3 social support. (*Id.* ¶ 27.)

4 3. Section Three: The Medical Treatment of Gender Dysphoria in
5 Adolescents

6 The Shumer Report’s third section discusses the medical treatment of gender
7 dysphoria in adolescents. (*Id.* ¶¶ 28–34.) Dr. Shumer cites seven journal articles in support
8 of his proposition that medical treatments for gender dysphoria are safe and effective. (*Id.*
9 ¶ 28.) Dr. Shumer discusses the origins of the World Professional Association for
10 Transgender Health (“WPATH”) Standards of Care and The Endocrine Society’s clinical
11 practice guidelines and states that they “establish the prevailing standards governing the
12 healthcare and treatment of gender dysphoria in both youth and adults.” (*Id.* ¶¶ 29–31.)
13 Finally, Dr. Shumer describes the components of the transition process for treating gender
14 dysphoria and the effects of puberty-suppressing medications and hormone therapy on
15 adolescents. (*Id.* ¶¶ 32–34.)

16 4. Section Four: Sports and Gender

17 The Shumer Report’s fourth section begins to connect the opinions from the prior
18 two sections with athletic performance. (*Id.* ¶¶ 35–40.) Dr. Shumer states, “Being
19 transgender is not an accurate proxy for athletic performance or ability. Sex chromosomes
20 and genitals alone do not meaningfully affect athletic performance.” (*Id.* ¶ 35.) He
21 continues, “Before puberty, girls and boys generally perform at the same level with some
22 small differences In contrast, post-pubertal boys as a group generally begin to show a
23 significant athletic advantage over post-pubertal girls due to their exposure over time to the
24 elevated levels of testosterone associated with male puberty.” (*Id.* ¶ 36.) Dr. Shumer states
25 that the biological driver of average group differences in athletic performance is
26 testosterone, rather than anatomy or genetics, and because post-pubertal boys have much
27 higher levels of testosterone than girls, which results in increased muscle mass and
28 strength, they “have an athletic advantage over girls and women in many sports.” (*Id.* ¶
37.) In support of this conclusion, Dr. Shumer cites a peer-reviewed journal article titled

1 “Circulating Testosterone as the Hormonal Basis of Sex Differences in Athletic
2 Performance.” (*Id.*) Dr. Shumer states that some transgender girls and women have
3 testosterone in the female range because they are receiving hormone therapy or have never
4 undergone male puberty as a result of puberty-suppressing medications. (*Id.* ¶¶ 38–39.) He
5 concludes that a girl’s transgender status alone does not indicate that she has any athletic
6 advantage over other girls. (*Id.* ¶ 40.)

7 5. Section Five: Plaintiffs and Arizona’s Ban on Transgender Girls in Sports

8 The fifth section of the Shumer Report discusses Plaintiffs’ medical treatment for
9 gender dysphoria. (*Id.* ¶¶ 41–49.) Dr. Shumer states, “There is no medical justification for
10 Arizona to exclude Plaintiffs from girls’ sports teams because they are transgender.” (*Id.* ¶
11 41.) Dr. Shumer recounts Plaintiffs’ past medical treatment for gender dysphoria and its
12 effects on their physiology, as explained to him by Plaintiffs’ attorneys. (*Id.* ¶¶ 42–45.) Dr.
13 Shumer states that because SB 1165 suggests that biological sex is determined at
14 fertilization and revealed at birth or in utero, Arizona prevents Plaintiffs from participating
15 on girls’ sports teams because they are transgender. (*Id.* ¶¶ 46–47.) Dr. Shumer repeats his
16 opinion that the biological driver of average differences in athletic performance between
17 men and women is circulating testosterone, not transgender status, genetic makeup, or
18 anatomy at birth. (*Id.* ¶ 47.) Dr. Shumer states that Plaintiffs do not have the biological
19 characteristics that over time could cause them to have an athletic advantage over other
20 girls in some sports because they have not experienced increased testosterone from male
21 puberty. (*Id.* ¶ 48.) Finally, Dr. Shumer states that requiring Plaintiffs to participate on
22 boys’ teams would conflict with the standards of care for treating gender dysphoria in
23 adolescents and be harmful to Plaintiffs’ health. (*Id.* ¶ 49.)

24 **B. Expert Reports Pre-Dating Dr. Shumer’s 2024 Report**

25 Intervenor-Defendants allege that Dr. Shumer plagiarized 19 of the 34 substantive
26 paragraphs in his expert report from the 2022 declaration of Dr. Stephen Rosenthal in *Boe*
27 *v. Marshall*, No. 22-CV-00184 (M.D. Ala. 2022) (“2022 Rosenthal Declaration”), (Doc.
28 265-3 at 3–22 (“2022 Rosenthal Decl.”)), and the 2022 expert report and declaration of Dr.

1 Joshua Safer in *B.P.J. v. W. Va. State Bd. of Educ.*, No. 21-CV-00316 (S.D. W. Va. 2021)
2 (“2022 Safer Report”), (Doc. 265-4 at 3–21 (“2022 Safer Rep.”)). (Doc. 265 at 8, 10.) In
3 their Response, Plaintiffs cite Dr. Shumer’s declaration in *Roe v. Herrington*, No. 20-CV-
4 00484-JAS (D. Ariz. 2020) (“2020 Shumer Declaration”), (Doc. 272-1 at 12–26 (“2020
5 Shumer Decl.”)), dated November 2, 2020, as evidence that his opinions in the Report are
6 his own. (Doc. 272 at 5.) In their Reply, Intervenor-Defendants cite Dr. Safer’s declaration
7 in *Hecox v. Little*, No. 20-CV-00184-DCN (D. Idaho 2020) (“2020 Safer Declaration”),
8 (Doc. 277-1 at 1–20 (“2020 Safer Decl.”)), dated April 24, 2020, as evidence that Dr.
9 Shumer plagiarized his opinions, regardless of his declaration in *Herrington*. (Doc. 277 at
10 4–6.) The parties prepared opposing charts comparing the language in these reports. (*See*
11 Doc. 265-5; Doc. 272-1 at 78–88; Doc. 277-2.)

12 Additionally, Plaintiffs attach Dr. Shumer’s rebuttal report in this case (“Shumer
13 Rebuttal”) to their Response as further support for his opinions. (Doc. 272-1 at 27–77.) In
14 their Reply, Intervenor-Defendants allege nine instances of plagiarism in the Shumer
15 Rebuttal, with the allegedly plagiarized language coming from Dr. Safer’s rebuttal expert
16 report and declaration in the 2022 West Virginia case (“Safer Rebuttal”), (Doc. 277-3).
17 (Doc. 277 at 6; Doc. 277-4.)

18 1. The 2022 Declaration of Dr. Stephen Rosenthal

19 The 2022 Rosenthal Declaration is 20 pages long and includes 57 paragraphs. (Doc.
20 265-3 at 3–22.) Dr. Rosenthal is also a highly distinguished pediatric endocrinologist, albeit
21 with a few decades more experience than Dr. Shumer. (*Id.* ¶ 3.) The 2022 Rosenthal
22 Declaration was prepared on behalf of the plaintiffs in a lawsuit challenging an Alabama
23 state law criminalizing the provision of medical treatment for gender dysphoria. (*Id.* ¶ 56.)
24 The 2022 Rosenthal Declaration is structurally similar to the Shumer Report and discusses
25 many of the same concepts surrounding biological sex, gender identity, the standards of
26 care for treating gender dysphoria, and transition and medical treatments for gender
27 dysphoria. (*Id.* ¶¶ 14–46.) Intervenor-Defendants allege that 10 paragraphs of the Shumer
28 Report contain language plagiarized from the 2022 Rosenthal Declaration. (Doc. 265-5 at

1 2–5; *compare* Shumer Rep. ¶¶ 23, 25–26, 28–34, *with* 2022 Rosenthal Decl. ¶¶ 18, 22–24,
2 26–30, 32, 36, 39.)

