EXHIBIT 59

IN THE UNITED STATE DISTRICT COURT
FOR THE MIDDLE DISTRICT OF ALABAMA
NORTHERN DIVISION

BRIANNA BOE, et al, Plaintiffs, UNITED STATES OF AMERICA, Intervenor Plaintiff -verus- HON. STEVE MARSHALL, in his official capacity as Attorney General of the State of Alabama, et al, Defendants	CIVIL ACTION NO. 2:22-CV-184-LCB

Deposition of DR. MEREDITHE McNAMARA, taken pursuant to Rule 30(b) of the Federal Rules of Civil Procedure, held at SANDERS, GALE & RUSSELL COURT REPORTING, 555 Long Wharf Drive, First Floor, New Haven, Connecticut, before Julia Flynn Cashman, RPR, CSR 250 and Notary Public in and for the State of Connecticut, on Thursday, April 4, 2024, at 9:00 a.m.(Eastern)

APPEARANCES:

ATTORNEYS FOR PLAINTIFFS:
GLBTQ LEGAL ADVOCATES & DEFENDERS
18 Tremont Street, Suite 950
Boston, Massachusetts 02108
BY: JENNIFER L. LEVI, ESQUIRE
JLevi@glad.org
-with-
HUMAN RIGHTS CAMPAIGN
1640 Rhode Island Ave. NW
Washington, DC 20036
BY: CYNTHIA CHENG-WUN WEAVER, ESQUIRE
Senior Director of Litigation
Cynthia.weaver@hrc.org

ATTORNEY FOR INTERVENOR PLAINTIFF:

US DEPARTMENT OF JUSTICE
CIVIL RIGHTS DIVISION
BY: COTY MONTAG, ESQUIRE
US Deputy Chief
Coty.montag@usdoj.gov

ATTORNEYS FOR DEFENDANT:

ALLIANCE DEFENDING FREEDOM
15100 N. 90th Street
Scottsdale, Arizona 85260
BY: ROGER G. BROOKS, ESQUIRE
Rbrooks@adflegal.org
SUZANNE BEECHER, ESQUIRE

STIPULATIONS

IT IS HEREBY STIPULATED AND AGREED by and between counsel for the respective parties hereto that all technicalities as to proof of the official character before whom the deposition is to be taken are waived.
IT IS FURTHER STIPULATED AND AGREED by and between counsel for the respective parties hereto that the reading and signing of the deposition by the deponent are waived.
IT IS FURTHER STIPULATED AND AGREED by and between counsel for the respective parties hereto that all objections, except as to form, are reserved to the time of trial.

* * * * *

DR. MEREDITHE McNAMARA,
15 York Street, New Haven, Connecticut 06511,
having been first duly sworn by Julia Flynn Cashman, a Notary Public in and for the State of Connecticut, testified on her oath as follows:
MR. BROOKS: I'd ask the reporter to mark as McNamara Exhibit 1, the Curriculum Vitae of Meredith McNamara.
(DEFENDANT'S EXHIBIT 1 FOR IDENTIFICATION Received and Marked.)
DIRECT EXAMINATION
BY MR. BROOKS:
Q. Dr. McNamara, good morning.
A. Good morning.
Q. My name is Roger Brooks. I represent the defendants in this action. The Curriculum Vitae that I have marked as Exhibit 1 was attached to your Expert Report.
Let me just ask you to take a look at this and see whether you believe it to be -- it's dated January '23. Are there any important changes to your responsibilities or publications as listed on this Curriculum Vitae?
A. I have submitted a newer CV with my Rebuttal Report. This one is a little over a year old.

Q. And does that new one contain any important changes in your professional responsibilities?
A. Not in my professional responsibilities.
Q. Let me ask a few questions to kind of get a scope of the boundaries of your expertise.
I see at the bottom of the page, it's marked 28, that you have board certification in General Pediatrics and Adolescent Medicine. Do you have any other board certifications?
A. No, sir.
Q. Am I correct that you do not consider yourself a mental health professional?
A. That's correct, I do not.
Q. You're not a psychiatrist?
A. No, sir.
Q. You're not an expert in psychology?
A. No, sir.
Q. You have no expertise in adolescent development psychology?
A. No, sir.
Q. You're not an expert in cognition or the study of cognitive development?
A. No, sir.
Q. You're not a neurologist?
A. No.

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Q. Do you consider yourself an expert in the diagnosis and treatment of intersex conditions or disorders of sexual development?
A. No, I do not.
Q. Your peers don't consult you on that topic?
A. No, they have not.
Q. Do you consider yourself an expert in medical ethics beyond that which any medical doctor needs to know?
A. No, I do not.
Q. Do you have any publications in the field of medical ethics?
A. Not as of now.
Q. Have you submitted something that, in that field, that you hope to get published?
A. Yes, I have.
Q. And tell me what that is.
A. I submitted a paper on the Ethics of Bans on Gender Affirming Care.
Q. To what journal?
A. To a journal called the Journal of Pediatrics, a medical ethics special edition. It's under consideration.
Q. And have you ever taught a course in medical ethics?

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A. No, sir.
Q. Have you, yourself, ever participated in the conduct of any clinical trial on any topic?
A. No, sir.
Q. Certainly nothing relating -- no clinical trial related to gender dysphoria?
A. No.
Q. Are you a member of WPATH?
A. No.
Q. Have you ever attended any WPATH meetings?
A. Yes.
Q. Is there a reason that you're not a member of WPATH?
A. Yes, their membership is expensive and I have limited educational funds.
Q. Do you know whether you satisfy the professional qualifications for membership?
A. I'm unaware of what those professional qualifications may be.
Q. Have you had any role in the development of either WPATH's standard of care or SOC 7 or SOC 8?
A. No, I have not.
Q. Were you invited to review or comment on any draft materials of either of those standards of care?

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A. I was not.
Q. Now, you're not an endocrinologist either; am I correct?
A. I am not an endocrinologist.
Q. You are not a member of the Endocrine Society?
A. I'm not a member of the Endocrine Society.
Q. And had no participation in the development of the 2009 Endocrine Society Guidelines For Treatment of Gender Dysphoria, nor in the 2017 update of those guidelines; am I correct?
A. I haven't participated in either guideline development process.
Q. And you don't know with regard to either WPATH or the Endocrine Society, how the members of the committees that did that drafting were selected, do you?
A. I do not.
Q. Nor what their qualifications might have been?
A. I don't know about that.
Q. Do you consider yourself an expert in clinical experimental methodology?
A. I'm unsure of what you mean by "clinical experimental methodology."

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Q. Have you ever published any peer-reviewed article relating to experimental methodology?
A. Again, I'm unsure of what you mean by "experimental methodology."
Q. Do you consider yourself an expert in the field of evidence-based medicine?
A. Yes, I do.
Q. Have you ever taught a course in evidence-based medicine?
A. No, I have not.
Q. Have you ever taken a course in evidence-based medicine?
A. Yes, I have taken several.
Q. And where did you take those courses?
A. I obtained a Master's in Clinical Research, a MSCR degree, at Emory University in 2013. It was two years of training in clinical research and the courses included in that program were biostatistics, epidemiology, study design, research bioethics, statistical programming, grant writing, among others. And I completed a mentored senior thesis project, which I published in that two-year span.
Q. Have you ever studied any texts on evidence-based medicine authored in whole or in

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part by Gordon Guyatt?
A. I have familiarized myself with Dr. Guyatt's work. I have not read a book of his cover to cover. I have read many of his peer-reviewed articles.
Q. And were those articles that you read in the course of the education that you've described just now?
A. No, those articles and his body of work was not covered in my evidence-based medicine training.
Q. Do you have any understanding of Dr. Guyatt's reputation in the field of evidence-based medicine?
A. I'm loosely familiar with him as a founding member of the grade working group.
Q. And what is the, quote, great working group?
A. It is a cohort of --
Q. Pardon me, I may have misunderstood you. Did you say "great" or "grade"?
A. I said "grade."
Q. G-R-A-D-E.
A. Correct.
Q. Pardon me. For the record, now let me ask you the right question. What is the grade working

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group?
A. It is a cohort of statisticians and clinicians with research experience who have developed a methodology for assessing clinical evidence and devising recommendations utilizing guidelines of care.
Q. Have you, at any point in your professional work, made a special study of suicide or suicidality?
A. Could you be a little more specific with the meaning -- with what you mean by "special study"?
Q. Is that an area that you have made a focus of professional research?
A. Professional research is what you mean by "special study"?
Q. Yes.
A. No, I have not.
Q. Let me ask you to turn to 32 in your CV.
And here, if I have missed something by using the older version, you can tell me. I'm looking at, on page 32 of Exhibit 1, the heading that says "Peer-Reviewed Original Research." Do you see that?
A. Yes, I do.
Q. And there are three items listed there. Has

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anything been added to that list since the beginning of 2023?
A. Yes.
Q. And what is that?
A. It was an article published in Pediatrics sometime in July, I believe, on my working groups process for developing and disseminating reports on scientific mis- and disinformation, and policy discussions pertaining to bans on gender affirming care.
Q. Now, was that paper a paper that reported on original clinical research?
A. It was not clinical research.
Q. When I see the three items listed here, I see a case -- a single case report. Am I correct that a case report reports on a single patient, rather than on a study across multiple patients?
A. Under the section entitled Peer-Reviewed Original Research, I do not see a case report.
Q. I'm sorry. I was --
A. There's a peer-reviewed case report at the very bottom of this page.
Q. Yes. And that's -- sorry, I was focusing on the "peer-reviewed." Am I correct that the case report deals with a single patient?

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A. Correct.
Q. And that is a paper that has nothing to do with gender dysphoria issues or any issues relating to identity; correct?
A. No.
Q. Not correct?
A. Let me be a little clearer. This paper is about a genetic deletion in a patient who had epilepsy and brain malformations. This patient was a toddler and one that I cared for in residency. And I coauthored this with some colleagues and supervising attending in my residency program.
Q. And, again, that case report and that case had nothing do with gender identity, am I correct?
A. Correct, it had nothing do with gender identity.
Q. Okay. And when I look at the heading that says "Peer-Reviewed Original Research," the first item there is a paper that you coauthored with authors' last names Kempton and Antun, correct?
A. Yes, that's correct.
Q. And that, again, related to hemophilia and had nothing to do with gender identity; am I correct?

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A. That's correct.
Q. You have no peer-reviewed publications reporting original research by you on any topic relating to gender identity; am I right?
A. That is correct.
Q. We may come back to this, but you can set it aside.
MR. BROOKS: I'd like to mark as McNamara Exhibit 2, transcript of proceedings on August 10, 2023, in the Northern District of Georgia.
(DEFENDANT'S EXHIBIT 2 FOR IDENTIFICATION, Received and Marked.)
Q. And Dr. McNamara, let me ask you to turn in this transcript to page -- let me ask you first, am I correct that you testified in a hearing in Georgia in August of last year?
MS. LEVI: You have to take a look through it.
Q. What I believe I have provided here is the subset of the transcript of that day's hearing that includes all of your testimony. You will see yourself introduced on page 76 at line 14, --
MS. LEVI: Take your time.
Q. -- you're sworn in. And I will I -- I am

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not going to ask you whether the entire transcript is accurate. I'm going to ask you about a couple of specific portions.
Let me ask you to turn to page 104.
Let me ask you to turn to page 104.
A. Yes, I'm working my way there.
Q. Well, if need be, I'll ask you to just put the thing aside. I'm not going to take time for you to read the whole transcript.
A. Okay. Let me get to that page. Okay.
Q. At page 104, beginning at line 7, you testified -- and you can tell me if, in your recollection, anything about this transcript is not correct as I read it -- but you testified "I provide full spectrum care for adolescents and that includes youth who experience gender dysphoria."
Then counsel asked you, "Do you prescribe hormone therapy, puberty blockers, or hormones?"
And you responded, "I don't prescribe puberty blockers."
Let me ask you now, a few months later, does it remain true that in your professional practice, you yourself are never responsible for prescribing puberty blockers?

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A. I have prescribed puberty-blocking medications for people who do not have gender dysphoria for uses outside of that context.
Q. And was that in the context of precocious puberty?
A. No, that's not a condition I diagnose or manage.
Q. For what conditions have you prescribed puberty blockers?
A. For adolescent females with autoimmune conditions that require therapies that would be toxic to their ovaries, we will utilize puberty-blocking medications to stop cellular development temporarily in their ovaries and protect them while they receive those medications. That is something that I have done since this testimony.
Q. Okay. It remains true that you yourself have not had, professionally, prescribed puberty blockers as a therapy for gender dysphoria?
A. That's correct.
Q. In the next line here, line 14 and continuing, you testified, "I take care of patients up to about age 25. My position at Yale is a little unique. I'm kind of their generalized

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medicine person and we have a gender clinic." Do you see that testimony?
A. Yes.
Q. And am I correct that Yale has a gender clinic, but you are not a member of the staff of that gender clinic?
A. That's correct.
Q. And you don't hold and have never held an appointment as a member of any gender clinic; am I correct?
A. That's correct.
Q. The leading members of Yale's gender clinic include Drs. -- I may say these names incorrectly -- Boulware, Olezeski and Patel?
A. Those are some of them, correct.
Q. And do you consider them to be expert in the treatment of gender dysphoria?
A. Yes, I do.
Q. If a patient who you see as a pediatrician raises issues to you that suggest to you that they may suffer from gender dysphoria, do you yourself undertake to diagnose whether that patient does or does not suffer from gender dysphoria?
A. Generally, no, if that patient is a minor, I do not.

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Q. And in what context have you diagnosed gender dysphoria in adults?
A. I have diagnosed gender dysphoria in adults when they meet diagnostic criteria for gender dysphoria according to the most recent edition of the DSM.
Q. I'm just curious, given that your appointment seems to relate to Pediatrics, in what context do you find yourself treating or diagnosing and dealing with adults who may suffer from gender dysphoria?
A. So I'm an adolescent medicine physician and I'm board certified and able to care of patients up until the age of 25, with some flexibility there.
Q. And am I correct that you have never been a physician with primary responsibility for prescribing treatment for gender dysphoria in a minor?
A. That's correct.
Q. You testified in Georgia -- and I'll skip down to the bottom on page 104, that "I only have 20 minutes per appointment and I see a lot of other things. I see a lot of complex trauma, sexual reproduction health needs, sports medicine

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issues, other menstrual concerns, dermatology. I could go on and on, but it's just where my institution needs me is to provide general adolescent care."
Does that continue to accurately describe your responsibilities today?
A. I have been able to expand some of my appointment times to 40 minutes, which is nice and allows me to go in further depth with some of my patients about complex issues. But otherwise I would say that that characterizes the type of clinical care that I provide.
Q. You don't claim to be an expert in the specifics of administration of either puberty blockers or hormones, cross-sex hormones, to use to treat endocrine disorders or gender dysphoria, correct?
A. If you are describing minors, that is correct.
Q. What steps, if any, have you taken to familiarize yourself with the actual practices in the gender clinic at the University of Alabama Birmingham Gender Clinic?
A. I haven't taken any steps.
Q. Have you ever talked with Dr. Ladinsky to

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learn from her anything about her actual practices?
A. I have had two conversations with Dr. Ladinsky that were largely surface level and not pertinent to her practice.
Q. So you yourself don't have any knowledge and don't plan to offer any testimony as to what extent the University of Alabama Gender Clinic and Dr. Ladinsky have or have not followed WPATH standards of care in the course of their treatment of minors for gender dysphoria?
A. I cannot offer any testimony to that regard.
Q. You don't know anything about how long they require a patient, a minor patient, to undergo psychological evaluation before authorizing puberty blockers or cross-sex hormones?
A. That's not something I'm aware of.
Q. Have you reviewed their Informed Consent disclosures to form an opinion as to whether those are adequate?
A. I have not seen those forms.
Q. Have you ever been asked to review the Informed Consent disclosure forms of the Yale Pediatric Gender Clinic to form a view as to whether those were adequate disclosures?

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A. I have not reviewed those forms.
Q. When was the Yale Pediatric Gender Clinic founded?
A. I don't know.
Q. How many minors have you, in your practice, ever referred to that clinic?
A. Just give me a moment while I search my recollection.
Q. And I will say, approximately, roughly.
A. I believe two.
Q. And were both those minors who you referred to the clinic in fact ultimately diagnosed with gender dysphoria?
A. One has not yet been seen. That patient is still awaiting their appointment, I believe. And I am unfamiliar with the specific details of the patient who was assessed off the top of my head.
Q. Would you tell me -- of course, not names -- but ages and sexes of those two patients that you referred and when you made those referrals?
A. One was --
Q. And to be clear, I refer to natal sex particularly.
A. I understand that. Thank you for the clarification. I'm pausing just to gather my

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recollection.
Q. Mm-hmm.
A. One was 14 at the time of referral, assigned female sex at birth, received an assessment at the age of 15. And one was 15 at the time of referral and assigned female sex at birth.
Q. And that second one is the one who's waiting her first appointment?
A. Yes.
Q. The one natal female who you referred at age 14 who received an assessment, I think you said at age 15 -- am I remembering that correctly?
A. Yes.
Q. Do you know what medical treatments, if any, have now been prescribed to her by the clinic?
MS. LEVI: Object as to form.
A. That patient has not received any prescriptions since the time of their assessment.
Q. Do you know whether the Yale Pediatric Gender Clinic takes systematic steps to monitor the mental and physical health of patients who treat for gender dysphoria past the age of 18?
MS. LEVI: Object as to form.
A. I do know that they do.
Q. And what steps do you know that they take to

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monitor the mental and physical health of those patients past the age of 18?
A. They maintain continued relationships with their patients into adulthood. They transition their patients to other services on a highly individualized basis. And those patients meet with a multidisciplinary mental health team with whom they've been working for some time as adolescents.
Q. Do you have any knowledge as to what percentage of patients who are referred by any physician to the Yale pediatric gender clinic are ultimately prescribed gender affirming or cross-sex hormones by that clinic while they're minors?
MS. LEVI: Object as to form.
A. I don't know.
Q. And do you know what percentage of patients who are prescribed puberty blockers or hormonal medications as a treatment for gender dysphoria by the Yale Gender Clinic ultimately desist from pursuing a transgender identity and cease taking those medications?
MS. LEVI: Objection to form.
A. I have no awareness of that.

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Q. And do you know whether any minors who have been treated by the Yale Pediatric Gender Clinic with puberty blockers or cross-sex hormones have later been able to achieve healthy levels of fertility and have a healthy child?
MS. LEVI: Objection to form.
A. That's not something that I would have access to as a physician, apart from their services.
MR. BROOKS: Let me mark as McNamara Exhibit 3, a chapter from the DSM-V-TR manual headed "Gender Dysphoria."
(DEFENDANT'S EXHIBIT 3 FOR IDENTIFICATION Received and Marked.)
Q. And Dr. McNamara, I will represent to you that this is what I have described as the chapter from the DSM-V-TR edition. Is this a document that you are -- is this a chapter that you are familiar with?
A. Yes, I have seen this before.
Q. Let me ask you to turn to page 517 in Exhibit 3.
A. My page numbers are cut off.
Q. All right, it is a page -- I see that; I apologize. The text begins -- it's a ways in. At

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the very top of the page, begins in italics, "Late onset or pubertal/postpubertal onset gender dysphoria." Do you have that page?
A. Yes.
Q. I apologize for --
MS. LEVI: Can you give me one minute?
MR. BROOKS: Of course.
MS. LEVI: Okay, thank you.
I'm sorry, can you represent the actual page number, for the record?
MR. BROOKS: Yes, I can. And while I won't mark my highlighted copy, I'll show you 517 is the page number there.
MS. LEVI: Okay, thank you.
Q. The language that I read refers to "late onset or pubertal/postpubertal onset gender dysphoria." And it goes on to say that that can occur "even much later in life" than puberty.
Is adult onset gender dysphoria a mental health condition that you are familiar with professionally?
A. I'm not aware that there's a characterization with that specific terminology in the literature.
Q. Well, let me flip it around. Are you

familiar -- are you professionally familiar with the phenomena of gender dysphoria that first manifests itself after puberty?
A. After puberty has completed?
Q. Yes. I just read you language from the DSM-V that referred to gender dysphoria that may occur "even much later in life" than puberty. And my question is, has your professional work made you familiar with the phenomena described in DSM-V there?
A. My professional work has not -- let me say that differently. I have not encountered a patient who has been -- an adult who did not have gender dysphoria, and then developed gender dysphoria in my care.
Q. Okay. That has not been part of what you, yourself, have observed professionally?
A. That's correct.
Q. Do you have any opinion as to whether clinical observation of adults who, at least as far as reported, have developed gender dysphoria only after the completion of puberty, whether clinical observation of that population is relevant to medical decisions for the treatment of adolescents who experience gender dysphoria?

MS. LEVI: Objection to form.
A. I'm sorry, I don't understand your question.
MR. BROOKS: Let me ask the reporter to read it back.
(THE REPORTER READ THE RECORD)
MS. LEVI: Same objection.
A. I am sorry, her reading it back did not help me understand it better.
Q. All right. I'll return to that with specific articles from this.
At the end of the paragraph at the top of page 517 that I have directed you to is a sentence that reads "Parents of individuals with gender dysphoria of pubertal/postpubertal onset often report surprise, as they saw no signs of gender dysphoria during childhood."
In the two cases that you have referred to the pediatric gender clinic, both of those, am I correct, were cases that first presented in young people who were well into adolescence; correct?
A. At this time, I -- just give me a moment to try to remember.
Q. Let me break it apart. The first you mentioned was a girl who was 14, correct?
MS. LEVI: Objection to form.

