UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF INDIANA INDIANAPOLIS DIVISION CASE NO. 1:23-cv-00595-JPH-KMB

K.C., et al.,

Plaintiffs, )

-vs
THE INDIVIDUAL MEMBERS OF THE )
MEDICAL LICENSING BOARD OF INDIANA, in their official capacities, et al.,

Defendants.)

The videoconference deposition upon oral examination of JAMES M. CANTOR, PH.D., a witness produced and sworn before me, Dana S. Miller, RPR, CRR, a Notary Public in and for the County of Boone, State of Indiana, taken on behalf of the Plaintiffs, appearing remotely from Ontario, Canada, on the 7th day of June, 2023, commencing at 9:35 a.m. pursuant to the Federal Rules of Civil Procedure.

CIRCLE CITY REPORTING
135 North Pennsylvania
Suite 1720
Indianapolis, IN 46204
(317) 635-7857

K.C., et al. VS

The Individual Members of the Medical Licensing Board

JAMES M. CANTOR, PH.D. June 7, 2023

Page 4 1 APPEARANCES Pursuant to the Indiana Supreme Court Case 20S-MS-236 2 FOR THE PLAINTIFFS: Chase Strangio, Esq.
AMERICAN CIVIL LIBERTIES UNION signed March 31, 2020, 2 3 125 Broad Street 19th Floor 3 JAMES M. CANTOR, PH.D., having been first 4 New York, NY 1000 cstrangio@aclu.org 4 duly sworn or affirmed to tell the truth, the whole truth 5 andand nothing but the truth relating to said -and-Gavin M. Rose, Esq. Stevie J. Pactor, Esq. ACLU OF INDIANA 1031 East Washington Street Indianapolis, IN 46202 grose@aclu-in.org 5 6 matter, was examined and testified as follows: 6 7 DIRECT EXAMINATION 7 8 **QUESTIONS BY CHASE STRANGIO:** 8 spactor@aclu-in.org 9 Q Good morning, Dr. Cantor. How are you today? John D. Ramer, Esq. COOPER & KIRK PLLC 1523 New Hampshire Ave. Washington, D.C. 200 jramer@cooperkirk.com 10 FOR THE DEFENDANTS: A I'm good. Thank you. 10 20036 11 Q My name is Chase Strangio. I am a lawyer with the 11 12 12 ACLU representing the plaintiffs in this case. And 13 I'll be asking you some questions today. 13 Chad Blackwelder Charlie Ferguson Brandon Splitter ALSO PRESENT: 14 As I mentioned, there are also some law 14 15 Bailey Steinhauer Andrew Shaw student interns sitting in, as well as my 15 colleagues, Gavin Rose and Stevie Pactor, from the 16 16 Shay Storz Mylene Laughlin ACLU of Indiana. 17 17 MODERATOR: Joel Scherer Can you start by just stating your full name 18 18 Circle City Reporting for the record, please. 19 19 INDEX OF EXAMINATION 20 A I'm Dr. James Michael Cantor, C-A-N-T-O-R. 20 PAGES 21 Q And you've had your deposition taken before; yes? 21 DIRECT EXAMINATION A Yes, I have. 22 22 QUESTIONS BY CHASE STRANGIO Q So you, generally speaking, know how this process 23 23 goes? 24 24 25 A Yes, I do. 25 Page 3 1 INDEX O F EXHIBITS 1 Q Okay. Still going to run through a few of the PAGES 2 ground rules just to make sure we're on the same Plaintiff(s) Deposition Exhibit No(s).: 3 3 page. Expert Report of James M. Cantor, Ph.D. .....18 4 4 So as you know, there's a court reporter here. 5 5 When answering my question, I ask that you respond 

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 6 6 verbally out loud so that Dana can hear you. And 7 9-10 - (Not used) 7 to please wait for me to finish asking my question James Cantor Tweet 8 before you begin your response. Does that sound 8 9 9 okay? 10 10 A Yep. 11 O And if you don't understand my question, which is 12 very possible, please let me know and I can try to 12 13 word it differently. Is that okay? 13 14 14 A Yep. 15 Q And if you do answer my question, I will assume 15 that you understood it. Does that make sense? 16 16 A I understand, yep. 17 17 18 Q And are you feeling okay today? 18 19 A Yes, I am. Thank you. 19 Q Okay. And are you on any medication that would 20 impair your ability to truthfully and accurately 21 21 22 answer my questions? 22 23 A No, I am not. 23 24 Q And is there any reason you don't feel able to give 24 complete and truthful testimony today? 25 25

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- 1 A Nope.
- 2 Q Okay. Great. I think we can get started. And, as
- you know, at any point if you need to take a break,
- 4 please let me know. I imagine we'll also break for
- lunch at some point. But if -- the only thing I 5
- ask is to just answer the question we're discussing 6
- before we break.
- A I understand. 8
- O All right. So just starting with a little
- background. You have been retained by the 10
- 11 defendants as an expert in this case; is that right? 12
- A Yes, I have. 13

19

- Q And how did you come to be retained as an expert in 14 15
- A Oh, goodness. I'm involved in several very similar 16 cases. And it's difficult for me to remember 17 exactly which one -- which way I got what e-mail 18 from who for which case.
- So I could speak in general, I don't -- as I 20 say, I don't remember exactly how the first e-mail 21 started, "Hi, Dr. Cantor, I was referred to you 22
- from," but it was essentially along those lines. 23
- O So someone in the State of -- someone at the State 24 25 of Indiana Attorney General's Office contacted you

- Montana, Arizona, Florida, Texas, Tennessee. And,
- 2 again, without checking my list, I'm very probably
- leaving one or two out.
- 4 Q And Oklahoma?
- 5 A Yes. Thank you.
- 6 Q So that's in addition -- including -- excuse me.
- 7 Including Indiana, that's one, two, three,
- four -- at least eight states currently in cases 8
- involving similar issues to the one here? 9
- 10 A Yes, that sounds about right.
- 11 Q And just so we're grounded in this case, are you
- aware that this case concerns an Indiana law called 12 13
  - Senate Enrolled Act 480?
- 14 A Yes, I am.
- Q And when this law was pending in the Indiana 15 legislature, did you take a public position on the 16 17
- 18 A No. The only testimony I had, and the only interest I've ever had, really, is in the content 19
- of the science. 20
- So whenever I'm asked by the media, you know, 21
- 22 representatives in any state or any country, 23 members of the public, random e-mails I get, I'm
- always happy to share whatever I can about the 24
  - science, but -- oh, and if somebody asks me a

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25

- and you didn't contact them; is that right?
- A Yes, that's correct.
- 3 Q And do you remember who that was?
- 4 A As I say, because several of these offices often
- involve, you know, several different people, I 5
- 6 can't remember exactly which e-mail came from which
- 7 without going through my own e-mails to see who
- said -- who came in at what point in the 8
- conversation.
- **10** Q And do you remember approximately when that was?
- A Within the past four or five months, I think. 11
- 12 Again, as I say, there's a cluster of them. I'm
- not good on people's names to begin with. 13
- So I hesitate to, again, without checking 14
- through my own e-mails, but it was roughly in 15 that -- within the past couple of months. But 16
- without checking my e-mails, I can't be --17
- O Understood. 18
- A I know better than to depend on my memory when 19
- there are several very similar things all standing 20 next to each other. 21
- Q Understood. You said you were an expert in similar 22
- cases currently. What cases are those? 23
- A On my CV, I listed all of the current cases. The 24 states themselves would be Kentucky, Indiana, 25

- particular opinion about it, I'm perfectly happy to 1 show, you know, whatever points -- where the 2 science seems to contradict or match up with any 3 given proposal.
- But I haven't in this state, and I don't think 5 in any state, given any particular support or 6
- 7 detraction from any particular proposal. The only
- one I can think of where I did, I was specifically 8
- 9 invited to come and appear in Ontario, none in the U.S. 10
- Q So did you testify in support of Senate Enrolled 11 12 Act 480?
- 13 A No, I did not.
- 14 Q Have you ever spoken with a member of the Indiana 15 legislature about Senate Enrolled Act 480?
- 16 A No, I haven't.
- Q Did you speak with anyone about Senate Enrolled Act 17 480 while it was pending? 18
- A Not in any kind of professional capacity. But with 19
- so many states and so many conversations just 20 amongst my colleagues and friends, I can't say that 21
- I've never had a comment about it in general. But 22
- 23 I've never taken any public stance or given any,
- you know, public commentary on any of the -- on any 24 specific proposal. 25

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- 1 I tend very specifically -- I do my best very specifically to speak, again, just to the science 2
- 3 and to the general ideas and what ideas in general
- 4 match what -- or fail to match up with whatever
- point in the science.
- Q Understood. So have you -- other than the Ontario
- example, have you ever testified in any state 7
- legislature in the United States over pending 8
- legislation concerning transgender people or the 9
- treatment of gender dysphoria? 10
- A No, I have not. 11
- Q What did you do to prepare for your deposition 12 13
- 14 A Lots and lots of re-reading. I re-read, of course,
- the case files that I had, my comments, my 15
- responses to the other experts who submitted 16
- declarations. Re-read my own CV in case those 17
- relevant questions are asked. And I'm always 18
- keeping up with the literature, so there's always 19
- something I need to read, re-read. 20
- 21 Q You mentioned your case files. What are those?
- 22 A Oh, no, I meant because I'm involved in several
- different of the legal cases, in order to help me, 23
- you know, as much as possible keep straight which 24
- 25 one is which, pardon the pun, just keeping track of

- a set of bills that I would describe more generally
- as free speech bills, under what circumstances, you 2
- 3 know, what person has a -- that somebody's comments
- 4 which others are offended by, you know, to what
- extent the actual content of their comments 5
- actually line up with what the science and what the 6
- evidence itself has. I would say roughly those 7
- three main clusters. 8
- 9 Q So you --
- 10 A Oh, and I should add -- I'm sorry --
- 11 detransitioners. Now there are groups of
- detransitioners who are taking actions against 12 13
  - their clinics and care providers.
- 14 O So you're currently serving as an expert in cases
- involving medical care, athletics, what you explain 15
- as free speech and detransition. Is that a fair 16
- summary? 17
- **18** A Yes. My hesitation really is that my involvement
- in all of them is the same regardless of the 19
- application to which it's being put, the question 20
- is to me or I'm a scientist --21
- 22 Q Understood.
- 23 A -- and, as I say I, I will tell anybody of any
- political angle or view whatever I can about the 24
- 25 existing science. What we know, what we don't know

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- which ones are involving which subset of issues and
- in what order things are happening, just to, again, 2
- 2 keep my -- help me, as best as my aging memory can, 3
- which one is which.
- Q So when you say your case files, you mean your
- files for this particular case?
- A Yes. 7

- 8 Q And did you meet --
- A Well, I shouldn't say this particular case, but 9
- they're in clusters. And so, it helps me, you 10
- know, keep a cognitive map of what's going in which 11
- direction. 12
- But by case files, I don't mean patient cases. 13
- I mean the various set of legal cases and the 14 various, you know, documentation that's available 15
- for each one. And some of the cases pertain to 16
- events that happened years ago and what was -- what 17
- the state of the science was at the particular time 18 19
- So, again, keeping track of a rough timeline 20
- of what was available to whom and when. 21 O So what is the cluster that this case would fall 22
- 23 in?
- 24 A Oh, bans to medicalized transition of minors. The
- other clusters are the athletics-related bills and 25

- and how to interpret science and the scientific 1 method.
- So those are the clusters, the topics to which 3
- that information is being put. But the information 4
- from me is the same regardless of who and how it's 5
- 6 being put.
- 7 Q So just to simplify, you are offering your
- scientific opinion in cases involving medical care,
- 9 athletics, free speech and detransition; is that
- right? 10
- 11 A Yes. I'd say that's a fair way to put it, sure.
- 12 Q And did you meet with counsel in preparation for
- 13 today's deposition?
- 14 A Yes, I did.
- 15 Q How many times?
- 16 A Once.
- 17 Q And for how long?
- 18 A A full day, a long day.
- 19 Q So you met with counsel for one long day?
- 20 A Yes. Everything else has been mostly
- organizational e-mails, a few short Zoom calls. 21
- But specifically aimed at preparation for today was 22
- 23 one full day.
- **24** Q What were the few short Zoom calls?
- 25 A Oh, again, reviewing the documents that have been

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- 1 submitted, you know, the basic process, the 2 context.
- 3 Q Yes, I would only -- so I didn't know if you
- meant -- is that part of your meeting with counsel,
- or is that a separate part of your preparation? I
- don't need to know what you did with counsel.
- A Oh, yeah, the e-mails and Zoom calls were 7
- background kinds of organization. The only
- preparation specifically for today was the one full 9
- day pre-prep -- or prep. 10
- 11 Q And who was present for that prep meeting?
- A John Ramer and Roger Brooks. 12
- O Roger Brooks from ADF?
- 14 A Correct.

21

22

- Q Is ADF involved in this case? 15
- A I don't know the details of the arrangements, but the sequence of events was the first substantive 17
- 18 case that I was involved in for which I was
- preparing a sizeable review of the scientific
- 19
- 20 literature was a case in Alabama.
  - After that preliminary hearing -- preliminary injunction hearing, Alabama, the state, then again
- 23 I want to use the word retained, but I don't know
- if that's actually the proper arrangement, but they 24
- 25 then began to -- they took on Roger Brooks in order

you know, at least indirectly involved because of his experience through all of it. You know, many

3 people take his input and advice, you know, very 4 seriously.

MR. RAMER: Yeah, sorry, I'll just -- I'm going to object and instruct the witness not to answer about the substance of conversations, obviously, with me as counsel in Indiana and Roger Brooks who is counsel in Alabama, subject to the

protections there and also the common interest privilege and protections here, so --

MR. STRANGIO: Yes, understood. Not trying in any way to get at the substance of what was talked about, just who was there.

MR. RAMER: Right.

BY MR. STRANGIO:

- Q Is Roger Brooks often present for your deposition 17 18 preps subsequent to your involvement in Alabama?
- A This was the only one. And he wasn't involved in 19 20 the prep for Alabama. He became involved after the preliminary injunction hearing. 21
- 22 Q Got it. Do you have a relationship with ADF?
- 23 A No.
- 24 Q Did you speak with anyone other than your counsel 25 and Roger Brooks about your testimony today?

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1 A Not other than in any logistical sense.

- 2 Q What do you mean by logistical sense?
- 3 A Making sure that I had a quiet place in order to
- be, clearing out my calendar for the day. You know, just old-fashioned logistical kind of, oh, 5
- this is happening.
- Q Understood. And you talked about reviewing case 7 documents and your report and the other expert 8

9 reports in this case.

Any other documents that you recall reviewing 10 in anticipation of today's deposition? 11

- 12 A Not specific documents, no.
- 13 Q Okay. And is there anything with you on your desk 14 in front of you at the moment?
- 15 A I cleared my desk. I gave myself a blank pad of paper in case I need it, a clean copy of my report 16 itself. But I didn't have time to print out a copy 17
- of my CV in case there was something I needed in 18
- reference to that. Other than that, it's coffee 19
- and water. 20
- 21 Q Understood. Okay. So the only printed document is your clean copy of your report in this case. So 22 when we talk about that, you will have it in front 23
- of you; is that correct? 24
- 25 A Exactly, yes.

to help them coordinate the subsequent features --1

- not features, events, processing of that case --
- 3 Q Does Roger --
- 4 A -- and --
- Q Sorry. Go ahead. You can continue.
- A Then several other states, as I say, with very, very similar cases going on, same questions, same
- needs, also wanted to retain me. 8
- 9 They similarly began to coordinate with Alabama in order to, you know, minimize, overlap, 10
- you know, maximize the efficiency between each of 11 the cases. They signed common interest agreements
- 12 with each other. 13
- So Roger then, in turn, became involved in 14 helping to coordinate, you know, these -- they're 15 not coordinated cases in any way that I'm aware of, 16
- 17 but in order to help, you know, streamline
- everything, there is an amount of, you know, trying 18 to use the best resources available across each of 19
- these various states and each of the people 20 available to them. 21
- MR. RAMER: Yeah, and --22
- 23 A All of that to say I'm not aware of a direct relationship between Roger Brooks and Indiana, but 24
- through this set of coordinations, he is therefore, 25

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- 1 Q Great. Thank you for doing that, spare us some of
- the difficulties of the electronics. 2
- A I don't know even if Lieutenant Uhura could have 3 handled this much paper.
- Q All right. Well, we will just jump right in, then.
- So I want to start by just marking a few exhibits,
- just for ease as we go along, starting with your 7
- declaration in this case. 8
- MR. STRANGIO: So, Joel, if you can go ahead 9 and pull up what's premarked as Exhibit 1, that 10 would be great. 11
- BY MR. STRANGIO: 12
- Q And that's what, Dr. Cantor, you have in front of 13 you, I gather. 14
- Doctor, do you -- oh, wow, maybe I can 15
- actually move this -- do you recognize this 16 document, Doctor? 17
- A Yes, I do. It looks like the declaration submitted for this case. 19
- 20 Q And you understand this to be a true and accurate
- copy of the declaration that you submitted in this 21
- case? 22
- 23 A As best I can see, yes.
- Q I can go down to the list of appendices, the 24
- bibliography. So, yes, it does appear to be that?