3 2. The 2022 Report and Declaration of Dr. Joshua Safer

4 Dr. Safer is another highly distinguished endocrinologist with decades of experience
5 practicing medicine and in academia. (*Id.* ¶¶ 5–12.) Dr. Safer co-authored the Endocrine
6 Society Clinical Practice Guidelines for medically treating transgender persons and has
7 served as a member of drafting groups for transgender medical guidelines for the
8 International Olympic Committee (“IOC”) and World Athletics (“WA”), the international
9 governing body for track-and-field athletics. (*Id.* ¶¶ 13–15, 27.) The 2022 Safer Report was
10 prepared on behalf of the plaintiffs in a lawsuit challenging a West Virginia law banning
11 transgender girls from participating on girls’ sports teams. (*Id.* ¶¶ 46–48.) The 2022 Safer
12 Report begins with medical and scientific background, reviews athletic policies of the IOC,
13 WA, and NCAA for women who are transgender, discusses differences between
14 participation of transgender girls and women in elite international competition and in the
15 scholastic context, and addresses the West Virginia law at issue. (*Id.* ¶¶ 17–60.) Intervenor-
16 Defendants allege that nine paragraphs of the Shumer Report contain language plagiarized
17 from the 2022 Safer Report. (Doc. 265-2 at 5–7; *compare* Shumer Rep. ¶¶ 16, 18–21, 24,
18 36–37, 47, *with* 2022 Safer Rep. ¶¶ 17–21, 23, 25, 49.)

19 3. Dr. Safer’s 2020 Declaration

20 The 2020 Safer Declaration is largely similar to the 2022 Safer Report and was
21 prepared on behalf of the plaintiffs in a lawsuit challenging an Idaho law banning
22 transgender girls from participating on girls’ sports teams. (2020 Safer Decl. ¶ 41.) The
23 “Relevant Medical and Scientific Background” section uses identical or virtually identical
24 language as the corresponding section in the 2022 Safer Report. (*Compare* 2020 Safer
25 Decl. ¶¶ 17–26, *with* 2022 Safer Rep. ¶¶ 17–26.) Intervenor-Defendants allege that six
26 paragraphs of the Shumer Report contain language plagiarized from the 2020 Safer
27 Declaration. (Doc. 277 at 4–6; Doc. 277-2 at 2–4; *compare* Shumer Rep. ¶¶ 16, 18–21, 24,
28 *with* 2020 Safer Decl. ¶¶ 17–21, 23.)

1 4. Dr. Shumer's 2020 Declaration

2 The 2020 Shumer Declaration was prepared on behalf of the plaintiffs in a lawsuit,
3 in this District, challenging an Arizona law requiring transgender individuals to undergo
4 sex change operations before being able to change the gender marker on their identity
5 documents. (2020 Shumer Decl. ¶¶ 45–47.) Plaintiffs assert that Dr. Shumer could not have
6 plagiarized the 2022 Safer Report or 2022 Rosenthal Declaration because the 2020 Shumer
7 Declaration pre-dates those documents and uses essentially the same language. (Doc. 272
8 at 9–11; Doc. 272-1 at 79–88.)⁴

9 **C. Dr. Shumer's Deposition Testimony**

10 Dr. Shumer's deposition in this case took place on February 18, 2025. (*See* Doc.
11 265-1 (“Shumer Dep.”).) Dr. Shumer stated he “was asked to provide an opinion based on
12 [his] expertise in pediatric endocrinology as it relates to puberty, the timing and tempo of
13 puberty, the treatment of gender dysphoria, and the effect of puberty, specifically
14 testosterone, on the body as it relates to establishing a competitive advantage in sports.”
15 (*Id.* 10:1–7.) In describing his process for preparing the Shumer Report, Dr. Shumer stated
16 that he was the sole author of the report and that some of the material overlaps with other
17 expert reports he has written. (*Id.* 12:17–14:5.) Regarding the “Sports and Gender” section,
18 Dr. Shumer stated it was unique to this case and another case in Utah, in which he testified
19 as an expert. (*Id.* 14:6–13.) Dr. Shumer stated the “Plaintiffs and Arizona's Ban on
20 Transgender Girls in Sports” section was also unique to this case and based on information
21 provided to him. (*Id.* 14:13–25.)

22 Dr. Shumer answered questions regarding his participation as an expert witness in
23 previous cases and stated he did not know who the experts were in cases involving
24 transgender participation in sports laws in West Virginia, Idaho, Florida, and Tennessee.
25 (*Id.* 22:18–44:5.) Dr. Shumer answered questions regarding his position as clinical director
26 at CAGS. (*Id.* 44:16–57:3.) Dr. Shumer answered questions regarding how he currently

27 ⁴ Plaintiffs also cite to the Endocrine Society Guidelines, Tbl. 1 (2017) and David J.
28 Handelsman et al., *Circulating Testosterone as the Hormonal Basis of Sex Differences in Athletic Performance*, 39 *Endocrine Reviews* (2018) (“the Handelsman Article”) as alternative sources for language used in the Shumer Report. (Doc. 272-1 at 86–88.)

1 defines the terms “gender identity” and “biological sex” and has defined those terms in the
2 past. (*Id.* 58:4–72:19.) Dr. Shumer answered questions regarding gender dysphoria,
3 medical treatments for gender dysphoria, his clinical experience treating patients with
4 gender dysphoria, and his published articles. (*Id.* 72:20–112:25.)

5 When questioned about the lack of citations in the “Medical and Scientific
6 Background on Gender Identity and Gender Dysphoria” section of the Shumer Report, Dr.
7 Shumer stated that he “read resources that [he] didn’t cite in this particular declaration” but
8 distilled into his own words. (*Id.* 113:11–115:16.) Dr. Shumer confirmed that he does not
9 have specialized education or training in “sports science” and related topics like physical
10 education, kinesiology, exercise physiology or science, or athletic training. (*Id.* 115:17–
11 120:3.) Dr. Shumer stated he did not consider himself an expert in “the field of sports
12 participation,” track and field, volleyball, basketball, or cross-country, or “what constitutes
13 an unfair competitive advantage in sports.” (*Id.* 121:9–122:1.) Dr. Shumer confirmed that
14 the only source cited in the “Sports and Gender” section of the Shumer Report is the
15 Handelsman Article. (*Id.* 122:2–25.) Dr. Shumer stated he was “not presenting any
16 expertise in inclusion or exclusion from sports.” (*Id.* 123:7–124:12.)

17 When asked what resources Paragraph 36 of the Shumer Report was based on, Dr.
18 Shumer stated that he reviewed the literature on athletic performance differences in
19 prepubertal girls and boys but cited only the Handelsman Article, which reviews other
20 academic material on that topic. (*Id.* 130:14–131:14.) Dr. Shumer also stated that he relied
21 on his own expertise as a pediatric endocrinologist and his understanding of normal puberty
22 physiology in writing Paragraph 36. (*Id.* 136:7–137:1.) When asked about his opinion in
23 Paragraph 37, that the biological driver of average group differences in post-pubertal boys
24 and girls is testosterone and thus, that post-pubertal boys and men have an athletic
25 advantage over girls and women in many sports, Dr. Shumer stated that he does not have
26 an expert opinion in “what constitutes an unfair advantage or a significant advantage for
27 each sport,” but that because plaintiffs “didn’t go through puberty, . . . that’s why I am
28 claiming they have no competitive advantage.” (*Id.* 137:2–143:3.) Dr. Shumer stated that

1 he is “an expert on body changes and body composition changes over time with respect to
2 puberty,” but not “[e]xtrapolating those to how each of those changes impact sports
3 performance in various sports.” (*Id.* 143:18–144:19.)

4 Dr. Shumer answered questions regarding articles relied on by the defendants’
5 expert witnesses in this case and other articles about athletic performance differences in
6 prepubertal boys and girls. (*Id.* 157:19–200:6.)