Q. And am I correct that at age 14, she was well into adolescence?
A. I don't remember the exact age that that patient began puberty.
Q. And as you picture her in your mind, you have no recollection as to whether she was well into the process of adolescence?
MS. LEVI: Objection to form.
A. Where I am pausing is that the patient and parent presenting to my care was sometime after the patient began expressing a gender diversity. And I do not know off the top of my head at this time today if that disclosure and beginning of expressing that identity occurred before or after pubertal onset.
Q. In either of the two cases that you have referred on to the Yale Pediatric Gender Clinic, did the parents report surprise and tell you that they had not seen signs of gender dysphoria prior to puberty?
A. I don't recall either -- parental figures for either adolescent reporting any measure of surprise in my clinical encounters with them.
Q. And you referred to parental figures. In those two cases, were you interacting with

biological parents of the child?
MS. LEVI: And I just want to be clear, nothing that would disclose confidential information.
MR. BROOKS: Of course.
A. I use the term "parental figures" generally. Those were biological parents of both children.
Q. Do you consider it as a matter of science, known or at present not known, whether an adolescent onset gender dysphoria population exists which in fact experienced no gender dysphoric symptoms prior to puberty?
A. I am aware that there are adolescents who experience gender dysphoria at pubertal onset or after who did not report awareness of symptoms before puberty. I am also aware that there's a lot of heterogeneity in that.
MR. BROOKS: Let me ask the reporter to mark as Exhibit 4, the Expert Report of Meredithe McNamara.
(DEFENDANT'S EXHIBIT 4 FOR IDENTIFICATION Received and Marked.)
Q. And Dr. McNamara, does this indeed appear to be a copy of your original Expert Report?
A. Yes, that's what this is.

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Q. Let me ask you to turn to page 11 in that document. And there, there's a heading, "Defendants' Experts' Statements About Suicide." Do you see that?
A. Yes, I do.
Q. Part way into that paragraph, and then you discuss in the beginning of that paragraph, a study, a published paper, by authors, leading with -- there's so many names that I don't know how to pronounce -- Dhejne, D-H-E-J-N-E.
At the end of that, or late in that discussion, you say, "The Dhejne study has no applicability to adolescents."
Let me ask you to explain the basis of your opinion that the findings of the Dhejne study relating to suicide in adult years has no applicability to adolescents.
A. Just give me a moment, I'll refresh my memory by reading this paragraph.
Q. Of course.
A. This study evaluated a cohort of adults.
Q. And what is the basis for your conclusion that the incidence in suicide among the cohort of adults who had received cross-sex hormones had no applicability to adolescents?

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A. They are very different populations in several regards. The study did not gather data on adolescents specifically. It undertook no comparative analysis. One would have to perform several logical leaps in order to apply data in adults of older ages to minors.
Q. What leads you to conclude that for purposes of studying suicide and suicide attempts, that adolescents are different in important ways from adults?
A. Could you repeat that question.
MR. BROOKS: I'll ask the reporter to read it back.
(THE REPORTER READ THE RECORD)
A. Adolescents have very different social circumstances, different risks and experiences with mental health issues. But more so, my conclusion here is that a study that only reports on adults can only report on adults.
Q. Is it also your opinion that adolescents differ in important ways from prepubertal children?
A. That is the case, yes.
Q. And it is also your opinion, is it not, that barring catastrophe, all adolescents grow up to be

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adults?
MS. LEVI: Objection to form.
Q. This is an easy question, but it's not a trick question.
A. It's interesting sometimes when physicians and lawyers communicate. Adolescents do grow up to become adults, yes.
Q. Every single one who survives adolescence becomes an adult.
A. Yes.
Q. You would agree with me, would you not, therefore, that health outcomes among adults who have received and are receiving cross-sex hormones are something that you, as a physician, would want to take into account when advising an adolescent as to whether or not to start taking cross-sex hormones?
MS. LEVI: Objection to form.
A. With this particular study --
Q. I'm not asking you a question about this study.
MR. BROOKS: Let me ask the reporter to read back the question.
(THE REPORTER READ THE RECORD)
A. I would want to take into account any data

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that -- or any research with methodology and statistical design that was able to establish causal links between intervention and an outcome. And I regularly do so with some adult data in some ways.
This particular study does not lend itself to establishing a causative -- a causative -- excuse me, a causal relationship between gender-forming hormones and suicide, as the authors state, and as I quote in my Declaration.
Q. Dr. McNamara, is it your testimony that unless an outcome study is designed and structured so that it can establish a causal relationship, you, as a physician, do not wish to take into account the reported outcomes in providing medical advice?
A. That is not my testimony generally and across the board.
Q. But it's your testimony with regard to adult suicide statistics?
A. If I were to review evidence in a population that differed significantly from my population, I would probably have an extremely high standard for understanding causal relationships before I were to base clinical decisionmaking on that data.

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Q. Have you yourself made any study of differences that may or may not exist between adolescent gender dysphoria patients and adult gender dysphoria patients when it comes to suicide and suicidality?
A. I have seen studies that report on findings in both groups.
Q. And have you yourself made any efforts to understand to what extent there are important differences or not important differences between adolescents who suffer from gender dysphoria and adults who suffer from gender dysphoria when it comes to the experience of suicidality or actual completed suicide?
MS. LEVI: Objection to form.
THE DEPONENT: Can I have the question back?
(THE REPORTER READ THE RECORD)
MS. LEVI: Same objection.
A. I'm not sure that reading it back helps me understand the question better.
Q. Do you know, as you sit here today, whether rates of suicidality are significantly different among adolescents who are receiving cross-sex hormones and adults who are receiving cross-sex

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hormones in both case as treatment for gender dysphoria?
A. I'm -- off the top of my head, I cannot recall data that helps me make that comparison.
MR. BROOKS: Let me ask the reporter to mark as Exhibit 5, an article entitled "Long Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery: Cohort Study in Sweden," authored by Cecilia Dhejne and others.
(DEFENDANT'S EXHIBIT 5 FOR IDENTIFICATION Received and Marked.)
Q. Dr. McNamara, at the top, you will see that many, perhaps most of the authors, are associated with the Karolinska Institute in Stockholm, Sweden. Are you familiar with the reputation of that institute when it comes to the diagnosis and treatment of gender dysphoria?
A. I only know this institution by name.
Q. You don't know to what extent scientists associated with that institution have been responsible for important research in the area of treatment of gender dysphoria?
A. Not relative to anywhere else.
Q. Well, let me ask about anywhere else. Has any particular institution or institutions that

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you consider to be responsible for foundational work in this field, that are most known as sources of research in the field?
A. Many institutions have produced robust research. Many institutions have collaborated to produce robust research. At this point in time, I don't consider anyone to be superior or leading the field compared to others.
Q. Is it consistent with your understanding that the Vrije University in Amsterdam is particularly noted for its foundational research in this field?
A. It's my understanding that they produced some of the initial studies on medical treatments for gender dysphoria and youth.
Q. Do you know whether their doctors continue to publish some of the most respected work in this field?
A. I personally have not seen research from, to the best of my knowledge, from an individual with that institutional affiliation within the past six months or so.
Q. Let me ask you to look at Exhibit 5. And is this a paper that you have studied with some care in connection with preparing your Expert Report

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for this litigation?
A. Yes, we just reviewed a paragraph that I read about it.
Q. And looking in the abstract, there's a heading that says "Participants." And it refers there to, and states there, that all 324 sex reassigned persons in Sweden across a span of 30 years were included in the study; correct?
A. That's what it says.
Q. And by including all subjects who received sex reassignment surgery across those years, this study design avoids possible methodological problems that might be related to cherry-picking an unrepresentative sample, correct?
MS. LEVI: Object to form.
A. I would not be able to say that.
Q. And why is that?
A. Let me review the methodology.
Q. Let me ask you a question separate from this paper, then, to save time.
Do you have a view as to whether a study that includes all patients who have undergone a certain procedure within a clinic avoids potential methodological risks associated with cherry-picking an unrepresentative sample that may

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afflict a study that is based on only a subset of patients treated for a particular condition?
A. I don't agree with that categorically. It would be highly dependent on several factors, such as the time period during which that study was conducted, the methods that the study used, the diagnostic criteria that the investigators used to identify patients of interest, and the way that outcomes were measured.
Q. In the Dhejne study, it tells us on page 2, at the top of the second column, that mental health issues were measured by reference to -- not based on self reports, but by reference to national health records. Is that consistent with your understanding?
A. The National Health System captured diagnostic codes in accordance with international classification of disease codes from 1969 to 1986, and then 1987 to 1996; and then 1997 to the study's time of publication, which I believe was --
Q. 2011, if you look at the bottom of the page.
A. So then it would have been the time at which the data capturing period concluded, which was 2003.

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Q. And my question was, are you aware that in the Dhejne study to measure mental health, they referenced national registry records, rather than self reports by patients. Is that consistent with your understanding of the study?
A. Can I have the question back one more time.
Q. I'll just say it, I'll ask again.
Is it consistent with your understanding of the Dhejne study that the authors measured mental health of the subjects by reference to diagnostic records from national registers, rather than self reports from the study subjects?
A. They used international classification of disease categorizations that are very different now than they were at the time regarding diagnoses pertinent to gender dysphoria.
Q. That has nothing to do with the question I asked.
MR. BROOKS: Let me ask the reporter to read it back.
(THE REPORTER READ THE RECORD)
A. What I said is true and important for contextualizing this study. And what I'm also pausing on is how you're characterizing mental health versus how the investigators are

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characterizing their outcomes.
Q. Let me ask a simpler question.
Dr. McNamara, do you know or not know whether in this Dhejne, et al study from 2011, the authors relied on self reports from patients; or, on the contrary, whether they relied only on medical and mental health records?
A. The authors themselves did not engage with the patients and ask them specific questions. But some of the measures that were captured in the medical records were gathered on the basis of physicians talking to their patients.
Q. Do you have any knowledge from your study of the Dhejne, et al paper as to how many of the subjects of that study had experienced childhood onset gender dysphoria?
A. I would need to review the paper in depth to see if there's any mention of that. Off the top of my head, I'm not sure.
Q. That's not something you recall. Okay, we'll leave it there. Let me ask you to --
MS. LEVI: Do you need a break?
THE DEPONENT: We could take a break. Are you done with this study?
MR. BROOKS: I am done with that study.

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MS. LEVI: Going close to an hour, I think.
MR. BROOKS: That's fine. We can spend our seven hours however you like.
MS. LEVI: I understand.
THE DEPONENT: We won't shortchange you.
(R E C E S S)
BY MR. BROOKS:
Q. Let me ask you to find, again, Exhibit 4, your Expert Report. And if you would find page 23 in that report. At the very bottom, there's a heading, text that carries over, that says "Research shows gender identity has a strong innate biological basis." Do you see that?
A. Yes.
Q. When I turn over to the text underneath that heading, is there anywhere in that, the two paragraphs under that heading, in which you identify any research that you believe shows a strong innate biological basis for gender identity?
A. I believe I cited various articles that contained discussions of research supporting biological basis of gender identity. And I would need to source citation 63, 65, Bauer, et al, and

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some others in order to point to you where.
Q. Is there any sentence in those two paragraphs that you would point me to that addresses the question of biological basis for gender identity?
A. Again, I would have to point to the citations. This report is heavily cited.
Q. My question is this: Did you write a single sentence of text in support of the proposition that gender identity has a biological basis?
A. No, not in this section.
MR. BROOKS: Let me ask the reporter to mark as Exhibit 6, Endocrine Society Guidelines from 2017.
(DEFENDANT'S EXHIBIT 6 FOR IDENTIFICATION Received and Marked.)
Q. And Dr. McNamara, you cite these guidelines in your report, do you not?
A. I do.
Q. And do you consider yourself to be well familiar with them?
A. I have reviewed them a few times.
Q. Do you have occasion to consult them in the ordinary course of your professional practice?
A. Generally not. In clinical practice, I

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have.
Q. They're not relevant to your practice to any extent?
A. I have practiced in accordance with some of the guidelines when it comes to referrals and how -- but otherwise, no.
Q. Let me ask you to turn to page 3876. In the first column, I'm going to direct your attention to the first paragraph.
Let me ask you to read -- well, let me just read into the record the first sentence.
"With current knowledge, we cannot predict the psychosexual outcome for any specific child."
Let me ask you this: Are you aware -- and these guidelines, just to be clear, are from 2017. Are you aware of any of the literature up to the present that has identified any measurable genetic basis that permits doctors to, for instance, take a blood sample from a newborn and predict whether that child will develop a transgender identity?
A. Not familiar with that.
Q. You're not aware that any such genetic marker has been identified?
A. I'm not aware that any such genetic marker has been identified.

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Q. And up to the present, so far as you know, there's nothing in the literature that has identified any hormonal marker that would enable a doctor to take a blood sample from a child and determine or predict whether that child would develop a transgender identity, correct?
A. I am not aware that there's any hormonal marker that would predict gender identity.
Q. And when you have seen a teen who may be suffering from gender dysphoria, you're not aware of any genetic test or hormone test that could tell you whether an adolescent presenting in a clinic actually has a transgender identity?
A. No, I'm not aware of any tests like that.
Q. Outside of genes and hormones, what, in your professional opinion, is a strong biological basis for gender identity?
A. I'm familiar with studies that I have not cited in my Declaration, but that I have reviewed, that show differential brain structures between cisgender people and transgender people with the same sex assignment at birth. And I also know, based on other studies, that gender identity is highly resistant to change when subject to efforts to try to change it.

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Q. You have written, however, have you not, that an adolescent's self experience gender identity does sometimes change.
A. I have -- are you referring to my Declaration?
Q. I'm not referring to your declaration.
A. Okay. Well, that is what some muse experience what gender dysphoria is. They may have grown up socialized and considered themselves in a conscious level as a gender that aligns with their sex assigned at birth, and then their conscious experience changed.
Q. Am I correct that it is your professional opinion that there is no definitive basis for determining an individual's gender identity other than their self perception?
MS. LEVI: Object as to form.
A. The diagnostic criteria are not a binary question of yes or no. They require six different areas, some of which must be satisfied for a minimum period of six months, to determine whether or not somebody has gender dysphoria. I would not consider that to be self report. I would consider that to be a diagnosis made after a clinical assessment.

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Q. Is it your testimony and/or belief that an individual cannot have a transgender gender identity unless they satisfy diagnostic criteria for gender dysphoria?
A. No, not necessarily. Those things are not mutually exclusive.
Q. So let me ask you again. In your opinion, is there any basis for definitively determining an individual's gender identity, other than that individual's self perception?
A. Self perception is a way to understand a person's gender identity, as it is a way to determine many different experiences one might have with various health or disease issues. Migraines, for instance, we can only use self report. I only say that so that I can contextualize what I'm saying so that it's clear that that's not exceptional or unique to gender identity.
Q. It's not your view, is it, that every child who suffers from gender dysphoria necessarily has a stable transgender identity?
MS. LEVI: Object as to form.
A. I would not be able to opine on that because it's an absolute comment -- excuse me, it's an

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absolutist comment about every child. So I don't -- I don't have an opinion on your specific question.
Q. Well, do you consider the question of whether every child who satisfies the diagnostic criteria for gender dysphoria must necessarily have a transgender -- a stable, true transgender identity to be beyond your professional expertise?
MS. LEVI: Object as to form.
A. I don't perform those assessments myself, so I don't have clinical experience in the area that you're asking me about.
Q. Do you consider it to be beyond your professional expertise?
A. Say what you're considering to be beyond my --
Q. I will.
A. Please repeat your question.
Q. The question is -- let me start, is the question of whether every child who satisfies diagnostic criteria for gender dysphoria has an innate transgender identity, one that is beyond your professional expertise?
MS. LEVI: Object as to form.
A. It's not something that I can opine on

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today.
Q. And is that because it's outside of your professional expertise?
A. It's because I can't opine on it today.
Q. Well, let me ask it differently.
Do you consider that question to be one that's within your professional expertise, but you just don't know the answer to it?
A. What I said before is that I don't perform psychological assessments on prepubescent children with gender dysphoria. That is outside of my professional expertise.
MR. BROOKS: Let me ask the reporter to mark as McNamara Exhibit 7, a Scientific Statement from the Endocrine Society dated 2021, titled "Considering Sex As a Biological Variable."
(DEFENDANT'S EXHIBIT 7 FOR IDENTIFICATION Received and Marked.)
Q. Dr. McNamara, is this a document that you're familiar with?
A. I don't believe so.
Q. You have referred to the 2017 Endocrine Society Guidelines that we looked at earlier in your Expert Report, correct?
A. That's correct.

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Q. And do you consider the Endocrine Society to be a respected and reliable scientific voice?
A. I do.
Q. You have never reviewed this document so far as you recall?
A. I don't believe so, no.
Q. The document is entitled a Scientific Statement from the Endocrine Society published in Endocrine Reviews in 2021. So it's about four years more recent than the guidelines that you cited. Do you see that is in the date at the top, as it happens.
A. I do see that, yes.
Q. And, as such documents tend to be, has a long list of authors that I will not attempt to read into the record. But the first is Bhargava, B-H-A-R-G-A-V-A.
Let me ask you to turn in this document, I'm just going to ask you about a few factual assertions in the document to see whether they match your scientific understanding.
Page 221, column one, there's a heading that says "Biological Sex: The definition of Male and Female."
A. I'm with you.

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Q. It says in the third line of text under that heading, "All mammals have two distinct sexes."
You've been in medical school. You've had high school biology. Is it consistent with your scientific understanding that all mammals have two distinct sexes?
A. I am more familiar with sex as a multidimensional variable that takes into account endogenous hormone production, genitalia, genetics, and other features.
Q. So if the Endocrine Society, in their Scientific Statement published in 2021, asserts that "All mammals have two distinct sexes," you simply disagree?
A. No, not necessarily. The rest of this document goes into detail, many other things that I have just laid out very briefly. There are also other places where sex is discussed.
Q. Well, let me take you to another one of those, just a little bit farther down, maybe eight lines down, the same section. I'll read the following text:
"The classical biological definition of the two sexes is that females have ovaries and make larger female gametes (eggs), whereas males have

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testes and make smaller male gametes (sperm)." Obviously, that expression here in the context of mammals.
Is that definition of the classical biological definition of the two sexes one that -- let me start that question again.
Do you agree or disagree that what the Endocrine Society authors have recited here is indeed a classical biological definition of the two sexes?
MS. LEVI: Object as to form.
A. The word "classical" seems quite subjective here. I'm not sure how the authors are using it. I might need a little bit more context on the intention in using that word before I could offer an opinion either way.
Q. Based on your own medical knowledge and education, do you agree or disagree that, among mammals, a widely used biological definition of the two sexes is that females have ovaries and make larger female gametes, generally referred to as eggs, whereas males have testes and make smaller male gametes, referred to as sperm?
A. In medical school, I didn't learn about mammalian biology as a general concept. I learned

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about human biology. And I learned about variations in sex based on several nuanced biological factors.
Q. Let me take you down, there's a paragraph that begins, "In mammals, numerous sexual traits." Do you see that?
A. Yes.
Q. And the second sentence in that paragraph begins "The type of gonads is controlled by the presence of XX or XY chromosomes." Do you see that language?
A. Yes.
Q. And do you agreed or disagree with that assertion by the Endocrine Society authors?
A. That's correct.
Q. Let me ask you to turn to 225. And there, I call your attention -- let's see here. Give me a moment to find it.
Midway down the column, 225, is a sentence that begins, "Similar masculinizing effects." Do you see that?
A. No, are you in the --
Q. 225, column two.
MS. LEVI: It's right here.
Q. I may not have said column two. And right

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after that is sentence that I will read into the record.
"Second, all aspects of neural development are capable of being organized or programmed by sex steroids. This includes cell generation(as read), migration, myelination, dendritic and axonal growth and branching, synapse formation, synapse elimination, and neurochemical differentiation."
MS. LEVI: Just, I think you said "generation," and it's "genesis."
MR. BROOKS: I'm sure you're right.
MS. LEVI: Okay.
MR. BROOKS: You try reading that.
MS. LEVI: Fair enough. Just would like the record to be accurate.
MR. BROOKS: Thank you.
Q. Let me ask whether you agree or disagree or consider it outside your professional expertise whether all these listed aspects of neural development are capable of being organized or programmed by sex steroids?
A. So just getting some context with this paragraph here, it does seem like they might be referring to a differentiation between primates

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and rodents.
"To discern whether the biological basis of sexual differentiation of sexual differentiation of brain and behavior differs between primates and rodents, one needs to identify mechanisms by which steroids transduce signals to modify the trajectory of the nervous system. While those mechanisms are incompletely understood, a few general principles are clear. First" -- and this is one concept. I'll skip to what you just read.
"Second, all aspects of neural development are capable of being organized or programmed by sex steroids."
Q. My question for you about the second sentence you just read is do you believe that to be true, false, or outside your personal expertise?
A. And my response is this sentence seems to pertain to primates and rodents, and that does definitely fall outside of my expertise.
Q. And if I ask the same question about human development, that is, is it true in the case of human development, brain development, that all aspects of neural development are capable of being organized or programmed by se steroids, do you

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consider that also to be outside your expertise?
A. That seems like it would fall much more under the expertise of a neuroscientist. And that, I am not.
Q. Okay, all right.
MR. BROOKS: Let me ask the reporter to mark as Exhibit 8, an article entitled "Protecting Transgender Health and Challenging Science Denialism and Policy" by Dr. McNamara and two other authors.
(DEFENDANT'S EXHIBIT 8 FOR IDENTIFICATION Received and Marked.)
Q. And Dr. McNamara, is this in fact an article that you coauthored sometime in 2022?
A. Yes, it is.
Q. And am I correct that the authors -- you're obviously a doctor. Anne Alstott is a law professor; am I correct?
A. Yes.
Q. And Christina Lepore was a law student?
A. No, Ms. Lapore is a soon to be graduating medical student.
Q. A medical student. And obviously, two years earlier from graduating when this was written. Is it the case that the medical and scientific

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assertions in this article are based on your knowledge?
A. Based on the combined knowledge of all authors.
Q. Well, were you resting scientific assertions on the knowledge of a lawyer?
A. Certainly not.
Q. Oh, good. So the science, you would say, is the combined input of you and Christina Lepore, a medical student?
A. Mm-hmm.
Q. Okay. Let me ask you to turn -- and did you edit this carefully? Before it went out the door, did you consider every sentence in this to represent your professional opinion?
A. Absolutely.
Q. Let me ask you to turn to the first page. And there, you refer, towards the bottom of the first column, to a false -- "false claims about risks associated with treatment." Do you see that?
It's an inch from the bottom of the first column.
A. Yes.
Q. Is it your testimony that any scientist or

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medical policy maker who expresses -- who asserts that there are potentially serious risks relating to administering puberty blockers or cross-sex hormones to minors, is making false claims?
A. In preparation for writing this piece in the New England Journal, I did a thorough inventory of claims regarding risks of treatment and how emphatic or emphasized they were. And I identified several claims that were incorrect or overly emphasized at the expense of discussing the benefits of care.
It is not my opinion that everybody who discusses risk is denying scientific fact. That would not be a fair characterization of what this sentence means here.
Q. And that's exactly the clarification I am asking for. That is, it is not your opinion that every doctor or medical authority who expresses concern that there may be serious risks associated with administering puberty blockers or cross-sex hormones to minors is making false claims?
MS. LEVI: Object as to form.
A. We would need to review specific claims in detail so that I could offer my opinion, my expert opinion on whether or not I felt that those claims

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were false or overemphasized.
Q. And if you look at the third column, also about an inch from the bottom, there's a sentence, maybe an inch and a half, that reads "State laws banning gener-affirming care make similarly unsupported claims about risks of cardiovascular disease, thromboembolic events, and cancer associated with administration of exogenous estrogen and testosterone."
To clarify, it is not your expert opinion, is it, that any medical authority or doctor who asserts that there are serious risks associated with administering puberty blockers or cross-sex hormones to minors is necessarily making unsupported claims?
MS. LEVI: Object as to form.
A. Your use of the word "serious" is subjective and I'm unsure of its meaning. But it is entirely possible and common, and what I'm referring to here, that risks have been overrepresented, incorrectly characterized and overemphasized.
Q. Let me ask you to turn to the second page of your article. And in the third column, the final paragraph begins "Bans on gender-affirming care are grounded in science denialism." Do you see

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that?
A. I do.
Q. Is it your expert opinion that anyone who asserts that hormonal interventions in minors imposed serious risks of harm that have not yet been adequately studied is guilty of science denialism?
A. I would need to review specific statements and comments in order to opine as to whether or not that is the case. And in this article, I cite numerous instances of that.
Q. A little bit above this, in the previous -- the preceding paragraph in column three of page 1920 in Exhibit 8, you refer to reports that are "composed by subject matter experts without conflicts of interest." Do you see that?
A. Yes.
Q. And what is your understanding of what constitutes a conflict of interest?
A. A conflict of interest entails some sort of compensation for the work. Usually it's financial or something that could be construed as having some sort of financial value.
Q. In your opinion, does a clinician who derives a significant percentage of his or her

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practice from treatment of minors for potential gender dysphoria, face a conflict of interest in opining on the risks or benefits of such treatments?
A. No. Physicians discuss risks and benefits of treatment as part of their commitment to patient care. It's far removed from the concept of conflicts of interest.
Q. Well, I thought you just told me that a financial conflict of interest would exist where an individual had a financial interest in the performance or nonperformance of the treatment at issue.
MS. LEVI: Object as to form.
A. Conflicts of interest in the medical world pertain to specific services outside of your clinical care; things that don't necessarily pertain to clinical care.
If a researcher or physician had received compensation for writing something or endorsing a product, that would be a conflict of interest and that would need to be disclosed. But the provision of patient care, which does receive financial remuneration, is not considered to be a conflict of interest in my profession.