- 1 else has, you know, had any input to it, but
- everybody who has had input, it's been on that same 2
- 3 kind of basic back-and-forth, make sure it's clear.
- 4 And what I can only describe as formatting things in the opposite way than we do in science. 5
- In science, I'm accustomed to here's what we 6
- 7
- know. Here's the project I did, and here are our conclusions. Where legal documents tend to be 8
- organized in the opposite order. Here is my
- 9 conclusion, then I'll get to subsequently the 10
- 11 backup for how I got there.
- 12 Q Other than the various legal teams involved in all of the cases where you're currently serving as an 13
- expert, did you discuss the contents of this with 14
- anyone else? 15
- A Outside of that, no, not that I recall. 16
- Q And did you discuss the contents of your 17
- 18 declaration with the other experts retained by the
- defendants in this case? 19
- 20 A No, I did not.
- Q Does this declaration represent a complete 21
- statement of the opinions you intend to provide in 22 23
  - this matter?
- A Yes, it does, which isn't to say, you know, if 24
- 25 asked a question about something else in the

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- 1 A As best as I can tell, yes.
- Q And who wrote this declaration?
- з A I did.
- 4 Q Anyone help you?
- 5 A No. Again, the legal team, you know, did some
- proofreading, gave me heads-up with some formatting
- issues. The American Foreign Law Association uses 7
- a different bibliography method than I'm accustomed 8
- 9 to. In my profession, we use the APA standards.
- 10 So, as I said, you know, technical details like that. 11
- Q And did you discuss this declaration with anyone? 12
- A Again, with the legal team to help ensure the 13
- topics that needed coverage would be included. 14
- O Anyone else? 15
- A Not specifically that I can recall. As I say, 16
- 17 because I'm involved in several cases, and the
- science that they need input on is the same 18
- 19 science, using the same basic report updated, you
- know, as necessary, and, again, with feedback from 20
- the various groups in order -- various parties to 21
- make sure -- sometimes just a clarification of a 22
- 23 sentence or to ensure that it includes the
- information that they need it to include. 24
- So I don't want to say blanketly that nobody 25

- research that I happened not to have covered in my 1
- report, or if somebody presents an argument making 2
- an error in scientific thinking, you know, other 3
- information can become relevant. But this is -- it 4
- summarizes my intention of everything I plan to be 5
- able -- I plan to be expressing.
- Q So up until -- up to the point of today, this
- represents a complete statement of the opinions you
  - intend to provide?
- 10 A Yes, that is correct.
- O Are you aware of any inaccuracies in the 11
- declaration that you submitted in this case? 12
- 13 A No, other than, as I say, I found missing half of a 14 pair of parentheses, because the editor in me.
- Again, as soon as I submit something, that's 15
- exactly when I find a typo. 16
- 17 Q Yes, I understand this. Anything you would --
- other than the parentheses, anything you would like 18 to amend or correct in the declaration you 19
- submitted in this case? 20
- 21 A No. I found no factual or content error.
- MR. STRANGIO: And let's go ahead, Joel, and 22 23 pull up what's premarked as Exhibit 2.
- BY MR. STRANGIO: 24
- 25 Q And just for your awareness, Doctor, this is going

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- to be your CV. Do you recognize this document?
- 2 A Yes, I do. It looks like my CV.
- Q And is this a current and complete version of your
- CV, 32 pages?
- 5 A The only -- and there's -- yes, it's complete, with
- the caveat that I would have updated it with any
- additional cases that I've become involved with.
- Q So the only thing that might be missing from this 8
- 9 would be the addition of cases in which you've
- become involved as an expert witness; is that 10 right? 11
- 12 A Yes, to the best of my recollection. I don't think
- there's been anything else that's changed since I 13
- submitted it. 14

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- 15 Q So in 2022, you testified at a hearing in Alabama
- in a case concerning a law similar to SEA 480; is 16 that right? 17
- A Yes, that is correct. 18
- MR. STRANGIO: And let's, Joel, go ahead and 19 pull up what's premarked as Exhibit 3. 20
- BY MR. STRANGIO: 21
- Q And, Dr. Cantor, at the time this was the case 22
- called Eknes-Tucker; is that correct?
- A Yes, that's my memory of it.
- 25 Q Doctor, does this appear to be a copy of your

- 1 research is itself such a highly interdisciplinary
- field, saying one is a sex researcher describes the 2
- questions that we're pursuing and the kind of 3
- 4 issues we're investigating, but within that one could be anything from a psychologist to a 5
- neuroscientist, an epidemiologist. It doesn't 6 7 refer to the academic field referring to the tools

that we use in order to address those questions. 8 9

So I usually would use a phrase like sex researcher or sexual behavior scientist in order to indicate the kind of questions in which I've spent my career investigating.

- Q And when you say sex researcher, what are you 13 referring to with respect to sex? 14
- 15 A Well, over the course of my career, I've handled, you know, many, many different kinds of questions. 16

In general, because I have a more technical background than most other sex researchers do, I've been able to apply, you know, much more sophisticated tools for doing those investigations.

For example, a lot of studies including, you know, many of the studies that the public are most aware of, really involve interviewing people or surveys or questionnaires or other relatively simple, relatively straightforward methods, but

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testimony from that hearing? You can take a close

- 3 A As best as I can tell, that's what it looks like.
- The sentences that jump out at me match the -match what I recall. 5
- Q And did you testify truthfully in that hearing? 7 A Yes, I did.
- Q Great. So that's all I have to premark for now. 8
- 9 So let's go back to your CV, which is Exhibit 2.
- MR. STRANGIO: If you could, Joel. Thanks. 10 BY MR. STRANGIO: 11
- Q And before we have that in front of us, in 12
- paragraph 1 of your declaration in this case, you 13
- describe yourself as a sexual behavior scientist. 14
- What is that? 15
- A That's a good question. It is a relatively small 16
- field in numbers of people. Because of the import 17 of the issues to so many people in so many 18
- circumstances, it is like a very, very highly 19
- followed field. 20
- I say that only because there isn't a very 21 simple universally-agreed-upon term, like if I said 22
- 23 I were an epidemiologist or endocrinologist or something, very many of us would simply refer to 24
- ourselves as sex researchers. But because sex 25

they don't answer questions in the kind of way that have a great deal of weight.

For example, you know, is somebody born gay, or does somebody, you know, become gay is a question that very often comes down to, you know, some very technical, very biological studies. But because so many people who themselves call themselves sex researchers are just interviewing people, they just get a pile of what everybody thinks the answer should be.

So as I say, when I use the term, I'm refer -when I use the term to describe myself, I'm refer -- using sexual behavior scientist because I'm investigating, you know, the motivations and the basis behind or supporting people's sexual behaviors, but I don't want to limit it technically to behaviors either.

For example, if there's somebody who's uncomfortable or trying to deal with being gay living in a straight world, you know, some of the questions are, "Doc, why am I different from other people?" Well, we're not talking about his behavior. We're not talking about some -- yeah, doing therapy with somebody in order to help them, you know, gain the self-confidence that they need

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in order to live a happy gay life.

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But for the research itself, again, now we're talking more, you know, fundamental -- I don't know if I want to say traditional kinds of science, but we're applying the tools to sexual behaviors or sexual desires, sexual experiences, sexual intents, sexual fantasies, masturbatory fantasies.

Some of these, you know, are not visible behaviors, although they, you know -- some of these don't reflect external behaviors. They reflect, you know, what we infer to be internal states. And there is no one-to-one correspondence between external observable, objective characteristics and what people report being their internal experiences. That's especially true for people whose sexual interests are, you know, something that's stigmatized. They hide it, feel like they need to hide it. They hide it in different ways from different people in different circumstances, including to the themselves.

- 21 Q And what is your current job?
- 22 A I'm in private practice.
- 23 Q What kind of private practice?
- 24 A It's in clinical psychology as a clinical
- psychologist. My hesitation is, of course, as

1 Q Yeah, that's --

- 2 A -- or used in a therapy kind of role --
- 3 Q What percentage of your week is spent seeing
- 4 patients as a clinical psychologist?
- 5 A Roughly 20 percent of my time.
- 6 Q And what percentage of your time is spent serving
- 7 as an expert witness?
- 8 A Roughly 80 percent, two-thirds of my time.
- 9 Q And are you regularly compensated \$400 an hour for your expert witness time?
- 11 A I am now, yes.
- 12 Q And approximately how many hours per week do you spend serving as an expert witness?
- Although I'm now doing it, I'll say,
- professionally, I'm still a scientist at heart. My thinking is still what my thinking always is, I want to know the right answer. I'm just genuinely curious, and I want to know how all of this stuff works.

So I will, for example, be posed a question which, you know, whatever lawyer has about whatever particular person's situation or case. I'll spend whatever, half an hour answering an e-mail or supplying whatever materials back up whatever the

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these cases became, you know, more and more
 frequent, it's now a larger and larger proportion
 of my time.
 The majority of my career, as my CV says, is

The majority of my career, as my CV says, is as a full-time scientist and member of the medical faculty. When I left CAMH, it was to go into private practice. And then as these various cases, again, came to -- started coming up, I was devoting more and more time to the cases.

So I'm in private practice and continue to see patients, but a larger portion of my time, again, is in consultation, expert witness testimony, and in summarizing the existing science for the needs of the various cases.

- Q So let's take each piece separately. What
   percentage of your time currently would you say is
   occupied by your private practice?
- 18 A I guess my question is a little bit different if we're talking about corporate structure versus hours per week.

So far as the accountants are concerned, you know, everything I do is part of my private practice. If one means by private practice, you

know, one-to-one therapy and seeing patients in a traditional clinical psychology kind of role --

answer to their question is, but that then leads to, oh, wait a -- that leads me to start thinking about if that's true, wouldn't that mean. And now I'm reorganizing my own notes, and I'm, you know, reading and catching up on, you know, some obscure statistic that was used in whatever set of analyses.

And I'm, you know, now spending several hours -- I don't know if self-educating is exactly the right term, but scratching the itch of my own curiosity for which, you know, I became a scientist in the first place. And then later in the week I will get another e-mail from another person in an unrelated case asking a similar question, and I can now give them a more fulsome answer.

So I still only, you know, spent a limited amount of time working with either particular case, but I will have spent several hours, you know, investigating, thinking about and forming my own thoughts about whatever a given issue is.

- Q So understanding that it's combined somewhat across
   cases, how many hours, approximately, per week
   would you say you spend serving as an expert
   witness?
- 25 A Typically, over the past few months, perhaps the

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- past year, actually, might be a better guideline, over the past year anywhere from just two or three
- hours in bookkeeping and miscellaneous, you know, 3 4
  - admin tasks up through full-time, up through 40ish hours, as an average, 10 to 15.

But, again, with the caveat that it runs anywhere from practically zero for a long period of time to, you know, almost obsessive because the -some deadline is approaching with very little notice, or I got caught up with, you know, my own curiosity just leading me to that much more reading and thinking.

- Q Understood. And so, you said for the past year it 13 could range from anywhere between zero, two to 14 three hours, up to full-time. Did I get that 15 right? 16
- A Yes, that would be about right. 17
- Q And over the past year, about how much of your income would you say derived from serving as an 19 20 expert witness?

MR. RAMER: Objection to the form. 21

- A So if I'm remembering today's process correctly, I 22 do still answer a question even though there's an
- objection in a deposition, even though --24
- 25 Q Yes, sorry. Yes.

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to begin your private practice, when was that?

- 2 A In 2017.
- 3 Q And before 2017, what was your job?
- 4 A I was a senior scientist at one of the large
- psychiatric teaching hospitals -- well, the largest psychiatric teaching hospital up here in Canada, in 6
- Toronto, called the Centre for -- now called The
- Centre for Addiction and Mental Health.
- 9 Q And when you were at the -- when you were a senior scientist at that centre prior to 2017, did you 10 11 have a clinical practice?
- 12 A No, other than in the last year of it, as I was preparing to leave it, I was, you know, building 13 my -- I was sewing together my parachute before I 14 15 jumped.
- 16 Q And in that role as a senior scientist at The Centre for Addiction and Mental Health, what were 17 18 your responsibilities?
- A They changed over the course of time. And as my 19 career advanced with them -- again, also as my CV 20 indicates, I began there as an intern the final 21 year of my doctoral studies, then a postdoctoral 22 fellow and so on progressing up the pretty 23 traditional ladder for academic researchers. 24 25
  - My duties as a senior scientist then were I

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- 1 A Got it. I'm just checking. Roughly 80 percent.
- Q And on your CV, you're listed as the Director of
- the Toronto Sexuality Centre from 2017 through the 3 present. 4

What is that position? 5

A When I left my hospital appointment, as I say it 6 was to go into private practice. My intent was to 7 begin a sex therapy clinic, which I did with 8 9 several staff people, you know, also clinical psychologists, when I incorporated that group and I 10 began that clinic, I named it the Toronto Sexuality 11 Centre. And the legal designations appear just 12 automatically titled me, therefore, as Director. 13

As time went on and it became apparent -- a bit clearer that a more substantial amount of my own time was going to be involved with legal cases rather than with clinical situations, I rebalanced what was going on in the clinic so that I am essentially just a solo private practitioner, but I still have the name of the clinic as the corporate

- Q So the Toronto Sexuality Centre signifies your 22 23 private practice; is that right?
- A Yes. That's an accurate summary, yes.
- Q And when you say you left your hospital appointment

was in charge of my specific research projects. I was in charge of -- including obtaining the funding in order to, you know, pursue those projects itself.

I was then training and supervising the next line of junior scientists, plus my own students engaged in academic publications for the various studies that I was running. And, also, in its eccentric way as an ambassador to the field itself, I was one of the higher profiled scientists in that institution, largely due to my own, you know, success and standing within my own field.

And because the issues that I was studying are not just attention grabbing, but of the size of legal weight or size of social import where the results were not mere scientific curiosities, they had very, very obvious and very, very important potential implications for public health and public

So my media -- social media, and as I say almost ambassadorial role itself became a large --I don't know if I should call it official or unofficial portion of my career, of my work --24 Q When -- sorry. Continue.

25 A Of my career there.

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- 1 Q And when you say ambassador to the field, what field is that that you're describing?
- 3 A Sex research, several different fields. Again, 4 that's the nature of being part of an interdis--

such an interdisciplinary field.

Part of it was to sex research itself. Part of it was to the field of psychiatry. Even though I was not myself a psychiatrist, I was, you know, a member of the faculty of the Department of Psychiatry in the University of Toronto Medical School.

So helping the public appreciate the role of mental health, mental health research, psychiatry within the public health system, and to help people appreciate the potential benefits of scientifically oriented, evidence-based mental health treatment.

So a chunk, as I say, was to psychiatry. A 17 chunk was to sex research. And a large chunk, as I 18 say, to public welfare and public safety. I was 19 specifically within the law and mental health 20

- program of the -- the abbreviation to the 21 hospital -- again, it was the Center for Addiction 22
- 23 and Mental Health, or C-A-M-H, it's pronounceable
- nickname is CAMH. 24
- 25 Q CAMH. Understood.