7 Dr. Shumer was asked if he knew Dr. Safer or Dr. Rosenthal and whether he
8 plagiarized their reports when preparing his report in this case. (*Id.* 200:19–202:17.) Dr.
9 Shumer stated that he knew both Dr. Safer and Dr. Rosenthal and that he had read some of
10 Dr. Safer’s writings but could not recall reading any of Dr. Rosenthal’s expert reports. (*Id.*)
11 Dr. Shumer stated he may have read Dr. Safer’s expert report in the Idaho case about four
12 years ago. (*Id.*) Counsel for Intervenor-Defendants then took Dr. Shumer through a side-
13 by-side comparison of the Shumer Report and the 2022 Safer Report and 2022 Rosenthal
14 Declaration, highlighting similarities and the allegedly plagiarized language. (*Id.* 203:7–
15 232:14.) When asked how “so many identical or virtually identical passages” ended up in
16 his report, Dr. Shumer explained:

17 I can imagine that I incorporated elements of [the 2022 Rosenthal
18 Declaration] in writing the Alabama report which formed a general structure
19 for the introduction to these topics in the report for this case. And in thinking
20 through how I was wanting to present information around puberty and
testosterone as it relates to sports, it certainly seems that I was inspired by
some of the points that Dr. Safer made but that not citing those in my report
is something that I should have done.

21 (*Id.* 232:15–233:13.) Dr. Shumer also stated:

22 I don’t dispute that . . . some of the materials and inspiration for my report
23 came from the review of colleagues that share similar opinions. . . . I stand
24 by the fact that I’m the author of the report but certainly can see through the
25 process of going through some of those paragraphs that some of the words
that made up some of the paragraphs were taken from or inspired by the
reports from Dr. Safer or Dr. Rosenthal. . . . those materials should have been
cited differently.

26 (*Id.* 233:15–235:16.) Dr. Shumer was shown a University of Michigan webpage that
27 defined “plagiarism” in the context of “research misconduct.” (*Id.* 238:7–240:13.) Dr.
28 Shumer was asked whether his report plagiarized the 2022 Rosenthal Declaration and 2022
Safer Report under the University of Michigan definition. (*Id.* 239:15–17.) Dr. Shumer

1 responded:

2 I don't believe that an expert report necessarily constitutes research and . . .
3 this U of M Standard Practice Guideline may or may not be applicable to an
4 expert report. . . . All that being said, I think that it's clear that some of the
5 words I used were used from other sources without appropriate credit and
6 that that meets this definition. If it were related to research, then I would say
7 yes and I should have cited the materials, as I said before.

8 (*Id.* 240:14–241:1.)

9 During examination by Plaintiffs' counsel, Dr. Shumer stated that his opinions in
10 the "Medical and Scientific Background on Gender Identity and Gender Dysphoria" and
11 "Medical Treatment of Gender Dysphoria in Adolescents" sections of his report reflect the
12 Endocrine Society Clinical Practice Guidelines and WPATH Standards of Care, are well-
13 established in the scientific community, and are well-supported in pediatric endocrinology.
14 (*Id.* 250:5–20, 252:9–23.) To the extent Dr. Shumer may have reviewed reports by Dr.
15 Safer and Dr. Rosenthal, he stated that he did not deliberately omit any statements from
16 those reports that would have changed his findings in this case. (*Id.* 253:18–22.)

17 **II. Legal Standard**

18 Under Federal Rule of Evidence 702, expert opinion evidence is admissible if:

19 (1) the witness is sufficiently qualified as an expert by knowledge, skill,
20 experience, training, or education; (2) the scientific, technical, or other
21 specialized knowledge will help the trier of fact to understand the evidence
22 or to determine a fact in issue;⁵ (3) the testimony is based on sufficient facts
23 or data; (4) the testimony is the product of reliable principles and methods;
24 and (5) the expert has reliably applied the relevant principles and methods to
25 the facts of the case.

26 *City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036, 1043 (9th Cir. 2014) (citing Fed. R.
27 Evid. 702). The proponent of the expert testimony has the burden of proving its reliability
28 by a preponderance of the evidence. Fed. R. Evid. 702 (an expert witness may testify "if
the proponent demonstrates to the court that it is more likely than not" that the requirements
of Rule 702(a)–(d) are met); *see also McClure v. State Farm Life Ins. Co.*, 341 F.R.D. 242,
256 (D. Ariz. 2022). "In evaluating proffered expert testimony, the trial court is 'a
gatekeeper, not a fact finder.'" *City of Pomona*, 750 F.3d at 1043 (quoting *Primiano v.*

⁵ This is the relevance requirement of Rule 702. *See Daubert v. Merrell Dow Pharms., Inc. (Daubert I)*, 509 U.S. 579, 591 (1993). Intervenor-Defendants do not object to Dr. Shumer's testimony on relevance grounds. (*See* Doc. 265.)

1 Cook, 598 F.3d 558, 565 (9th Cir. 2010)). The gatekeeping function is meant “to screen
2 the jury from unreliable nonsense opinions, but not exclude opinions merely because they
3 are impeachable.” *Id.* at 1044 (quoting *Alaska Rent–A–Car, Inc. v. Avis Budget Grp., Inc.*,
4 738 F.3d 960, 969 (9th Cir. 2013)). The district court does not decide “whether the expert
5 is right or wrong, just whether his testimony has substance such that it would be helpful to
6 the [factfinder].” *Id.* District courts have broad discretion to decide the admissibility of
7 expert testimony under Rule 702. *Hyer v. City & Cnty. of Honolulu*, 118 F.4th 1044, 1055
8 (9th Cir. 2024).

9 To meet the qualifications requirement, the expert’s knowledge, skill, experience,
10 or education “need only exceed ‘the common knowledge of the average layman.’” *United*
11 *States v. Holguin*, 51 F.4th 841, 854 (9th Cir. 2022) (quoting *United States v. Finley*, 301
12 F.3d 1000, 1007 (9th Cir. 2002)). As long as an expert stays within the reasonable confines
13 of his subject area, lack of particularized expertise goes to the weight, rather than
14 admissibility, of an expert opinion on a specific subtopic. *Avila v. Willits Env’t*
15 *Remediation Tr.*, 633 F.3d 828, 839 (9th Cir. 2011); *see also United States v. Garcia*, 7
16 F.3d 885, 889–90 (9th Cir. 1993).

17 Expert opinion testimony “is reliable if the knowledge underlying it has a reliable
18 basis in the knowledge and experience of the relevant discipline.” *Elosu v. Middlefork*
19 *Ranch Inc.*, 26 F.4th 1017, 1024 (9th Cir. 2022) (quoting *Alaska Rent–A–Car*, 738 F.3d at
20 969). District courts have “discretion to decide how to test an expert’s reliability . . . based
21 on the particular circumstances of the particular case.” *Id.* (quoting *City of Pomona*, 750
22 F.3d at 1044). Factors to consider may include “testability, publication in peer-reviewed
23 literature, known or potential error rate, and general acceptance,” *id.*, “depending on the
24 nature of the issue, the expert’s particular expertise, and the subject of his testimony,”
25 *Primiano*, 598 F.3d at 565 (quoting *White v. Ford Motor Co.*, 312 F.3d 998, 1007 (9th Cir.
26 2002)). For example, “Peer reviewed scientific literature may be unavailable because the
27 issue [is] too particular, new, or of insufficiently broad interest, to be in the literature.” *Id.*
28 Medical expert opinion testimony may be “based on specialized as distinguished from

1 scientific knowledge.” *United States v. Sandoval-Mendoza*, 472 F.3d 645, 655 (quoting
2 *Sullivan v. U.S. Dep’t of the Navy*, 365 F.3d 827, 834 (9th Cir. 2004)). “As ‘medical
3 knowledge is often uncertain’ due to the complexity of the human body and the novelty of
4 emerging medical issues, . . . ‘physicians must use their knowledge and experience as a
5 basis for weighing known factors along with inevitable uncertainties’ to make ‘a sound
6 judgment’ in each case.” *Elosu*, 26 F.4th at 1025 (citing *Primiano*, 598 F.3d at 565–66).
7 An expert in a specialized field is not required to give opinions based on firsthand
8 knowledge or observation. *Id.* at 1026.