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Q. So in your view, a physician who derives his larger share of his or her personal income from providing hormonal treatment of minors for gender dysphoria, does not face the financial conflict of interest in commenting on a law that prohibits such treatments?
A. Say that one more time, please, if you don't mind.
MR. BROOKS: I'll ask the reporter to read that.
(THE REPORTER READ THE RECORD)
A. I don't think so, no.
Q. And in your view, does a clinician who would face large malpractice liability if juries ultimately conclude that hormonal intervention in minors were harmful and unjustified, face a financial conflict of interest in commenting on a law that prohibits such therapies?
MS. LEVI: Object as to form.
A. I feel like that's outside my scope of expertise. I have very little knowledge of medical malpractice.
Q. My question wasn't about medical practice, it was about conflict of interest.
A. You referenced medical malpractice.

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Q. You're aware of the concept of doctors being held financially responsible for harming patients?
A. My understanding of medical malpractice is that physicians can obtain insurance and their covering institutions protect them from being financially vulnerable to such cases. That's where my knowledge ends. And I am unsure how to answer your question without knowing more.
Q. All right. Do you have any understanding of the conflict -- of the concept of intellectual conflict of interest?
A. No.
Q. All right. Let me ask you to find your Expert Report, Exhibit 4, and turn with me to page 6. And just under the heading C, you begin, the first paragraph there, with the statement "Adolescents undergo a critical period of cognitive and social development between the ages of 11 to 18." Do you see that?
A. I do.
Q. And you would agree with me, would you not, that both those endpoints are -- let's just say soft numbers. That is, there's -- for example, there's evidence that cognitive development continues after the age of 18.

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A. Correct.
Q. Okay. Can you explain to me what you meant when you wrote that adults undergo a critical period of cognitive development within that general age range?
A. You said "adults." I believe you meant to say "adolescents."
Q. Let me ask it again. Explain to me what you meant when you wrote that "Adolescents undergo a critical period of cognitive...development between the ages of 11 to 18."
A. I said "Adolescents undergo a critical period of cognitive and social development between the ages of 11 to 18."
And by that, I mean that that time period of a young person's life, which does not exclude the possibility of similar changes before or after, undergo a great deal of change and development in those domains. They begin to experience formative social relationships outside of their families and their immediate home environments. They begin to develop romantic relationships. They develop skills and talents as connections between the midbrain and the prefrontal cortex are being formed. And that can help those young people

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retain those skills and talents in adulthood.
Q. Let me focus, if I may, on the cognitive development. You've testified that you're not a developmental psychologist or a neurologist, all these things. But what did you -- what were you referring to specifically when you wrote that adolescents in that time period undergo critical stages of cognitive development?
A. So as an Adolescent Medicine specialist, adolescent cognitive development regarding risk/benefit analysis, health decisionmaking, educational function, all of that being pertinent to cognition and cognition change, is becoming more adult-like during those years. Adolescents are undergoing changes that are highly individually dependent.
Q. Are you familiar with the term "executive function"?
A. Yes.
Q. And what does that refer to in the area of cognitive development?
A. "Executive," meaning to execute or to make decisions in various scenarios.
Q. You're asking me?
A. That's not a question. Sorry. Would you

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like me to rephrase what I just said?
Q. Please.
A. So executive function refers to the ability to execute or make decisions in various scenarios.
Q. And is that a capability that is known to develop in important ways across the adolescent years that you've bracketed here?
A. It's certainly known to change. It's present in many ways, but it is known to change during this time.
Q. Well, let me take you out of the clinic for a moment. Have you, yourself, raised a child through adolescence?
A. I would prefer not to answer any personal questions about my life in this deposition.
Q. I'm sorry, but I'm asking the question.
A. And when you say "raised," do you mean as a parent?
Q. I do.
A. I have not raised an adolescent.
Q. But you have seen many adolescents in your practice.
A. Yes, I have.
MR. BROOKS: Let me mark as Exhibit 9 an article with the lead author Diane Chen from 2023

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entitled "Psychosocial Functioning and Transgender Youth after Two Years of Hormones."

(DEFENDANT'S EXHIBIT 9 FOR IDENTIFICATION Received and Marked.)

MS. LEVI: You okay to keep going?

THE DEPONENT: Yes, we can go through this one.

Q. And Dr. McNamara, is this an article that you refer to in your Expert Report?

A. Yes, it is.

Q. Are you familiar with the reputation of Diane Chen?

A. Yes, I am.

Q. And what is that reputation, in your view, in the field of gender medicine?

A. Dr. Chen is a well-regarded psychologist who has contributed a great deal of clinical research to this field.

MR. BROOKS: Let me ask the reporter to mark as Exhibit 10, another article with Diane Chen as the lead author entitled "Consensus Parameter: Research Methodologies to Evaluate Neurodevelopmental Effects of Pubertal Suppression in Transgender Youth" from 2020.

(DEFENDANT'S EXHIBIT 10 FOR

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IDENTIFICATION Received and Marked.)

Q. And let me ask whether this is a paper that you are familiar with.

A. I have skimmed this before. I don't believe it's one that I have cited --

Q. I think that's the case.

A. -- in any of my Declarations.

Q. But you have read it yourself?

A. Yes, as I mentioned, I skimmed it.

Q. And without asking you to read all of them, going through the list of affiliations of the coauthors which appear on the first page, you would agree with me, would you not, that this paper is could authored by a lineup of authors from quite a number of high reputation research institutions.

A. I would agree with that.

Q. Are you familiar with a process called a Delphi Consensus Procedure?

A. I am only very loosely familiar with it.

Q. Then I will not ask you questions about that.

A. Okay.

Q. You haven't participated in a Delphi --

A. No, I have not.

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Q. -- Consensus process yourself, okay.

Let me ask you to turn to page 248.

A. Of which document?

Q. I'm sorry, Exhibit 10. You can put Exhibit 9 to one side. We won't -- probably won't be coming back to that. We'll see.

MS. LEVI: I'm sorry, 248, did you say.

MR. BROOKS: 248.

Q. And just to kind of connect this to what we've just been discussing, midway down, a sentence begins "The pubertal and adolescent period is associated with profound neurodevelopment." You see that language?

A. I do.

Q. And that's consistent with what you were just explaining to me, am I correct?

A. Yes, I would say so.

Q. And that goes on to say "including trajectories of increasing capabilities for abstraction and logical thinking, integrative thinking (e.g., consideration of multiple perspectives), and social thinking and competence." Do you see that language?

A. I do.

Q. And do you agree or is it outside your

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expertise that now well-established neuroscience tells us that the maturation process that we call puberty and adolescence includes profound developments that affect the capability for logical thinking, social thinking, and competence?

A. Could you -- could I hear your question again, please.

MR. BROOKS: Yes, I'll ask the reporter to help me out.

(THE REPORTER READ THE RECORD)

A. Social thinking, competence, and then there was one initial thing you mentioned.

Q. Logical thinking, which is a clause that I took out of the sentence that we --

A. I see.

Q. -- just read.

A. Yeah, I would agree with that.

Q. And let me ask, take you a little bit farther down.

An inch and a half down, there's a sentence that begins, two-thirds of the way along the line -- it's hard to find these things -- that begins "At the level of the brain." Let me ask you to find that.

A. I see it.

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Q. Okay. And that says "At the level of the brain, several primary neurodevelopmental processes unfold during adolescence, including myelin development and changes in neural connectivity, synaptic pruning, and gray matter maturation, changes in functional connectivity, and maturation of the prefrontal cortex and the social brain network."

MS. LEVI: There's no -- there's no quote at the end of the sentence.

MR. BROOKS: I'm closing my quotation.

MS. LEVI: Got it.

Q. And this is referring more to physical, measurable brain development, rather than more abstract descriptions of capabilities, correct?

A. That's correct.

Q. And is it -- are the physical changes in brains during adolescence that are described in the sentence I just read into the record accurate, to your knowledge, or going beyond your professional expertise?

A. I have enough expertise to agree with the sentence.

Q. Okay. Would you agree that these known facts about brain development during puberty raise

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the possibility, at least, that blocking normal, healthy puberty hormones produced by the child's body may have some effect on the child's brain development?

MS. LEVI: Object as to form.

A. So I would say that these processes are not solely and exclusively dependent on pubertal maturation to unfold. Adolescence is also characterized by rapidly changing social environment and that sex hormones are one of a few influential factors that support this type of brain development.

Q. What knowledge do you have, if any -- strike that.

Can you point me to any study that informs us as to what extent the changes described in the sentences I just read from Chen, et al 2020, are driven by puberty-linked hormones versus other factors, such as social environment that you've just described?

A. I'm looking at the reference list to see if I reviewed any of the papers that they cite in this paragraph. Nothing looks familiar to me.

This is a fact that I generally understand from my fellowship training, understanding that

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this is a criteria of my board certification.

For my immediate recollection, I cannot list a study. However, I am sure I could source some if given the opportunity.

Q. Well, let me back up and ask you again. The known facts about brain development during puberty that are recited in Chen, et al, that you have agreed with a moment ago, you would agree, raise the possibility that blocking normal pubertal hormones produced by the child's body may have some effect on the child's brain development?

A. This paragraph as it's written does not contain any information about pubertal blockade or the presence or absence, or the influence of sex hormones specifically.

Q. My question for you as a scientist is, do you agree, disagree, or consider it outside your expertise to say that the known facts about brain development during puberty raise the possibility that blocking normal, healthy pubertal hormones produced by the child's body may have some effect on the child's brain development?

A. I am loosely aware of research that has listened to that question. It would not be proper for me to offer an opinion without having done an

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in-depth analysis on relative research that could be used to answer your question. So I consider cognitive development in the setting of pubertal blockade to be something that is outside the scope of my expertise as it's represented in the literature.

Q. All right. Based on your review of Chen, et al 2020, you understand that what that paper does is propose some methodology or metrics that the authors believe should be deployed to study the question of whether pubertal blockade may have an impact on the child's brain development; correct?

A. Let me just read the abstract for a second to refresh myself.

So the purpose of this study was to identify methodologies for studying the impact of pubertal blockade on cognitive function in adolescents by gender dysphoria.

Q. To your knowledge, no study applying the methodology recommended by Chen, et al in 2020 has yet been published, correct?

A. I couldn't opine on that one way or the other.

Q. So far as you know today -- let me put it in a way that's easier to answer.

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As you sit here today, you're not aware of any study applying the methodology recommended by Chen, et al in 2020 that is in process today?
A. I cannot offer any answer to that question. I don't know.
Q. The sense of the question was you're not aware; you can't offer an answer, you're not aware --
A. I'm unaware.
Q. -- of any such study, okay.
A. I would not have a reason to be aware, having not done an in-depth look at the literature.
Q. And in your report, in your supplemental report, you don't actually offer any opinion as to whether the use of puberty blockers in adolescents as a treatment for gender dysphoria, does or does not have any negative effect on the child's brain development, do you?
A. I don't discuss any studies pertinent to brain development in my supplemental report. But I do discuss several studies that describe psychosocial functions and mental health improvements.
Q. It is also the case in your original report,

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you don't offer any opinion as to whether applying puberty blockers adolescents as a treatment for gender dysphoria does or does not have any harmful effect on the child's brain development?
A. Similarly, I don't source any studies on cognitive development. But I do discuss several studies that show stability or improvements in various domains of mental health and/or gender dysphoria.
Q. You would agree, would you not, that mental health and cognitive development are not the same concept?
A. I would not agree that they're entirely distinct; that there is overlap. And that untreated or worsening mental health conditions can certainly limit one's ability to develop cognitive skills in adolescence.
Q. You would agree, would you not, that mental health and cognitive development are not the same concept?
A. I agree that they're overlapping concepts that are interrelated.
Q. Would you agree that they are not the same concept?
A. They don't overlap completely, but they're

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intrinsically linked.
MS. LEVI: I think she's answered the question. You asked it three times now.
MR. BROOKS: Fine.
Q. Do you agree, as a clinician, that knowing whether the administration of puberty blockers adolescents during years of natural pubertal development has a lasting negative impact on brain development, is an important question for clinicians, for parents, for health policy experts, tasked to decide whether or not to administer puberty blockers to minors?
MS. LEVI: Object as to form.
A. Can I have the question back, please.
(THE REPORTER READ THE RECORD)
A. It is one of many questions that should be considered in a medical decisionmaking process between a physician, a parent, and a patient. And there are many others that should be considered simultaneously.
Q. You, as a clinician, would want to know the answer to that question if at all possible, right?
A. I would want to know the answer to that question alongside and at the same time as the answer to the question of what happens to

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cognitive function when gender dysphoria progresses without intervention.
Q. And in fact, there's a great deal about brain development in adolescents undergoing alternative treatment for gender dysphoria that just isn't known at present, correct?
MS. LEVI: Object as to form.
A. I am unaware of any alternative treatments to gender dysphoria or what you may mean by that.
Q. Let me rephrase the question. There's a great -- there's a great deal about the effect of puberty blockers or cross-sex hormones in the brain development of adolescents that we simply don't know yet, correct?
A. Can I have the question back?
(THE REPORTER READ THE RECORD)
A. There is a great deal that is known and unknown, as is the case in many different domains of medicine.
MR. BROOK: Let me ask the reporter to mark as Exhibit 11, an article by Drs. Leibowitz and de Vries entitled "Gender Dysphoria in Adolescence."
A. Shall we set these aside?
Q. Yes.

(DEFENDANT'S EXHIBIT 11 FOR IDENTIFICATION Received and Marked.)

Q. Let me ask first whether you professionally know either Dr. Leibowitz or Dr. de Vries?

A. I don't.

Q. Do you know -- do you have any opinion as to the professional reputation of Dr. de Vries?

A. I know that Dr. de Vries is a well-known researcher and clinician in this field.

Q. And she is associated with the Vrije University clinic that I mentioned earlier. Is that consistent with your recollection?

A. I will take your word for that. I'm not sure what VU University Medical Center in Amsterdam refers to, but perhaps that's an abbreviation.

Q. It refers to -- and I'll spell this for you since it's Dutch -- Vrije, V-R-E-I-J, University. So when I say "Vrije," it's V-R-E-I-J.

Is this a paper that you are -- you believe you have reviewed before now?

A. That's what I'm trying to figure out. It doesn't immediately look familiar to me.

Q. Do you know anything about Dr. Leibowitz's reputation?

A. I'm a little bit more familiar with Dr. Leibowitz, and that he is a well-respected psychiatrist who cares for gender diverse youth.

Q. Let me ask you to turn to page 30. And there's Table 2 there with two columns. One says "What is Known," and the second says "What is Not Known." Do you see that?

A. Yes.

Q. And these authors in the "What is Not Known" column say -- writing in 2016; I don't want to try to blur the years. Find what I'm looking for.

Under the "What is Not Known" column, they write "Unclear long-term effects on brain development in this population."

Do you consider these authors to be, in stating that it's unclear what the effect of pubertal suppression on brain development in adolescents may be, to be deploying scare tactics?

MS. LEVI: Object as to form.

A. Can I have the question back.

Q. Do you consider Dr. de Vries and Dr. Leibowitz, in stating that it is unknown what the long term effects on brain development in the adolescent population of pubertal suppression, to be deploying scare tactics?

A. I have no information to help me answer that question either way.

Q. Do you consider Dr. Leibowitz and Dr. de Vries to be science deniers?

A. No.

Q. Do you believe either of them to be transphobes?

MS. LEVI: Object as to form.

A. I do not know either of them at all.

Q. But you know their professional reputations to some extent, correct?

A. What you're describing reflects more of a personal belief that I would not have any knowledge of.

Q. And you would -- it is beyond your professional knowledge that Dr. De Vries is widely considered to be one of the seminal researchers in the field of treatment of gender dysphoria in minors?

A. I tend not to think about experts in this field on a concrete hierarchy like that, especially at this point in time, when there are so many who have produced solid research and contributed extensively to the field.

Q. You're not prepared to offer expert

testimony that it has been established by reliable evidence that use of puberty blockers to treat gender dysphoria in adolescents does not have negative long term effects on brain development in that adolescent population, are you?

A. What I can tell you is that a statement in a paper from 2016 is likely outdated, given the possibility of eight years of subsequent research that is not included in this paper.

MR. BROOKS: Let ask the court reporter to read back the question.

(THE REPORTER READ THE RECORD)

A. And as I answered, what I can tell you, and what I did tell you at the beginning, is that I had seen several articles looking into pubertal suppression and cognitive development, that I did not review them extensively for any of my reports; that I do not know what years they were published in. And I do not know whether or not they resulted from any of the methodologies that Chen and colleagues described in the 2020 paper. And that referring to a sentence in a paper from 2016 that describes unclear long-term effects may not hold true eight years later.

Q. My question for you today, as you sit here,

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is are you willing, today, to offer expert testimony that it has been established by reliable evidence that use of puberty blockers to treat gender dysphoria in adolescents does not have negative long-term effects on brain development?
A. That is not an area that I have formed an opinion on in this case.
Q. All right. Do you have an opinion as to whether that's a question on which, on the state of the science today, there's room for reasonable disagreement among scientists?
A. I don't have an opinion on that either.
Q. Let me take you a little closer to the present and ask the reporter to mark as Exhibit 12, a 2023 article by Dr. De Vries and another author named Hannema.
(DEFENDANT'S EXHIBIT 12 FOR IDENTIFICATION Received and Marked.)
Q. Is this an article that you believe you have seen before --
A. Yes, I have seen this before.
Q. -- today. And is it an article that you have referenced for any reason other than preparation for this litigation?
A. I don't believe so. It's not something I

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cited in my reports, either.
Q. Do you know anything about the reputation of Dr. Hannema?
A. Nothing.
Q. And as to Dr. de Vries, you have already testified. This is obviously much more recent; down the bottom it says January of 2023.
Let me call your attention -- and this is, just to be clear, this is not an article that is reporting on original research. This is a short -- what would you call it, a scientific comment? Is there a term you prefer for this sort of article?
A. It's in the editorial section of the New England Journal.
Q. And the New England Journal being a highly respected publication?
A. Yes.
Q. The New England Journal of Medicine, that is, to be clear.
Let me ask you to turn to page 276, in the second column. And an ultimate paragraph in the second column begins "Finally." Do you see that paragraph?
A. I do.