- 1 Going back to your clinical practice, your
  - current clinical practice. What is the average age 2
  - of the patients that you see? 3
  - 4 A I don't think -- as we would say in statistics,
  - nothing can mislead as much as the mean group,
  - because you really need to know how dispersed they 6
  - are. If I calculated a number, it would be --
  - Q Do you primarily see adults in your clinical
  - practice?
  - 10 A Yes.
  - 11 Q Do you see any adolescents in your clinical practice? 12
  - 13 A Yes.
  - 14 Q How many?
  - 15 A Oh, goodness. Today I think it's just down to two.
  - As I say, I see very few people of any age, you 16
  - know, currently. 17
  - 18 Q Got it. And so you see about two adolescents. And
  - how many adults? 19
  - 20 A Roughly eight currently.
  - 21 Q And any prepubertal children?
  - 22 A No.
  - 23 Q Has the -- oh, sorry, no. Just one more thing on
  - your CV here. You have psychologist 2004 --24
  - 25 May 2004 to December 2011.

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Page 36

1 A So --

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- 2 Q How -- sorry. Continue, you can.
- 3 A Lost the train -- oh, so because my specific role
- was within their law and mental health program, a
- lot of -- a large chunk of the group for which I 5
- 6 was -- you know, had an ambassadorial role was the
- integration of psychiatry and the law or mental 7
- health and the law. 8
- 9 What are the appropriate ways, what are the most effective ways, what are the most 10
- evidenced-based ways to ensure that people who were 11 engaged in the legal system in various capacities, 12
- how does mental health interact with that. 13
  - So mental health issues not just in consent -capacity to consent, but also people who break the law. People who break the law, you know, during a
- psychotic episode or people who break the law, you 17
- know, as motivated by some mental illness. And 18 19 what's the correct way to get the right resources
- to the right person, not only to help the patient, 20
- but to also protect the health and safety of the 21 people around the patient. 22
- 23 O Understood. I think that's probably a good description of the field and your ambassadorial 24 role. 25

- Were you a clinical psychologist during that 1 period? 2
- 3 A Yes, that's correct. But the term clinical
- psychologist isn't part of the formal title that
- the institution gave. 5
- 6 Q Did you see patients during that period?
- 7 A Yes, I did.
- Q And were the majority of your patients during that
- period adults?
- 10 A Yes, they were.
- 11 O Any adolescents?
- 12 A Yes.
- 13 Q What percentage of your patients during that period were adolescent, would you say? 14
- 15 A Roughly 5 percent, perhaps.
- Q And has the entirety of your professional career as 16 a psychologist been in Canada? 17
- **18** A Predominantly in Canada. I would hesitate to say
- all. The gray part of the line would be I was 19
- still in the U.S. while doing my master's degree. 20
- And I was employed as a research assistant 21
- specifically in neuroscience and in neuropsychology 22
- 23 for several years.

The topics were -- had no direct relationship 24 25

with the topics I study now, but it, of course,

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involved the same kinds of tools that are how to 2 assess somebody's brain health, neuropsychological

functioning, right down to the brain anatomy

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So the tools include several of the tools I still use today, but the topics and the behavioral syndromes that the people were exhibiting are different from the ones I study now. So I --

Q Have you had -- sorry. Go ahead, you can finish.

A So I was employed especially in a research context 10 11 within psychology for a few years in the U.S. before I became Canadian. 12

O Any clinical practice in the United States? 13

A Again, these overlap. The functions I was doing 15 then was to help analyze on the research end information we were gathering from psychological 16 and neuropsychological assessment and clinical 17 assessment. 18

So it was clinical research, whether one counts that as research or clinical reasonably and appropriately checks both boxes. You can't do research -- the kind of research we were doing was based on the clinical work that we were doing. So the same task is legitimately described as both. Q And was that between 1990 and 1992?

1 A That is correct.

2 Q And you have never provided gender-affirming hormone therapy to any individuals?

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4 A That is correct.

5 Q Do you have any formal education or training related to the treatment of gender dysphoria? 6

A Yes. The Canadian training model is different from the American training model, however. So it's 8 9 difficult to compare them one to one.

Also, it's not -- clear is not the right word -- to the extent that people who say that they're offering training models, it's not clear, and I don't want to take for granted that they are legitimate training models.

They are usually a list of information, people give it a title every -- and people in different circumstances or context will accept it as that, but these are not the kind of established, validated testing programs where anybody's, you know, tried to see what kind of outcomes and what the appropriate content of such programs are.

But to get to your question more specifically, the training model used up here in Canada is much more similar to the European models than to the American models. Where the American models, as I

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1 A Yes, that is correct.

Q And going back to your clinical psychology practice

- or work from May of 2004 to December of 2011, you
- said about 5 percent of your practice was 4
- adolescent patients. Any prepubertal children? 5

- Q You're not a medical doctor; correct? 7
- A That is correct.
- Q Not a psychiatrist?
- 10 A That is correct.
- O Not an endocrinologist?
- 12 A That is correct.
- Q Have you ever prescribed puberty blockers to any 13
- individual? 14
- A No, I have not.
- Q Hormone therapy?
- A No, I have not. I'm wondering -- I guess I have a 17 question about your question. 18

How are you using hormone therapy to be 19 different from a specific hormone? To me those 20

are -- one is the subset of the other. 21

- 22 Q Well, do you prescribe medications?
- A No, I do not.
- Q So you've never prescribed puberty blockers to any individual? 25

- say, are, you know, here's a folder with a correct, 1 you know, title and description to it, and here's 2
- the test at the end, that's that, we now call you 3
- qualified, Canadian and European models apply a 4
- much more apprenticeship-oriented model where here 5 6 are the readings, here are the patients. Let's go
- 7 over it all and start talking about it all and
- develop a more comprehensive way of integrating all 8
- 9 of the information, acknowledging all of the unknowns that we have. 10

So, as I say, in Canada we don't have the kind of -- I don't know if credential-oriented is the right description, but, you know, on-paper method which is much more of the American model.

15 O Well, when --

16 A I think there's also --

Q When did you have the Canadian model of formal 17 training related to gender dysphoria? 18

- 19 A I would divide that into two pieces, a clinical portion and the research portion. 20
- Q And when was the clinical portion? 21
- A It was during my internship here. The final year 22
- of my training as a clinical psychologist.
- 24 Q And what year was that?
- 25 A Oh goodness.

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- 1 Q I can look on your --
- 2 A '98/'99, I think it was.
- **3** Q And when was your research module of training?
- 4 A Again, it's hard to nail it down within those terms, because it doesn't fit that kind of a model
- 6 quite -- it doesn't fit that way of thinking about
- 7 how the training works.

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It's not like a plumbing or Calculus 1 where, you know, it's a pretty set, known, widely used set of material where people know what you get in Calculus 1.

A great deal of the relevant research, research methods would have been over the course of my postdoctoral study -- over the course of my postdoctoral studies, which would have been, you know, in the first few years of 2000.

But, again, these -- because of the nature of the model up here, because of the particular places and people that I was training with, there's much more of a blend across clinical and research.

I was in a research science facility in a clinical research program where the difference between clinical work and research is just how good your documentation is. If you see a bunch of people and have a rough memory, and you're only MR. STRANGIO: I'm about to sort of move into
a slightly different section of the CV. Do you
want to take a break, John, for five or --

MR. RAMER: I'd welcome a break, but it's up to Dr. Cantor, if he would welcome one.

THE WITNESS: Oh, more specifically, my coffee's empty. So yes.

MR. STRANGIO: Okay. Let's do five minutes and we'll come back in five. Thanks.

(A recess was taken.)

11 BY MR. STRANGIO:

- Q On your website, Doctor, you describe the main focus of your research as being on the role of the brain and human sexual interests, especially atypical sexualities; is that right?
- 16 A Yes, that sounds right.
- 17 Q So the majority of your work, as you describe it,18 has been focused on what you describe as atypical19 sexualities?
- 20 A That's the best all-encompassing phrase I can think of to capture it quickly, but, yes.
- 22 Q What are atypical sexualities?
- As I say, I use the term specifically to be broad,
  but it's not an official term. To break it down
  into pieces, I would say it breaks down into sexual

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- reflecting on your own recollections of it, you
  know, calling it clinical experience or anecdotal
  evidence, people would accept that as clinical
  work.
  - But if you then write down exactly how many people you saw, exactly how many people ended up with exactly what kind of situation, and you do it in a systematic way, now it's research, even though the functions themselves are the same.
- 10 Q So taking aside the how, this blended process, 11 let's say, occurred between 1998 and the early 12 2000s; is that right?
- 13 A It's correct for timeline. But, again, I don't
  14 mean to be evasive, but to leave enough, you know,
  15 blurriness around the boundaries that there was no
  16 end of -- as of June, you are now qualified or you
  17 are no longer going to be doing any of this after
  18 this semester, none of it was that kind of a
  19 program.

Most training, as I say, is much more an apprentice kind of model where, "Oh, you're good at math. Could you give us a hand with" whoever it is doing whatever kind of a study. And so, now we're studying this kind of sexual or gender behavior instead of that kind of sexual or gender behavior.

orientations other than, you know, predominantheterosexuality.

So it would include, you know, the various homosexualities, bisexualities, more recently people referring to themselves as asexual, some people adopt terms like hypersexual and so on.

For gender identity, you know, of course, it includes identifying originally as male or female. But now people, of course, identifying with, you know -- again, adopting very many different terms, describing it in very many different ways. And, of course, in the group of atypical sexualities that are called the paraphilias.

And, again, there's no concrete objective, clear demarcation for what counts as a paraphilia or not. In general, the phrase is used for people with a sexual interest pattern or sexual interest -- a sexual interest pattern either in people, kinds of people, or in activities that are not merely atypical, not merely statistically unusual, but that they experience that interest pattern as profoundly and as deeply as sexual orientation.

To them, you know, if the thing that they're attracted to is not involved in the situation, it

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- to them is not a sexual situation at all.
- 2 Q Is being transgender an atypical sexuality as you describe it? 3
- 4 A As I describe it, I would include it among -- I would include gender identities and gender
- dysphoria within the term as I use those terms, but 6
- 7 I also have to acknowledge that, again, these are
- not official terms with very specific lines. There 8
- 9 are other people who would use, you know, these

terms in different ways. And as long as we clarify 10 who we're talking about, you know, we can have a 11 perfectly productive conversation. 12

> But I don't want to say, you know, I use the term one way; and, therefore, you know, if somebody else says it counts or it doesn't count that there even is a right or wrong to it. But I use the term because of its breadth in order to include things like gender identity.

> Oh, and also in the atypical sexualities, I would also include the various kinks. And, again, what's a kink versus what's a paraphilia is not very clear. One blends into the others. There are kinksters for whom, you know, if the thing that they're into, yeah, some sexual encounters will include it, others not. But for others if it

1 Q Any research on the mental health outcomes of people with gender dysphoria?

A No. I don't think I've done any direct work on

clinical outcomes. 5 Q On page 10 of your CV, which is up here, I just

want to ask you about a few things. You have here

listed under your "Funding History" a five-year

grant September 2015 entitled "Effects of sex 8 9 hormone treatment on brain development: A magnetic

resonance imaging" -- oh, no, sorry, is someone 10 11 moving this? Okay. Sorry.

MODERATOR: It said you didn't have access to move it. So I was trying to give you control again. I think it's Zoom messing up. Sorry about that.

MR. STRANGIO: Oh, no, it's okay.

THE WITNESS: Oh, we need Lieutenant Uhura 17 18

MR. STRANGIO: I thought it was me.

BY MR. STRANGIO:

20 21 Q I'm going to start that over. So we have here 22 under "Funding History" on your CV a five-year 23 grant from September of 2015, "Effects of sex 24 hormone treatment on brain development: A magnetic 25 resonance imaging study of adolescents with gender

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doesn't include whatever thing it is that they're 1 into, it doesn't count at sex. 2

So it's tough to come up with a -- there's no 3 good objective, definite, uniformly accepted 4 boundary between them. 5

Q And have you done any research relating to transgender people and/or gender dysphoria? 7 MR. RAMER: Objection to the form. 8

9 A I have.

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10 Q What was that research?

11 A I've done research on various relatively technical 12 aspects, including, you know, how to develop, you know, formal questionnaires and the psychometric 13 properties of those questionnaires. 14

> I guess by psychometric I mean the statistical properties of how to form a test in order to make sure that the test is testing what you want it to be testing and not merely just asking the same question over and over again 10 different ways, but not providing 10 different pieces of information.

> I've also done research on the role of the brain and age of puberty and how going through puberty at different ages affects, you know, the course of brain development.

dysphoria."

Do you see where I'm looking?

з A Yes, I do.

4 Q And what is this grant?

5 A It was essentially as it sounds. It was an attempt to investigate what happens -- you know, what

happens in the brain, doesn't happen in the brain. 7

You know, in what patterns does the brain develop 8

9 amongst people who are being treated and receiving

different kinds of treatment, whether medical or 10 nonmedical, over the course of puberty. 11

Q And you were not the principal investigator in 12 13 this -- was it a study?

14 A It was a -- well, is a research grant. And so, it was the request for the government funding in order 15

16 to conduct the study --

17 Q Did the government --18 A -- studies, I should say.

19 Q Did the government provide the funding for this particular research question? 20

21 A Yes, it did.

22 Q And you were not the principal investigator for

23 this grant?

24 A That is correct. That one was done by

Dr. VanderLaan. 25

It was just we all moved on, and that's that --

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well, I moved on, I guess I should say. 2

- 3 Q And you're not listed in any of the papers that
- were published as a result of this grant?

5 A That's correct.

6 Q And there's a second grant listed at the top. That is from July of 2018 for five years. And this was

"Brain function and connectomics" --8

9 A Connectomics.

10 Q -- "connectomics following sex hormone treatment in 11 adolescents experience gender dysphoria."

> Was this a grant that was also received by your -- by this research team?

14 A Yes.

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15 Q And you were not the principal investigator on this grant? 16

17 A That's correct.

Q Do you remain a co-investigator on this one? 18

19 A The situation is the same. This one, you know, was -- it was awarded in 2018, but, of course, the 20 design and the submission was ahead of that. 21

> My involvement was the same. I was essentially the consultant, you know, helping everybody communicate to each other, helping them figure out, you know, what are the kinds of brain

1 Q What was your role?

2 A Again, I handled the technical parts. I was the --

I don't want to say the expert on brain anatomy, 4 but I was the connective tissue between the, you

know, neuroanatomists and the other sex researchers 5

involved in the project. 6

7 Especially then, I was one of the very few people in the world at that time that had a foot in 8 9 each of those camps and was able to help everybody, you know, coordinate and cross these various fields 10 helping the sex researchers, you know, asking these 11 12 questions, helping them understand how MRI research works. How, you know, brain analysis works. How 13 the statistics are done. Why things are done the 14 way that they're done. The strengths and 15 shortcomings and different methodological 16 principles available -- procedures available to 17 18 them.

As I say, it's a highly, highly interdisciplinary field. And in order to use really these, you know, very, very high-end research techniques, you know, there are only a few people who can at the same time talk to both the sex researchers and the statisticians and the neuroanatomists.

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features they should be looking at as the next

logical steps.

3 Q And in what year did you leave -- or let's just --

I'll rephrase that. 4

In what year did you move on from this 5 6 particular academic position and, therefore, this grant? 7

A I'd have to look through my e-mails to find the 8 9 actual date of my formal letter of resignation from

CAMH, but all of this was happening roughly around 10 2017, 2018. 11

12 Q And so you will not be an author on any of the 13 published findings out of this grant?

14 A I've learned never to say never. It's not my plan and intent, but that isn't to say that if they come 15

to me with, "James, we found, you know, this 16

17 strange thing that we thought you'd find

interesting, or we need your input on, or we ran 18

into some piece of the mathematics we can't figure 19 out," again, I have no -- I'm still a scientist at 20

heart. I still enjoy the material. And I would do 21

my best to try to fit it in. 22

23 Q For the two pieces of grant funding listed in your CV under "Funding History," you don't anticipate 24 25 being involved in the published findings of either

1 Q And this was a grant for a five-year period; is

that right?

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3 A Yes, that's correct.

4 Q Were your findings published?

5 A I hesitate to say mine, because those, of course --

that was before I actually left the academic world.

But, yes, it's been published.

Q And where is it published?