9 The reliability of the expert’s principles and methods “is an entirely separate
10 question” from an expert’s qualifications. *Holguin*, 51 F.4th at 854. However, the
11 application of extensive experience is a method that can reliably support expert testimony.
12 *Id.* at 855 (citing Fed. R. Evid. 702 advisory committee’s note to 2000 amendments). And
13 “[a]n expert’s specialized knowledge and experience can serve as the requisite ‘facts or
14 data’ on which they render an opinion.” *Elosu*, 26 F.4th at 1024.

15 “Plagiarism in an expert report does not automatically render the expert’s testimony
16 inadmissible.” *Thomsen v. NaphCare, Inc.*, No. 19-CV-00969, 2023 WL 8701971, at *6
17 (D. Or. Dec. 15, 2023) (quoting *Spiral Direct, Inc. v. Basic Sports Apparel, Inc.*, No. 15-
18 CV-641, 2017 WL 11457208, at *2 (M.D. Fla. Apr. 13, 2017)). “Plagiarism . . . typically
19 bears on credibility rather than reliability. . . . But when the plagiarism is so blatant that it
20 represents deliberate lack of candor, it may cause the report to be unreliable enough to
21 justify exclusion.” *Henderson v. Lockheed Martin Corp.*, 723 F. Supp. 3d 1147, 1151
22 (M.D. Fla. 2024) (citations omitted). “An expert’s attempt to conceal plagiarism may also
23 undercut his reliability.” *Thomsen*, 2023 WL 8701971, at *6.

24 **III. Discussion**

25 Intervenor-Defendants ask the Court to exclude Dr. Shumer’s testimony as
26 unreliable for three reasons: (1) lack of qualifications; (2) lack of objective support for his
27 opinions; and (3) plagiarism and attempts to conceal that plagiarism. (Doc. 265 at 8.)

28 //

1 **A. Dr. Shumer's Qualifications**

2 Intervenor-Defendants allege that “Dr. Shumer lacks the sufficient qualifications to
3 serve as an expert on sports-related issues.” (Doc. 265 at 13.) However, as Plaintiffs
4 explain, Dr. Shumer “was not retained to give an opinion on performance differences
5 between males and females in any particular sport or activity or at the more elite levels of
6 competition.” (Doc. 272 at 14.) In Dr. Shumer’s words, he “was asked to provide an
7 opinion based on [his] expertise in pediatric endocrinology as it relates to puberty, the
8 timing and tempo of puberty, the treatment of gender dysphoria, and the effect of puberty,
9 specifically testosterone, on the body as it relates to establishing a competitive advantage
10 in sports.” (Shumer Dep. 10:1–7.) Dr. Shumer is qualified to testify on such topics as an
11 expert under Rule 702.

12 Dr. Shumer has a M.D. from Northwestern University and a M.P.H. from Harvard
13 University; following his residency in pediatrics, he was a clinical fellow in pediatric
14 endocrinology at Harvard University’s Boston Children’s Hospital; he is licensed to
15 practice medicine in Michigan and certified by the American Board of Pediatrics; and he
16 serves as a clinical associate professor in pediatric endocrinology at the University of
17 Michigan, “where the major focus of [his] clinical and research work pertains to
18 transgender adolescents.” (Shumer Rep. at 2–3, 17.) As a clinical fellow, Dr. Shumer
19 conducted research on gender identity and the evaluation and management of transgender
20 children and adolescents. (*Id.* ¶ 3.) Dr. Shumer is the medical director of the University of
21 Michigan Comprehensive Gender Services Program, which “[o]versee[s] the provision of
22 care to transgender and gender non-conforming patients at Michigan Medicine.” (*Id.* at 2,
23 17.) Dr. Shumer founded the Child and Adolescent Gender Services Clinic at the C.S. Mott
24 Children’s Hospital, where he has “personally evaluated and treated over 400 patients for
25 gender dysphoria.” (*Id.* ¶¶ 4–5.) He continues to actively conduct research related to
26 transgender medicine and mental health concerns specific to transgender youth and has
27 published numerous peer-reviewed articles on these subjects. (*Id.* at 3–4, 21–23.)

28 The substantive sections of Dr. Shumer’s report are titled “Medical and Scientific

1 Background on Gender Identity and Gender Dysphoria,” “The Medical Treatment of
2 Gender Dysphoria in Adolescents,” “Sports and Gender,” and “Plaintiffs and Arizona’s
3 Ban on Transgender Girls in Sports.” (*See id.*) The qualifications discussed above, and
4 others found in Dr. Shumer’s CV, satisfy the Court that Dr. Shumer has a level of
5 knowledge, skill, experience, and education that “exceed[s] the common knowledge of the
6 average layman” regarding these topics. *Holguin*, 51 F.4th at 854; (*see* Doc. 265-2 at 16–
7 24). Clearly, Dr. Shumer is qualified to give opinions on the medical and scientific
8 background of gender identity and gender dysphoria and the medical treatment of gender
9 dysphoria in adolescents. (*See* Shumer Rep. ¶¶ 16–34.)

10 Dr. Shumer’s opinions in the final two sections of his report are “within the
11 reasonable confines of his subject area” of expertise. *Avila*, 633 F.3d at 839. Only 8 of 50
12 substantive paragraphs in Dr. Shumer’s report can fairly be construed as “sports-related.”
13 (Shumer Rep. ¶¶ 35–37, 40–41, 47–49.) Yet each of these paragraphs is grounded in Dr.
14 Shumer’s expertise as a pediatric endocrinologist, knowledge of the medical and scientific
15 literature in his field, and extensive experience treating transgender adolescents. (*Id.* ¶¶ 12–
16 13.) Dr. Shumer connects the effects of testosterone associated with male puberty to
17 biological differences in post-pubertal boys and girls that lead men to have an athletic
18 advantage over women in many sports. (*Id.* ¶¶ 35–40.) Dr. Shumer cites a peer-reviewed
19 article in support of this conclusion. (*Id.* at 13 n.3.) Then he briefly applies these principles
20 to his case-specific opinions regarding the Plaintiffs and the Arizona statute. (*Id.* ¶¶ 41–
21 49.) Here, the Court’s role is to act as gatekeeper, not to decide the correctness of Dr.
22 Shumer’s testimony. *See City of Pomona*, 750 F.3d at 565. Intervenor-Defendants’
23 arguments that Dr. Shumer is not qualified to testify on “issues relating to sports,” (Doc.
24 265 at 13–14; Doc. 277 at 10–11), go to the weight, rather than the admissibility, of Dr.
25 Shumer’s testimony. *See Avila*, 633 F.3d at 839. Thus, the Court will not exclude Dr.
26 Shumer’s testimony due to a lack of qualifications.