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Q. And there, Dr. de Vries writes "Finally, benefits of early medical intervention, including puberty suppression, need to be weighed against possible adverse effects - for example, with regard to bone and brain development and fertility." Do you see that sentence?
A. Yeah.
Q. And Dr. De Vries here, just last year, writes that benefits needs to be weighed against what she refers to as possible adverse events, including adverse effect on brain development; correct?
A. That is what the authors go on to say.
Q. So these authors, at least, as of last year, considered that adverse impact on brain development was still a possibility as of 2023; correct?
MS. LEVI: Object as to form.
A. It would not -- let me say that differently. One could not tell, based on this sentence, what evidence the authors had reviewed, if any.
Q. My question simply is, these authors, at least, as of last year, expressed the view that the possibility of adverse effects on brain development was or remains something that needed

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to be put in balance against benefits of puberty suppression; correct?
A. They express the need for weighing the risks and benefits, as is common practice.
Q. And indeed, you would agree that clinicians need to weigh possible adverse effect of puberty blockade, including possible harm to brain development and fertility, against potential benefits of puberty blockade; correct?
A. I would agree that they need to and further, that they do.
Q. And it's not science denialism to say that those possible negative impacts on brain development and fertility should be considered?
A. No, it's not.
Q. Indeed, you would agree, would you not, that ethical decisionmaking regarding the use of puberty blockers on adolescents need to weigh those risks?
A. Ethical decisionmaking needs to weigh the risks and the benefits simultaneously. Hyper-focusing on the risks without considering the benefits is not scientific.
Q. That is, leaving either the risks or the benefits out of the equation is not the way to go

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about ethical decisionmaking?
A. Ethical decisionmaking risks on a careful balance and consideration of risks and benefits, in partnership with a patient and the legal decisionmaker, if that applies.
Q. Let me ask you to find -- I think it's in the stack where -- the Endocrine Society 2017 Guidelines. That's Exhibit 6.
MS. LEVI: Are you likely to go back to Exhibit 12?
MR. BROOKS: I think the answer is no. Or if I do --
MS. LEVI: It's fine. It won't be far. It won't be far.
THE DEPONENT: And I think after this set of questions --
MR. BROOKS: Would you prefer to stop, take a break?
MS. LEVI: Take a break now?
THE DEPONENT: Yeah.
MS. LEVI: Just in terms of timing, do you want to take a short break, have more and then lunch? Do you want to take a longer break.
THE DEPONENT: Let's take about 10 minutes now and then come back.

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MR. BROOKS: I generally recommend to my witnesses that we not break at 12:00 because the afternoon is just brutally long.
MS. LEVI: I'm there. I just want to do whatever you need to do physically as well.
THE DEPONENT: We'll take a break.
MS. LEVI: We're just going to take a 10-minute break.
(R E C E S S)
MR. BROOKS:
Q. Do you now have Exhibit 10, Chen 2020, in front of you again?
A. Yeah, I do.
Q. Let me ask you to turn in that document to page 252. And there, about an inch and a half from the bottom, the sentence begins "The effects of pubertal suppression may not appear." Do you see that?
A. No.
Q. I'll give you a moment.
A. Could you tell me where it is again?
Q. First column, inch and a bit more from the bottom, the sentence begins towards the end of the line.
A. I got it.

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Q. All right. Let me just read that into the record.
It says "The effects of pubertal suppression may not appear for several years. Any GnRHa-related difference in brain structure is likely to be observed over the long term, rather than immediately."
Do you agree with the Chen, et al authors, or is it outside your expertise, that any effects of pubertal suppression on neurodevelopment might not appear for several years?
A. Outside the scope of my expertise.
Q. And do you agree or is it outside the scope of your expertise that any difference in brain structure resulting from puberty blockade is "likely to be observed over the long term, rather than immediately"?
A. Similarly, that is outside my scope of expertise.
Q. And you're not, as you sit here today, aware of any long-term study that has been undertaken of the effects of pubertal suppression on brain structure; correct?
A. "Long-term" is a very general phrase.
Q. Let me ask a more precise question. You're

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not aware, as you sit here today, of any multiyear study of the effect of pubertal suppression on brain structure?
A. I am not, and I have not done an in-depth analysis of the literature to try to find such studies.
Q. When discussing potential treatments for gender dysphoria with your patients, do you warn them that respected scientists have stated that effects on the child's brain development might not appear for several years?
A. I do not perform any clinical counseling regarding pubertal suppression used beyond a few months in patients who do not have gender dysphoria.
Q. Let me call your attention to the next sentence, beyond the one I read, which, still in column one, page 252, says "Shifts in social and affective learning processes might cause subtle short-term differences that could ultimately result in clinically impactful longer-term effects."
Let me ask what you think you understand what the authors are saying there.
A. It's difficult to discern the meaning of the

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sentence without understanding the article as a whole.
Q. Before I called your attention to this language, were you aware that the Chen, et al authors had expressed concern that administration of puberty blockers to adolescents might result in "clinically impactful long-term effects"?
MS. LEVI: Object as to form.
THE DEPONENT: Can I have the question back?
(THE REPORTER READ THE RECORD)
A. So I have not learned anything new from that language. I'm referring back to the abstract of this paper and the purpose of this study. Final sentence of the section "Purpose" under the abstract states "Given the widespread changes in brain and cognition that occur during puberty, a critical question is whether this treatment impacts neurodevelopment," in the context of preliminary evidence suggesting pubertal suppression improves mental health functioning.
Q. So as you have worked with patients and referred them to the gender clinic, you were aware that these authors, at least, had expressed concern that administration of puberty blockers to

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adolescents could result -- could ultimately result in clinically impactful long-term effect?
MS. LEVI: Object as to form.
A. Sir, I would draw your attention back to my prior testimony, when I discussed that I had two patients who I referred as minors to gender competent clinical services. And both patients had completed puberty. That was not context that I gave earlier.
I have not yet encountered a patient with gender dysphoria who may be eligible for pubertal blockade and referred them to a gender clinic. Further, I would not endeavor to perform counseling on medications that I myself would not be prescribing or managing.
Q. Is it your testimony that the 14-year-old girl that you referred to had, to use your phrase, quote, completed puberty?
A. Yes, that was my clinical assessment. The patient was Tanner Stage 5 in all domains of pubertal development, which means that puberty had been completed.
Q. And what is the relationship between that, and your opinion that we referred to earlier where you talked about puberty-related neurodevelopment

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between the ages of 11 and 18?
A. I don't understand your question.
Q. It is not your testimony, is it, that a 14-year-old girl has completed all aspects of neurodevelopment associated with puberty and adolescence?
A. Adolescence is still ongoing in a 14-year-old. It's a chronological, just as it is a social and developmental phase. And this particular patient we're discussing had not completed many aspects of puberty. But, in terms of physical maturation, the patient was Tanner Stage 5, which meant that in accordance with the standards of care and the Endocrine Society Guidelines, there would be no utility in using the puberty-blocking medication.
Q. Got it. Let me ask you to turn to page 248 in this Chen 2020. And if I can take you perhaps two inches down in the second column. It is a paragraph that begins, "The combination of animal." Just tell me when you've found that paragraph.
A. Got it.
Q. And the authors say that this evidence "supports the notion that puberty may be a

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sensitive period for brain organization; that is, a limited phase when developing neural connections are uniquely shaped by hormonal and experiential factors, with potentially lifelong consequences for cognitive and emotional health."
Do you see that language?
A. I do.
Q. And again, you've described the purpose of the Chen, et al paper and the questions that it poses.
Do you believe that by warning that interference with the normal process of puberty may have "potentially lifelong consequences for cognitive and emotional health," the Chen, et al authors are engaging in false and deceptive claims?
THE DEPONENT: Could I have the question back.
(THE REPORTER READ THE RECORD)
A. I don't hear that as a fair characterization of the writing of these authors. In the sentences that we are reviewing now, they do not appear to be referring to pausing puberty with puberty-blocking medications.
Q. That indeed is the focus and context of

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their entire paper and project; am I correct?
A. They are discussing endogenous puberty as well, and offering a great deal of background information. It's not the case that every sentence in the paper refers exclusively and directly to blocking puberty.
Q. Then let me take you to some sentences that do.
Just below that, two sentences, I believe, says "There is also some evidence to suggest that delayed puberty onset predicts slightly poorer adult functional outcomes." Do you see that language?
A. That is a sentence that refers to a study in citation 49 in the paper. And the title of that paper is on "Cognitive Consequences of the Timing of Puberty." I would need to look at that study and the study population that those authors reviewed, if this is even a clinical research study, in order to offer further context on the sentence you read. It's not clear to me if the citation itself is discussing people with gender dysphoria, adolescents with gender dysphoria. So I'm not sure how the sentence is relevant.
Q. Then let me take you to these authors'

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conclusion, how they think it's relevant.
The next sentence reads "Taken as a whole, the existing knowledge about puberty and the brain raises the possibility that suppressing sex hormone production during this period could alter neurodevelopment in complex ways, not all of which may be beneficial." Do you see that language?
A. I do.
Q. And in your view, by stating the possibility or asserting that the existing evidence "raises the possibility that pubertal suppression could alter neurodevelopment in complex ways, not all of which may be beneficial," these authors are engaging in science denialism?
A. These authors wrote a sentence describing the possibility that there may be some nonbeneficial impacts of suppressing [uberty. And that implies that there would be beneficial impact of suppressing puberty. I am presuming that they're referring now to the patient population of interest, which is patients with gender dysphoria. And I would take this sentence as a measured and thoughtful comment in isolation, and not as a denial of fact, because the sentence includes a balance between risks and benefits.

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Q. To your mind, for these authors to raise a concern that one of the costs, one of the risks that needs to be balanced is that puberty blockers could alter neurodevelopment in ways that are not beneficial, is not science denialism?
MS. LEVI: I think she's answered the question, but you can answer it again.
A. I think I --
MR. BROOKS: Let's hear the question back because I don't think you have.
A. So this paper provides a substantive introduction that summarizes evidence on positive outcomes observed in youth with gender dysphoria who qualify for and are offered pubertal suppression. And it also discusses the possibility of risks.
To me, that is an example of an instance where there is no science denialism, but rather a faithful engagement of risks, benefits, potential unknowns, and knowns.
Q. Is it fair to say that in evaluating whether a treatment should be offered or not offered for an individual, just picking up on what you just said, that a clinician, or for that matter, a parent, should consider both known benefits, known

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risks, and potential unknowns?
A. That's what Informed Consent discussions entail.
MR. BROOKS: And let me ask the reporter to mark as Exhibit 13, a 2023 Review Article by Sallie Baxendale of the University College London.
(DEFENDANT'S EXHIBIT 13 FOR IDENTIFICATION, Received and Marked.)
Q. Let me ask first, Dr. McNamara, whether this is an article that you have seen before today?
A. I have seen this article.
Q. And are you familiar with the journal Acta Pediatrica in which it was published?
A. I have heard of it before.
Q. Do you know anything about its reputation in the field?
A. I do not.
Q. And are you familiar generally with the reputation of the University College London as a research institution?
A. Not really, no.
Q. Now, this is a review article; so it says at the top. Do you have an understanding generally of what a review article -- what it means that an article is a review article?

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A. Yes, I do.
Q. What is that?
A. A review article does not present original previously unpublished research. It summarizes existing evidence in a particular area of interest.
Q. When did you first read this article?
A. This article was accepted January 30th of 2024. I believe I reviewed it perhaps a month ago.
Q. Okay. In connection with your work for this litigation?
A. Correct.
Q. Let me take you to the second page. Down towards the bottom of the first column is a heading that reads "Puberty as a Critical Window in Neurodevelopment." And that paragraph continues into the second column. I want to read the first sentence that begins in the second column.
That says "A period is defined as a critical window if the brain requires a specific input to allow for the optimal development of a particular function, e.g., exposure to language or visual stimuli. If the neural network is left without

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the correct input or stimulation, the functions served by that circuit will be permanently compromised."
Is the concept of a critical window in neurodevelopment one that you are familiar with, or do you consider that to be outside your personal expertise?
A. As a pediatrician, I'm certainly familiar with its importance in the three life periods mentioned, infancy, childhood and adolescence. I haven't performed any original research on the neuropsychology of their critical window, but I clinically have considered it in relevant patients.
Q. And can you describe for me at a high level what you understand by "critical window of neurodevelopment," your own understanding?
A. A critical window is a time in which the optimization of wellbeing, enrichment, support, and health, can pay off in dividends throughout that person's life.
Q. Or conversely, if they don't obtain the appropriate stimulation, to use the term from Dr. Baxendale's article, during that time period, that may have negative impact for life?

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A. So using my understanding of the critical window, if somebody is deprived of resources, such as food, attention, nurturing, if they endure traumatic experiences and then don't receive adequate support, if they have medical problems that go insufficiently addressed, then they are likely to experience the harms of that past the critical window.
And yet, if deprivation of that kind were to occur outside of the critical window, it is less likely that that deprivation would be as harmful in a long-term sense.
Q. Let me ask you to turn to page 3. And in this first column, down towards the bottom, there's a paragraph that begins "In summary." Do you see that?
A. I do.
Q. And what it says in the first sentence is that "In summary, puberty is characterized by both regressive and progressive stages of brain development. Unlike earlier developmental milestones, many of these processes are associated with pubertal stage, rather than chronological age." Do you see that language?
MS. LEVI: It's not the end of the

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sentence.
MR. BROOKS: You're right.
A. I see it.
Q. Close quote, period. You mentioned earlier that, I think, both pubertal hormones and age and social environment affect neurodevelopment, to your understanding. Am I correct?
A. I offered a little bit more context and descriptors there, I believe.
Q. And I wasn't trying to cut anything out, I was just taking us to a topic --
A. Certainly.
Q. -- and trying to be open. Is it consistent with your understanding, or do you disagree, or is it outside your expertise, that many of the neurodevelopmental stages associated with puberty are associated with pubertal stage, rather than chronological age?
A. Can I have the question back?
Q. Yes. Is it -- do you agree, disagree, or consider it to be outside your expertise, to say that many of the neurodevelopmental processes known to occur during puberty are associated with pubertal stage, rather than chronological age?
MS. LEVI: Object as to form.

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A. Your question, to me, as an adolescence medicine physician, feels overly simplistic and is vague. "Many," as a qualifier, is not specific enough so that I can grasp your question.
Q. Do you have any opinion as to whether important aspects of neurodevelopment in the adolescent brain are more strongly associated with pubertal stage than with chronological age?
A. I do not understand the utility in comparing chronological age with pubertal stage when there are other key determinants of development that are neither of those things, that shape one's pubertal experiences.
Q. Well, you're familiar with the concept of a multivariable function, are you not?
A. That is not a term that I'm familiar with. But we may have a shared understanding if you explain more.
Q. You studied a certain amount of math and statistics in your day?
A. I did. That's why I think it's significant that the term you're using is not one that I'm familiar with.
Q. A multivariable function is not a term you're familiar with?

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A. Could you describe what you mean by it, and then I can see if we have a shared understanding.
Q. I mean a function, the outcome of which depends on more than one variable.
A. When you say a function --
Q. If you don't understand what a function is, I'm not going to waste time on that. But let me ask you to turn to page -- to the second column, and it says on the top --
MS. LEVI: Is that on page 3?
MR. BROOKS: Yes.
Q. It says at the top, at the end of the first partial paragraph, "The male and female brain develops differently during adolescence both in terms of structural connectivity and developmental trajectory."
A. I don't see where -- oh, okay, I found it.
Q. In the first partial paragraph. Is that consistent -- statement consistent with your understanding as a doctor, or not?
A. I am loosely familiar with that. I have not done an in-depth search of the literature to ascertain what the current status of evidence is on that.
Q. Is it consistent with your general

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understanding that in recent years, data documenting differential development between male and female brains has increased?
A. I have no knowledge one way or the other.
Q. All right. Immediately below that is the sentence that reads "Completely reversible neuropsychological effects would not be predicted given our current understanding of the windows of opportunity model of neurodevelopment." Do you see that?
A. I do see that on the page.
Q. And is the assertion that completely -- is the assertion that given our current understanding of the windows of opportunity model of neurodevelopment, complete reversibility of impacts on that development from puberty blockers would not be predicted, consistent with your understanding, inconsistent with it, or outside your expertise?
MS. LEVI: Object as to form.
THE DEPONENT: Can I have the question back?
(THE REPORTER READ THE RECORD)
A. I'm so sorry, it's -- it feels, to me, a complex question and I need it back one more time.

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(THE REPORTER READ THE RECORD)
A. I have no opinion on that.
Q. Have you yourself made any effort to review published animal studies relating to the neurological impact of puberty blockers?
A. It's my understanding that the interpretation of animal studies is best done by people who have scientific expertise at an in-depth level in a particular area. I do not consider myself an expert in neuropsychology, in the endocrinologic processes of pausing puberty, and so I would not review an animal study in-depth to be able to determine whether or not its results might be generalizable to humans.
Q. Is it your view as a scientist that in general, animal studies may raise hypotheses relating to human impact, or are they -- strike that. This may not be achievable.
You would agree, would you not, that in general, what animal studies can do is raise hypotheses or questions with regard to impact of a therapy on humans, but are rarely directly generalizable to humans?
MS. LEVI: Object as to form.
A. So, again, I raise the initial caveats, that

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I myself do not review or consider myself capable of engaging with animal research. But I would also say that I cannot agree or disagree with your statement because it would depend on the specific study, the methodology used, the sample size, the duration of follow-up, and the clinical research question of interest.

Q. All right. Let me ask you to turn to page 7 in the Baxendale 2024 article. And there, under -- there's a heading that says "Central Precocious Puberty," a third of the way down. Do you see that?

A. Yes.

Q. And that begins, "In the only human study that established a baseline prior to treatment, Mul, et al examined," and it goes on.

Have you yourself reviewed the Mul, et al study that Baxendale refers to here?

A. This is a study entitled "Psychological Assessment Before and After Treatments of Early Puberty in Adopted Children." It was published in 2001. I have not read this study.

Q. Okay. Baxendale says that this is the only human study that establishes a baseline prior to treatment and then follows the administration of

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puberty blockade, albeit, as you've noted, for a different condition.

Are you aware, yourself aware, of any other human study that has established a baseline and then done posttreatment measurement of factors that Mul measures, such as IQ?

A. Later in this paper, Baxendale cites Arnoldson, et al, which is titled "Association Between Pretreatment IQ and Educational Achievement After Gender-Affirming Treatment, Including Pubertal Suppression, in Transgender Adolescents." I have read that study. I would need to be able to answer -- I'd need to review it. But I believe that the study does do a pre and posttreatment assessment of a similar type of measure --

Q. Okay.

A. -- in a more heterogenous population, not specifically youth with gender dysphoria. I have not done an in-depth analysis of the literature and it's not an area of my expertise. So I'm unsure if this sentence saying that this is the only study --

Q. All right.

A. -- is correct.

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Q. Looking back at page 7, Baxendale's summary of the findings of Mul -- and I recognize that's layers -- says that "Three years after treatment commenced, the group as a whole had experienced a loss in both performance IQ and full scale IQ, with a decline of seven points in the latter."

Now, let me ask you a hypothetical question. I don't have the Mul to put in front of you. You don't recall having read it. But if in fact a study found that girls treated with puberty blockade for central precocious puberty experienced a loss of 7 IQ points across three years, would you agree with me that that would be quite a concerning result?

MS. LEVI: Object as to form.

A. Again, I could not answer your question without reviewing the study to assessing the rigor of its methodologies, the sample size, the analysis.

Q. Well, if it were a fact that treatment with puberty blockade for central precocious puberty in girls resulted, over a span of years, in an average decline of IQ of 7 points, you would agree with me, would you not, that that would be quite a concerning result?

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A. That information would need to be contextualized with the -- with observations in a comparable group of individuals who did not receive treatment, if one were to -- let me just stop there.

Q. Well, and I'm not asking about ultimate conclusions. 7 points in an IQ scale is significant, you would agree with me, right?

A. I don't know if I know one way or the other to agree or disagree.

Q. And you just don't have any -- you're not able to offer any opinions, as you sit here today, as to whether a finding that girls treated with puberty blockade for central precocious puberty lost 7 IQ points over three years on average would concern you as a clinician?

A. There's so many other factors that would need to be considered before weighing in on that.

Q. Let's look at page 8. At the bottom of column two -- I'm sorry, at the bottom of column one, Baxendale begins a discussion of a single case study, Schneider, et al from 2017.

A. Mm-hmm.

Q. Are you familiar with the Schneider, et al case study?

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A. No.
Q. Baxendale's summary of the findings in that -- and just let me stop.
Would you agree as a general matter that a single case -- a case study of a single patient really can simply raise questions and concerns; it can't provide statistically sound information, correct?
A. If even, yes.
Q. If even, yes. The finding in this case study as summarized by Baxendale included that where treatment was initiated -- and I'm at the top of the second column -- where treatment was initiated with puberty blockades at age 11 years 11 months, by age 13 years and 3 months, a loss of 9 IQ points had occurred.
MS. LEVI: Just so I'm clear, are you summarizing from the bottom of the left-hand column, to the top of right-hand column?
MR. BROOKS: I am doing exactly that.
MS. LEVI: Okay, thank you.
Q. And specifically, the first -- the second full sentence beginning on the second column, treatment with GnRH was initiated as the start and finish time that I gave.

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MS. LEVI: On the left-hand column, I'm sorry, I just want to be clear. You're focusing on the Schneider study in the context of the three studies that are being discussed? I just want the record to be clear and I want to make sure I'm understanding.
MR. BROOKS: The language that I have focused on concerns only the Schneider study, which is only a case study of a single patient, --
MS. LEVI: Thank you.
MR. BROOKS: -- and reports a loss of 9 IQ points across the two plus years of treatment.
Q. And my question to you, similarly to the Mul study that we looked at, does that result cause you, as a clinician, concern about the administration of puberty blockers to adolescents?
A. Well, case studies are case studies. And it is not possible to control for confounders in a rigorous way to elucidate the relationship between the exposure and the outcome of interest.
In this single young person, it's unclear what other factors might have been going on in their life that may have impacted their intellectual quotient. They may or may not have been in school. They may or may not have had

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other illnesses. They may or may not have experienced a number of other factors that could influence IQ over time.
So as a clinician who is interested in the totality of the evidence, I would not draw any conclusions from this case report.
Q. So just to be clear, as a clinician, you are not willing to say that Mul's observation based on 25 girls of a decline of IQ of 7 points, or Schneider's observation based on a single patient of a decline of 9 IQ points, causes you concern?
A. I haven't reviewed either study. I can only take the summaries that are presented here as an indicator of what those studies might show. Regardless, a study of the impact of the medication on a population that is likely very different from the population that we are discussing and is of interest, in a single case report that does not control or assess for confounders, do not lead me in a -- down a path of being able to consider the import of either study in the question we're discussing.
Q. Let me ask you to turn to the next page, and there's this section headed "Discussion" at the end of the first full paragraph.