9 A Oh, goodness. I don't remember. I'd have to look it up. 10

11 O Is it in your CV?

12 A No, I didn't participate. As I say, once I left the academic world, then -- I was going to say left 13

the project, but that makes it sound a bit more 14 dramatic than true. 15

I'm, you know, in regular e-mail contact with 16 several of these people and answer questions where 17 I can here and there, but I wasn't dedicating --18

Q But you didn't stay on as a co-investigator on this 19 particular grant? 20

A Yes, in the sense that I didn't have the kind of 21 22 active, ongoing, you know, regular input attending,

23 you know, the weekly meetings and so on. But I --

at the same time, it wouldn't be fair to say that 24 there was some kind of formal resignation process. 25

- of them? 1
- 2 A That's correct.
- Q How were the study participants recruited for these
- two grants?
- A Through the clinics that see kids with gender dysphoria. 6
- Q And do you know approximately how many individuals
- were enrolled in each?
- A No.
- 10 O More than 50?
- 11 A Again, I don't know. There are oftentimes changes
- 12 in design that would have happened, you know, once the project itself got going. 13
- As I say, I'm not involved in the day-to-day 14 running of the project. So I wouldn't be apprised 15 of progress or changes. 16
- Q And how would you describe the study design of 17
- these two grant projects?
- A Case control. 19
- Q And what does that mean? 20
- A A group of people who are undergoing one set of 21
- circumstances and series of brain scans, and we 22
- 23 come up with what's essentially an average brain,
- if it could be called -- average brain image, if 24
- 25 one could be called that. And then compared to

- 1 Q And they also had a diagnosis of gender dysphoria?
- 2 A No, these would be -- depending on the question,
- each of these, again, were grants, you know, that
- 4 were enabling the funding of several different
- research projects all boiling down to neuroimaging, 5
- but it wasn't like the final research paper which 6
- 7 reported a single set of analyses, you know, to answer a specific question. 8

Different parts of the grant were aimed at answering different questions, each using different kinds of methods. Some would compare the gender dysphoric kids to non-dysphoric kids. Some would compare the gender dysphoric kids to their non-dysphoric siblings.

**15** Q Got it.

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- A And in early pilot studies, we would even do it 16
- versus what I can only call stock brains, you know, 17
- 18 there exist large databases, you know, of images
- that have been accumulated over many years, you 19
- know, and are just available as gen -- I hesitate 20
- to use the word generic, but generic-controlled 21
- 22 samples because -- especially because getting MRIs
- 23 on someone is so expensive that if we can get just
- a group of healthy controls that anybody can use, 24
- 25 you know, with socioeconomic status already

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- people as matched on as many variables as we can, 1
- you know -- or they can, I should say, match them 2
- on similarly developed and equivalent average brain 3
- 4 of the control group. And then through an
- exquisitely bizarre set of statistics use what's 5
- 6 more like image analysis than, you know,
- 7 traditional statistics in order to identify
- patterns in the averages of the images and connect 8
- 9 that back to what are those differences in the images and the patterns, you know, tell us about 10
- the structure of the brain itself. 11
- And then in turn, what do those changes in the 12 structure of the brain tell us about the 13
- developmental processes that led to those 14
- differences. 15
- Q And the control groups, were those study-enrolled 16
- participants, or was that a control developed from 17 18
- data of the general population?
- A I'm sorry, could you ask that again? I'm not sure 19 those are different groups. 20
- Q Was the -- were there particular individuals 21
- enrolled in the study who were not receiving 22 23 treatment that represented a control group?
- A The control group would be people not receiving any 24 kind of gender-related treatment, yes. 25

- reported and controlled and age already reported 1 and controlled that they, you know, can be used as 2
- a generic set of -- a generic control sample for 3
- 4 just about any study. Typically that would be done
- early in development -- early in the development of 5
- a study.
- Q But for these particular studies, you had at least 7
- two variables, one of which was experiencing gender 9 dysphoria and one of which was receiving sex
- 10 hormone treatment?
- A My hesitation is a quibble in that, you know, those 11
- are not necessarily separate variables, you know, 12 so they wouldn't get chopped apart so easily. But 13
- the issues, the features, you know, being 14
- investigated sometimes were the gender dysphoria 15
- itself and sometimes were the effects of the 16 medications and treatments that they were receiving 17
- or potentially receiving. 18
- Q But your controls neither had gender dysphoria, nor 19 were receiving sex hormone treatment? 20
- 21 A That's my recollection of the plan, yes.
- 22 Q Okay.
- 23 A As I say, my involvement was in the design of -was in the grant application which proposed the 24
- design of the studies. And it's not unusual for, 25

you know, studies to need to be adjusted according 2 to whatever's going on, you know, once the feet hit the laboratory ground. 3

4 So I couldn't say that, you know, as the studies were conducted and after my involvement was 5 completed, I'll say, I can't speak to the current 6 7 status of the programs and whether any changes were

- made, but the original plan was to do it as we 8 9 described.
- O So going back to your clinical practice, you're an 10 adult clinical psychologist; is that right? 11
- 12 A Yes, that's correct.
- Q And as we discussed, you currently are treating approximately 10 patients in your private practice? 14
- 15 A Yes.
- Q Are any of those patients transgender? 16
- A They're not. No one is transgender in the way that 17 most of the public uses the term currently. But,
- as I say, especially the public use the term in 19
- relatively vague ways that don't always match up 20 21
- But I do have one at the moment for whom 22 23 identity issues in general are a topic of their concern but -- a topic of their concern. So it 24
- with the science.
- 25 really would depend on to whom I'm talking and in

- Page 60
- 1 A For being a formal clinician for cases, that number sounds about right, yes.
- Q And that was the number you gave in your testimony 4 in Alabama in May of 2022. So has that changed 5 since then?
- MR. RAMER: Objection to the form. 6
- 7 A No, I don't think there's been anybody else in that age range since that time. 8
- O Have you ever diagnosed a child with gender dysphoria? 10
- 11 A No. Diagnosis, of course, is a subset of clinical activities. So it's the same -- it's within the 12 same boundaries. 13
- Q Since you've never treated a child, you've never 14 15 diagnosed a child with gender dysphoria it would be 16 fair to say?
- 17 A That is it exactly. Lovely when logic lines up.
- 18 O It's rare.
- 19 A A rare pleasure we can call it.
- 20 Q Have you ever diagnosed an adolescent with gender dysphoria? 21
- 22 A Not that I recall.
- 23 O Have you ever monitored an adolescent patient with
- 24 gender dysphoria who was being treated with hormone
- 25 therapy?

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- what context would this person's situation count is 1 a legitimate question. And it depends on how 2 people are using whatever terms and whatever ideas. 3
- So if somebody, you know, gave me a 4 description or said, you know, is this a person 5
- 6 concerned with this, you know, we could say yes or
- no. But whether the person, you know, counts as 7 gender dysphoric, counts as transsexual and so on 8
- depends on how the person is using those terms.
- 10 Q Is that person an adult?
- 11
- 12 Q And you have never treated a prepubertal
- transgender child; is that right? 13
- A Yes, that is correct. 14
- MR. RAMER: Objection to the form. 15
- Q And you've never treated a transgender adolescent 16 under the age of 16; is that correct? 17
- A Yes, that's correct. 18
- Q Have you treated anyone under the age of 16?
- A No, I have not. 20
- Q And as I understand from previous testimony, the 21
- 22 extent of your clinical experience with transgender
- 23 adolescents has been providing counseling to eight transgender patients between the ages of 16 and 18 24
- in your career; is that right? 25

- **1** A That would depend on what one means by monitored.
- I wouldn't have followed such a person or monitored
- their medical treatment, for example. You know, 3
- looking out for or interviewing regarding, you 4
- know, physical side effects, that would have been 5 6 done by one of the physicians on the person's
  - clinical care team.
- 8 But I would have been involved in, you know,
- 9 progress and effects and so on on the person's
- mental health status and development while they 10 were undergoing physical transition. 11
- Q Well, you would have. Were you ever involved? 12
- A I was involved in such cases, yes. I meant 13
- hypothetically to be the different hypothetical --14
  - to be the different ways to interpret the question,
- not my role in the case. 16
- Q So that would have been with the eight patients 17 that you have seen between the ages of 16 and 18,
- 19
- some of those patients were on hormone therapy?
- 20 A Yes, that's correct.
- Q And how were you monitoring their well-being on 21 22
- hormone therapy?
- 23 A Oh, regular mental health assessment. As people were going through, you know, transition, you know, 24
- 25 part of that, you know, during the clinical

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1 standards, especially of that time, you know, checking in regularly with their -- with 2

psychologists and mental health professionals, you know, was part of the process.

So it was a combination of reviewing the various documents such as from schools and

employers where relevant. And a lot of it, of course, face-to-face interviews and with the

clients themselves. 9

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10 O And when was this?

11 A This would have been over the course of my -- while I was at CAMH for my internship and a few years 12

after -- several years after.

Q Can you give me those particular range of years? 14

A Oh, 1998 through probably roughly 2005. 15

Q So you have -- since 2005, have you provided 16 clinical treatment to any transgender adolescent? 17 18

MR. RAMER: Objection to the form.

A Of the eightish, a small -- twoish, perhaps, were 19 between 2005 and today. 20

Q And when was the most recent adolescent patient 21 with gender dysphoria that you saw as a clinical 22 23 psychologist?

A Three years ago, four years ago. Again, depending 24 on, you know, who counts which way, there are 25

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when I see these people, this is what I do, as I

say. I'm relying on the evidence itself, not my, 2

you know, personal anecdotal experience with them. 3

Q And for the eight patients that you saw as a clinical psychologist, what was the nature of the counseling that you provided? 6

7 A The nature of the therapy and counseling with them really depended on whatever it was that was going 8 on in their lives. 9

The research demonstrates that the people who do best are the ones who have -- who are able to navigate and who have the support in order to navigate typical, I'll say, life stretches and developmental courses.

So for many of these people, it was dealing with usual, you know, what do I do with my life, or I'm upset about or I'm having difficulty finding educational experiences or friendship groups or, you know, significant others.

So they were often -- I don't want to use the word generic, but they were, you know, very similar issues to what, you know, other people attending therapy would be experiencing. But the potential role that these other indicators had was greater for most of these people because they had

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people who come in periodically for -- to check in 1 or catch up or somebody is now later experiencing, 2

you know, an unrelated issue, but because they know 3

who I am and we have a developed relationship, you 4

know, we can continue consultation or therapy or 5 6 whatever's appropriate, or there will be somebody,

again, not currently concerned with a

gender-related issue, but had gender-related issues earlier in their lives.

So it's integrated as part of a comprehensive assessment in getting to know the person, but not necessarily the topic that brings them into therapy to begin with or brings them into therapy to see me specifically.

Q So just to summarize, in your career you have seen approximately eight transgender adolescents as a 16 17 clinical psychiat -- excuse me.

In the course of your career, you've seen approximately eight transgender adolescents between the ages of 16 and 18, six of those were between 1998 and 2005?

MR. RAMER: Objection to the form.

23 A That sounds basically correct, yes. My, you know, knowledge and expertise and the material, of 24 course, is about the science itself, not in the --25

additional stressors to be going through; and, therefore, needed that much more strength in order to be able to handle the stresses that accompany transition.

So the content of the therapy with them usually would be the same content as with anyone else, but there were -- there was for many of these people more on the line, for a lot of people a decision, for example, about what -- in the U.S. you say college, in Canada we say university -- in decisions about what university to attend would be attached to social engagements, social opportunities. The pressure on somebody who, of course, is not just gender dysphoria, sexual orientation often can have a similar impact, being in urban versus rural environments, conservative versus liberal environments. There's more on the line for somebody -- for youth experiencing gender dysphoria in planning or undergoing transition.

So the particular issues are the same. I'm sorry, I'm repeating myself, but the circumstance and context in which they're doing it is more complicated or there's more involved in it.

So it's often very useful for them to double-check their thinking or to receive, you

- know, feedback from somebody who's, you know,
- 2 familiar with and experienced with, you know, other
- people going through similar issues. 3
- 4 Q So in some sense, you are providing to these eight
- adolescent patients counseling comparable to what you would provide to other patients? 6
- A Predominantly. For some people it was specific 7
- questions or curiosities or questions or their own 8
- 9 concerns about transitions, possibilities of
- transitions, possible futures for them. But they 10
- were not defined by their gender dysphoria or trans 11
- status. They had all the regular issues that, you 12
- know, very many youth have. 13
- Q I want to talk for a minute about your appearance 14 in other cases as an expert. So I'm going to just 15 go right down to this last page here. 16
- I'm trying to think, you mentioned a few 17 states that aren't listed here at the beginning. 18
- So I guess my first question is: To the best of 19
- your recollection, is this a complete list of the 20
- cases in which you have been retained as an expert 21 22
- 23 A No. I think there have been some new ones since
- then. 24
- 25 Q Can you tell me what those ones are?

old expression, dot and tittle. People used to dot

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- the "I" and cross the "T." Turns out that there 2
- are words for those. The dot over the "I" is 3
- 4 called the jot, and the cross on the "T" is called
- Q So that is where we are with respect to that. Understood. 7
- Among these cases listed, can you tell me 8 which ones you were deposed in?
- 10 A The Indiana case, A.M. versus. I would have to 11 check my notes for BPJ.
- 12 Q Anything else you recall?
- 13 A No, not that I recall, because several of the
- cases -- well, a little less than half now were 14 15
  - Frye hearings, they don't involve depositions.
- 16 Q Those are the criminal cases -- or, sorry, civil commitment cases? 17
- 18 A Yes. Again, I wasn't involved in the civil
- commitment itself. I was involved in the Frye 19
- 20 hearing which, you know, was going to then get used
- in the -- the questions to those were whether the 21
- person was subject to civil commitment in the first 22
- 23 place, hence the Frye hearing in order to
- investigate the scientific issues to decide whether 24
- 25 the civil commitment regulations pertained at all.

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- 1 A I'm looking over, because on my bookshelf I have a
- three-ring binder for each one, because that's my
- 3 list.
- Q Why don't we do this, because you said -- is one 4
- additional case Kentucky?
- A Yes.
- Q Is one additional case Montana? 7
- A Yes. My hesitation with that is that it's going to
- 9 happen. They sent me the contract, but I haven't
- 10 signed it and returned it yet. But by the end of
- business tomorrow, the answer will be ves. 11
- Q Okay. So let's just say there's two or three 12
- others that are in the works in which you have not 13
- yet necessarily submitted any form of testimony. 14
- Is that accurate?
- A Again, perhaps I'm quibbling on the phrasing, but 16
- for submitting testimony for Kentucky, I submitted 17
- my declaration 48 hours ago, I think. 18
- 19 Q Okay. Understood. And for Montana, you have not
- submitted anything yet? 20
- 21 A Correct. As I say, that -- you know, we're all
- 22 anticipating it about to happen. And I would not
- 23 be at all surprised if you're even more familiar
- with my deadlines on this one than I am. But it 24
- hasn't -- I'm waiting for the -- there's a funny 25

- 1 Q So let's -- we'll say -- we will continue to update
- as your testimony changes in these various cases
- and call it an ongoing process. Does that sound 3
- fair? 4

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- 5 A That, yes, indeed sounds fair. As I say, the
- 6 nature of these particular set of cases, it's, you
- 7 know, me versus various combinations of, you know,
- people from the AR office versus various subsets 8
- 9 of, you know, the same group of experts.

So it's, as I say, a rather bizarre, I don't know if I can say unusual, but eccentric, novel

- Q Well, going back to the cases involving transgender 13 people, did you ever reach out and offer yourself 14
  - as an expert in any of those cases?
- 16 A No, they all came to me.

situation.

- Q And one of the cases you have listed here on your 17
- CV, No. 5, is Dekker, et al. v. Florida Agency for 18
- 19 Health Care Administration. Do you see that?
- 20 A Yeah.
- 21 Q What was the nature of your involvement in that 22
- 23 A They needed a -- well, my basic involvement was the
- same as with the other cases. They needed, you 24
- 25 know, to know what the science said and, you know,

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- what the -- and feedback on the experts -- what the
- 2 other experts have written and then, you know,
- comparing their claims against the content of the 3
- 4 scientific literature again.
- So the basic content of my involvement in that 5
- case was exactly the same as my involvement with 6
- 7 each of the cases, is here are a bunch of claims, which ones match up with the science. 8
- O And you wrote a declaration in that case? 9
- A Yes. 10
- Q But you were not called to testify at trial in 11
- Dekker; is that right? 12
- A That's my recollection, yes. I don't think it's 13
- gone to trial yet. 14
- 15 Q I can represent to you that it has gone to trial.
- So --16
- A Oh, okay. 17
- Q -- if you haven't -- if you didn't testify there, I
- gather you didn't testify at that particular trial. 19
- 20 A That would make sense. My amnesia gets me, but not
- that bad. 21
- Q So, yes, you did not unknowingly testify at the 22
- Dekker trial we're going to say.
- A I almost want to say, can I testify in my sleep? 24
- 25 Does that happen?