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28 //

1 **B. Reliability of Dr. Shumer’s Opinions**

2 Intervenor-Defendants argue Dr. Shumer’s testimony should be excluded because
3 he has no objective proof of his own, or from other sources, demonstrating that his opinions
4 are good science. (Doc. 265 at 14–17.) First, Intervenor-Defendants assert that Dr.
5 Shumer’s opinions are unreliable because he has not published peer-reviewed articles or
6 conducted independent research on “sports science, exercise science, kinesiology, athletic
7 training, or physical education,” and thus, his opinions have arisen “solely in the context
8 of this litigation.” (*Id.* at 14–15.) Second, Intervenor-Defendants assert that in the absence
9 of independent research on sports performance, Plaintiffs must present objective, verifiable
10 evidence supporting Dr. Shumer’s opinions, but have failed to do so. (*Id.* at 15.) Intervenor-
11 Defendants appear to limit this argument to Dr. Shumer’s opinions in the “Sports and
12 Gender” and “Plaintiffs and Arizona’s Ban on Transgender Girls in Sports” sections of his
13 report. (*Id.*)

14 Intervenor-Defendants’ arguments rest on an overly narrow interpretation of Rule
15 702 and the relevant issues in this case. Again, that Dr. Shumer does not have specialized
16 expertise in sports science, or related fields, does not render his specialized knowledge in
17 pediatric endocrinology and transgender medicine irrelevant. *See Avila*, 633 F.3d at 839.
18 Dr. Shumer has conducted extensive “independent research” related to the effects of
19 hormones on the body, both during and after puberty, and has extensive clinical experience
20 treating transgender adolescents, many with puberty-blocking medication. (*See* Doc. 265-
21 2 at 17–24.) This specialized medical knowledge, education, and experience is a sufficient
22 basis for Dr. Shumer to provide many of the challenged opinions in his report. (*See* Shumer
23 Rep. ¶ 37 (“Both boys and girls produce testosterone. After puberty, however, boys
24 produce much higher levels of testosterone than girls, which results in increased muscle
25 mass and strength.”), ¶ 38 (“Setting aside the narrow category of individuals with DSDs,
26 the ranges of testosterone in males and females do not overlap with each other.”), ¶ 39
27 (“There are transgender girls and women who have testosterone in the female range
28 because they are receiving hormone therapy or because, as a result of receiving puberty-

1 suppressing medication, they never have gone through male puberty.”), ¶ 49 (“[R]equiring
2 Plaintiffs to participate on a boys’ team would conflict with the standards of care for
3 treating gender dysphoria in adolescents. Such a requirement would be harmful to
4 Plaintiffs’ mental, emotional, and physical health.”).)

5 Intervenor-Defendants make much out of the lack of citations in the final two
6 sections of the Shumer Report.⁶ (Doc. 265 at 15.) But Dr. Shumer’s opinions appear to be
7 supported by the peer-reviewed journal article he cites in Paragraph 37. (*Compare* Shumer
8 Rep. ¶ 35 (“Sex chromosomes and genitals alone do not meaningfully affect athletic
9 performance.”), ¶ 36 (“Before puberty, girls and boys generally perform at the same level
10 with some small differences at the margins In contrast, post-pubertal boys as a group
11 generally begin to show a significant athletic advantage over post-pubertal girls due to their
12 exposure over time to the elevated levels of testosterone associated with male puberty.”),
13 ¶ 37 (“The biological driver of these average group differences is testosterone, not anatomy
14 or genetics. . . . As a result, post-pubertal boys and men have an athletic advantage over
15 girls and women in many sports.”), ¶ 40 (“The fact that a girl is transgender, in itself, does
16 not indicate that she has any athletic advantage over other girls.”), *with* (Doc. 272-1 at 86–
17 88) (citing David J. Handelsman, et al., *Circulating Testosterone as the Hormonal Basis of*
18 *Sex Differences in Athletic Performance*, 39 *Endocrine Reviews* (2018) (“Age-grade
19 competitive sporting records show no sex differences prior to puberty, whereas from the
20 age of male puberty onward there is a strong ongoing male advantage. The striking male
21 postpubertal increase in circulating testosterone provides a major, ongoing, cumulative,
22 and durable physical advantage in sporting contests Prior to puberty, levels of
23 circulating testosterone . . . are the same in boys and girls The available, albeit
24 incomplete, evidence makes it highly likely that the sex difference in circulating
25 testosterone of adults explains most, if not all, the sex differences in sporting
26 performance.”).) The reliability of Dr. Shumer’s opinion that “the biological driver of . . .

27
28 ⁶ Intervenor-Defendants assert Paragraph 46 is not supported by a citation. However,
Paragraph 46 quotes, and cites, a section of the Arizona statute at issue. (*See* Shumer Rep.
¶ 46.)

1 average group differences [in athletic performance] is testosterone, not anatomy or
2 genetics,” does not depend on the fact that he cited the Handelsman Article after the last
3 sentence of Paragraph 37, rather than immediately after the first sentence of that paragraph.
4 (See Shumer Rep. ¶ 37.) The same can be said for Dr. Shumer’s opinions in Paragraphs 35,
5 36, 40, 47, and 48, which simply restate the same core hypothesis in different ways. As
6 Intervenor-Defendants acknowledge, subjecting “the research and analysis supporting the
7 proffered conclusions . . . to normal scientific scrutiny through peer review and
8 publication” is one means of showing “objective, verifiable evidence” supporting Dr.
9 Shumer’s opinions. (Doc. 265 at 15 (citing *Daubert v. Merrell Dow Pharms., Inc. (Daubert*
10 *II*), 43 F.3d 1311, 1317–18 (9th Cir. 1995)).)

11 Dr. Shumer’s opinion is not rendered unreliable because the Handelsman Article
12 was the only peer-reviewed journal article cited in the “Sports and Gender” section. The
13 biological cause of athletic performance differences between sexes is an emerging medical
14 issue, and thus, the extent of peer-reviewed scientific literature may be limited. See
15 *Primiano*, 598 F.3d at 565. It is telling that another highly qualified expert, Dr. Safer, also
16 relies primarily, if not exclusively, on the Handelsman Article to support his similar
17 opinions. (See 2022 Safer Rep. ¶¶ 25, 50; 2020 Safer Decl. ¶¶ 25, 48.) While Intervenor-
18 Defendants presented articles at Dr. Shumer’s deposition that come to another conclusion,
19 i.e., that sex differences in athletic performance exist in prepubertal boys and girls and are
20 caused by something other than testosterone, which hypothesis is correct “is for the
21 litigants to argue, and for the [factfinder] to decide.” See *Elosu*, 26 F.4th at 1026; (Shumer
22 Dep. 157:19–200:6).

23 Moreover, Dr. Shumer’s medical expert opinion testimony is based as much on
24 specialized medical knowledge as it is on scientific knowledge. See *Sandoval-Mendoza*,
25 472 F.3d at 655 (“When evaluating specialized or technical expert opinion testimony, the
26 relevant reliability concerns may focus upon personal knowledge or experience.”)
27 Notwithstanding the Handelsman Article, it is also sufficient that Dr. Shumer used his
28 knowledge and experience as a physician to weigh known factors and inevitable

1 uncertainties to reach a sound judgment in this case. *See Elosu*, 26 F.4th at 1024–25;
2 *Primiano*, 598 F.3d at 567 (“*Daubert* offers several reasons why an opinion unsupported
3 by peer-reviewed publication may be admissible.”). The “analytical gap” between the data
4 and Dr. Shumer’s opinion that testosterone is the biological driver of average group
5 differences in athletic performance between post-pubertal boys and girls is not “too great.”
6 *See Elosu*, 26 F.4th at 1026. Dr. Shumer’s clinical experience and understanding of puberty
7 and resulting biological development is enough to allow him to generate a novel hypothesis
8 about a complex issue and testify as such. *See Holguin*, 51 F.4th at 855 (“[T]he application
9 of extensive experience is a method that can reliably support expert testimony.”); Shumer
10 Rebuttal ¶ 109 (“In my clinical practice, I have provided medical care to more than 300
11 adolescent transgender girls. None of the transgender girls I have treated with [puberty
12 suppressing medication or hormone therapy] appeared to have any athletic advantage over
13 other girls.”). It is not the Court’s role “to determine whether [Dr. Shumer’s] hypothesis is
14 correct, or to evaluate whether it is corroborated by other evidence on the record.” *Elosu*,
15 26 F.4th at 1026 (citing *Daubert I*, 509 U.S. at 592–93).