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Dr. Baxendale writes "There have been no human studies to date that have systematically explored the impact of these treatments" -- the subject being puberty blockers -- "on neuropsychological function with an adequate baseline and follow-up." Do you see that language?
A. Yes, I do.
Q. Do you agree with Dr. Baxendale that there have not yet been studies done on the impact of puberty blockers on neuropsychological function that did adequate baseline measures and follow-up?
A. Unfortunately, the language "adequate baseline and follow-up" is vague. And I am not able to agree or disagree without knowing what this author had in mind, and whether that might be clinically relevant to the subject matter at hand.
Q. Well, let me ask you, based on your own understanding of sound methodology, can you point me to any study that you believe has systemically explored the impact of puberty blockers on neuropsychological function with what you consider to be adequate baseline and follow-up measurements?
A. As we have discussed before, and as I have

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defined my area of expertise in this case, puberty-blocking medications and cognitive functioning is not something I have done an in-depth analysis on in preparing any reports. So I do not have an opinion on your question.
Q. On page 9, in the first column, Dr. Baxendale writes in the second paragraph of the discussion, "While there is some evidence that indicates pubertal suppression may impact cognitive function, there is no evidence to date to support the off cited assertion that the effects of puberty blockers are fully reversible." Do you see that?
A. Yes.
Q. And are you able to point me to any study today that you believe demonstrates that the effect of puberty blockers on adolescents as a treatment for gender dysphoria have only fully reversible effects on neurodevelopment?
A. In order to answer your question, I would have needed to do an in-depth analysis of the literature on that question, and I haven't done so.
Q. Are you able to identify any medical association that has taken any official position

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stating that puberty blockade is fully reversible with respect to impact on an adolescent's brain development?
A. Again, I could not answer your question either way because I have not done an in-depth analysis on this topic.
Q. Do you know whether any medical association has taken any position - has taken the position that cross-sex hormones administered to minors have no irreversible effect on brain development? This is not a topic that Baxendale speak to.
A. I know.
THE DEPONENT: Can I have the question back?
(THE REPORTER READ THE RECORD)
A. I have not seen that, to the best of my knowledge.
Q. Is it consistent with your understanding that every cell in an individual's brain contains either XY, male sex chromes, or XX, female sex chromosomes?
A. There are disorders of sexual development where people have different numbers of chromosomes. I do not know whether or not neurons contain chromosomal distribution patterns that are

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hallmarks of those disorders in people who have those disorders.
Q. Let me exclude those who suffer from genetic disorders of sexual development and ask whether, apart from that category of genetic defect, it's consistent with your understanding that every human individual's brain contains either XY male sex chromosomes in every cell and every neuron, or XX female sex chromosomes in every cell, every neuron?
MS. LEVI: Object as to form.
A. I'm not sure who or what neuroscientific researcher could speak with certainty to the chromosomal contents of every neuron in a person's brain. I certainly cannot.
Q. Is it outside your knowledge that every cell in my body, except somatic cells, contains XY chromosomes?
A. I believe it's outside the realm of knowledge of anyone to be able to decide that with certainty. There are millions of neurons in the human brain.
Q. Let me ask you to find your Expert Report.
MS. LEVI: Put these aside?
MR. BROOKS: Yes, for the moment.

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Q. And ask you to turn to page 15 of that report.
A. Okay.
Q. In the top partial paragraph, you have written "Physicians carefully counsel patients and their parents on the possibility of impairments in fertility should the patient continue on cross-sex hormones." You see that sentence?
A. Yes.
Q. And what is your basis for your understanding of what physicians do or don't carefully counsel patients about, given your earlier testimony that you yourself don't do that counseling?
A. I am a member of the Society of Adolescent Health and Medicine. It's the largest international organization of Adolescent Medicine specialists. I have professional relationships with many people who have obtained subspecialized training in this field. We communicate at conferences via Listserv. I have coauthored articles with other people in the field. And I have had discussions with these people who I consider to be colleagues from other institutions about their practices and about the nature of such

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conversations. And further, I have read sections in the clinical practice guidelines, both from the Endocrine Society and WPATH, that discuss this.
Q. You wrote that "Physicians carefully counsel patients about the possibility of impairments to fertility."
In your view, is it important that physicians carefully counsel patients about that topic?
A. Since it is an anticipated impact of some gender-affirming medical treatments, I do.
Q. And do you consider the potential loss of fertility to be an important impact on individuals?
A. I believe that all individuals should consider its relative importance to them.
Q. Do you have any knowledge as to whether undesired infertility in adults is recognized to be highly distressing to many individuals?
A. It's not something that I have any clinical experience in.
Q. Do you have any knowledge as to whether undesired infertility in adults is associated with mental health issues in the affected adults?
A. Again, not something that I have experience

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with professionally.
Q. Do you have an understanding as to whether sterilization without Informed Consent is internationally recognized to be a serious violation of human rights?
A. I am familiar with that.
Q. Do you believe that to be the case?
A. I do.
Q. And do you have an understanding that ethical principles preclude parents from giving consent to the sterilization of their children except to avoid imminent risk of death?
A. "Sterilization" is a broad term. If you could be more specific by what you mean about it, I could answer your question more specifically.
Q. In what way is "sterilization" a broad term? Is that unclear to you?
A. Yes, it is.
Q. Tell me in what respect it's broad.
A. In many respects.
Q. Well, by "sterilization," I mean loss of the ability to conceive or father children.
A. So you're describing infertility. Sterilization is something I understand not to be the same as infertility.

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Q. But you understand sterilization to perform an action on somebody that causes them to become infertile, correct?
A. I would understand that as an action that causes somebody to -- that renders somebody infertile with the intent of rendering them infertile.
Q. Do you recognize that ethical principles preclude parents from giving consent to procedures that will sterilize their children, except to avoid imminent risk of death?
MS. LEVI: Object as to form.
A. I am not familiar with that principle as you've described it. I know of cases in the literature that would potentially contradict that point you just raised.
Q. Would you yourself consider a risk that a certain treatment would reduce an individual's lifetime likelihood of being able to become a parent through natural conception, to be a serious adverse impact?
THE DEPONENT: Can I have the question back.
(THE REPORTER READ THE RECORD)
MS. LEVI: Object as to form.

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A. I don't understand that question.
Q. All right. Would you agree that a critical aspect of obtaining Informed Consent to any treatment for gender dysphoria must include ascertaining whether that adolescent has the psychological maturity to comprehend the role that having children may play in that individual's wholeness and happiness across the years of adult life?
A. That's a long question. I'd like to hear it again, please.
(THE REPORTER READ THE RECORD)
A. Could you rephrase your question?
Q. No, I don't think so. You're unable to answer it?
THE DEPONENT: Maybe I need to hear it again. It's very long. I apologize.
(THE REPORTER READ THE RECORD)
THE DEPONENT: Okay, thank you. I appreciate your patience.
A. So what you're describing, and based off of my professional experiences which I described when you first pulled up my Declaration, is a conversation that happens over time with mental health providers who are skilled in the area of

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gender diversity and patients and parents, as they consider treatments for gender-affirming care.
I bring this up to say that what you're describing is part of the decisionmaking process, to the best of my knowledge.
Q. And putting aside how that analysis is done, which I'll come back to, you would agree that in order to conclude that you had Informed Consent, you would want some confidence that that adolescent had the psychological maturity to comprehend the role that having children might play in that young person's wholeness and happiness across the years of adult life?
A. I would agree --
MS. LEVI: I'm going to object as to form, and then you can answer.
A. I would agree that any discussion along those lines should be informed by the best available evidence on the impact of those medications and fertility, and that patients understand all options for family building.
Q. That, however, is not what I asked. My question is, do you believe that in order to give Informed Consent, an adolescent, let's say to -- in order to give Informed Consent to let's say

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cross-sex hormones, the treating physician or team needs to conclude that that adolescent has the psychological maturity to comprehend the role that having children may play in that young person's wholeness and happiness across the years of adult life?
MS. LEVI: And I'm going to object as to form, and you can answer.
A. And perhaps to clarify my answer, the best available evidence on the likelihood of that medication impacting that outcome as you described it, should guide that conversation.
Q. You're unable to answer the question as to whether, as part of an Informed Consent process, it's important to ascertain that the young person has the psychological maturity to comprehend the role that having children might have in the wholeness and happiness of that individual's adult life?
MS. LEVI: Going to object as to form. I think you've asked her at least three times.
MR. BROOKS: Maybe if I ask four, I'll get an answer.
A. I don't have an different answer for you.
Q. That will play an interesting way at trial.

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Let me -- when it comes to how, let me take you back to your Georgia testimony, which was Exhibit 2. If you could find that, that would be helpful.
I won't take more time with that. Pardon me, put that aside.
MS. LEVI: It's one o'clock. I'm just checking.
MR. BROOKS: One o'clock is a good time. I'm going it move to a new document, so it's a good time to break for lunch.
MS. LEVI: That makes sense, okay.
(R E C E S S)
BY MR. BROOKS:
Q. Dr. McNamara, when it comes to evaluating whether a young person has the capacity to give Informed Consent to puberty blockers or cross-sex hormones, you yourself have never been responsible for making that decision, have you?
A. I have not.
Q. And indeed, that's a decision that, in your view, would be made by a mental health specialist?
A. It's a multidisciplinary team. It's not just one person.
Q. In the course of deciding whether an

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adolescent has the capacity to give informed consent, whether it's to puberty blockers or cross-sex hormones, have you yourself been an active participant in that decision process?
A. No, I have not.
Q. Okay. Do you consider yourself to have the expertise necessary to make that determination?
A. No, I do not.
MR. BROOKS: Let me mark as Exhibit 14, selected chapters from the WPATH SOC-8.
(DEFENDANT'S EXHIBIT 14 FOR IDENTIFICATION, Received and Marked.)
Q. And included in here, I believe, at least Chapter 6 -- I've got the Table of Contents in front of me, and turning to C, and I've got here the "Adolescent" Chapter 6, "Children" Chapter 7. And there may be other chapters in here, but I did not include the whole of that document.
Let me ask you in here to turn to page 57. And for some reason they're all labeled an S before the number, so S57.
Is the WPATH SOC-8 a document that you have studied with some care?
A. Yes, it is.
Q. You have page 57 in the second column, there

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is a paragraph that begins "Currently, there are only preliminary results." Do you see that paragraph?
A. (Affirmative nod.)
Q. The authors of SOC-8 write in that paragraph, "It is important not to make assumptions" -- let back up to give us a little context.
This is comment under Statement 6.10, which speaks to providing information about topics, including the potential loss of fertility to minor patients. Do you see that?
A. I do.
Q. I'm not reading the whole thing, but I'm trying to keep it at a high level.
And on the paragraph that I directed you to in the second column, it reads "Currently, there are only preliminary results from retrospective studies evaluating transgender adults and the decisions they made when they were young regarding the consequences of medical-affirming treatment on reproductive capacity.
SOC-8 goes on to say "It is important not to make assumptions about what future adult goals an adolescent may have."

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And they go on to note that "Research in childhood cancer survivors found participants who acknowledged missed opportunities for fertility preservation reported distress and regrets surrounding potential infertility."
And finally, the last sentence of that paragraph reads, "Furthermore, individuals with cancer who did not prioritize having biological children before treatment have reported changing their minds in survivorship."
Now, SOC-8 advises that it is "important not to make assumptions" that what an adolescent thinks today about their interest in having children necessarily reflects what they will feel in later years as an adult.
Is that your understanding of this paragraph?
A. That's a fair summary.
Q. Okay. And do you agree that it's important not to make that assumption?
A. I do.
Q. And the SOC-8 in this paragraph goes on to cite a collateral example of young people who faced cancer treatment decisions when they were young and thought they didn't care about

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preserving the ability to have biological children, and later changed their minds and regretted not being able to.
Is that also a fair summary of what they tell us there?
A. Yes, that is.
Q. As a clinician, does it surprise you to see evidence that what adolescents think about their desire to have children in the future may be quite different than what they actually desire when they're adults?
A. I am not surprised by that.
Q. Why is that?
A. Because it's not new information to me.
Q. What information did you have that led you to understand already, apart from what SOC-8 tells you, that what young people think about their future desire to have children may be quite different than their actual desire once they're adults?
A. So I took your initial question to not be explicitly pertinent to fertility and family planning.
Q. So your point was more generally that what adolescents think can be quite different from what

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they think or want when they have matured into adults?
A. My point is that it's highly individually dependent.
Q. Do you have any view as to whether, if it is individually dependent, it's possible to know whether a specific adolescent is likely to continue -- strike it. It's too complicated.
Do you know of any studies as to specifically whether individuals who have expressed a lack of interest in fertility preservation when making treatment choices for gender dysphoria as adolescents, change their minds on their desire to have children in their adult years?
A. That area of the literature is not something that I have gone in depth on in preparation of my report for this case.
Q. Is it something that you've discussed with peers and colleagues?
A. I don't believe so.
Q. Let me ask you a question.
MR. BROOKS: I'm going to ask a question based upon Dr. Ladinsky's deposition transcript in this case. I don't think it's technically

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essential that I mark it as an exhibit. Do you have a preference as to whether I do or not?
MS. LEVI: It would be easier to have it marked.
MR. BROOKS: Okay.
MS. LEVI: But is it just a volume issue that you're asking about?
MR. BROOKS: Yeah, it doesn't matter much today as it used to since things turned electronic. I will mark as Exhibit 15, deposition transcript of Morissa Ladinsky from April 12th of 2023.
(DEFENDANT'S EXHIBIT 15 FOR IDENTIFICATION, Received and Marked.)
A. May I set aside the Georgia transcript?
Q. Yes, I think you can.
I am guessing, Dr. McNamara, that you have not seen this transcript. I'm not going to ask you to look at much of it. Am I right, have you had a chance to read this before?
A. I have seen it.
Q. Oh, all right. Then let me ask you to turn to page 250.
A. All right.
Q. And for context, if you look at the previous

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pages, you will see that page 248 mentioned the Rafferty paper, Exhibit 25, which is the -- are you familiar with a paper authored by Dr. Rafferty on behalf of the American Academy of Pediatricians?
A. Yes.
Q. Okay. The questioning was against the background of that.
Page 250, I asked Dr. Ladinsky, page 250, line 4, "That is, you don't disagree with the statement that the effects of sustained puberty suppression on fertility is unknown?"
And Dr. Ladinsky answered "I agree with that statement." And went on to say "The question is, what does sustained mean." Do you see that testimony?
A. I do.
Q. Do you also agree with the statement that the effects of prolonged puberty suppression -- pardon me.
Do you also agree with the statement that the effects of sustained puberty suppression on fertility is unknown as of today?
A. I have a similar question as Dr. Ladinsky did, which would be the definition of the term

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"sustained" as it's intended here.
Q. Well, let's see if we can find that by reference to WPATH standards of care. Those standards of care advocate beginning puberty blockade for suitable young people at Tanner Stage 2; am I correct?
A. We would need to refer to the specific language for me to --
Q. You don't know the answer to that?
A. I don't have them memorized. So from memory, I could neither disagree or agree. But we could refer to them.
Q. We could, but it would take time. And Tanner Stage 2 occurs on average at what age among girls?
A. It's highly dependent on the individual, their nutritional status, race, ethnicity.
Q. Well, let's take --
A. 9 to 11.
Q. 9 to 11, fair enough. And according to the protocols that you're familiar with, for a child who's put on puberty blockers and then ultimately proceeds to cross-sex hormones, at what stage does one cease administering puberty blockers to that adolescent?

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A. I don't make those treatment decisions, and I'm not involved in that care at that level. I'm not sure I could answer your question.
Q. You just don't have any knowledge on that as you sit here today?
A. I'd like to give you an informed and accurate answer, and I don't have clinical experience to support a response. You're asking about a stage. I also don't know what you mean by "stage."
Q. Would you agree, disagree, or consider it outside your knowledge, that the effects of puberty suppression for three or more years on a child, on an adolescent, on fertility, is unknown?
A. It's outside the realm of my expertise, I have no source data on that.
Q. Let's find the Endocrine Society Guidelines for 2017, Exhibit 6. And you can put that aside and we will not return to it.
A. Okay.
Q. Can I ask you to find Exhibit 6, Endocrine Society Guidelines.
MS. LEVI: Yes.
Q. And there, let me ask you to turn to page 3880.

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A. Mm-hmm.
Q. And if you go to the first full paragraph, it begins "In girls." Do you see that paragraph?
A. I do.
Q. And it reads there that "Clinicians should inform adolescents that no data are available regarding either the time to spontaneous ovulation after cessation of puberty blockers, or the response to ovulation induction following prolonged gonadotropin suppression." Do you see that?
A. I do.
Q. And am I correct that gonadotropin suppression is also a reference to puberty blockade?
A. That's correct.
Q. Same thing as GnRH, functionally?
A. Gonadotropin releasing hormones stimulates the secretion of FSH and LH, and those two hormones are known as gonadotropins.
Q. You understand the reference to GnRH analogs to be referring to the same thing as gonadotropin suppression, correct?
A. GnRH analogs are used to achieve gonadotropin suppression.

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Q. Thank you. I don't know why they chose different terms there, I couldn't say.
Does it remain true, so far as you know, that there is no data available regarding the timing of resumption of ovulation after prolonged gonadotropin suppression?
A. I am, at this time, as I sit here today, unaware if there are any other studies on that topic that have been published in the seven or so years since these guidelines were issued.
Q. And in fact, you're not aware of any study that's been published up to the present that provides data on whether the population of natal females who are subjected to prolonged gonadotropin suppression will ever achieve healthy levels of fertility, are you?
A. It's not a topic that I have endeavored to do a thorough literature search on.
Q. Would you agree that the answer to that question is something that a reasonable clinician, a reasonable parent, and a reasonable health policy expert, would want to know and consider when deciding when or whether it's appropriate to administer puberty blockers to children as a treatment for gender dysphoria?

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A. I would say to that, that it's important to know whether or not there is sufficient evidence to answer that question, and to consider the presence or absence of that sufficient evidence, if it exists, in the context of other knowns, including risks and benefits of this treatment. In short, it's not the only thing that should be considered.
Q. Fair enough. Are you able to identify any medical organization that has asserted that the administration of puberty blockers as a treatment for gender dysphoria is fully reversible with respect to its impact on that child's fertility?
THE DEPONENT: Can I have the question back?
(THE REPORTER READ THE RECORD)
A. I don't have medical statements memorized. And off the top of my head, I'm unsure.
Q. And are you able to direct me towards any original research paper in a peer-reviewed journal that asserts a conclusion that the effects of puberty blockers administered as a treatment for gender dysphoria are fully reversible with respect to the impact on that child's future fertility?
A. I am aware of numerous studies showing

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resumption of menses, resumption of ovulation, resumption of spermatogenesis in individuals who receive puberty-blocking medications and then stop receiving them.
Q. Are you aware of a single study in which the authors state the conclusion that their data suggests that the effect of puberty blockers administered as a treatment for gender dysphoria adolescents is fully reversible with respect to the impact on that child's fertility?
A. Over what time course?
Q. Ever.
A. I'm not aware of any research study that has followed such individuals for decades at a time.
Q. Are you aware of any research of study that asserts, as a conclusion of the authors, that the effect of puberty blockers on -- administered as a treatment for gender dysphoria adolescents, is fully reversible with respect to the impact on that child's fertility?
A. I think I have answered your question.
Q. I think not.
MR. BROOKS: Let me ask you to read it back.
(THE REPORTER READ THE RECORD)

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A. I suppose the question that you're posing is a research question that's incredibly broad and could, as it's presented, span the duration of one's life. And I have not seen any such study.
Q. With respect to cross-sex hormones administered to adolescents, would you agree with me that it is widely accepted that sustained exposure to cross-sex hormones may permanently damage a young person's fertility?
MS. LEVI: Object as to form.
A. I'd need you to be more specific about the term "sustained," and also by what you mean with the phrase "permanent damage."
Q. Do you have any understanding about what age congenital cross-sex hormones are commenced for an adolescent as a treatment for gender dysphoria?
A. There is no specific chronologic age. It would be a possibility for an adolescent who meets diagnostic criteria, has a consenting parent or guardian, consents to a treatment, and has completed puberty.
Q. To your knowledge, based on your reading of the literature and discussion with colleagues, is there a kind of an average age at which cross-sex hormones are started for patients who have begun

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to be seen by a clinic from an early -- you know, from a younger age, just an average start time?
A. I couldn't commit to an average chronologic age. Highly dependent.
Q. Is it highly -- is it commonly begun by, for instance, age 14?
A. I could not answer that.
MR. BROOKS: Let me have tab 16 and ask the reporter to mark as Exhibit 16, a collection of Informed Consent forms in the University of Alabama Birmingham Pediatric Endocrinology Gender Health Team.
(DEFENDANT'S EXHIBIT 16 FOR IDENTIFICATION, Received and Marked.)
Q. Is this a document you have seen before?
A. No, I have never seen this.
Q. The only -- well, let me ask you to -- I will represent to you, based on Dr. Ladinsky's testimony, that this is -- or these are, I think there's a version here for -- this is a form that they use in their Informed Consent process before prescribing cross-sex hormones for minors.
Let me ask you to turn to page 3. And look at those numbers in the lower left-hand corner, as well as at the top, that match.

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Two-thirds of the way down, the last in the second series of bullets, says "I know that this treatment may, but is not assured to make me permanently unable to make a woman pregnant." Do you see that?
A. No.
Q. No? On page 3, there are three sets of bullet points.
A. Correct.
Q. The last of the second set --
A. I see it now, thank you.
Q. -- reads as I have said. And the major heading on the previous page here is "Effects of Feminizing Medications."
So these are bullets relevant to a natal male. University of Alabama Birmingham Gender Clinic is telling those natal male patients that hormonal cross-sex treatment may, but is not assured to make me permanently unable to make a woman pregnant. Do you see that?
A. I do.
Q. And do you consider that to be a deceptive claim about risk?
A. I do not.
Q. Why is that?