- you know, comments are about the science itself.
- So I included -- what I included were the 2
- 3 systematic reviews that were available, all of the,
- 4 you know, comprehensive systematic reviews that 5

were available. 6

- And so, the countries that I mentioned are the countries that have used them, that have engaged in them, but I haven't -- didn't attempt to make a
- review of the political policy orientations of any 9 countries -- well, set of countries. 10
- 11 Q So England, Finland, Sweden, France and Norway are the only countries that have done systematic 12
- reviews of the evidence with respect to the 13 treatment of adolescents with gender dysphoria? 14
- 15 A That I am aware of. France didn't conduct its own.
- They conducted a review, but not the -- but not a 16 systematic review of the original research. 17
- 18 Q Then why did you include France?
- A They conducted a non -- a review, but not a formal 19 systematic review of the evidence as they were, you 20
- know, evaluating their own set -- oh, actually, 21 22 that would be a better way of phrasing it.
- 23 That I included the countries that have, you know, engaged in reviews of their policies, but, of 24 25 course, the ones that I deal with, you know, in its

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- 1 Q I mean, you're the psychologist.
- A Perfect answer.
- **3** Q And, yeah, so that was my only question on Dekker.
- So in your declaration in this case, you write
- about the practices of a selection of your European 5
- 6 countries with respect to treatment of adolescents
- with gender dysphoria; is that right? 7
- A Yes. 8

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- 9 MR. STRANGIO: And, Joel, could we pull up Exhibit 1, which is Dr. Cantor's declaration in 10
- this case. I think I am -- am I in control? 11
- That's a great question, but --12
- THE WITNESS: Is this another you're the 13 psychologist? 14

MR. STRANGIO: Yeah, I'm about to start asking

- for advice over here, but for now I think I can 16 actually use this Zoom mechanism. 17
- BY MR. STRANGIO: 18
- Q Okay. So you do not provide a comprehensive 19
- summary of all the practices of country -- excuse 20
- me, you do not provide a comprehensive summary of 21
- the practices of all of the countries in Europe; is 22 23 that correct?
- 24 A Correct. Again, my content was not about the, you know, political situation, policy situation. My, 25

- own section emphasizing are, of course, the 1
- systematic -- the ones that conducted systematic 2
- reviews. 3
- **4 Q** So there are no other countries in Europe that have
- engaged in reviews of their own policies other than 5
- 6 these five countries?
- 7 A I don't think I can claim negative in that I
- haven't looked at every single country that did. 8
- 9 Essentially these are the ones who have done it,
- who have conducted the kinds of reviews and then, 10 you know, made conclusions and asserted policies on 11
  - the basis of those reviews.
  - But I couldn't say that no other country has done it more than feasible -- it's theoretically possible, especially because they don't all publish everything in English, it's certainly possible that others have that I haven't become aware of.
- 17 O But these were the ones that did reviews and came 18 to conclusions with respect to the evidence similar 19
- to your own? 20 21 A Well, the ones that I reviewed, the ones that I included would -- included their conclusions, 22
- 23 period. They happened to have come to the same
- conclusions about the science that I've come to 24 25
  - about the science, but there was no -- I wouldn't,

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access.

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- in fact I would work very hard to avoid, you know,
- 2 the kind of cherrypicking where I would only cite,
- 3 you know, or pick the ones who come to a particular
- 4 conclusion in any direction.

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- 5 Q But you're just not sure whether there are other6 countries in Europe that have done different7 reviews?
  - MR. RAMER: Objection to the form.
- 9 A Again, I haven't attempted a country-by-country
   search, you know, each in their various languages
   to see if there's something that's been less
   publicized or less internationally released.

So I can't say with any kind of certainty that none exist, but these are the -- so I can't say that none exist. I can only say that I'm not aware of any.

- 17 Q So you didn't do a systematic review of all of the countries' policies?
- 19 A Of countries' policies, correct.
- 20 Q On page 7, paragraph 16, you write here at the
- bottom -- towards the bottom of paragraph 16
- speaking about the European policies, "These range
- from medical advisories to outright bans on the
- transition of minors." Did I read that correctly?

  A Those sounds like my words. I'm just squinting to
  - Page 75

II OI

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- 1 take the --
- 2 Q Yeah, here we go.
- MR. RAMER: And, Doctor, you have your -- am I correct you have your blank printout as well?
  - Chase, is it okay if he consults that?
- MR. STRANGIO: Yes, absolutely. I was about to get my reading glasses, but I also made it larger if that's helpful.
- 9 A Both are good, as I say. And here's my three-ring10 binder for this one.
- 11 Q So, again, we're in paragraph 16, page 7. "These range from medical advisories to outright bans on
- range from medical advisories to outright bar the medical transition of minors."
- 14 A Yes

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- 15 Q Which of the countries that you identified in your
- declaration have outright bans on the medical
- transition of minors?
- **18** A The UK, Sweden, Finland. Am I forgetting somebody?
- 19 Q So is it your opinion --
- 20 A Yes, those three.
- 21 Q It's your opinion that the UK, Finland and Sweden
- have outright bans on the medical transition of
- 23 minors?
- 24 A People can certainly quibble over the definition of
- ban, but they have essentially, you know, reversed

- course from the wide availability that they had
- 2 restricting it only to specific formal approved,
  - you know, research studies.
- 4 Q So you consider accessing treatment in a formal
   5 approved research study to be an outright ban on medical transition?

MR. RAMER: Objection to the form.

A There's something funny embedded in that question.
That one is that they are restricted to research studies which in turn select only particular people under particular circumstances -- in particular circumstances when they fit the -- whatever the inclusion criteria are for the study. I don't think it would be accurate to refer to that as

It's not access. You know, what they would be participating in, what they would be volunteering for is participation in a research study as a research subject, which is in turn medically supervised and so on, which is -- again, especially in countries -- this is one of the main distinctions between the U.S. and the rest of the world is that, you know, it's a public healthcare system. Access means access.

And, you know, so participating in or

volunteering for studies that involve, you know,

2 physical transition is not part of the you go to a

doctor and you show your health card and you get

access. That's -- as I said, that term does not
accurately depict their situation.

- 6 Q We're not talking about access. We're talking about --
- 8 A I'm sorry, I thought you used the word.
- 9 Q -- outright bans on the medical transition of10 minors.

So my question was: Do you consider enrolling -- limiting treatment to a research study to be an outright ban on the medical transition of minors?

MR. RAMER: Objection to the form.

A Again, the use of the word treatment has some assumptions built into it that don't very accurately fit.

What the results of the systematic reviews of the science and, you know, to the best of my reading the science itself, says is that these are not ready to be called treatments. These are experiments. We're not sure when, for whom, under what circumstances and in which way, you know, these kind -- these interventions are helpful

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versus harmful and how to weigh the potential risks with the potential benefits.

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It's not yet ready for prime time. To refer to it as a treatment would insinuate at least that, you know, it has already, you know, been subject to the kinds of analyses that we apply in providing evidence-based medicine.

Q Okay. Well, let's ask more specifically. None of 8 the European countries that you mention in your report have restrictions comparable to the one that 10 11 was passed in Indiana; right?

MR. RAMER: Objection to the form.

A Again, it's -- I can tell anybody, to the extent of my knowledge, what the content of the science is. And when I -- and to the extent that, you know, any given, you know, legal proceeding or law is written in lay language that a non-politician, non-lawyer can read, I can, you know, compare it against the content of the science.

The only distinction -- but I can't say that I know the details of all the European various regulations or those particular states within the U.S. The only distinction I'm aware of is whether research purposes are permitted exemption within the ban. But I don't think it would be legitimate

1 And research programs have not been initiated in these places yet. 2

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3 So if a law, you know, permits -- in theory, 4 in the future if somebody else comes up with this thing that doesn't yet exist, the current situation 5 is still such that it's not available, but we're 6 leaving room in the law just in case for the 7 future? 8

It's difficult -- in that circumstance, yes, I think the word ban is including outright ban as a perfectly legitimate descriptor.

- Q So in the UK currently, can an adolescent with 12 gender dysphoria access puberty blockers as part of 13 an approved research protocol? 14
- 15 A That's my -- as I say, I don't study closely the public policies of it. I can testify only to the content -- really only to the content of the science. But the way you describe it is roughly what I recall of their current policy. But I don't think that they have yet designed any such research studies.

So even though it, you know, maintains and reserves the potential, and as best as I can tell the intent in the future to do that, the process today, still for kids today, is that it's going to

be a ban for the moment. 1

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Things may -- as I say, exceptions, you know, they're leaving room for potential exceptions in the future, but they haven't happened yet.

5 Q So in paragraph 16 you talk about the various policies and details about the policies. 6

Is it now your position that you're not qualified to talk about the various policies in these different European countries.

MR. RAMER: Objection to the form.

- 11 A I refer to the content of their reviews of the science. And I, you know, share, re-review their conclusions of the science. And I demonstrate not their policies, but their changes to their policies in response to their evaluations of the science.
- Q But you might not be that familiar with how those 16 reviews are implementing the practice with respect 17 to the delivery of healthcare in these countries. 18 Is that fair? 19

MR. RAMER: Objection to the form.

21 A That's a bit overstated, I think. I haven't taken, and I have no current plans to take thorough -- and I speak as a scientist when I say thorough, I mean almost obsessive -- investigation of the ins and outs of the details. But on a relatively high

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- to say that if there's an exception to it then it's 1 not a ban. 2
- Q So you would call it an outright ban even if it had 3 an exemption? 4
- MR. RAMER: Objection to the form. 5
- A It would depend on the nature of the exception.
- Q So if there was an exception for research, for example, you would call it an outright ban on 8 9 treatment? Sorry, excuse me.

If there was an exception for research, you would call it an outright ban on the medical transition of minors?

MR. RAMER: Objection to the form.

A I would hesitate to make a blanket statement in case -- you know, I can imagine other at least theoretical, you know, reasons that I would or wouldn't call it. But I don't think that having an exception -- for this particular situation, you know, permitting -- again, we're not even talking a particular research study that's ongoing in any of these.

Such laws were -- regulations in Europe were going on despite that there was no research going on. That was one of the, you know, almost ubiquitous criticisms, was the lack of research.

level, I'm generally aware of their application or of applications of science and how it's getting used or misused in public policy.

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But, as I say, I'm not a public policy expert. I haven't, you know, gone into the details of, you know, countries that are changing. I'm only investigating, you know, the individual groups as they are trying to gather the science for the application of their policies.

I think it would be fairer to say that I've spent some time and attention on the use of science in policy -- or the uses of this present body of science in policy, but I haven't studied, you know, policy in and of itself.

15 Q So is it your position that no adolescents with gender dysphoria are currently receiving puberty 16 blockers to treat their gender dysphoria in the UK? 17

A No, that doesn't sound correct to me. Exactly 18

because they're aware -- pardon the pun -- but 19 because their policies are in a transitional 20

21 status, there were, of course, you know, youth who

were already receiving medical transition services. 22

23 And that, as best as I recall, has been

grandfathered in. I don't think that they, you 24

25 know, stopped, you know, anybody who was already review of the science is largely complete.

Q So at least as to individuals who had been 2

previously receiving puberty blockers for gender

4 dysphoria, that treatment -- or, excuse me, that care is ongoing? 5

MR. RAMER: Objection to the form.

7 A My basic recollection is that they didn't cut off 8 from treatment people who were -- medical treatment

9 people who were already receiving medicalized transition services or at least while a minor. 10

11 Q That would be true for hormone therapy as well?

**12** A I'm including hormone therapy or what most people call hormone therapy under medicalized transition, 13

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15 Q And in your report you also reference Finland. And just right now you referenced Finland as well; is 16

that right? 17 18 A Yes, that sounds right.

19 Q And do you read and write in Finnish?

20 A No, I do not.

21 Q Do you have a certified translation of the COHERE 22

2020 document regarding their review? 23 A Not of the full document, no, I don't think.

Q So you're basing your understanding of the Finnish 24

25 review on an uncertified translation?

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receiving treatment. So it wouldn't be fair to say that nobody is currently receiving treatment.

What they say they're aiming to put limitations on are the unnecessary or excessive or over availability where medicalized transition looks like is being used to displace other interventions that very, very feasibly could be better matched to these kids' needs and without the sacrifices and risks that are associated with physical transition.

O So there are youth in the UK currently receiving 11 puberty blockers for gender dysphoria? 12 13

MR. RAMER: Objection to the form. A Again, I hesitate to say that, you know, flat out 14 as a matter of fact, because that's not the -they've already -- that's no longer a piece of -you know, they've already completed their review of the science. And so, that kind of completes how -you know, that level of how closely I'm following -- or that section of what I'm following of what they're doing. 22

They're now -- the implementation or what -the policies to which they're applying the science is, you know, less a focus of what I follow than the application of the science itself. Their

1 A No, that's not exactly true either. As a matter of fact, I was due to go to Finland in the next couple of weeks, but had -- you know, for a conference 3 that they're holding, you know, bringing together 4 the experts on exactly these topics. 5

And, of course, I'm in regular communication, you know, with people all over the world within my field and more and more commonly with this one. You know, they've also been, you know, discussing the issues themselves regularly in the media in English and Finnish.

And, you know, to the extent that they have also been, you know, releasing statements and conversations with other people within the program have been, again, in English. And all of it is exactly consistent with each other. Nobody's identified and nobody's, you know, claimed that there have been any contradictions in any of the available translations in any of the statements that the scientists involved with it -- you know, what they have said in English versus what they have said in Finnish.

There have been no contradictions between the conclusions that they came to versus the conclusions that have been produced by scientists

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in other countries.

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Q But typically are the only systematic review an 2 outline of the medical practices in Finland -- the 4 only official versions of the systematic review for the Finnish medical authorities are in Finnish? 5 MR. RAMER: Objection to the form. 6

A I would have to check through my files to see if 7 that's still true. Another publication -- by 8 coincidence, not soon after I submitted this 9 declaration -- again, I would have to look through 10 and check to see if those were Sweden or Finland, 11 recently published in English a peer-reviewed 12 document, you know, summarizing the content of what 13 was originally in their native language. 14

And, again, I keep mixing up several of the Scandinavian states, Finland and Sweden, and which one contained within itself, you know, English language summaries.

English is -- of course, you know, despite the original languages that many reports are published in, you know, throughout all of science, English is still the lingua franca. The circulation of the materials, the abstracts of the materials and so on are still circulated in English.

And my conversations with the scientists

identify subtle potential differences between how something was originally written versus described. 2 3 The differences between what is included and what

4 is not, what was determined to be useful versus not. And the result is very, very easy to 5

determine. 6

And, as I say, the studies themselves are exactly the same studies that I'm very, very familiar with to begin with.

MR. RAMER: Chase, if you have a good breaking point, we've been going a little over an hour,

MR. STRANGIO: I think if it's okay with you both, I'd like to just finish up this section, and then we could even break for lunch around noon, or what are you thinking?

MR. RAMER: Over to Dr. Cantor, how he --MR. STRANGIO: Yeah, are you --THE WITNESS: That's fine with me. MR. STRANGIO: Okay.

BY MR. STRANGIO:

Q So let's just take a step back. Finland has not 22 cut off puberty blockers and hormone therapy for 23 patients who had previously been receiving those 24 25 interventions, have they?

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- themselves, including the ones who publish the 1 relevant studies, you know, we're in regular
- 2
- contact with each other who, you know, certainly 3
- have confirmed our whole conversations were based 4 on, you know, the idea of what the studies said --5
- 6 of what the studies resulted. Also --
- Q And by studies, you don't mean studies, you mean 7 systematic reviews; right? 8
- 9 A I'm kind of blending -- your mind is going exactly where mine was headed. These two are blended. The 10 content of these systematic reviews -- of 11

systematic -- the content of systematic reviews is largely the list of the papers getting reviewed.