16 Intervenor-Defendants also assert that Dr. Shumer’s opinions in Paragraphs, 42, 43,
17 44, and 45, “came exclusively from information from Plaintiffs’ counsel,” and are therefore
18 unsupported and unreliable. (Doc. 265 at 15.) However, experts are “permitted wide
19 latitude to offer opinions, including those that are not based on firsthand knowledge or
20 observation.” *Elosu*, 26 F.4th at 1026 (quoting *Daubert I*, 509 U.S. at 592–93). Dr.
21 Shumer’s opinion, that as a result of being treated with puberty-suppressing medication,
22 Plaintiffs have not undergone physiological changes that increased testosterone levels
23 would cause in a pubescent boy, is sufficiently grounded in his education and training in
24 pediatric endocrinology and his clinical expertise and experience treating hundreds of
25 transgender adolescents for gender dysphoria. (*See Shumer Rep.* ¶¶ 42–45.) Intervenor-
26 Defendants do not cite any authority in support of the proposition that Rule 702 requires a
27 physician, in every instance, to physically examine an individual before offering expert
28 testimony as to that individual’s medical condition.

1 Plaintiffs have shown by a preponderance of the evidence that Dr. Shumer's
2 opinions: (1) are based on sufficient facts and data; (2) are the product of reliable principles
3 and methods; and (3) reflect a reliable application of the principles and methods to the facts
4 of this case. *See* Fed. R. Evid. 702(b)–(d).

5 **C. Reliability and Allegations of Plagiarism**

6 Intervenor-Defendants allege that Dr. Shumer's opinions are unreliable because he
7 plagiarized 19 of the 34 substantive paragraphs in the Shumer Report from the 2022
8 Rosenthal Declaration and 2022 Safer Report and attempted to conceal this plagiarism at
9 his deposition. (Doc. 265 at 8–12.) Plaintiffs argue Dr. Shumer's opinions "are his own
10 and reflect his extensive experience as a pediatric endocrinologist and his knowledge of
11 the medical literature." (Doc. 272 at 9.) Plaintiffs maintain that Dr. Shumer could not have
12 plagiarized the 2022 Rosenthal Declaration or 2022 Safer Report because Dr. Shumer's
13 expert reports have remained consistent since 2016 and his report in this case uses language
14 that mirrors language from a report he authored in 2020. (*See id.*; Doc. 272-1 at 15–26, 79–
15 88.) In their Reply, Intervenor-Defendants argue Plaintiffs' "*post hoc* story" is contradicted
16 by Dr. Shumer's deposition testimony, case-specific opinions, and rebuttal report, an April
17 2020 report from Dr. Safer, and earlier legal filings. (Doc. 277 at 2–7; Doc. 277-2; Doc.
18 277-4.)

19 Intervenor-Defendants' allegations fail to show that Dr. Shumer has exhibited a
20 deliberate lack of candor such that his report is unreliable and should be excluded. *See*
21 *Henderson*, 723 F. Supp. 3d at 1151.

22 1. Medical and Scientific Background Sections

23 First, of the 19 allegedly plagiarized paragraphs in the Shumer Report, 16 are in the
24 "Medical and Scientific Background on Gender Identity and Gender Dysphoria" and "The
25 Medical Treatment of Gender Dysphoria in Adolescents" sections. (*See* Doc. 265-2.) As
26 discussed above, Dr. Shumer's specialized medical knowledge, education, training,
27 research history, and clinical experience provide a reliable basis for every opinion provided
28 in these two sections. (*See* Doc. 265-2 at 16–24; Shumer Rep. ¶¶ 1–13; Shumer Dep.

1 252:9–23 (testifying the opinions in the “Medical and Scientific Background on Gender
2 Identity and Gender Dysphoria” and “The Medical Treatment of Gender Dysphoria in
3 Adolescents” sections are “well established in the scientific community”).) None of
4 Intervenor-Defendants’ arguments overcome this basis for reliability. *See Holguin*, 51
5 F.4th at 854 (the application of extensive experience is a method that can reliably support
6 expert testimony); *Elosu*, 26 F.4th at 1024 (specialized knowledge and experience can
7 serve as the requisite facts or data on which an expert renders their opinion); *Primiano*, 598
8 F.3d at 565 (“Expert opinion testimony is . . . reliable if the knowledge underlying it has a
9 reliable basis in the knowledge and experience of the relevant discipline.”). That the
10 opinions in these sections “reflect [Dr. Shumer’s] extensive experience as a pediatric
11 endocrinologist and his knowledge of the medical literature,” is enough to meet Plaintiffs’
12 burden of proving the reliability of Dr. Shumer’s testimony. (Doc. 272 at 9.)

13 Intervenor-Defendants allege every paragraph in “The Medical Treatment of
14 Gender Dysphoria in Adolescents” section is plagiarized. (Doc. 265-2 at 3–5.) But Dr.
15 Shumer explicitly relies on the WPATH Standards of Care and the Endocrine Society’s
16 clinical practice guidelines in this section. (Shumer Rep. ¶¶ 29–31.) Dr. Shumer was not
17 required to cite these standards in a footnote when he names, describes, and discusses them
18 in the text of his report. And in Paragraph 28, Dr. Shumer cites seven journal articles. (*Id.*
19 ¶ 28.) Even if Dr. Shumer took some of the language in these paragraphs from Dr. Safer or
20 Dr. Rosenthal, there is no reason to doubt that Dr. Shumer possesses knowledge of these
21 foundational principles in pediatric endocrinology and transgender medicine. *See*
22 *Thomsen*, 2023 WL 8701971, at *6–7 (declining to exclude an expert’s report where “the
23 copied sections provided general, broadly applicable information,” rather than case-
24 specific opinions).

25 Second, Dr. Shumer’s wording in many of the allegedly plagiarized paragraphs has
26 significant differences with the materials from Dr. Safer and Dr. Rosenthal. (*See* Doc. 265-
27 2; Doc. 277-2.) For example, Paragraph 24 of the Shumer Report states:

28 From a medical perspective, a person’s sex is comprised of several
components, including, among others, internal reproductive organs, external

1 genitalia, chromosomes, hormones, gender identity, and secondary-sex
2 characteristics. Diversity and incongruence in these components of sex are a
naturally occurring source of human biological diversity.

3 (Shumer Rep. ¶ 24.) Paragraph 23 of the 2020 Safer Declaration reads:

4 The phrase “biological sex” is an imprecise term that can cause confusion. A
5 person’s sex encompasses the sum of several different biological attributes,
6 including sex chromosomes, certain genes, gonads, sex hormone levels,
7 internal and external genitalia, other secondary sex characteristics, and
gender identity. Those attributes are not always aligned in the same direction.
See Endocrine Society Guidelines; Safer JD, Tangpricha V. Care of
transgender persons. *N Engl J Med* 2019; 381:2451-2460.

8 (2020 Safer Decl. ¶ 23.) These paragraphs are similar because they define the same term
9 or concept, but they have many obvious differences. They are not identical or “virtually
10 identical,” and it is unsurprising that two endocrinologists define “biological sex” in similar
11 ways. Even if Dr. Shumer was inspired by Dr. Safer, Paragraph 24 does not contradict Dr.
12 Shumer’s testimony that he was the sole author of his report and used his own words,
13 (Shumer Dep. 13:2–6, 234:11–235:3), in a way that shows a deliberate lack of candor.

14 Similarly, Paragraph 25 of the Shumer Report reads:

15 When a child is born, a healthcare provider designates the child’s sex as male
16 or female based on the child’s observable anatomy. For most people, that
17 initial designation (often referred to as “assigned sex”) turns out to be
consistent with the person’s gender identity. For a transgender person,
however, that initial designation turns out to be inaccurate because it does
not reflect the person’s gender identity.

18 (Shumer Rep. ¶ 25.) In contrast, Paragraph 18 of the 2022 Rosenthal Declaration reads:

19 At birth, newborns are assigned a sex, either male or female, typically based
20 solely on the appearance of their external genitalia. For most people, that
21 assignment turns out to be accurate and their assigned sex matches that
person’s gender identity. However, for transgender people, their assigned sex
does not align with their gender identity. This lack of alignment can create
significant distress for transgender individuals.