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A. The statement reads the caveat of "may, but is not assured to." But importantly, I have not done an in-depth analysis on the literature on fertility to be able to render an expert opinion on this statement as it appears in the Informed Consent forms.
Q. Let's turn to page 10, according to the numbers in the upper right-hand, in the upper -- the fax numbers, essentially -- the production numbers, I should say, across the top, since there's multiple paginations in the document. You see page 10 of 14 at the top?
A. I do.
Q. And here, we're in a heading that relates to masculinizing treatments. And it begins immediately to talk about testosterone.
Do you even understand that to be referring to cross-sex hormones that would be administered to a natal female; correct?
A. That's correct.
Q. And the University of Alabama Birmingham tells its patients two-thirds of the way down the page "I know that the effect of testosterone on fertility are unknown. I have been told that I may or may not be able to get pregnant even if I

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stop taking testosterone." Do you see that?
A. I do.
Q. And do you believe that in telling its natal female patients that testosterone may or may not make them permanently unable to get pregnant, the university of Alabama Birmingham is engaging in scare tactics?
A. This reads, to me, like a careful and measured way to inform a patient about knowns, unknowns, and potential risks.
Q. You don't consider it to be a deceptive description of the risk?
A. To agree with that, I would have to know the intent of the authors of this document. And I do not, so I can't offer an opinion on that either way.
Q. Do you believe it to be a false description of the risks?
A. Given my general knowledge of the literature, reading this with the potential of "may or may not" described, might still get pregnant, should know about birth control options, and informing a patient a pregnancy would preclude a receipt of testosterone therapy, I view this as a thoughtful, measured way to inform patients.

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Q. And in fact, you know it to be the case, do you not, that it's known that exposure to high levels of testosterone, for instance normal male ranges, damages ovaries?
MS. LEVI: Object as to form.
A. I don't know what is meant by "damage."
Q. Reduces their ability to produce viable eggs.
A. While in use, or while in one's system, either because it's endogenously produced or exogenously received, testosterone suppresses ovulation to varying degrees.
Q. And whether testosterone permanently damages the ability of ovaries -- pardon me, whether prolonged exposure to high levels of testosterone permanently damages the ability of ovaries to produce viable healthy eggs, that, you don't know?
A. That would not be an appropriate question for me because it's not my area of expertise.
Q. All right. Go to the SOC-8 tab again, Exhibit 14. And I'll ask you to turn to page 157.
A. See if I can find it.
Q. Towards the very bottom of the second column --
A. 157.

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Q. 157.
A. The very bottom of the second column, okay.
Q. There is a sentence, an inch or little more up, it begins "However, there have been." Do you see that?
A. Yes.
Q. Let me read that into the record.
In SOC-8 of 2022, WPATH states "There have been no prospective studies to date evaluating the effect of long-term hormone therapy on fertility, i.e. started in adolescence, or in those treated with puberty blockers in early puberty followed by testosterone therapy." Do you see that?
A. Mm-hmm.
Q. Do you think you understand that statement by WPATH?
A. Yes, I do.
Q. Am I correct that you also are not aware of any prospective studies up to the present evaluating the effect of either long-term hormone therapy, or puberty blockers on fertility?
A. Not with great certainty, no.
Q. If you look at the next page, column one, seven-eighths of the way down, inch and half from the bottom, is a sentence that begins

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"Spermatogenesis might resume." Do you see that?
A. Mm-hmm.
Q. And that sentence reads "Spermatogenesis might resume after discontinuation of prolonged treatment with antiandrogens and estrogens, but data are limited." Do you see that?
A. Yes.
Q. And so far as the data that's available today, 2024, am I correct that for you also, the most you can say is that viable spermatogenesis might resume after discontinuation of prolonged treatment with antiandrogens and estrogens, but we just don't know yet?
MS. LEVI: Object as to form.
A. My opinion on the matter is limited because I have not done an in-depth analysis of any literature published on this topic since the issuance of the 8th Edition of the standards of care in the fall of 2022.
Q. You don't have any basis as you sit here to disagree with that statement by WPATH?
A. It would require an in-depth analysis of the literature for me to agree or disagree that this sentence still holds. It's been about 18 months.
Q. Yes. Time flies when you're litigating.

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Correct me if I'm wrong, but I don't believe that your Expert Report or your Supplemental Report contain any assertions that cross-sex hormones don't permanently sterilize some percentage of those to whom they are administered as adolescents; am I correct?

MS. LEVI: Object as to form.

A. We would need to review it in depth to see if there's any particular line. And I believe I may have touched on --

Q. Well, then we won't do that, so let me just ask your opinion as sit here today. As you sit here today, are you able to offer an expert opinion that cross-sex hormones administered to adolescents do not permanently sterilize some percentage of those adolescents?

THE DEPONENT: Let me have the question back, please.

(THE REPORTER READ THE RECORD)

THE DEPONENT: One more time, please.

(THE REPORTER READ THE RECORD)

A. I am pausing because I'm aware of the fact that conception diagnoses can occur in individuals, including adolescents who are in receipt of cross-sex hormones.

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MR. BROOKS: Why don't you read the question back again.

(THE REPORTER READ THE RECORD)

A. I am -- sorry about that, excuse me. I am unable to opine either way. I haven't done the type of literature search that would be required to answer that question sufficiently.

Q. All right. In this Exhibit 6 that we looked at before, you and your coauthors state in column one of page 2920 -- actually, leaking over from the previous page, "Conception can occur in TGE people taking hormones." And just for the record, can you explain what TGE refers to?

A. Transgender and gender expansive.

Q. And by referring to conception, am I correct that in this particular sentence here, you're referring to natal females?

A. Not completely. I am referring to pregnancy of any kind. A transgender female receiving estrogen could have sex with and conceive a pregnancy with --

Q. Okay, all right.

A. -- someone capable of carrying a pregnancy.

Q. Am I correct that all examples of conception after a period of years of taking cross-sex

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hormones, in the case of natal females, involves females who have gone through full normal female puberty before beginning cross-sex hormone treatments?

A. I don't know enough to agree or disagree with your statement as you stated it.

Q. All right.

MR. BROOKS: Ask the reporter to mark as Exhibit 17, a paper, the first author Light, L-I-G-H-T, titled "Transgender Men Who Experience Pregnancy After Female to Male Gender Transition."

(DEFENDANT'S EXHIBIT 17 FOR IDENTIFICATION, Received and Marked.)

Q. And Dr. McNamara, am I correct that this is an article that you cited in your expert report?

A. I believe it IS. I would have to look at this, footnotes, just to make sure it's the right one.

Q. If you look at page 14 of 38 of your initial Expert Report, you can I think check that. Footnote 38, i think it's the second reference, if I found it correctly.

A. Great, thank you.

Q. And did you study this article with some care before citing it?

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A. Yes, I did.

Q. You state in the footnote that "The majority of transgender men" -- that is natal females -- "who had regular menses before starting testosterone therapy are reported to resume menses if testosterone is discontinued." Do you see that?

A. Give me just a second.

MS. LEVI: Are you saying that's in the Footnote 38?

MR. BROOKS: I think it's actually in the text. I misstated.

Q. And my question for you is, you're not offering an opinion, are you, that resumption of menses is itself sufficient evidence to conclude that those natal females have recovered healthy levels of fertility?

MS. LEVI: Object as to form.

A. It would depend on how one considers "healthy" to be meant.

Q. Well, you're not offering an expert opinion that the occurrence of menses demonstrates that that woman has the ability to conceive and bear a child to term, are you?

A. It is certainly an indicator of the

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possibility of one's ability to conceive a pregnancy.
Q. Necessary, but not sufficient, correct?
A. Correct.
Q. Now, the Light paper, as I understand it, and looking at page 1121, reports on an online survey of ultimately 41 natal females who claim to have self identified as male, and then experienced a pregnancy sometime within the last 10 years. Is that --
A. Where are you reading from?
Q. I am summarizing the "Materials and Methods." Some of that is column one, under "Materials and Methods."
A. Okay. You're summarizing it a little bit quickly for me. Would you mind if I take a moment to read this?
Q. Well, let me just give you some guideposts and then invite you to.
It refers, in the first column, under "Materials and Methods," to self identification as male, pregnancy within the last 10 years. And under "Results," after explaining certain thinning out, it says about an inch under the heading "Results," "41 percent remained for final

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analysis." Those are the things I was attempting to summarize.
A. Okay.
Q. And if I could direct your attention to Table 2, I will ask you about that specifically. Table 2 is on page 1123.
A. Okay.
Q. Again, to summarize, I'll represent -- and I know you have seen the article before, you cited it -- that some percentage of those who had self identified as male before being pregnant had never taken testosterone.
Table 2 gives us information about the 25 among those 41 who had reported that they had used testosterone before pregnancy. I'll represent that much.
This tells us that, in the first line of Table 2, that testosterone was first initiated at an average age of 25, and at age range between age 17 and 35. Do you understand that as I understand it?
A. I do.
Q. And you would agree that healthy females have completed maturation of their reproductive organs and are fully fertile by age 17?

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A. Certainly the vast majority are.
Q. And so all test subjects -- well, these aren't tests. All subjects reported in the Light article who said they had taken testosterone before becoming pregnancy -- before becoming pregnant, had gone through full reproductive maturation before disrupting their endogenous hormones with testosterone; correct?
A. I would need to look to see if the study confirmed that.
Q. Well, I will also represent to you that the study confirmed nothing. It's all self-report data, so make of that what you will.
MS. LEVI: Object as to form, if that was a question.
MR. BROOKS: It wasn't.
A. Then I don't have a response.
Q. Well, let me ask this question. If it is the case, that all these subjects as reported in Table 2 began taking testosterone no earlier than age 17, then it would also be the case that all of them had gone through full maturation of their reproductive organs before disrupting their endogenous hormones with testosterone; correct?
A. I would agree that the study is highly

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likely to capture individuals who have completed puberty before the initiation of testosterone blockade. Although I would need to review it again to determine testosterone -- I misspoke, I'm sorry.
Individuals who received testosterone. I think I said testosterone blockade. I would need to review it in depth to see if it mentioned any participants had any heterogeneity in that.
Q. So far as you recall, and so far as Table 2 tells us, no subject reported on in the Light paper began taking testosterone during her years of adolescence while sexual organs and fertility were still in the process of development; correct?
A. If I were to see a specific sentence where they said that, that would be helpful.
Q. Well, the sentence I would point you to is the one that says "Age when testosterone was initiated, range 17 to 35." Table 2.
A. I'm just looking at the inclusion and exclusion criteria.
I don't see anything that says whether or not participants completed puberty before starting testosterone. I agree with your general assumption. If I saw something that specifically

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said that in the paper, it would be helpful. But the paper may not include that.
Q. That is, you agree with my general assumption that healthy women have completed puberty by age 17?
A. About 95 percent have, that's a rough estimate.
Q. Is it not the case that for -- that a natal female who has not completed puberty by age 17 is considered to be in an unhealthy condition?
A. It's too general of a term. If somebody were an athlete, a very high performing athlete, they may not have menstruated yet. They may have a family history of late age of menarcheal onset.
Q. So far as you recall, this article, this study that you cited, does not include any subjects who reported having been subjected to puberty blockers to prevent undergoing normal female puberty; correct?
A. I'm scanning the study to see any mention of that, and I do not see it was. I will note that I don't see that included either way. I don't think we can say with certainty whether or not any of these 25 patients described in Table 2 have or have not received puberty-blocking medications.

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We might have to ask the authors.
Q. So far as you understand, based on this article, this article does not report any case of a woman who was exposed to puberty blockers to prevent ordinary female puberty, and then treated with testosterone, subsequently becoming pregnant?
A. I don't see anything in this study to say yes or no to that question.
Q. You understand this to have been data from some local clinic, or a nationwide survey?
A. We can refer to the "Materials and Methods."
Q. Yes, I think the first paragraph perhaps answers that, the last sentence of the first paragraph.
A. The recruiters participated through a web-based survey. Participation was not limited by geographic location.
Q. Might even be wider than nationwide.
A. It might be. I don't see any indication if that were -- oh, wait. There were six patients in Table 1 who reported residing outside the United States.
Q. Well, let me ask this: This web-based survey identified a total of 25 natal females who claimed to have experienced pregnancy and

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childbirth after undergoing testosterone treatment for at least some period of time. Is that your understanding?
A. That's a fair understanding, yes.
Q. And you will agree with me, will you not, that the results of that survey can tell us literally nothing about how many women who took testosterone for a period of their lives, later wished to but were unable to become pregnant?
MS. LEVI: Object as to form.
A. That is not the study question that this study sought to evaluate.
Q. So it gives you no information about that, correct?
A. It doesn't seem like that question was pertinent to what the authors sought to investigate.
Q. Well, in short, this article tells us nothing about how many women, if any, have been permanently sterilized as a result of taking testosterone as across-sex hormone in support of a transgender identity.
MS. LEVI: Object as to form.
A. This would not be the study to source to look for information pertinent to that question.

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Q. All right.
MR. BROOKS: Let's look at Schneider 2017. And let me ask the reporter to mark this as Exhibit 18.
(DEFENDANT'S EXHIBIT 18 FOR IDENTIFICATION, Received and Marked.)
Q. Is this also an article that you're familiar with and cited in your Expert Report?
A. Yes, it is.
Q. And you studied it with some care before citing it?
A. Yes, I did.
Q. Now, you cited it in your report, which feel free to reference, if you have that, again, text associated with Note 39, I believe. Let me find that.
Yes, text associated with Note 39. You wrote "Reduced spermatogenesis is common while patients remain on estrogen, but this occurs in varying degrees with some maintaining fertility even while on hormone therapy."
Have I read that language correctly?
A. You read the sentence on the page correctly.
Q. If you turn to page 877 in Schneider, et al, in the first column, the last paragraph above the

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heading "Sex Reassignment Surgery," begins "In children treated with GnRH agonists." You see that paragraph?
A. Not yet.
Oh, I see it, I'm sorry.
Q. Immediately above that heading. In that paragraph, they use a lot of big words and fancy terms. And then they conclude in the last sentence, "Hence, suppressing gonadotropins early in the development might hinder the preparation of the adult testis."
And did you believe you understood that sentence when you read this article before you cited it?
A. I'm not sure I can go back into that specific point in time.
Q. Do you think you understand it today?
A. I do understand it today.
Q. All right. What do you understand by "the preparation of the adult testis"?
A. They're describing who Rhesus monkeys in Plant, et al, 2005, postnatal and pubertal developments of a Rhesus monkey. So potentially, that refers to one Rhesus monkey.
In that study, the investigator noted that

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the density and shape of testicular cells was dependent on gonadotropins. And thus, a downstream-related phenomena would be the secretion of testosterone.
The authors of this study that we're reviewing now stated that suppressing gonadotropins early in development would hinder -- or excuse me, might hinder the preparation of the adult testis.
Q. And what do you mean, what do you understand "preparation of the adult testis" to refer to?
A. I would assume that it means something akin to maturation.
Q. And do you agree, disagree, or consider to be outside your expertise, to say that the evidence cited by the Schneider, et al authors suggests that suppressing the gonadotropins early in development, which is what puberty blockers do, might hinder the healthy formation of the adult testis?
A. Because I did not cite this paper outside the context of the relationship between estrogen and spermatogenesis, I do not have an opinion on your question.
Q. Let me ask you to turn to page 878. And in

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the first column, two inches from the bottom, in a paragraph that begins "Before starting CHT," the third sentence reads "The desire to reproduce and raise children is an inadequately studied field in transsexual persons." Do you see that language?
A. I do.
Q. And do you agree or disagree with these authors' conclusion that the desire to reproduce and raise children has been inadequately studied among transsexual persons?
A. I am loosely aware that there has been subsequent research in the seven years since the publication of this paper.
Q. And when it comes to the desire of transsexual individuals to reproduce and raise children, what research since this time do you have in mind?
A. As I said, I'm loosely aware and I did not do an in-depth analysis of that particular question in preparing my Expert Report for this case.
Q. As you sit here today, you don't recall any particular paper?
A. None off the top of my head.
Q. Do you know whether -- and let's, again, to

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be clear, the Schneider, et al cited in your Expert Report is a review article, not an original research article; correct?
A. Correct.
Q. So it says. And Schneider discusses and cites a number of different research articles; correct?
A. That is correct.
Q. In fact, he has listed on Table 1 on page 876, right?
A. There are 11 studies listed under Table 1 on that page.
Q. And so far as you recall, none of those studies involved males who were subject to puberty blockers to prevent full natural pubertal development prior to cross-sex hormones, correct?
A. Not that I'm aware of.
MR. BROOKS: Let me ask the reporter to mark as Exhibit 19, a paper from 2021, lead author de Nie, D -- well, you'll see it -- entitled "Histological Study on the Influence of Puberty Suppression and Hormonal Treatment on Developing Germ Cells in Transgender Women."
(DEFENDANT'S EXHIBIT 19 FOR IDENTIFICATION, Received and Marked.)

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Q. And Dr. McNamara, this is an article also that you cited in your Expert Report and studied before you cited, am I correct?
A. Yes, I'm just trying to find where -- oh, yes, here we are.
Q. 15, page 15, cited in Footnote 41, I believe.
Now, you wrote in your report that "In a cohort of patients treated with puberty blockers starting at the onset of pubertal development, Tanner Stages 2 and 3, and adding estrogen treatment starting at 16 years of age, histological examination of testicles showed normal-appearing, immature sperm-producing cells in the testes, suggesting those individuals had retained fertility potential."
Do you see that language in your report?
A. Yes.
Q. And you've described the subjects here, they began puberty blockers at Tanner Stages 2 or 3, and added cross-sex estrogen at age 16; correct?
I'm summarizing what you wrote in your report.
A. You're summarizing what I wrote in my report correctly.

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Q. And to your understanding, is that a fairly standard sequence in terms of when puberty blockers are begun for natal males and when estrogen cross-sex hormones are commenced?
A. Could I have the quote back?
Q. Yes. In your understanding, does that sequence that you've described there reflect a fairly standard timing of the commencement of puberty blockers and the timing of adding cross-sex estrogen treatment for natal males?
A. I'm pausing because I'm not aware of any study or national repository of data that describes typical ages of onset because it's so highly individualized.
Q. Just that --
A. All --
Q. I'm sorry?
A. It depends on when patients present to care, and what their goals of care are and how the assessments go.
Q. Does that sequence for that timing correspond with what you have heard described as the Dutch protocol?
A. The only difference is that the Dutch protocol has an age at which -- a chronological

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age at which they consider pubertal blockade. And this is based on pubertal stage.
Q. Well, at any rate, it's done by a bunch of Dutch people, but we'll move on from that.
A. All right.
Q. Just looking at the abstract study design, we have 214 male-to-female subjects, all of whom are adults at the time of the study; correct?
A. I see 214 transgender women included in the final study cohort.
Q. And the procedure here, all of these are individuals who have undergone surgery as adults, and the experimental process after castration, the testes are examined for the presence or absence of sperm cells at various stages of maturity; correct?
I think the first sentence of the study design, trying to summarize.
A. Of course, I appreciate it. I just need a moment.
Yes, that's correct.
Q. And if we turn to page 301, Figure 1, let me see if I can parse this out.
I'm sorry, not Figure 1.
301, column two, it reports that 4.7 percent

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of these natal males who had been subjected to puberty blockers followed by cross-sex hormones, 4.7 percent contained some apparently full mature sperm; correct?
A. The sentence reads, "In 10 transgender women (4.7 percent) some seminiferous tubules contained full spermatogenesis, all of whom had initiated medical treatment in Tanner Stage 4 or higher."
Q. And let me ask, do you understand full spermatogenesis to mean the development of, at least by visual inspection, fully mature sperm cells?
A. That's what I would take that to mean.
Q. Okay. So in 95 percent of the subjects who had been subjected to puberty blockers followed by cross-sex hormones, no mature sperm cells were found in the testicles, correct?
A. I'm not sure that's what this means.
Q. Why are you not sure that's what that means?
A. Unless I would see that stated specifically, I don't think I can agree with that statement.
Q. Among those in whom any mature sperm cells were found, all of those subjects had not begun puberty blockade until Tanner Stage 4 or higher, so the authors tell us; correct?

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A. Say that again.
Q. Among those subjects in whom any mature sperm cells were found in their testes, none of them had begun puberty blockade earlier than Tanner Stage 4; correct?
A. Just give me a second.
Q. I'll call your attention to lines that you read into the record where it says, column two, page 301, referring to those in whom some mature sperm cells were found, "all of whom had initiated medical treatment in Tanner Stage 4 or higher."
Do you recall that language?
A. This is just quite a detailed study. I'm wrapping my mind around it again.
Okay, your question back?
Q. In cases involved, that in those 4.7 percent of subjects in whom at least some mature sperm cells were found in their testes, none of those had commenced puberty blockade earlier than Tanner Stage 4, according to these authors.
A. Okay. Okay, I would agree with that.
Q. And having had more time to study the text and Table 2, would you agree with me also that in 95 percent of the subjects who had been subjected to puberty blockade and then cross-sex hormones,

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95 percent of those subjects had no mature sperm cells found in their testes?
A. Your question one more time, please.
Q. It's the case, is it not, that of the 4.7 percent of the subjects in whom at least some fertile sperm cells were found in their testes, none of them had commenced puberty blockers at a stage prior to Tanner Stage 4.
MS. LEVI: Object as to form.
Q. And my real question is, isn't that what you understand the authors to tell us on page 301 in column two, in the language you previously read into the record?
A. So no -- if we're -- so if we're referring to mature sperm cells, that is correct. No other -- no other participants showed histologic signs of mature sperm cells.
Q. And in fact, zero percent of the subjects who commenced puberty blockade at Tanner Stage 2 or 3, as recommended in the WPATH standards of care, showed signs of any mature sperm cells in their testes; correct?
A. Among the 29 participants in this study, none of them developed or had histological signs of spermatozoa, and some had histological signs of

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spermatocytes and spermatogonia.
Q. Now, according to these authors, is it your understanding that having only spermatocytes or spermatogonia is effective in fertility, at least on present technology?
I call your attention to page 306, first full sentence at the top of the first column.
A. Could you just give me just one second before I look there?
Q. Of course.
A. Okay, take me to where...
Q. Let me take you first to page 298. And there, still in the abstract, right at the very end of the abstract, it reads, "If maturation techniques like in vitro spermatogenesis become available in the future," and then it continues. Do you see that?
A. Yes.
Q. To your knowledge, at present, there are no technologies available to take spermatocytes or spermatogonia and progress them to viable sperm cells?
A. I don't know if, in the three years since the publication of this paper, that's been developed.