So even though -- you know, and it is not at all difficult to determine in any language Appendix A is the list of studies included, you know, the list of studies in Appendix B are the studies that were not included. And those list of studies, you

know, have English titles published in English 19 journals and so on. And I'm very, very familiar 20 with every one of those studies. 21

> So they have produced, you know, what are entirely transparent lists of what was included and what was not included. This was not a dense text in which one needs a translation in order to

1 A To the best of my knowledge, Finland has grandfathered people already receiving medical

treatments, and that the ban is for additional 3 4 cases.

They're attempting to stave off the -- or halt 5 6 the flood of new cases for which it is not at all 7 clear that the exist -- that the prior research

applies to the new demographic and to the new 8

9 phenomena that we're observing.

10 Q And for people prospectively seeking puberty blockers and hormone therapy for gender dysphoria, 11 12 those interventions are available through clinical 13 trials?

14 A Again, I don't think it's accurate to refer to -the word access and the word treatment, you know, 15 assumes that -- come with several assumptions that 16 17 I don't think are valid. For example --

- Q Well, I think I said interventions and available. 18
- Do you disagree with those formulations? 19
- 20 A Yes, for next-door neighbor kinds of reasons. That is it assumes a current situation that is allowed 21 for, but is not assumed in the procedure itself --22
- 23 policy itself. If, for example --
- 24 Q Let's pull up the Finnish policy, just so we are talking about the same thing. 25

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1 MR. STRANGIO: So that's Exhibit 7. Joel, you do that part; right? Thanks. Exhibit 7. 2

- A Again, this looks ouija boardish from over here. 4 You talk and magic happens.
- Q Well, let's not go that far. 5
- Is this the document that you're referring to 6 from Finland?
- A Yes, that looks like it. 8
- O Okay. And I just want to go first to -- so this is under the current care in Finland, "In clear cases 10 of prepubertal onset of gender dysphoria that 11 12 intensified during puberty, a referral can be made for an assessment by the research group at TAYS or 13 HUS regarding the appropriateness for puberty 14 suppression." Did I read that correctly? 15 16

MR. RAMER: Chase, can you zoom in a little

MR. STRANGIO: Yeah, sorry about that. 18 A What you read was the content of that sentence, but 19 interpreting what that sentence means requires a 20 little more information -- well, chunks of 21 significant information. 22

That text indicates that that would be the process and that they are leaving permission for that to happen, except they leave permission for things are changing quickly. People are making plans, and I -- you know, the exact details of every policy are not what I follow.

So I necessarily need to leave room for the possibility that they have come up with one since the last time I happened to have heard from anybody there, but I -- they haven't received any kind -- I don't want to say they've received no publicity, they at least have not crossed my desk.

Also, in the establishment of their policy, you know, the intention of the policy is put it in place and then the government structure is move on.

If they conduct a study, find that, oh, it doesn't actually help these kids so we shouldn't do it anymore, the study wraps up and the rest of the ban remains in place. It leaves, again, in theory the opportunity for there being research, but it would not be fair to say that the situation is more limiting than it was meant to be.

They leave a loophole such that it can be used if it can lead to potential changes in the future, but none of those -- there's nothing in it that it assumes that it will be this everliving alternative way to receive medicalized transition services. It just gives permission as just in case, but there's

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- that to happen. Missing from that sentence is that 1 neither -- I'm saying this in a backwards kind of 2 way -- they are limiting the permission to do that 3 to those two hospitals. But when that sentence is 4 isolated, it seems to suggest that, you know, those 5 6 two hospitals are engaged in such research programs, and I don't believe they are. 7
- It's, as I say, in the text of the policy it 8 9 leaves permission for them to do that, but they have not set up the infrastructure to do it. 10

Also --11

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- Q And you know that definitively? 12
- A No, I don't know that --13
- MR. RAMER: Objection to form. 14
- A -- definitively.
- Q So they may have set up research program --16 proto -- excuse me, they may have set up research 17 groups at the two hospitals listed? 18
- MR. RAMER: Objection to the form. 19
- 20 A Again, some things are getting left out there. You know, when this first came through, you know, the 21 22 23 these people was that there was no -- that there 24
- best of my understanding in conversations with did not then exist such a situation. But as, you know, we've tripped over several times, these 25

- no indication that -- no reason to interpret it either as permanent or as current.
- 3 Q So based on your understanding, those who had previously been receiving medicalized transition as adolescents can continue to receive it; is that 5 6
- A So far as I know, they haven't cut off people 7 already in a medicalized pipeline. 8
- 9 Q And that there is -- they have left open the possibility of future treatment through research. 10 Is that fair? 11

MR. RAMER: Objection to the form.

- A Again, for the same reasons as before, I hesitate 13 to say treatment. They've left the door open 14 through research, and then it will be open to the 15 researchers, you know, whether to investigate 16 whatever kind of interventions, changes, whether 17 that counts as treatment, whether that cancels the 18 19 type of treatment we're envisioning now is unknown.
- 20 Q And that's the same as in Sweden; correct? They have not -- in Sweden they have not cut off 21 treatment for those who had previously been 22 23 receiving medicalized transition, as you call it?
- 24 A That -- to the best of my knowledge, that's true, 25 yes.

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1 Q And in Sweden they have left open the possibility

that these interventions may be provided throughresearch?

4 MR. RAMER: Objection to the form.

A Again, I would phrase it a different way, that they
 have -- that the regulation enables research. And
 then it's up to the researcher to know exactly what

it entails, including the researchers not doing it at all.

Q Is it your view that there is no research in this
 area happening at all in Sweden at this moment?
 MR. RAMER: Objection to the form.

13 A I don't recall there currently being such a study, no.

15 Q But you don't know?

16 A Again, I just reflexively leave myself some wiggle
 17 room in that these things are changing quickly, you
 18 know, they are of enormous interest. And I do not
 19 take for granted that, you know, in the very recent
 20 past that things have changed.

Q And you mentioned in our conversation Sweden, Finland and the UK, and then you also discuss France and Norway.

But France and Norway would not be examples of places that have, quote, outright bans on

1 A Yes, each of these countries has an entirely public

2 healthcare system, you know, very -- relative to

which the U.S. remains a big international outlier.

4 Q Medicalized transition, as you call it, is available in France for adolescents?

A It has not reached the level of -- it has -- the
 documents they've released have not suggested the

8 level of restriction that other countries have.

But I don't know, and I don't recall any reports
 discussing what portions of that, you know,
 reflect, you know, local political interests or, as
 I say, the methods by which each of these countries

14 healthcare system.

I don't know what the alternative strategies or controls the government had, how they get implemented or the extent to which they're issuing policy guidelines or advisories. You know, does that reflect a difference in their conclusion result of the science or just the political facility and speed with which they can produce such changes.

controls -- manage is a better word, manage their

Q So based on your knowledge, neither France nor
 Norway have outright bans on either puberty
 blockers or hormone therapy for adolescents with

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1 gender dysphoria?

treatment; is that right?A They have instead, you know, issued policy

3 statements and advisories, you know, indicating

their conclusion that medicalized transition is being overused too quickly, too often without

6 sufficient consideration of less-risky

7 alternatives, but they have not implemented -- they

have not used the same policies strategies, I guess

is the best term I can come up with, that the other countries have.

Again, I'm not a medical policy expert. And each of these countries, you know, is run different ways, and they have different tools available to them -- each of these governments has different

tools available to them in the way that they regulate medicine, all of which are, you know,

entirely unlike the American lack of government control over -- in the U.S. I hesitate to call it a

medical system, it's more like a medical industry.

20 Q So these are all countries with medical systems that are fundamentally different from the U.S., you would say?

MR. RAMER: Objection.

24 A They have --

25 O What was that?

A It would be fair to say that current -- that

although they have, you know, reversed course, you

4 know, and they have scaled way back from the easy

facilitation of medicalized transition, theyhaven't issued any language that suggests a yank as

7 far back as strongly as the other countries have.

8 Q Well, I'm not asking for such a descriptive answer,

just simply yes or no -- well, I'll say it thisway, just is medicalized transition, as you call

it, banned in either France or Norway?

A I'm not sure the question can be answered very
 accurately in just a yes or no, but I think it
 would be fair to say that the statements available

are not as definitive as the ones in Scandinavia, for example.

17 Q Going back to the --

MR. RAMER: Hey, Chase --

MR. STRANGIO: Yes.

MR. RAMER: -- do you --

MR. STRANGIO: This will be my last question on this topic, and then I was thinking we could

break for lunch.

MR. RAMER: Okay.

MR. STRANGIO: Yeah, sorry. I'm not going to

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1 take us down -- I'm not going through every country, I promise, John. I was going to pull up a 2

map, actually, of the whole world, and we're iust --

THE WITNESS: I was just going to say and now 5 for Latvia. 6

MR. STRANGIO: Yeah. If we could just pull up what I have premarked as Exhibit 6.

BY MR. STRANGIO:

Q And before it comes up, Dr. Cantor, you reference 10 11 in your discussion of the UK something called the interim report from Dr. Cass; is that right? 12

A Yes. 13

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Q And this is a document that Dr. Cass put together 14 that informed -- is this the document? 15

A Yes, it looks like it. 16

O And what is this document? 17

A This was -- there were several documents that were released as a bulk. And I can't remember just from 19 20 the particular date of this one exactly which one was which. 21

> This was part of the series of reports and documents where she was indicating the basic results of the systematic review and the comparisons against -- comparisons of its

people?

2 A Oh, that's a good question. I remember running

across, you know, lists in which they were

4 provided, but I -- these were not -- as I say,

these aren't people who are regularly part of the 5

sex research community where I would have run into 6 them over the course of my career. 7

Q So you don't know exactly sitting here today the 8 nature of the team that Dr. Cass led? 9

10 A No, that's not fair either. The nature of the team were people, you know, with expertise and background in assessment and public healthcare policy. They were, you know, people with the appropriate backgrounds in order to conduct the review. But I don't recall their names, and they're not -- I would have to go through the names to double-check. I don't think any of them was a sex researcher.

> These are, you know, experts in medical outcomes and medical outcomes research and in its application to public healthcare policy.

Q And so, on this page here in this interim report 22 authored by Dr. Cass, the second paragraph she 23 writes, "I have heard that young service users are 24 25 particularly worried that I will suggest that

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conclusions of what the science said with their 1

what was then current policy and why those policies 2

needed substantial revision. 3

Q And then I just want to turn to page 9 here. And 4

this is "A letter to children and young people" 5

from presumably Dr. Cass. Is that a fair 6

assessment? 7

A So far as I can -- so far as I know, yes. Oh, I 8

9 should also add that I don't think it's fair to say

that this is a document that she put together. 10

11 O Fair enough.

12 A This was a very -- she was a leader of a very

large, very substantial, very talented team. You 13

know, she provided the leadership, and she was 14

selected specifically because she was close enough 15

to the material in order to understand the science, 16

what was going on in the basic field, but not so 17

close as to being a part of it and receiving money. 18

19 You know, she wasn't making her living from it

either. 20

Q Who is the -- who made up the team that she was 21

leading? 22

23 A Oh, goodness, I couldn't name the particular

people. I couldn't name the particular people. 24

Q You said it was a substantial team. How many

services should be reduced or stopped. I want to 1 assure you that this is absolutely not the case -2 the reverse is true. I think that more services 3 4 are needed for you, closer to where you live."

Is that correct? Did I read that correctly?

A That's the sentence that she wrote. But, again, in its context -- when removed from the context surrounding it, it would seem to be saying something other than what it seems to say when put back into that context.

I mean, you know, when isolated like that, you know, it almost sounds like she's saying that she wants to create more gender clinics so that people didn't all have to go to the same clinic in London. That's not what she was saying.

In the context of the fuller report and all the other changes, she was putting as diplomatically as a person can in such a polarized cultural situation that the services -- that they need more services, but not necessarily the exact kind of services that they were requesting. I'm even being ambiguous about this myself.

She wasn't saying that these people need more gender clinics, and we're going to put more gender clinics in more cities in order to facilitate your

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- 1 access to medicalized transition. She was
- recognizing that these people are, and they are, 2
- suffering from very substantial mental health 3
- 4 issues that are getting unaddressed. Those are the
- services that she wanted to distribute, make more 5
- available. And she was recognizing that these 6
- people had great unmet needs, but that the --
- Q So is it your -- finish. I'm sorry. 8

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A But that medicalized transition was not necessarily the best, most-appropriate balance of the potential 10 11 risks and potential benefits of the alternatives that were available to them. 12

> So she wanted better access to services that would help the kids, but one can't isolate that sentence in order to say that she was taking for granted that the service that they needed was medicalized transition.

18 Q So is it your understanding that in England -excuse me, is it your understanding that in England 19 20 they are not expanding access to services including medical services outside of the central gender 21 clinic? 22

23 MR. RAMER: Objection to the form.

A I'm not sure I'm following your question. When she 24 says -- in general where she says services, she is 25

- although she didn't say it, the research is
- indicating that -- does suggest very, very strongly 2
- that these people are -- that very many of these 3
- youth are expecting that a physical gender
- transition would help them meet their psychological
- needs when it's not the best balance of potential 6
- risks and potential benefits -- risks and benefits
- for what they're aiming. So she --8
- O She didn't say that, you're saying that?
- 10 A Correct. That would be -- that last part is my own 11 assumption -- are my own words, you know. It is -you know, what she said is consistent with it, but 12 I can't say that that is exactly what she's saying. 13

I point out only that when take -- removed from the rest of the context around it, you know, it sounds like she's offering to expand medicalized transition, but that's not at all the full story.

MR. STRANGIO: I think we can go ahead and stop there. How long, John, and Dr. Cantor, do you want for lunch?

MR. RAMER: Over to Dr. Cantor.

THE WITNESS: Oh, I'm from New York. I can 22 eat while talking. 23

> MR. STRANGIO: I mean, same, but let's not do that for the sake of the court reporter, at least.

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- referring broadly to mental health services and 1 social services and help because these kids are in 2 distress. 3
- Q And excluding gender transition -- including 4 medicalized transition services? 5
  - MR. RAMER: Objection to the form.
- A Again, she's saying what she can say and leaving 7 open possibilities acknowledging the large number 8 9 of remaining unknowns. And that there are possibilities that things may change in the future 10 as we get better evidence or if research produces 11 12 something that we're not currently predicting.

So she's using carefully crafted language, in my judgment, to leave open the possibilities, but to not make particular promises or to lead anybody down a -- to mislead people down a particular path.

It is conceivable that, you know, future research may demonstrate that, okay, this is -that this may indeed, at least for some number of these cases, perhaps that it would be possible that medicalized transition might be the best option, but we can't take that for granted.

What is very, very clear is that these kids are in genuine distress, and they're not receiving the supports they need for that distress. And

- So 40 minutes? Do you want to come back at ten of 1 one Eastern Time? 2
- MR. RAMER: 12:50 Eastern sounds good. 3 MR. STRANGIO: Okay. All right. See you 4 then. 5
- 6 (The deposition was recessed for lunch.)
- BY MR. STRANGIO:
- Q So coming back to a conversation we started a while 9 back, Doctor, just for the sake of this line of questioning, so you're not a pediatrician; is that 10
- right? 11
- 12 A Correct.
- 13 Q And you don't have any clinical expertise in the treatment of children? 14
- 15 A I don't know if it's fair to phrase it that way. I have no clinical experience in that I don't do the 16
- activity itself. But, of course, the effects on 17 children and how it affects their development and 18
- their sexualities and so on I have a great deal of 19 expertise in. 20
- 21 Q So you don't have any clinical experience in the treatment of children? 22
- 23 A Correct.
- 24 Q And limited clinical experience in the treatment of adolescents? 25

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The Individual Members of the Medical Licensing Board

MR. RAMER: Objection to form.

- A Again, I don't know what limited means in the sense 2
- that, you know, it's -- most people have absolutely 4
- zero, and even a lot of the people who have
- experience with it have no experience in any other 5
- aspect of human sexuality and aren't able to 6
- perform a proper differential diagnosis.
- Q But, generally speaking, in your clinical practice 8 I think you said lasted -- or, excuse me, generally
- speaking in your clinical practice, approximately 10 5 percent of your patients were adolescents? 11
- A Those numbers are correct, yes. 12

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- Q And do you have experience in pediatric research?
- A Yes, in the same sense that I published papers regarding children -- the assessment of children, 15 the effects of development over the course of 16 childhood, or for that matter, you know, prenatal. 17

You know, I'm not a neonatologist, but by the same token brain development and what happens in the brain and during brain development even before birth is the very center of my background and

- 23 Q And that's -- you've published original research in that regard? 24
- 25 A I'm sorry, in which regard -- which of the --

supporting clinical guidelines for pediatric

conditions other than gender dysphoria? 2 3

MR. RAMER: Objection to the form.