22 Once again, these paragraphs address the same concepts but have many differences in
23 wording. The similarities between the two paragraphs are insufficient to establish
24 plagiarism, let alone plagiarism “so blatant that it represents deliberate lack of candor.” See
25 *Henderson*, 723 F. Supp. 3d at 1151–52 (excluding expert report that copied hundreds of
26 pages from agency publications “verbatim”); *Spiral Direct*, 2017 WL 11457208, at *2
27 (excluding expert report in part because large sections were “copied and pasted” from a
28 report written by another expert in a different case); *Moore v. BASF Corp.*, No. CIV.A. 11-

1 1001, 2012 WL 6002831, at *7 (E.D. La. Nov. 30, 2012), *aff'd sub nom. Moore v. Int'l*
2 *Paint, L.L.C.*, 547 F. App'x 513 (5th Cir. 2013) (excluding expert's conclusions in part
3 because they "were copied verbatim from the report of another expert").

4 Third, Plaintiffs have provided the Court with evidence that Dr. Shumer's opinions
5 have remained consistent over time. (*Compare* 2020 Shumer Decl., *with* Shumer Rep.)
6 Much of the allegedly plagiarized language can be found in the 2020 Shumer Declaration,
7 which pre-dates the 2022 Rosenthal Declaration and the 2022 Safer Report. In response,
8 Intervenor-Defendants submit the 2020 Safer Declaration in an attempt to show that "Dr.
9 Shumer is far more likely to have plagiarized Dr. Safer than himself." (Doc. 277 at 4–6.)
10 Of the six paragraphs in the 2020 Safer Declaration Intervenor-Defendants allege Dr.
11 Shumer plagiarized from, none of them are identical to the corresponding paragraphs in
12 the Shumer Report. (*See* Doc. 277-2.) Moreover, each of the six paragraphs define the
13 terms "gender identity," "gender roles," and "a person's sex," all topics well within Dr.
14 Shumer's area of expertise and specialized knowledge.

15 Intervenor-Defendants attempt to find language elsewhere that pre-dates the 2020
16 Shumer Declaration to show Dr. Shumer plagiarized the opinions in Paragraphs, 23, 25,
17 26, and 29 of the Shumer Report. (Doc. 277 at 6–7.) Like the 2020 Safer Declaration, these
18 sources fail to establish plagiarism justifying exclusion because they are not identical or
19 virtually identical to the Shumer Report and they discuss foundational principles regarding
20 gender dysphoria and biological sex.

21 In sum, with respect to the background information in the Shumer Report, the
22 "alleged plagiarism does not undermine the reliability of [Dr. Shumer's] ultimate
23 conclusions and therefore [the Court] will not exclude his opinion on that basis." *See*
24 *Thomsen*, 2023 WL 8701971, at *7.

25 2. Case-Specific Opinions

26 Only 3 of the 19 allegedly plagiarized paragraphs in the Shumer Report are in the
27 "Sports and Gender" and "Plaintiffs and Arizona's Ban on Transgender Girls in Sports"
28 sections. (Doc. 265 at 9; Doc. 265-2 at 6–7 (comparing Shumer Rep. ¶¶ 36–37, 47, with

1 2022 Safer Rep. ¶¶ 25, 49).) The cited language contains many differences with and is not
2 identical or virtually identical to the language in Paragraphs 36, 37, and 47 of the Shumer
3 Report. *See Snyder v. Bank of Am., N.A.*, No. 15-CV-04228, 2020 WL 6462400, at *4 (N.D.
4 Cal. Nov. 3, 2020) (excluding plaintiff-expert’s case-specific opinions that were “almost
5 **entirely** copied and pasted” from another expert’s report (emphasis in original)). Also, as
6 discussed above, Dr. Shumer cites the Handelsman Article in Paragraph 37 to support the
7 proposition that testosterone is the biological driver of average group differences in athletic
8 performance between men and women. *See* discussion *supra* Section III.B. It is
9 unsurprising that two endocrinologists would cite the same study in an area where peer
10 reviewed literature is limited. The alleged plagiarism of the Shumer Report’s case-specific
11 opinions does not demonstrate Dr. Shumer’s lack of expertise. *See Thomsen*, 2023 WL
12 8701971, at *6.

13 That an expert report has many similarities with, or even relies on, another expert
14 report in a similar case challenging a similar law does not, itself, render the expert’s
15 testimony unreliable. *Compare San Francisco Baykeeper v. City of Sunnyvale*, 627 F.
16 Supp. 3d 1085, 1100–01 (N.D. Cal. 2022) (reasoning that “relying on admissible expert
17 opinions . . . is permissible”), *with Snyder*, 2020 WL 6462400, at *4 (excluding plaintiff-
18 expert’s testimony in part because it relied on another expert’s inadmissible testimony),
19 *and Henderson*, 723 F. Supp. 3d at 1152–53 (excluding expert’s testimony in part because
20 it selectively copied material in a way that overstated the definitiveness of the scientific
21 opinions presented). Dr. Shumer testified that to the extent he may have relied on the
22 reports of Dr. Safer and Dr. Rosenthal, he did not omit anything from those reports that
23 would have changed his findings in this case. (Shumer Dep. 253:18–22.)

24 3. Dr. Shumer’s Deposition Testimony

25 “An expert’s attempt to conceal plagiarism may . . . undercut his reliability.”
26 *Thomsen*, 2023 WL 8701971, at *6. For example, an expert may falsely testify under oath
27 that they have not reviewed other expert reports or that they have provided all documents
28 relied upon in creating their reports or give deliberately misleading answers to questions

1 about their reports. *Id.* (citing *Moore*, 2012 WL 6002831, at *7, and *Raymo v. Sec'y of*
2 *Health & Hum. Servs.*, No. 11-0654V, 2014 WL 1092274, at *13 (Fed. Cl. Feb. 24, 2014),
3 and *Spiral Direct*, 2017 WL 11457208, at *2).

4 Intervenor-Defendants argue Dr. Shumer attempted to conceal his plagiarism when
5 he testified that: (1) his report contained his own words; (2) he had cited all the scientific
6 research he gathered for his report; (3) he had not read expert reports from Dr. Rosenthal
7 or Dr. Safer; and (4) he did not plagiarize Dr. Rosenthal or Dr. Safer. (Doc. 265 at 10–12.)
8 Intervenor-Defendants argue such testimony renders Dr. Shumer’s opinions unreliable.
9 The Court disagrees with Intervenor-Defendants’ characterization of Dr. Shumer’s
10 testimony.

11 As discussed above, Plaintiffs cite the 2020 Shumer Declaration, which pre-dates
12 the 2022 Rosenthal Declaration and 2022 Safer Report and includes much of the language
13 Intervenor-Defendants allege Dr. Shumer plagiarized. Intervenor-Defendants argue “Dr.
14 Shumer’s testimony cannot be reconciled with Plaintiffs’ *post hoc* story that Dr. Shumer
15 was simply ‘consistent’ with his ‘own thoughts and ideas’ over time” because Dr. Shumer
16 never testified that the language in the Shumer Report came from the 2020 Shumer
17 Declaration. (Doc. 277 at 3.) However, Dr. Shumer testified that some of the material in
18 the Shumer Report’s “Medical and Scientific Background on Gender Identity and Gender
19 Dysphoria” and “The Medical Treatment of Gender Dysphoria in Adolescents” sections
20 came from other expert reports he has written. (Shumer Dep. 13:7–14:5.) Dr. Shumer also
21 testified that he “read resources that [he] didn’t cite in [these sections of] this particular
22 declaration.” (*Id.* 113:11–115:16.)