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Q. These authors say at the top of page 306, "Although these techniques are successful in animal models, they are still experimental and far from the clinical realm." Do you see that language?
A. Yes, cited in a 2020 paper by Pelzman, et al.
Q. And as you sit here today, you don't have any basis to disagree that technology to take spermatocytes or spermatogonia and achieve mature, viable sperm cells remains "from the clinical realm." Correct?
A. I don't know of anything, no.
Q. Okay. And the net result of that is that according to de Nie, et al, some 95 percent of their subjects who had been subjected to puberty blockers and cross-sex hormones were infertile at the time of their study; correct?
MS. LEVI: Object as to form.
A. I don't know that this study is able to comment on anything beyond the testicular histology that was sampled. That's highly dependent on the tissue that's analyzed.
I'm just trying to see if the authors say anything similar to what you said.

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Q. Let me ask my question differently. Earlier, you agreed with me that according to the numbers in this paper, 95 percent of their subjects had no mature sperm cells detected in their study; correct?
A. Say that one more time.
Q. You earlier agreed with me, had you not, that according to the data in this paper, 95 percent of their test subjects -- in 95 percent of their test subjects, no mature sperm cells were detected according to the analysis that they did?
A. In Table 2, 4.7 percent of all subjects had spermatozoa, which is the most mature form of sperm. The remaining subjects -- in the remaining subjects, excuse me, the investigators isolated sperm cells of varying degrees of maturation. Or among 7, none at all.
Q. And you would agree with me, would you not, that only mature spermatozoa cells are able to fertilize an egg?
A. At that very moment in time.
Q. Correct. And so far as these authors study reports, in 95 percent of their subjects who had been subjected to puberty blockers followed by cross-sex hormones, they did not detect evidence

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of mature sperm cells necessary for fertility in those subjects?
A. At that point in time, yes.
Q. And let me ask you to turn to page 301.
In column two, in the last paragraph, the authors state "Hyalinization of seminiferous tubules was observed." Do you know what hyalinization is?
A. I believe it's describing some degree of histologic maturation of seminiferous tubules, which is where sperm cells are produced.
Q. Is it your understanding that hyalinization describes a level of maturation, or some level of degeneration and blockage?
A. Off the top of my head, I'd have to look it up.
Q. Fair enough. At the end of the -- that paragraph, these authors write "The complete absence of a lumen was most comment in those who initiated treatment in Tanner Stage 2."
Let me similarly ask whether you understand what the authors are referring to when they mention "absence of a lumen"?
MS. LEVI: I just want to say on the record, that didn't complete the sentence.

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MR. BROOKS: You are right.
MS. LEVI: I'm sure that wasn't intentional, but I didn't want to have the record --
MR. BROOKS: It was an error not in my favor, so let me correct it.
Q. The sentence reads "The complete absence of a lumen was most common in those who initiated treatment in Tanner Stage 2 or 3."
And Dr. McNamara, if all you know about that is what you would read in this article, then you tell me that, and I will simply move on.
A. Yeah, I'm just trying to avail myself to the terminology again.
Q. We can just move on.
A. Sure.
Q. Let me ask you to turn to --
THE DEPONENT: Can I get a break?
MS. LEVI: I'm sorry, are you done with this article?
MR. BROOKS: I've got probably three more minutes on this document, if that's all right. If it's not all right, we can take a break.
THE DEPONENT: That's all right.

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Q. Let me ask you to turn to 305, column two, where, at the very first sentence at the top, these authors from Vrije University in this paper that you cited from 2022, say "It is unknown if spermatogenesis can recover in if gender-affirming hormone therapy is stopped and how much time is needed for this purpose." Do you see that?
A. Yes.
Q. Do you have any basis to disagree with the authors of this paper that it's unknown if spermatogenesis can recover if gender-affirming hormone therapy is stopped?
A. As a general matter, amongst population-wide samples, I have no reason to disagree.
Q. If you look a little farther down in that column, a little below halfway is the sentence that begins "Another study, however, reported." That's the end of the line. Tell me when you found that.
A. I'm not seeing it.
Q. Pointing on my page just to help you locate it.
A. I got it here.
Q. Of course, I cheated and highlighted.
A. That was helpful, though.

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Q. It reads "Another study, however, reported that 48 percent of transgender adolescents acknowledged that their desires regarding parenthood might change over time," citing a Strang, et al paper.

Are you familiar with the Strange, et al paper?

A. I might have read it at some point. I don't recall off the top of my head.

Q. Do you, based on your own reading or experience, have any basis to disagree with the conclusion of Strang, et al that 48 percent of transgender adolescents stated that their desires regarding parenthood might change in the future?

A. Well, that statistic describes the population that these authors studied. It doesn't necessarily apply to all transgender adolescents.

Q. And are you aware of some study that reaches a different conclusion, based on a different population?

A. I am aware that a finding like this in one study should not be generalized as it is described to all adolescents.

Q. And finally, let me ask you to turn to page 306. And there, in the top of the first column,

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an inch down, is the sentence that begins "Furthermore." Tell me when you've found that.

A. Help me out.

Q. (Indicating.)

A. Got you. Thank you.

Q. It reads "Furthermore, future research should focus on how GHAT influences the quality of germ cells and the safety of using cells harvested from orchiectomy specimens for reproductive techniques."

When you read this article, do you believe that you understood what the authors were getting at in that sentence?

A. Yes, I believe I did.

Q. Do you understand the authors to be raising a concern that even apparently viable sperm cells that had been subjected to GAHT might be damaged in some way that would result, for instance, in birth defects?

A. I'm not interpreting any concern from this statement. I am interpreting that the authors are highlighting an area where future research is needed.

Q. By "quality of the germ cells," did you understand them to be speaking to -- I should say

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"by quality of germ cells and safety of using them," did you understand the authors to be referring perhaps, among other things, to the possibility of genetic defects, birth defects?

A. I'm not reading that in this sentence.

Q. What do you understand that to be referring to when they refer to safety?

A. I couldn't infer anything else from the words on the page.

MR. BROOKS: All right, let's take a break.

THE DEPONENT: Sounds good, thank you.

(R E C E S S)

BY MR. BROOKS:

Q. Let me ask you to find once again the Endocrine Society Guidelines, Exhibit 6. And I will ask you to turn to page 3895, and I want to take you down to the very bottom of the second column where it reads "Disclaimer." Do you see that little header?

A. I do.

Q. There, the Endocrine Society states "The guidelines should not be considered inclusive of all proper approaches or methods, or exclusive of others. The guidelines cannot guarantee any

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specific ought come, nor do they establish a standard of care."

Dr. McNamara, were you aware that the Endocrine Society has explicitly denied that its guidelines do constitute or could be considered a standard of care?

A. I am not sure how they mean "standard of care," what meaning that has for this organization. It's a -- more of a subjective term that I think different individuals and organizations can have difference meanings of.

Q. So in your understanding, "standard of care" is not a well-defined term?

A. Let me -- for me, personally, as an individual reading this, I do not know what the Endocrine Society's intended meaning of "standard of care" in this particular context might be.

Q. In the first sentence I read, at least they're telling us that other approaches to treating gender dysphoria may also be appropriate; correct?

A. Your question again, please.

Q. The sentence that reads "The guidelines should not be considered inclusive of all proper approaches or methods, or exclusive of others."

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Do you see that language?
A. I do.
Q. And at the very least, the Endocrine Society there is telling us that there may be other appropriate approaches to treating gender dysphoria, correct?
A. They are saying that these guidelines should not be considered inclusive of all proper approaches -- they are saying that these guidelines should not be considered inclusive of all proper approaches or methods, or exclusive of others.
Q. And what that means to you as the reader is that there might be other proper approaches to treating gender dysphoria, correct?
MS. LEVI: Object as to form.
A. I don't draw that conclusion from this sentence.
Q. Interesting. The Endocrine Society tells us that their guidelines do not establish standard of care -- strike that.
Can you identify for me any national health authority, any country, that has endorsed the WPATH as the standard of care, either 7 or 8, as the standard of care for their health service?

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A. I don't understand, meaning the term "health service."
Q. Well, you well understand that in many countries, there is a unified National Health Service of some sort, correct?
A. In countries outside the United States, perhaps you can provide some examples so I know what you're talking about.
Q. Europe. You're well aware in European countries, there is a National Health Service, government-funded, unlike anything we have in this country; correct?
A. Correct.
Q. And are you aware of any National Health Service anywhere in the world that has endorsed the WPATH standard of care as the practiced standard of care in their nation for treatment of gender dysphoria?
A. I am not aware of whether any country's nationalized health system has endorsed WPATH's standards of care in any version, or any other guidelines for any other medical organization.
Q. And likewise, you're not aware of whether any National Health Service has endorsed the Endocrine Society Guidelines?

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A. Similarly, my answer to that question is the same.
Q. If you would find your report, let me ask you to turn to page 5 of your report.
At the top of page 5, you state "Organizations such as the American Academy of Pediatrics, the American Psychological Association, and the American Academy of Child and Adolescent Psychiatry have endorsed these standards of care." And I believe you're referring to, in that paragraph, to WPATH's standard of care and Endocrine Society Guidelines. Am I understanding you correctly?
A. That's correct.
Q. And can you point to any document in which the American Medical Association has endorsed WPATH's standard of care?
A. I did not list the American Medical Association in this paragraph.
Q. Can you point me to any document with which the American Academy of Pediatrics has endorsed the WPATH's standards of care, whether Version seven or 8. There's no cites, so I'm asking.
A. In Dr. Rafferty's article written with the sexual and gender minority group within the AAP,

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they cite both guidelines throughout.
Q. Is it your recollection that Dr. Rafferty's paper published by the American Academy of Pediatrics anywhere endorses the WPATH standards of care?
A. If you'd like us to refer to that paper, I can point to specific areas where they cite that paper.
Q. Is it the case, Dr. McNamara, that every time you cite a paper, you endorse everything in it?
A. I don't really try to cite things that I write completely that affirm or support key points that I'm trying to make. I'll leave it there.
Q. Well, you state that these organizations have endorsed these standards of care. And my question for you is for any one of these three organizations, can you point me to any document in which that organization states "We endorse, we approve, these standard of care"?
A. While you and I might have slightly different understandings of the term "endorse," for a medical organization to cite guidelines in a position statement, that is certainly an affirmative position that I, as the author of this

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expert testimony, drew an opinion on and opined that it constituted an endorsement, as I understand an endorsement to be.

Q. Did you make any effort to research whether any of those organizations had adopted -- had any formal endorsement of either the WPATH SOC-8 or the Endocrine Society Guidelines before making that statement in your report?

A. As I discussed, sourcing statements made by these organizations where those guidelines are cited and discussed as expert and authoritative, is not something that a medical organization would do lightly.

Q. And so far as you know, it's not something they've ever done?

A. You were previously referring to nationalized health care systems when you were talking about organizations. And now we've switched to talking about medical organizations, which are very different.

MR. BROOKS: Let me hear back the witness's previous answer, not this one, about the previous answer.

(THE REPORTER READ THE RECORD)

Q. What is it you were saying that a medical

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organization would not do lightly?

A. As she just read, a medical organization would not favorably cite guidelines without -- let me say that differently. Apologies.

A medical organization would not cite and describe guidelines lightly.

Q. Let me ask you a different question. What knowledge do you have as to whether gender clinics in Alabama, prior to the enactment of the law at issue in this litigation, consistently followed WPATH SOC-7 guidelines or the Endocrine Society Guidelines?

A. So we've already discussed in my testimony earlier today that I have no in-depth knowledge of any of the practices in the University of Alabama at Birmingham gender services.

Q. And what knowledge do you have as to whether gender clinics across the US consistently follow the WPATH standard of care or the Endocrine Society Guidelines?

A. Of my colleagues who I communicate with on these matters, who practice in gender clinics throughout the country, they report utilizing the WPATH's standards of care and the Endocrine Society Clinical Practice Guidelines.

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MR. BROOKS: Let me mark as Exhibit 20, an article from the Washington Post, coauthored by Dr. Laura Edwards-Leeper and Dr. Erica Anderson entitled "The Mental Health Establishment is Failing Trans Kids."

(DEFENDANT'S EXHIBIT 20 FOR IDENTIFICATION Received and Marked.)

Q. Do you personally know either Dr. Edwards-Leeper or Dr. Anderson?

A. No.

Q. Are you aware that Dr. Edwards-Leeper is one of the named authors of the SOC-8?

A. I don't have it in front of me, so I can't verify that.

Q. Well, let's find it. Exhibit 14, there's a lot of names, but I have --

A. I agree with you. I found it myself.

Q. Okay, good. And do you know whether Dr. Edwards-Leeper has held any, other than being one of the coauthors of the SOC-8 guidelines, do you know whether she has held any executive position in WPATH?

A. I don't know.

Q. Do you have any knowledge as to what level of professional experience in treating minors with

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gender dysphoria Dr. Edwards-Leeper has?

A. I believe she has professional experience. I'm not sure how much and to what extent.

Q. And are you familiar with the reputation of Dr. Laura Anderson?

A. I believe her name is Erica Anderson.

Q. Yes, pardon me. Are you familiar with the reputation of Dr. Erica Anderson?

A. Not really.

Q. Are you aware that Dr. Anderson was president of the United States USPATH, the United States Professional Association For Transgender Health?

A. I am now.

Q. Not really. You shouldn't take my word.

Let me ask you to turn to the first text page, the second page of this exhibit. Let me ask you whether you have read this article before today?

A. No, I haven't.

Q. Do you recall discussion about it about the time it came out amongst your colleagues and peers?

A. I don't. This is November 2021.

Q. Right. At the very bottom of -- the

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subtitle here, of the article, is "Gender Exploratory Therapy As a Key Step. Why Aren't Therapists Providing It?"

Now, let me take you to the text at the very bottom of the page, the first text page. And there, Dr. Edwards-Leeper, coauthor of SOC-8, says "A study of 10 pediatric gender clinics there found that half do not require psychological assessment before initiating puberty blockers or hormones." Do you see that?

A. No, not yet.

Q. Very last sentence on the page.

A. Oh, I see. Starts with a different -- "Canada, too," yes. I see the sentence now.

Q. And above that, three lines above that, these authors state that many providers are being spurred into sloppy, dangerous care. Do you see that?

A. I see that phrase.

Q. Do you share Dr. Edwards-Leeper's concern that many providers around the country are providing sloppy, dangerous care to children suffering from gender dysphoria?

A. I take this phrase to be from both authors, not just one.

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Q. Correct. But if I say both their names all the time, it will take too much time.

A. Hmm.

Q. They're coauthors.

A. Correct. Your question, then?

Q. My question is do you share these authors' concern that many providers are engaging in "sloppy, dangerous care" for minors suffering from gender dysphoria?

A. I only have knowledge of the opposite; careful, measured, thoughtful care.

Q. Do you believe that your knowledge of practice around the country is sufficient for you to reject as mistaken these authors' belief that many providers are engaging in sloppy, dangerous care?

A. I don't know what these authors are basing that on. And that is knowledge that I would need in order to answer your question.

Q. Referring back to the study was actually a Canadian sample. Do you have any knowledge as to what proportion of gender clinics in the United States require psychological assessment before initiating puberty blockers or hormones?

A. I don't know whether or not there's data on

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that.

Q. And it is consistent with your understanding, is it not, that the WPATH standards of care require a psychological assessment before puberty blockers or hormones are initiated?

MS. LEVI: Object as to form.

A. I would need to refer to the specific section of the Adolescent chapter to refresh myself on the language before I could answer your question.

Q. You practice in this area and you can't tell me today that whether or not the WPATH standards of care require psychological evaluation before initiating puberty blockers or cross-sex hormones?

A. I want to answer your question as accurately and thoroughly as possible. And I would want to look at the language with you today before I answered the question. I'd be happy to do so if you wanted to find out.

Q. I'm not going to spend my time that way.

Let me ask you to turn to the second text page. If you look down to the first full paragraph, begins with a big A.

These authors state "The pendulum has swung from a vile fear and skepticism around ever

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treating adolescents medically to what must be described in some quarters as an overreaction. Now the treatment pushed by activists, recommended by some providers and taught in many training workshops, is to affirm without question." Do you see that language?

A. I do.

Q. Do you share these authors' concern that some providers are affirming without question?

A. I'm not sure I understand what that means, as they're wording it.

Q. Let me ask you to turn to the next text page. And there, in the top partial paragraph, these authors, beginning partway through line three, state "Frequently, those community clinicians" -- that is, those who refer children to specialty clinics -- "just like the parents, assume that a more comprehensive assessment will occur in the gender specialty clinic. But in our experience, and based on what our colleagues share, this is rarely the case. Most clinics appear to assume that referral means a mental health provider in the community has diagnosed gender dysphoria and therefore -- and thereby given the green light for medical intervention."

Do you see that language?
A. I do.
Q. Do you share these authors' concern that in many cases within the US, neither the primary care physician, nor the gender clinic, is performing a thorough diagnosis before medical intervention?
MS. LEVI: Object as to form.
THE DEPONENT: Can I have the question back?
(THE REPORTER READ THE RECORD)
A. My experiences, as I have described them, don't include anything along these lines. And my familiarity with the literature shows that youth often experience long delays from their first contact with the gender clinic until receipt of medication.
Q. Is it possible that your position associated with Yale has you less in touch with the actual practice across the nation than these authors, one of whom is a coauthor of SOC-8?
A. If anything, my position here at Yale as the only board certified Adolescent Medicine physician has driven me to connect with people who I consider to be colleagues across the country and from other institutions. Being the sole board

certified provider of your institution means that you often look outside of it for professional community.
Q. A little farther down in this third page of text is a paragraph that begins "Some providers may move quickly." You see that paragraph?
A. I do.
Q. And the second sentence reads, in part, "Some assume that a person with gender dysphoria who declares they are transgender is transgender, and needs medical interventions immediately." Do you see that?
A. I do see that.
Q. And do you share these authors' belief that some young people who declare they're transgender may not need medical intervention immediately?
MS. LEVI: Object as to form.
A. It seems like they're referencing the subsequent study here to back up that point. I would probably need to look at that to get more context into what they're saying here.
Q. Ask you to turn to the next page.
A. Okay.
Q. There, these authors state "Longer term longitudinal studies are needed to better

understand the role of medical interventions on lifetime psychological health, particularly with the newer subset of adolescents presenting with no childhood dysphoria and significant mental health concerns."
Is it consistent with your knowledge and your expert opinion that in recent years, a newer su set of patients are presenting at gender clinics who experienced no childhood gender dysphoria and suffer significant other mental health concerns?
A. The demographics of patients being referred to gender clinics are different in some ways than they were in years past. I would not characterize that as meaning that they are a separate subset.
Q. So as to that characterization, you disagree with Dr. Edwards-Leeper?
A. I don't have enough information as it's written here to understand what information that individual is basing this statement on.
Q. In the next paragraph, the third line, these authors state that "Without proper assessment, many youths are being rushed toward the medical model, and we don't know if they will be liberated or restrained by it."

Let me ask whether you share these authors' concern that today, many youths are being rushed towards a medical response to gender dysphoria.
A. Again, I'm not sure what data they're basing that claim on.
Q. Yes, but my question is whether you share their concern.
A. I base all of my opinions in this case on evidence and data. And I don't have anything to go with here. So I can neither agree or disagree with this statement as it's written.
Q. The very first, the very top of the page, I asked you about the back half of the sentence, but let me ask you about the first half.
"Longer term longitudinal studies are needed to better understand the role of medical interventions on lifetime psychological health."
You have spent a fair amount of time studying the literature. Let me ask whether you agree with these authors that we need longer term studies to understand the role of medical interventions in lifetime psychological health of young people who are presented in clinics?
A. Longer term, larger, multiinstitutional studies are always a benefit in the field of

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clinical research and can always guide medical decisionmaking in patient care in a better way. I consider this first half of this sentence to be something that I agree with on that basis.

Q. And towards the end of the -- well, the paragraph begins "The pressure by activist medical and mental health providers, along with some national LGBT organizations to silence the voices of detransitioners and sabotage the discussion around what is occurring in the field is unconscionable."

Let me ask, have you yourself, as you pay attention to the literature, or the media, or discussions within academia, do you have any view as to whether there is or is not pressure by activists and some LGBT organizations to silence the voices of detransitioners?

A. I have not noted that.

Q. Let me ask you to take the WPATH standards of care, Exhibit 14, out. And let me ask you to turn to page 46.

Is it your testimony that -- let me put it this way: Is it your belief that the WPATH SOC-8 recommendations with regard to care of adolescents suffering from gender dysphoria are based on

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systematic reviews of the available evidence?

A. Are you referring to a specific chapter?

Q. Well, I asked about adolescents. And there is a chapter that pertains specifically to adolescents.

A. That might have been what I didn't catch in your last question. Can I have the question back so I make sure I understand completely?

(THE REPORTER READ THE RECORD)

THE DEPONENT: Thank you.

A. This particular chapter, as the authors describe, was not based on a systematic review. It was based on a review of the evidence, which the authors describe a bit further.

Q. So far as you're aware, WPATH has not claimed that its recommendations regarding medical transition of adolescents or children are based on any systematic review, correct?

A. I have not seen an instance of that organization saying that regarding the care of adolescents.

Q. Or children?

A. I have not looked at -- excuse me, I haven't looked at the Children chapter.

Q. I think you and I are looking at the same

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language in column one. About two inches down, the authors of SOC-8 tell us that "There are few outcome studies that follow youth into adulthood." Do you see that language?

A. I do.

Q. And is that consistent with your understanding of what is out there in the literature?

A. Yes, it is.

Q. So when it comes adolescents being treated in gender clinics, we simply don't have studies that tell us about either their mental or their physical health of such patients by the time they are, for instance, age 30?

A. I have not seen that study, to the best of my knowledge.

Q. Or age 40, or age 50?

A. There may be studies that have included participants of some of those ages who did receive some type of care as an adolescent. Off the top of my head, I can't recall one.

Q. The WPATH authors tell us in language, that because the number of studies is low and there are few outcome studies that follow youth into adulthood, "Therefore, a systematic review

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regarding outcomes of treatments in adolescents is not possible." Do you see that?

A. Yes.

Q. And based on your understanding of what is meant today by evidence-based medicine, does it make sense and is it consistent with the way terminology is used in evidence-based medicine to say that a systematic review regarding outcomes in adolescents is not possible?

A. It is this organization's prerogative to make that determination about their own standard of care. I don't have an opinion on that sentence further from that.