4 A No, not that I recall.

each other.

- 5 Q So are you aware of whether other treatment protocols for pediatric conditions are supported by
- randomized controlled trials?
- A Some are, some aren't. The question's a bit over-8 restricted in the sense that each of these questions requires several different aspects to be 10 investigated at the same time and compared against 11

Of course, the most relevant of those are the risk-to-benefit ratio, and in the large majority of investigations that are pertinent to children, you know, there are relatively few instances that are -- that make good comparisons to gender dysphoria when they have to be applied to children or when we're talking medical interventions specifically to adolescents, not prepubescence.

21 Q And are you aware as a general matter as to whether 22 research is more limited in the area of pediatrics as compared with adult medicine? 23

MR. RAMER: Objection to the form.

25 A I've never undertaken such a comparison myself, but

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- 1 Q Excuse me, so you -- let me rephrase that.
- Have you done any research trials in the area of pediatrics? 3
- 4 A What do you mean a research trial?
- Q What does that mean to you?
- A It doesn't mean anything to me.
- Q So I don't know what a --
- A Usually when somebody says trial they mean a 9 clinical trial.
- 10 Q Have you done any clinical trials in pediatric research? 11
- 12 A No, I don't think so. Again, my hesitation is that -- just without scanning through my CV, just 13
- to make sure that there isn't one that I forget, as 14 I say, you know, very often my involvement in 15
- projects is for the statistics or, you know, 16 whatever technical piece that's relevant to the 17
- project that somebody on the team doesn't have. 18 19
  - My favorite analogy is with accounting. It doesn't matter if you're doing the books for one kind of an industry or the other kind of an
- 21 industry. You know the accountant, and you know 22
- 23 when the accountant is wrong. And it doesn't matter if they're selling cars or beef. 24
  - Q Got it. Have you reviewed the evidence base

as a matter of, you know, how research -- how medical research is done, of course, I'm often involved in investigating or reviewing grants and a

wide range of different topics.

It would be an error to isolate research on adolescents and interpret it in -- it would be an error to interpret the number of studies conducted with adolescents as opposed to, you know, age 18 and up or, you know, age of majority in whatever given state and jurisdiction, because very, very many illnesses are age linked. Young people have fewer diseases than older people.

So the priority is often, on average, lower for children than adults, because on average they're healthier, you know, they haven't had the long-term effects of whatever situation they're in, whether it's smoking, obesity and so on.

That isn't to say zero, and that isn't to say if you're young you're healthy, it's just that the difference of the people who suffer ill health, the young people are necessarily un -- less is a better word, less represented. So one has to be careful in not accidentally asserting a pattern that isn't associated with -- we can't take anything for granted.

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1 Q And are you aware of whether there are randomized

1 hyperplasia, and just the medical intervention

controlled trials supporting medical treatment for 2 precocious puberty? 3

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- 4 A I don't think that there have been randomized 4 trials for it, but it's not a fair comparison. But 5
- it wouldn't be fair to compare precocious puberty 6 6
- and puberty blockers for precocious puberty with 7
- the use of those same drugs for gender dysphoria. 8
- O Well, I'm not asking about gender dysphoria. I'm just saying just as to precocious puberty. There
- 10 are -- you're not aware of any randomized 11
- controlled trials preventing medical treatments for 12 precocious puberty? 13
- A I haven't conducted a search for them. 14
- Q So you're not aware of any? 15
- A Not offhand, no. 16

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- Q What about randomized controlled trials supporting 17 medical treatment for congenital adrenal 18 hyperplasia? 19
- MR. RAMER: Objection to the form. 20
- A No, I can't think of randomized -- I can't think of 21 a placebo-controlled randomized study. I would 22 23 have to search to see if there have been randomized studies comparing different kinds of medicalized 24 25 treatments with each other.

- of -- surgical interventions on the genitals to make them conform to a more typical female genital presentation.
- Are you aware of any data supporting the use of that surgical technique on infants with congenital adrenal hyperplasia? 7
  - MR. RAMER: Objection to the form.
- 9 A I'm sorry, am I aware of any --
- Q Data on the efficacy of that surgical technique on 10 11 treatment of infants with congenital adrenal 12 hyperplasia?
  - MR. RAMER: Same objection.
- A Not on mental health effects. There have been some 14 case studies on, you know, the physiological 15 outcomes, for whatever they're worth. 16
  - You know, does the cosmetic end point match up with generic surgical success, I'm not aware of such studies for mental health effects.
- Q But it's possible, then, that that intervention 20 causes harmful mental health effects on individuals 21 with congenital adrenal hyperplasia. Is that true? 22 MR. RAMER: Objection to the form. 23
- A It's certainly a fair hypothesis. In fact, there 24 25 have been case studies, I don't remember if it's

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Page 112

- 1 Q But you're not aware of any offhand?
- A No, not offhand.

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- Q Do you have any reason to know -- actually, let me 3 rephrase that. 4
- Do you know if pediatric conditions frequently 5 6 have the type of evidence supporting treatment as available evidence for treatment of gender 7 8 dysphoria?
  - MR. RAMER: Objection to the form.
- A Again, that's not really a meaningful comparison, 10 because there are very few issues that have the 11 same risk-to-benefit ratio. And the great majority 12 of disorders, especially with youth, we're talking 13 about, you know, objectively diagnosed. 14
  - You can take a blood test and you either have it or you don't. It isn't a matter of, well, we'll talk about it and kind of decide and the child is telling you what their diagnosis is. So there are really very few like apples-versus-apples comparisons that can be made.
- So if you just kind of add up how many are 21 there, again, the result is misleading, because the 22 23 population of related disorders are so small to begin with. 24
  - Q Well, let's take CAH, congenital adrenal

- the name of the patient or the name of the author 1
- of the book, John Colapinto, who examined, you know 2 a series of, you know, interventions that were done 3
- with children in order to make their physiology,
- you know, better match whatever -- oh, that was it. 5
- 6 I'm thinking of the Reimer case. It wasn't a CAH.
- Never mind. 7
- Q So you don't know of any data studying the mental 9 health outcomes of surgical interventions on
- intersex -- sorry, excuse me, on infants with CAH? 10
- 11 A Not quantitative studies, no. There have been, you know, single case studies of people, you know, 12 13 describing individual people, but not on -- not
- anything to which one would apply any statistics. 14 15 Q Do you have concerns about the impact of that surgical intervention on infants with congenital 16
- adrenal hyperplasia --17 MR. RAMER: Objection to the form. Sorry. 18 19
- MR. STRANGIO: No, no. Sorry, that was not a good question. I'll rephrase. 20
- BY MR. STRANGIO: 21
- 22 Q Do you have any scientific objections to the nature 23 of the evidence base supporting the surgical interventions on infants with congenital adrenal 24 25 hyperplasia?

1 MR. RAMER: Objection to the form. Beyond the 2 scope.

A The question's kind of -- has a foot in science, 3 4 and a foot in, you know, the related research ethics. And where it's properly science versus not 5 is a legitimate conversation. 6

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I have concerns in the usual medical and clinical research concern that intervening puts us in a position of responsibility, especially when we're talking about, you know, surgical interventions.

In all of medicine and medical researches -- I don't want to say it in Latin, because I'll mispronounce it -- but we're not going to -- we are bound not to do anything until we have very good evidence of its outcome.

So intervening surgically or medically at all should be withheld until we have, you know, solid objective evidence to demonstrate benefit.

So, again, I'm kind of -- you know, that's kind of scientific and kind of not. But I have concerns in that, you know, people were intervening medically and surgically without having a sufficient scientific research basis for dramatic intervention at all.

medical interventions without first having

objective evidence about its risk-to-benefit ratio. 2

3 Q So I'm going to pull us to, just if you want to pull it up on your paper copy, page 46, paragraph 106 of your declaration, which is Exhibit 1. 5

6 A Got it.

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7 Q Maybe I should have had that. Okay. And this is at the bottom of the page, from 46 to 47. You write, "Biologically, the sex of an individual (for humans and almost all animal species) as male or female is irrevocably determined at the moment it is conceived. Terms such as 'assign' obfuscate rather than clarify the objective evidence."

Did I read that correctly?

15 A That's the content of the sentence, yes.

16 Q What about infants with intersex traits?

17 A What about it?

18 Q Would this sentence apply to them?

19 A Yes. However, there's subtle and profound -- or 20 there's a distinction that can be both subtle and 21 profound, you know, in how people are using the word sex, especially in this context and in today's 22 context, about what it means as a definition of sex 23 and in what ways, you know, exceptions can and 24 25 should be made.

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- 1 Q But the law in this case explicitly exempts from prohibition those kinds of surgical interventions 2 on infants with CAH. Are you aware of that? 3
- 4 A Yes. But, of course, you know, my purpose and testimony isn't about the law. It's about the 5
- 6 nature of science, what the science says. And how
- 7 any organization wants to implement it is up to
- them. I don't mean either to attack or defend any 8 9
- Q But you didn't weigh in as to the scientific base supporting those exempted interventions in this 11 12 case?
- A I didn't intervene at all. I --
- Q I said weigh in.

A -- do have -- not exactly sure what the difference is. But, again, for a specific statute, I haven't 16 17 said anything.

The only caveat I need to add is that it's very possible, although I don't have a specific recollection, it's very, very plausible that I would have spoken publicly about the application, again, of medical interventions in situations like the John Colapinto book about John Reimer -- Dan Reimer, John Reimer -- David Reimer, that was it -about medically intervene -- about engaging in

There are relatively few characteristics for 1 which there don't exist, again, details, 2

atypicalities for which not everything can be taken 3 4 for granted, but they do not -- but these are often examples that prove rather than disprove the rule. 5

Q So what is the definition of sex that you're using 7 here?

A That is exactly one of those profound and subtle --8 9 distinctions that are both profound and subtle. In the context of gender dysphoria, it's a mistake to 10 be saying that there is a definition of and that's 11 12 that.

> And then with people picking either chromosomes or hormones or, you know, subjective experiences, sex itself in science would be -- let me say this a different way. People are confusing definitions with construct validity.

> In mathematics, we have a definition, and it will apply to the definition of the real numbers is the definition of the real numbers and there are no exceptions.

> In science, we have what's called construct validity. There's -- although we will use the word fact, there is no such thing as a fact. We only have the best explanation we have for the

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observations we've made. And it remains eternally possible for some future exception to be made, and we just haven't seen it yet. There is no such

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thing as settled science as popular as the phrase has become.

Sex is not like defining a real number versus irrational number versus an imaginary number for which there exists no exceptions. Sex is, again, in science or in statistics what we would -- what is the overlap amongst each of the pieces, including all of chromosomes and genetics and so on, all of which overlap and match the great, great, great majority of the time.

Sex is that overlap, not the individual ingredients that are put into the very -- the overlap. So the identification of exceptions do not break the rule.

In most situations, you know, at birth visual inspection of the genitals is, you know, a perfectly convenient, if I can use that term, way to go about, you know, identifying the sex of the kid, because it matches up with all of the other features in the great, great, great majority of instances.

But phrases such as the one that I was talking

cave count as a house? Does this hut count as a

- house? Does a hotel that you're living in" -- I'm 2
- 3 just making these up. And one can come up with,
- 4 well, there can be certain exceptions to certain
- pieces of it, but what makes the house is
- the consistent overlap of each of these 6
- 7 characteristics. But that there can be an
- exception to one of the useful rules of thumb that 8
- we use does not mean the overall concept -- that 9
  - the entire structure itself is wrong.
- 11 Q Well, I'm not asking if it was right or wrong. And I think in some sense maybe you're trying to 12 respond to why I'm asking, not what I asked, 13 because I am just focused on these words in your 14 declaration, "The sex of an individual as male or 15 female." 16

What did you mean by "The sex of an individual as male or female"?

A The overlapping set of -- again, because of the 19 context in which I wrote the sentence, it isn't so 20 easy to just lift the sentence out from the others. 21

> By the sex of the individual, I mean the overall set of characteristics, you know, ranging from and including, you know, the multiple biological features which are mostly -- again, it's

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Page 120

about here assigned at birth, well, if the mother 1 got a sonogram when she was six months pregnant, 2 she knew what the sex of the kid was going to be in 3 the great, great majority of cases months 4 before the birth happened. 5

So, as I say, but that -- so the presence of exceptions in a long complicated chain of events going from conception, and in some cases even before conception for some, you know, chemical interactions with the mother's body, you know, through life experiences, you know, some of them chemical, some of them biological, some of them social, again, these are a large, large complicated set of interrelated factors which are irrelevant in the great majority of the time, but we only have an issue when there is some exception.

So then we need to look more deeply into the situation in order to decide what, if anything, would be the most helpful to the person in question. But as I say, these are all questions about construct validity. And, you know, if I ask a person what a house is, they can give me, you know, a rough idea that will fit in the great, great majority of the time. But then we can ask, you know, "Well, is this an exception? Does this

the exceptions that are hitting my head -- that are mostly determined at the point of conception and

the chromosomal combination. 3

4 Q Mostly, but not always determined at the point of conception? 5

MR. RAMER: Objection to form.

A I wouldn't say always. Again, I'm leaving room for 7 there are certain, you know, chemical interactions 8 9 between the chromosomes, the mother's body, the 10 potential zygote and so on which can influence what's going on biologically. They're rarely of 11 12 interest to very many circumstances, situations, 13 but they exist.

14 Q And so, coming back to your previous discussion, you would say that overall sex is a set of --15 sorry, the overlapping set of characteristics, 16 including multiple biological factors? 17

MR. RAMER: Objection to the form.

19 A Close. I would say it is the overlap --

20 Q Okay.

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21 A -- amongst those biological features.

22 Q And what are those biological features?

23 A I don't know if they can be enumerated in full, but the primary ones are, of course, chromosomes, 24

hormones. And biology, I'll say, from the neck

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1 down, you know, morphological form. And then

- neuroanatomy, anatomy from the neck up. 2
- Q And all of those biological features are part of 3 4
- 5 A Again, to say part of is to insinuate or the word kind of involves a way by which they go together. The best way I have -- I'm avoiding a mathematical 7 term, factor analysis, but it is the overlap itself 8

that forms the construct. 9

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Science and biology don't work like mathematics or law where you can write a definition and then make all of your decisions based on that definition and expect the result to be correct. That's not how science works.

We give a best guess, and then we have to check to see if we were correct by making -- you know, designing a clever experiment to see if something might be an exception. And we remain tentative, because there remains always, at least in theory, the possibility of something being different.

Q Then in paragraph 107 regarding gender identity, 22 23 you write, "In science, a valid construct must be both objectively measurable and falsifiable with 24 25 objective testing."

there aren't enormous social pressures and enormous risks, we don't need to send to a brain scan everybody who comes in saying, "Doctor, my hand hurts."

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If, however, there are other situations where, you know -- there also exists situations like phantom limb pain. Now all of a sudden we're looking at an exceptional circumstance and we can't take for granted what the person says their individual experience is.

So just saying that there exists exceptions, again, we can't from that say -- those exceptions don't disprove any such rule. There is a balance of risks and benefits.

If it's low cost and pretty low risk, then we can afford, we have the luxury of just going along with the subjective self-report. If, however, we're talking about something -- if that subjective self-report is now in contradiction with the objective available data, now we have a question. We can't so easily take for granted the accuracy of that subjective self-report.

O But subjective self-report is often the basis for 23 some medical interventions; is that correct? 24 25

MR. RAMER: Objection to the form.

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Did I read that right, correctly?

A Yes.

3 Q What did you mean by that?

A Well, again, I was pitting it specifically against 4 trying to define or describe a concept according to 5 6 something that is none of, that doesn't fit --7 well, specifically against claims of an inner 8 sense. 9

In science, there is no such thing as an inner sense. The purpose of science was to replace concepts based merely upon one's -- it's even more ephemeral than inner sense, it's what one says is their inner sense.

Q In medicine, though, there are phenomena that are 14 not objectively measurable beyond patient report; 15 right? 16

MR. RAMER: Objection to the form.