23 Next, Dr. Shumer’s testimony that he cited all the scientific research he gathered for
24 his report and relied on only a single source for his “Sports and Gender” opinions was not
25 deliberately misleading. To the extent Dr. Shumer relied on other expert reports in the
26 “Sports and Gender” section, those reports are not “scientific research.” Moreover, Dr.
27 Shumer cited the Handelsman Article, which supports the opinions he provided in the
28 “Sports and Gender” section, and testified that he also relied on his “expertise as a pediatric

1 endocrinologist and [his] understanding of normal puberty physiology” in authoring those
2 opinions. (Shumer Dep. 136:7–137:1); *see Guadiana v. State Farm Fire & Cas. Co.*, No.
3 CV-07326, 2013 WL 12172621, at *3 (D. Ariz. Oct. 18, 2013), *aff’d*, 2014 WL 12639918
4 (D. Ariz. Dec. 30, 2014) (experts may rely on other experts’ opinions if other evidence
5 supports their opinion and the expert conducted an independent evaluation of the evidence).

6 Dr. Shumer’s failure to cite the 2020 Safer Declaration, 2022 Safer Report, and 2022
7 Rosenthal Declaration and his initial testimony that he had not read those reports does not
8 render Dr. Shumer’s testimony unreliable. Early in the deposition, Dr. Shumer testified that
9 he had not reviewed any of the expert reports in the cases challenging sports laws in Idaho
10 or West Virginia. (Shumer Dep. 43:5–44:5.) Five hours later, Dr. Shumer testified that he
11 had read some of Dr. Safer’s writings on the topic of transgender participation in sports
12 and stated, “I don’t know if it was an expert report from Idaho or if it was writings that he
13 was doing for another reason.” (*Id.* 201:7–14.) Dr. Shumer testified that he wasn’t aware
14 of seeing any expert reports from Dr. Rosenthal. (*Id.* 201:25–202:5.) When asked whether
15 he plagiarized any of Dr. Safer’s reports, Dr. Shumer stated, “I think that I read Dr. Safer’s
16 report as I was preparing to write the first report that I wrote related to gender and sports
17 maybe four years ago, but I wouldn’t use the word ‘plagiarize.’” (*Id.* 202:6–11.)⁷ Counsel
18 for Intervenor-Defendants selectively read portions of the Shumer Report and portions of
19 the 2022 Safer Report and 2022 Rosenthal Declaration in an attempt to get Dr. Shumer to
20 admit he plagiarized those materials. For example, counsel asked and Dr. Shumer
21 responded:

22
23 ⁷ This kind of uncertainty regarding when and in what context Dr. Shumer viewed
24 materials from Dr. Safer and Dr. Rosenthal is not evidence of deliberate dishonesty. In the
25 past four years, Dr. Shumer has served as an expert in at least 13 cases involving
26 transgender issues, preparing and reviewing dozens of expert reports. (Shumer Rep. ¶ 14;
27 Shumer Dep. 24:4–44:5.) When asked to recount specific details about the past cases and
28 reports, Dr. Shumer testified, for example, “I’m just trying to get all these reports straight
in my head about which came when and why,” (Shumer Dep. 132:2–6), “I’m struggling to
remember what exactly the differences between those two cases were,” (*id.* 28:18–29:2),
and “I didn’t remember reading the Rosenthal report prior to writing this report, . . . I can
imagine I incorporated elements of that report in writing the Alabama report,” (*id.* 232:15–
233:7). Dr. Shumer’s uncertainty is easily explained by the number of cases in which he
has served as an expert witness and the volume of expert reports he has prepared and
reviewed over an extended period of time.

1 Q: Are all the concepts and phrasing that you used in Paragraph 47 contained
2 in Dr. Safer's Paragraph 49?

3 A: I think some of the concepts are certainly similar. The phrasing is
4 obviously different.

5 Q: Some of the phrasing is the exact same; correct? For example, take the
6 last sentence. "The person's genetic makeup and internal and external
7 reproductive anatomy" is how the sentence begins, and your last sentence
8 also begins "A person's genetic makeup and anatomy at birth"; right?

9 A: So three words are the same.

10 Q: And then both sentences talk about indicators of athletic performance as
11 the crux of that sentence?

12 A: I suppose the themes of the sentence are the same, yes. But I'm just trying
13 to answer your questions with accurate answers.

14 Q: Sure. Yeah. And all I'm asking is the words "A person's genetic makeup
15 and anatomy are not reliable indicators of athletic performance" are all
16 contained in that last sentence in Dr. Safer's Paragraph 49; right?

17 A: No. I don't – they're different. Right? I mean, they're not exactly - - "A
18 person's genetic makeup" starts both sentences.

19 Q: And then?

20 A: But then the rest of the sentences are different.

21 Q: Well, Dr. Safer talks about anatomy next; right?

22 A: Yes. He uses the word "anatomy."

23 Q: And then you talk about anatomy next?

24 A: Yes.

25 Q: And you talk about "not reliable indicators of athletic performance"?

26 A: Yeah. I agree that the theme of the sentences is the same and the first three
27 words are the same. But the rest are not. . . . it's not verbatim the same.

28 (Shumer Dep. 213:17–215:9.) This testimony is not deliberately misleading. Paragraph 47
of the Shumer Report and Paragraph 49 of the 2022 Safer Report are similar in theme and
structure, but as Dr. Shumer testified, they are not identical or virtually identical. (*Compare*
Shumer Rep. ¶ 47, *with* 2022 Safer Rep. ¶ 49.) Yet, after the side-by-side comparisons, Dr.
Shumer stated he wished he had cited Dr. Safer and Dr. Rosenthal. Dr. Shumer explained:

I can imagine that I incorporated elements of [the 2022 Rosenthal

1 Declaration] in writing the Alabama report which formed a general structure
2 for the introduction to these topics in the report for this case. And in thinking
3 through how I was wanting to present information around puberty and
4 testosterone as it relates to sports, it certainly seems that I was inspired by
5 some of the points that Dr. Safer made but that not citing those in my report
6 is something that I should have done.

7 (Id. 232:15–233:13.) Dr. Shumer also stated:

8 I don't dispute that . . . some of the materials and inspiration for my report
9 came from the review of colleagues that share similar opinions. . . . I stand
10 by the fact that I'm the author of the report but certainly can see through the
11 process of going through some of those paragraphs that some of the words
12 that made up some of the paragraphs were taken from or inspired by the
13 reports from Dr. Safer or Dr. Rosenthal. . . . those materials should have been
14 cited differently.

15 (Id. 233:15–235:16.) When asked whether his report plagiarized the 2022 Rosenthal
16 Declaration and 2022 Safer Report under the University of Michigan definition, (id.
17 239:15–17), Dr. Shumer responded:

18 I don't believe that an expert report necessarily constitutes research and . . .
19 this U of M Standard Practice Guideline may or may not be applicable to an
20 expert report. . . . All that being said, I think that it's clear that some of the
21 words I used were used from other sources without appropriate credit and
22 that that meets this definition. If it were related to research, the I would say
23 yes and I should have cited the materials, as I said before.

24 (Id. 240:14–241:1.)

25 As Dr. Shumer testified, he was inspired by expert materials authored by Dr. Safer
26 and Dr. Rosenthal and may even have used some words from those materials either in the
27 Shumer Report or previous reports he authored in other cases, which he then consulted
28 when preparing the Shumer Report. But overall, Dr. Shumer's testimony supports the
conclusion that this is the "type of case in which a [factfinder] is fit to decide whether an
expert's . . . sloppy citation practices undermine his conclusions," rather than a case of
"rampant plagiarism" and Dr. Shumer "pervasive[ly] passing off others' work as his own."
Henderson, 723 F. Supp. 3d at 1151–53; *see also In re Cathode Ray Tube Antitrust Litig.*,
No. 07-CV-05944, 2022 WL 4596621, at *3 (N.D. Cal. Aug. 1, 2022) (noting that
similarities between expert reports may cast doubt on the expert's "credibility before the
[factfinder], but those arguments go to the weight and not the admissibility of the
testimony").

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