Q. Do you believe the standard of care generated by WPATH to have been generated in compliance with accepted principles of evidence-based medicine?

A. I generally agree with that.

Q. And yet you think it's their prerogative to define a standard when a systematic view can or cannot be performed?

A. As subject matter experts on this particular area, I believe that they're well positioned to make that determination.

MR. BROOKS: I ask the reporter to mark

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as Exhibit 21, an article from the British Journal of Medicine, 2023, entitled "Gender Dysphoria in Young People is Rising and So is Professional Disagreement."

(DEFENDANT'S EXHIBIT 21 FOR IDENTIFICATION Received and Marked.)

Q. And Dr. McNamara, I asked you earlier about the reputation of the New England Journal of Medicine. Do you have any understanding of the international reputation of the British Medical Journal?

A. It is certainly a reputable journal. I am not aware of whether or not this document was printed in a peer-reviewed journal or if it was simply included on their website.

Q. Well, it doesn't purport to be original research, and it doesn't purport to be a review article. It is titled -- it is by Jennifer Block, who is designated as an investigations reporter. But is it consistent with your understanding that the British Medical Journal is perceived as one of the premiere medical journals in the world?

A. It's certainly a high impact, reputable journal. I wouldn't qualify it further than that.

Q. Well, if somebody testified that it was

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viewed as one of the world's premiere medical journals, would you disagree with that?

A. I think I have given you my opinion on what this journal means to me as a physician. I don't have anything else to say about it.

Q. Let me ask you to turn to the fifth page. The numbers are small type down at the lower right-hand corner. And the third full paragraph begins, "For minors." Do you see that?

A. I do.

Q. And there, it reads "For minors, WPATH contends that the evidence is so limited that a systematic review regarding outcomes of treatment in adolescents is not possible. But Guyatt counters" -- that's G-U-Y-A-T-T -- "that systematic reviews are always possible, even if few or no studies meet the eligibility criteria. If an entity has made a recommendation without one, he says, they'd be violating standards of trustworthy guidelines." Do you see that?

A. Mm-hmm.

Q. Do you agree with Dr. Guyatt, who we've mentioned earlier, the guidelines that are not based on a systematic review of the relevant literature do not comply with standards for

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trustworthy guidelines?

A. What I'm reading on the page is a little different from how you're presenting it to me as a summary. It's a truncated quote. And I'm not sure in the context with which it's being attributed to this individual, it doesn't appear to be citing any peer-reviewed research that this individual has produced.

Q. Do you believe that you or Dr. Guyatt are better informed about the definition and principles of evidence-based medicine?

A. I don't understand the question.

MR. BROOKS: Read it back, please.

(THE REPORTER READ THE RECORD)

A. I'm not sure I have any evidence upon which to compare my knowledge to somebody who I -- I have never met, and I think I'll leave it there.

Q. Is it outside your knowledge that Dr. Guyatt is considered one of the founders of the field of evidence-based medicine?

A. I am unsure who specifically considers Dr. Guyatt to be considered a founder of evidence-based medicine. I would need to understand that further.

Q. And o you know or not know whether Dr.

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Guyatt has written an entire textbook that's widely used on evidence-based medicine?

A. I know that he's written textbooks on evidence-based medicine. I have read several textbooks on evidence-based medicine. And in my training on evidence-based medicine, I received education from several leaders in clinical research. And Public Health resourced a wide variety of educational documents on the topic. And they were not all written by the same person.

Q. At the very last paragraph, let me just ask, there's a mention also of a Dr. Helfand, H-E-L-F-A-N-D, who I'll represent to you that he's a professor of Medicine and Medical Informatics with the Oregon Health and Science University.

Let me just ask, have you heard his name, do you know anything about his reputation?

A. I have never heard of him.

Q. Okay. I won't rest anything oh that. And the final paragraph of this article reads -- the final paragraph on page 5, not the final paragraph, I apologize.

A. I see.

Q. "Calling a treatment recommendation evidence-based should mean that a treatment or

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guideline has not just been systematically studied, says Helfand, but that there was also a finding of high quality evidence supporting its use.

Now, my question for you is is it consistent, do you agree or disagree, with the proposition that in order for a guideline to be considered evidence-based, it should be based on high quality evidence?

A. The way that this is written here, what you just read me doesn't seem to be a quotation.

Q. That's all right, I'm just asking whether you agree with the proposition.

A. It might be a summary.

Q. Let me ask you a question in my own words: Do you agree or disagree that in order to be considered an evidence-based guideline, or an evidence-based recommendation, that that guideline or recommendation should be based on what is deemed high quality evidence according to principles of evidence-based medicine?

A. High quality evidence often refers to evidence derived from randomized controlled trials. And the vast majority of medical practice is informed by evidence that is not derived from

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randomized controlled trials. Vast majority of medical practice is informed by evidence derived from observational studies. Which puts us, according to the way the grade working group defines "evidence," not often in the realm of high quality evidence.

So I take this sentence that you read to me earlier to be a summary of something that a journalist interpolated from a quote. And I have good reason to disagree, that the majority of evidence-based guidelines are supported by high quality evidence.

MS. LEVI: I apologize, can we just take a very quick break?

MR. BROOKS: I'm in favor.

(R E C E S S)

BY MR. BROOKS:

Q. Let me ask you to look at your expert report, Exhibit 4. Turn to page 2. And there, in your Roman I heading, you assert that "Transitioning medications are safe and effective." Do you see that language?

A. I do.

Q. And is it your testimony that using puberty blockers to block natural, healthy puberty for a

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period of years in a child who's suffering no genetic defect or precocious puberty is known to medical science to be safe?

A. When accounting for the known adverse effects, the benefits of treatment, and the risks of treatment, it is my opinion that the use of puberty-blocking medications and treatment of gender dysphoria is safe.

Q. And is it your view that no responsible medical expert could say that it is presently unknown in important respects whether such use is safe?

(The reporter asked for clarification)

Q. Is it your testimony that no responsible medical expert could be of the view that it is presently unknown in important respects whether such use is safe?

A. I would need to know what important respects were being considered to proceed with answering your question.

Q. Well, is it your testimony that no responsible medical expert could be of the view that it is presently unknown whether the use of puberty blockers for an extended period of years in a child suffering no genetic defect or

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precocious puberty is safe with respect to neurodevelopment?

A. There are quite a few qualifiers and double negatives in there. I need to hear the question again.

(THE REPORTER READ THE RECORD)

A. I would need to know what was meant by "some years" in order to answer that question.

Q. Let's say three.

THE DEPONENT: I need the question back because of our interruption.

(THE REPORTER READ THE RECORD)

A. If someone were to express that view, it would be proper and correct to engage in a discussion with them about why they hold those views, and to review relevant literature pertinent to this specific issue.

Q. Are you aware that multiple European health authorities have now published statements to the effect that it is not known yet whether administration of puberty blockers for multiple years to children suffering from no genetic defect or precocious puberty is safe?

A. I am aware that some European countries have performed evidence reviews on that topic.

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Q. Are you unaware that they have made formal statements now that it is not yet known whether such treatments are safe?
A. I did not cite statements from other countries in any of my reports. And I would need to review them in detail to comment on their contents.
Q. As you sit here today, are you aware of whether or not some European health authorities have issued statements to the effect that it is unknown at present whether use of puberty blockers to treat gender dysphoria is safe?
A. I would need to specifically review the reports that those countries have produced, look at their methodology for making those statements, and then I would be able to answer your question.
Q. And are you telling me that you have not, either in your normal professional capacity or your preparation to provide expert testimony to the court in this case, you have not taken the time or the trouble to familiarize yourself with those recent European statements?
A. I don't know what statements specifically you're referring to. Specific details would help so I'm sure that we're talking about the same

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thing.
Q. Have you read Dr. Katz's interim report published for the National Health Service?
A. Yes, I have.
Q. Have you read the very recently published policy statements from the National Health Service?
A. Not in its entirety.
MR. BROOKS: Let me ask the reporter to mark as Exhibit 22, a document from NHS England titled "Clinical Policy Puberty Suppressing Hormones For Children and Young People Who Have Gender Incongruence/Gender Dysphoria," dated March 12, 2024.
(DEFENDANT'S EXHIBIT 22 FOR IDENTIFICATION Received and Marked.)
Q. Dr. McNamara, this document is both very recent, March 12th, and very short. Is it your testimony that prior to now, you have not read this two-page document?
A. I don't think I read this specific document.
Q. Well, it's just out. Let me ask you this: On the third page, the last line of the text states "We have concluded that there is not enough evidence to support the safety or clinical

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effectiveness of PSH to make the treatment routinely available at this time." And PSH is defined in the beginning of the document as "puberty suppressing hormones."
My question is this: Is it your testimony, do you intend to testify to the court that only a science denier could conclude that as of March 2024, there is not enough evidence to support the safety or clinical effectiveness of puberty suppression as a treatment for gender dysphoria?
MS. LEVI: Object as to form.
THE DEPONENT: Can I have the question back?
(THE REPORTER READ THE RECORD)
A. I am aware of multiple studies in the literature that show that puberty suppression is one effective treatment for youth suffering from gender dysphoria. And that statement does not -- that is my testimony. I'll leave it there.
Q. You're aware of -- you have reviewed the systematic reviews commissioned for the National Health Service of England, so-called Cass review, put out by their NICE organization; correct?
A. I have seen those reviews.
Q. And you're aware that when it comes to

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efficacy and benefit, those reviews conclude that all available evidence is of very low quality?
A. I am aware that as you described, that is a conclusion of that document.
Q. And you disagree with their evaluation of that evidence, am I correct?
A. I have seen instances of studies that they assessed, being assessed using the same methodology, and the authors come up with different results.
Q. And in your view, is that the sort of evaluation on which reasonable experts could disagree?
A. I would say that using an evidence assessment tool that is subjective and can be user dependent, is likely to lead to discrepant assessment.
Q. Now, backing up, do you intend to tell the court that only a science denier could conclude that as of March of 2024, there's not enough evidence to support the safety or clinical effectiveness of puberty suppressing hormones as a treatment for gender dysphoria?
MS. LEVI: Object as to form.
THE DEPONENT: Can I have the question

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back?
(THE REPORTER READ THE RECORD)
A. I would say that the available literature to date demonstrates both short term and medium term beneficial impact of puberty-suppressing medications as a treatment for gender dysphoria.
Q. And is it your expert opinion that any medical professional who disagrees with you about that must be denying the relevant science?
MS. LEVI: Object as to form.
A. It is my expert opinion that a careful assessment of all of the literature would yield the conclusion that in the short or medium term, puberty-suppressing medications confer benefit to youth with gender dysphoria if they qualify for, desire and receive them in accordance with the standard of care outlined by WPATH and the clinical practice guidelines outlined by the Endocrine Society.
Q. And therefore, it's your opinion that anybody who disagrees with you on that is simply denying the relevant science, or do you believe that's an issue on which reasonable scientists can differ?
MS. LEVI: Object as to form.

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THE DEPONENT: I'll take the question again, please.
(THE REPORTER READ THE RECORD)
A. I don't have a opinion on that.
Q. Do you know whether the Endocrine Society has anywhere taken an official position or indeed stated in the guidelines that the use of puberty blockers as a treatment for gender dysphoria is, quote, safe?
A. The Endocrine Society undertook a thorough inventory of the evidence on this issue. They sourced available studies at the time the guidelines were developed. And they issued a recommendation regarding the use of puberty-blocking medications for youth with gender dysphoria. I would need to refer to the specific guidelines to pull out the language, but I can tell you without doing so that their process undertook a consideration of the safety of that medication.
Q. Well, let's pull that out and see what they said about what they learned about safety through that process that you mention.
Exhibit 6, let me ask you to turn page 3874 in the Endocrine Society Guidelines. Towards the

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bottom of the first column is a paragraph, about two inches from the bottom, that begins "In the future." Find that for me, if you would.
A. Yes.
Q. It reads "In the future, we need more rigorous evaluations of the effectiveness and safety of endocrine and surgical protocols." And it goes on to call specifically for a careful assessment of "the effects of prolonged delay of puberty in adolescents on bone health, gonadal function, and the brain, including effects on cognitive, emotional, social and sexual development." Do you see that language?
A. Yes, I am reading this paragraph with you.
Q. All right. And you understand the reference to gonadal function to be a reference to fertility, right?
A. Yes.
Q. So what the Endocrine Society says here about safety is that we need more rigorous evaluations of the safety of puberty blockers with respect to -- let me start again.
What the Endocrine Society said here is that we needs more rigorous evaluations of the safety of endocrine treatments and in particular, with

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respect to the prolonged delay of puberty in adolescents on health issues, including those we've been discussing today; that is, fertility, brain development, sexual development; correct?
A. So this paragraph does not pertain explicitly to puberty-blocking medications.
Q. It does, if I may. The language I read five lines in refers specifically to the effects of prolonged delay of puberty in adolescents.
A. Okay, I suppose we're inferring from that --
Q. It's a complicated sentence, I grant you. But I'd like to focus on the call for a careful assessment of the following. And item one is, "the effects of prolonged delay of puberty in adolescents on bone health, gonadal function, and the brain." Correct?
A. That's correct, that's what it says.
Q. That is a reference to potential adverse effects of puberty blockade; correct?
A. That's correct.
Q. And what the Endocrine Society says is we need careful assessment of those potential adverse effects; correct?
A. They don't refer to them as adverse effects. They refer to them as effects.

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Q. Well, you would agree that any negative impact on brain development would be adverse, would you not?
A. I don't see discussion of negative impacts on brain development here.
Q. Dr. McNamara, this paragraph begins with a reference to safety. Do you believe that the Endocrine Society means, as you read this, to refer to positive impact?
A. I'm just reading the words on the page.
Q. Is that all? You don't think you understand it? Let me ask a question.
It's correct, is it not, that what the Endocrine Society says about safety in this paragraph, among other things, is that we need more careful assessment of the effect of puberty blockade in adolescents on bone health, gonadal function, and the brain?
A. They're saying that they need more rigorous evaluations of effectiveness and safety of the current protocols.
Q. And you agree with that, do you not?
A. In general, I would always agree with the pursuit of even more rigorous research.
Q. Insofar as you're aware, nowhere in the

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guidelines does the Endocrine Society tell the reader that the prolonged delay of puberty in adolescents is safe?
A. We would need to turn to the section, the section in this document, that discusses puberty blockade further.
Q. Well, before you said in your Expert Report that puberty blockade is safe. Did you not carefully review the Endocrine Society Guidelines to see whether the Endocrine Society thinks it safe?
A. I certainly did. And if we're going to discuss it in depth today, it would be best to move to that section of this document.
Q. And which section is it that you have in mind? Probably have 2.3 in mind, if I may.
A. The entire section of 2.0, as it begins on page 3880, would be good to consider on this topic.
Q. Well, I'll ask you this, due to shortness of time. 2.3 is the recommendation that says "where indicated, GnRH" -- that is, puberty suppression -- should be used "to suppress pubertal hormones," correct?
A. If pubertal suppression is being considered,

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a GnRH analog would be the proper medication to consider.
Q. And in the discussion that follows, there is a section headed "Side Effects" on the next page. Do you see that?
A. Yes.
Q. And there, in the discussion of what they refer to as primary risks of pubertal suppression, the Endocrine Society lists first, compromised fertility; and second, unknown effects on brain development. Am I right?
A. That's correct, that's what it says.
Q. And then a few lines down, they go on to say that a recent study also suggested suboptimal bone mineral accrual; correct?
A. "Initial data on gender dysphoric gender-incongruent subjects demonstrated no change of absolute Areal BMD during two years of GnRH analog therapy, but a decrease in bone mineral density Z scores."
So what that means is that that particular study --
Q. As you recall, is that the Klink study?
A. No.
Q. That's perhaps a more recent study, all

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right.
A. This particular study analyzes mineral density by using Z scores. Z scores of bone mineral density are a statistical comparison to age-matched controls. But there are no controls for interpopulation differences. And it is well known that youth with gender dysphoria deal with, unfortunately, certain naturalistic risk factors for lower bone mineral density.
Q. We're just speaking of risk factors, rather than causation, what the -- the third risk identified here, under the section "Side Effects" of puberty blockers by the Endocrine Society, is simply they point to a study that suggested suboptimal bone minimal accrual during puberty blockade treatment; correct?
A. That's correct.
Q. And they identify risk to fertility, risk to brain development, risk to bone accrual.
My question for you is, so far as you recall -- we're not going to look through the whole document. I just want to ask if you recall today, does the Endocrine Society anywhere in these guidelines assert that prolonged pubertal suppression, that is, for a period let's say of

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three or more years, to treat gender dysphoria in adolescents is, to quote the term you use in your Expert Report, safe?
A. In making the recommendation to offer puberty blockade to youth gender dysphoria, the Endocrine Society accounted for the safety profile and the risks and benefits of treating versus not treating.
Q. Well, to say that they accounted for it is not to say that it's safe. It's to say that they performed some balancing of potential harms against potential benefits, correct?
A. To me -- and it's my word that I use in my report, safe. To me, a consideration of safety requires balancing.
Q. That is balancing of potential harms versus potential benefits.
A. And the harms of treating versus not treating.
Q. Yes. Okay. Let me ask to you to find the SOC-8 again. And if you turn to page 47, it, in the first column, more than halfway down, begins a paragraph "Providers may consider."
A. I'm with you.
Q. And there, WPATH authors write "Providers

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may consider the possibility an adolescent may regret gender-affirming decisions made during adolescence, and a young person will want to stop treatment and return to living in the birth-assigned gender role in the future." Correct?
A. That's what it says.
Q. They go on to cite certain studies the WPATH believes show that the likelihood of that is low; am I correct?
A. That's correct.
Q. But then they say, "At present, no clinical cohort studies have reported on profiles of adolescents who regret their initial decision or detransition after irreversible affirming treatment. Recent research indicates there are adolescents who detransition." Do you see that?
A. Yes.
Q. And at the top of the next page, it states "Some adolescents may regret the steps they have taken."
Now, let me ask you, in using the word "regret" to describe the feelings of these individuals who undergo medical transition as adolescents and later change their view of

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their -- wish they had not go through those procedures, do you believe that WPATH was using harmful terminology?
A. What terminology specifically are you referring to?
Q. "Regret."
A. I don't associate any harm with that word.
Q. And similarly, when WPATH states that there are adolescents who detransition, do you have any objection to the use of the word "detransition" to describe an individual's return to identifying with his or her natal sex?
A. I prefer birth sex re-identification because it's more specific and it tells you what it means.
Q. Do you consider the term detransition to be misleading in any way?
A. I consider it to be somewhat ambiguous.
Q. What is the nature of the ambiguity you're concerned about?
A. It's hard to describe ambiguity.
Q. Well, you can point to some possible incorrect interpretation of it. Is there some way in which you believe that term is misleading?
A. I believe that it could describe many different experiences or phenomena that may not

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necessarily be related. And that is where the ambiguity, in my mind, stems from.
Q. The WPATH authors in column two, about an inch and half down, write "Providers should be prepared to support adolescents who detransition."
Do you agree that it's important that providers support adolescents who choose to detransition?
A. I believe that providers should support all adolescents in all areas of their life. And that includes agreeing with this sentence.
Q. And you've described earlier that Yale has a multidisciplinary approach to providing care for minors with gender dysphoria, correct?
A. That's correct.
Q. And would you agree that providers, including mental health providers, should support adolescents who detransition?
A. Yes, I do agree.
Q. And farther down in that, at the very end of that paragraph, the authors write "Many of them" -- referring to -- well, to use their term, detransitioning minors -- Many of them expressed difficulties finding help during their detransition process and reported their

detransition was an isolating experience during which they did not receive either sufficient or appropriate support." Do you see that?
A. I do see that.
Q. And as a pediatrician and clinician, does it cause you concern that as WPATH reports here, minors who have detransitioned have experienced difficulty in finding support from professionals?
A. I don't read this as saying that these patients were unable to find support from professionals. It's more general than that. And I would need to source the study that they cite to learn more. And I will say that there are likely many different reasons why such an individual may experience challenges in receiving sufficient or appropriate support.
MS. LEVI: I just want to get a time check.
MR. BROOKS: I suspect that's it, right?
(DISCUSSION HELD OFF THE RECORD)
MR. BROOKS: Thank you for your time. See you in Birmingham. Why that has to be in August is another question.
MS. LEVI: I do have a couple questions, --

MR. BROOKS: Yes, ma'am.
MS. LEVI: -- if I may. Do you need a minute?
THE DEPONENT: I'm ready.
MS. LEVI: I also want to give the attorney from the United States an opportunity if they want to ask some questions. So can we just take two minutes to figure out what we're going to do?
MR. BROOKS: Of course, yes.
(R E C E S S)
CROSS-EXAMINATION
BY MS. LEVI:
Q. I have one question for you. Has anything that you heard or read today changed your expert opinion regarding the safety and efficacy of gender transition medications for adolescents diagnosed with gender dysphoria?
A. No.
MS. LEVI: I have nothing further.
THE DEPONENT: Thank you.
MS. LEVI: Coty, are you there?
MS. MONTAG: I'm here, but no questions from the United States.
MS. LEVI: Okay. I think we're off the

record and concluded.
THE REPORTER: Could I just get clarification on transcripts?
MS. MONTAG: Yes, and I put my email and title and DOJ info in that chat.
(WHEREUPON, the deposition was concluded at 5:22 p.m.)

WITNESS INDEX

DEFENDANT'S EXHIBIT INDEX

C E R T I F I C A T E

I hereby certify that I am a Notary Public in and for the State of Connecticut duly commissioned and qualified to administer oaths. I further certify that the deponent named in the foregoing deposition was by me duly sworn and thereupon testified as appears in the foregoing deposition; that said deposition was taken by me stenographically in the presence of counsel and transcribed by means of computer-aided transcription by the undersigned, and the foregoing is a true and accurate transcript of the testimony.

I further certify that I am neither of counsel nor attorney to either of the parties to said suit, nor of either counsel in said suit, nor related to or employed by any of the parties or counsel to said suit, nor am I interested in the outcome of said cause.

Witness my hand and seal as Notary Public this 26th day of March, 2024.

NOTARY PUBLIC

My commission expires: 11/30/2027