A Yes and no. There exists situations where when 18 it's low cost, consistent with other measures which 19 are objective and for which there are no major 20 risks, a convenient way to identify it could be 21 through something relatively subjective. 22

For example, you know, pain receptors in the brain, fine and important and very relevant for certain kind of research, but at the same time if Page 125

1 A They exist in certain circumstances, which as I say are when they're low risk and not in conflict with objective information we do have. 3

4 Q Do you think gender identity is real?

MR. RAMER: Objection to the form.

A That's a pretty philosophical question, if not outright Cartesian. Different people, of course, 7 use that phrase, you know, to mean many different 8 9 things in many different circumstances.

So there are different senses in which that, you know, can be a useful descriptor, but only partially accurate. And there are situations in which, you know, people completely either misuse the term or misidentify their own experiences by application of the term because they don't have a better term. They haven't been exposed to a better term, or they're under some kind of social or other pressure to use that term or use another term, for that matter.

So whether it exists really depends on what a person means and in what context.

- Q Do you mean -- excuse me, do you use the term 22 gender identity? 23
- 24 A The words will come out of my mouth in -- if we're in a context where what I'm trying to say is --25

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- 1 will be well understood. If one is asking, you
- know, very detailed questions or very specific 2
- questions, then I'll use terms that, you know, more 3
- 4 precisely and more accurately capture what a person
- is trying to say in using the phrase gender
- identity. It's even more --6

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- Q What are some of those terms that people might --7 that you think would be -- that would more 8
- 9 accurately capture what people are trying to say?
- A Oh, it depends on whatever it is I can infer about 10 what they're trying to say, again, by the context 11 12 of it. Very many people use the word, for example, to mean -- to assert their belief that they would 13 be happier in a different social role if people 14 15 treated them in a different way.

And the only -- and so they use the word gender identity, because it's now such a ubiquitous term. And in many parts of society, a lot of people feel pressure to just nod their heads and say uh-huh, even though they're not sure what it is exactly that they mean. And both of them are working from a series of assumptions, and each one is completely miscommunicating.

Again, with my scientific hat on, that's not an acceptable situation. That's not how

1 certainty of being a girl?

MR. RAMER: Objection to the form.

3 A Again, there are a couple of things embedded in 4 that. It's that, you know, if a child says it, you know, a child being certain is not reflective of a 5 child being certain, you know. Very often children 6 phrase things, you know, in dichotomous or 7 simplified ways, you know, just as part of their 8 9 not yet having developed more subtle understandings of them. 10

They will often assert things strongly because they feel emotionally strongly about them, so they use terms that are strong, even though that doesn't reflect actual certainty or evidence.

It's an almost ubiquitous experience for gay men to say that they -- or including myself even in this particular one -- to have memories or feelings of not being a boy or I'm a girl on the inside. But even though they will have used those terms, it's not an accurate perception. It's a use of the only vocabulary that they have available to them with a child's perception and experience of it.

23 O What about an adult, 30 years ago none of the same social political context of now, who is a natal male asserts understanding or certainty of one's

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self as female? 1

information can, you know, be assessed or 1 self-corrected, and we can't help each -- we can't 2

help people that way. In fact --3

Q How would -- excuse me. Go ahead, you can finish. 4

A In doing -- probably one of the most common 6 questions in doing any kind of therapy with 7 anything is, "What do you mean by that?" A person says whatever emotion it is, or they feel whatever 8

emotion they're feeling about, you know, their mother, their brother, their significant other, whoever it is, "What do you mean you hate love?" Like/dislike are confused by, and it's the what are the criteria that led you to use whatever word or

concept is the important part.

There are so many social, political and emotional pressures influencing gender issues now that, again, the term itself -- so many people are using the term in so many different ways, the term itself is not useful. People are using it for its cachet as much sometimes, if not more, for its accuracy.

22 Q So let's say -- how would you describe someone who 23 40 years ago, as a natal boy, let's say, said, "I am certain that I am a girl." 24

What is that -- what would you describe that

MR. RAMER: Objection to the form.

A I'm almost self-conscious about I don't have to project I was there and listening to these people and in a -- you know, working in a clinic helping adults, you know, with gender dysphoria exactly to transition. And we had exactly this conversation, but not quite 30 years, closer to 25. And that's not how they described it. That's one of the flags that's -- you know, that increases my, you know, critical thinking ear, if I can mix my metaphors.

25 years ago, people felt -- at least the ones that I was encountering, people felt comfortable admitting to their doubt and uncertainty and "I'm not so sure, and I want to try this out and see how it goes."

Where the people coming into clinics now are -- the expression -- I'm losing the expression, are reporting to the test. They're -- you know, they think they know the right answer. And if they express doubt, then they won't be permitted to transition, so they don't express doubt. Or flip side that, you know, they're afraid that whatever services will be changed if they start describing, you know, I feel depressed or whatever negative

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emotions, so they don't tell the clinician.

So people today are describing in much more dichotomous, black-and-white terms things that to those of us who have been in this field for a while recognize as different. People were willing to express their doubt a generation ago, and they're

6 7 not now.

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8 Q What are you basing that on, your assertion about 9 what's happening when people present themselves to clinics today? 10

MR. RAMER: Objection to the form.

A It's a combination of my own experiences, the reports of clinicians on both sides of the issues, those who, you know, basically see things, you know, with a critical eye that I apply, as well as clinicians who do not, you know, they also describe, you know, very, very dichotomous reports from their patients.

But there's a huge generational divide. The clinicians I should -- the large, large majority of clinicians, even calling themselves advocates and activists, are all very young. They didn't experience these clinics, these patients, these populations, these problems, these difficulties before the social media age.

2 A I'm not sure what you mean by what clinicians. Are you asking for names?

4 Q Yeah.

this?

5 A I don't know if I'm comfortable giving particular names. Usually these would be clinicians, again, 6 from all over the world, you know, the U.S., Canada, Europe, asking for input or a contrast or 8 9 observations that they have known -- that they have noticed with subsets of their patients whose 10 stories are different, or they don't know how to 11

12 interpret the story because the models they used to use don't seem to be fitting. They're not getting 13 feedback from their clients in the same way the 14 15 clients they used to see.

> And, of course, you know, the clinicians and other sex researchers, you know, at a sex research and sex therapy clinic -- sex therapy conference that I'm a regular member of -- again, these are, you know, to me -- I've been going to these, I'll say it again, 25 years, you know, and these are common conversations among them. I feel like I need to add a caveat to that, too.

> Conversations have also become -- I don't know if quieter is the right term. People now are

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This is all they know. They didn't notice a difference. So far as they're concerned, things have always been like this, and this is a permanent situation. It's only the people who have been working in this field over a longer period of time who are able to look back at it and say, this doesn't match the evidence. These are not the people on whom we gathered that evidence.

The situations that suggest that, again, for the adults for whom this was a good idea, this is a different profile of what we were seeing before. And the research we gathered on that prior group does not automatically translate to the group that we're seeing now.

Q You said your experience with patients presenting 15 to clinics, but you aren't currently seeing 16 patients in clinics, are you? 17

A I'm not seeing the patients directly, no. Usually 18 these would be either individual people coming to 19 20 me, other clinicians coming to me to consult on whatever cases that they're seeing, the public 21

22 discussions amongst, you know, groups fall along 23 the spectrum. I should use a better term than spectrum, it's getting overused. 24

Q What clinicians have been coming to you to express

almost ironically less comfortable now talking about it than it used to be. When gender identity and sexual orientation were more stigmatized, you know, height of the HIV era, clinicians and scientists would pride themselves on resisting the social stigma in order to talk about the issues. The mantra of those days was silence equals death.

It's reversed today. People now are often --I shouldn't say moderates, the middle 80 percent are less comfortable discussing the issue, because people want to ask questions where they feel there is a vagary or uncertainty. But they've seen so many examples, and there exists -- again, since the onset of social media especially -- so many examples of where people are getting pilloried not merely -- not because they said what somebody thinks is the wrong thing, but for saying, basically, that they agree, but not strongly enough that they're leaving out another opportunity to be still more extreme.

21 Q What's an example of that?

22 A I can really only talk about them in a family of 23 examples where somebody will talk about a point about a particular study. Actually, Twitter 24 25 probably is the best example, because --

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The Individual Members of the Medical Licensing Board

1 Q So you're referring to things that happened on Twitter, not in medical communities? 2

A Thev --3

4 MR. RAMER: Objection to the form.

A The situations don't divide quite so easily. It's because I'm, you know, a well-known member of that professional community that many of my Twitter 7 conversations or Twitter threads are with other 8 people that I know, again, from conferences, 9 experts and the same background. 10

So it's not the same kind of a conversation 11 that, you know, a member of the lay public would 12 have --13

Q Let me ask you this --14

15 A -- with another, you know, stranger member of the lay public. These would be two professionals and 16 experts in a topic having a conversation mediated 17 by Twitter, but it's not the same as just two 18 random nonexperts having a conversation. 19

Q Well, when you say -- when you referenced the 20 examples of being pilloried, is that on Twitter? 21

A It includes Twitter. And because the nature of the 22 23 medium allows for it, you know, happens like --

they happen louder and more often. But, no, these 24

25 kinds of examples happen in every venue in which Ken Zucker gives describing -- you know, sometimes he's giving talks about specific research that he was doing at the time on gender-dysphoric kids and their development.

And then, you know, when he was involved in the DSM, you know, many of his talks were about the ongoing negotiations in the formation of the clinical criteria for the DSM-5 this was. But rather than just raise their hand or disagree and have a conversation, the conversation was how dare you say whatever it is that the person disagreed with. Unlike not very many years before, you know, it wasn't agree to disagree, it wasn't even just disagree. It was if all I have to do is declare myself offended and now you're not allowed to say it, which was anathema to sex research, sex research is what it is exactly because of sex researchers who were willing to say things that were unpopular amongst whatever other groups. Q But Dr. Zucker was the one giving the presentation

22 A Yes.

23 Q So he was speaking?

in this example?

24 A Yes.

25 Q And you're describing the reaction of someone in

Page 135

sex researchers have conversations. 1

O Do you have examples from outside Twitter of this 2 happening? 3

A Yes. Again, just about any conversation -- any 4 social gathering -- social gatherings, for example, 5

6 the social hours at conferences where usually, you

7 know, it's at the end of the day, you know,

whatever cocktail somebody is holding as people are 8 9 just chatting and catching up since, you know,

we're all old friends to each other -- most of us 10 are old friends, you know, and then new batches of 11

12 students and so on. But the conversations are now followed by who's listening. People are looking 13

over their shoulders. People are adding phrases 14 and caveats to their conversations that didn't used 15 to be there. 16

Two specific examples come to mind. Again, I'm running through my head, because I don't want to, you know, be inappropriately naming other people in the context where they wouldn't have me do. Both of these happen to involve Ken Zucker by

One would be a talk that he was giving at the Society for Sex Therapy and Research, SSTAR. And it was, you know, very much like other talks that Page 137

Page 136

the audience?

A Yes, interrupting it, and essentially the word

cancellation hadn't yet existed, but were so upset 3 that they didn't think that he should be allowed to 4

complete his thought discussion, or said another 5

way, other people didn't have the right to hear it.

7 Q When was this?

8 A Early 2010s.

Q And your other examples that you can think of are in social hours and conferences and on Twitter? 10

11 A Those are, of course, much more common, because 12 those, you know, kinds of conversations are, you 13 know, so very much more common than an annual conference. 14

And the other one -- specific one involving him, again, was at a conference -- that I was at a conference. I'm trying to remember the name of the researcher who did it. Again, Ken Zucker was giving a presentation. She had just finished hers and happened to have been sitting right behind me. And she was at full voice, you know, continuing to talk to herself, essentially, saying what she'd like -- well, didn't like about his conversation, until I finally turned around, you know, "Do you mind, you know, he's talking?"

coincidence.

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1 To which her response was, "Oh, I don't need to hear that." 2

- Q So coming back to your --
- 4 A I couldn't --

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Q -- declaration, just to ground us there. You write in some sections about social transition in 6 prepubertal children. 7

What is your understanding of what social 8 transition is? 9

10 A I hesitate to say my understanding is -- I hesitate to say my understanding in that my understanding is 11 12 that, you know, many people use that phrase to say many different things. 13

> So step number one is find out, you know, what it is the person I'm communicating with is trying to say even before we know if we're agreeing or disagreeing over any particular point.

> So my understanding is the range of different definitions and applications people use. And then if we're actually going to do any kind of research or assert any kind of meaningful fact, we start with, well, in this circumstance what do me and whoever it is that I'm talking to or I and whatever author of the paper I'm reading, how is it being used in this instance so we can be talking about

Page 140

1 A There I was referring to Olson's study, recently out of California, which was the one exception 2 3 among -- well, I shouldn't say exception among, 4 exception in addition to that 11. Hers was the one study that followed kids who had already begun 5 living as the other gender when they came into her 6 7 clinic.

So when she reported her results of relatively few of these kids having desisted by puberty, exactly the opposite as the first -- as the prior 11, then, of course, I needed to cleave that, you know, there was an important difference between her one study and the other 11. That difference was, again using her words, I'm pretty sure, that they had socially transitioned.

So in that context, the meaning was, you know, that the relevant definition was the one that made the sample she was reporting on so distinct from the others, from the other studies.

20 Q Well, you describe all the others as following children who were not permitted social transition. 21 22 So presumably there has to be a definition that applies to those 11 to know that children were not 23 permitted to social transition. 24

MR. RAMER: Objection to the form.

Page 139

- the concept -- the relevant concept. 1
- O So you don't have a singular definition of social 2 transition that you use? 3
- A I don't think it's -- I don't think anyone could say that there exists a singular definition.
- Q And if you use it at various points in your declaration, is that based on how it's used in 7 other places that you're referencing? 8
- 9 A Again, I would have to look through each time I mentioned it, but I, as a matter of habit, try to 10 either make it explicit how I'm using it or make 11 explicit -- if I'm addressing somebody else's 12 comment, then I do my best to make sure that it's 13 clear that, you know, I'm using that person's 14
- definition or I'm addressing whatever that person's 15
- conceptualization is. 16
- Q And in your table of contents here pulled up on the 17 screen, which I think it's IX.B.1, you have a 18 section on what in the table of contents is,
- 19 "Eleven cohort studies followed children not 20
- permitted social transition, all showing the 21 22
- majority to desist feeling gender dysphoric upon 23 follow-up after puberty."
- 24
- 25 Q What does social transition refer to there?

Page 141

1 A Again, that's not a definition. These were studies, you know, that predated the existence of the term. So the studies themselves didn't say 3 these kids were not permitted to transition 4 socially. These were studies that did what the 5 6 studies did.

And so, here we are, you know, sometimes decades later trying to summarize in an understandable, accurate, but still pithy -pithy's not the right word -- succinct or concise way to capture what is it that made, you know, these 11 different from that one.

And the, you know, most applicable, shortest, easily -- hardest to misunderstand phrase would be social transition. But those papers didn't use that term at all, but they're meaningfully described with that term.

- O So what does it mean that they're meaningfully 18 described with that term, since you're the one who 19 applied that term to these 11 cohort studies? 20
- 21 A Oh, I think anybody reading the studies, the methods, the contents of them would very 22 23 immediately come to the same conclusion that I did.

As I say, I'm not asserting that there was a specific definition with a set of criteria that

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1 says fit or not fit. There really is no overlap between what the set of 11 did and what Olson's 2 recent one did. 3

It was an active part or it was an explicit

part of the original 11 studies where the kids were 5 not permitted to crossdress and adopt new names. 6 7 They were, you know, encouraged to be as comfortable as possible in their biological selves, 8 which is in -- which is exactly opposite to what 9 Olson did, which was to let the kids -- I don't 10 think it would be fair to say encourage, but --11 indulge probably isn't the right word either, but 12 the way she, basically, described it is that, you 13 know, the kids came in very often already living 14 15 socially as the other sex.

So because this was, you know, such a large, large difference between the original 11, we're not in a situation where subtle differences in wording or definition would change. You know, maybe one of these two 11 really were more like Olson -- the Olson study, the people -- the treatments, the therapies that kids who were coming into Olson's study were night and day different from the treatments being received by the first 11. Q So the first 11 you have on this page 51; is that

1 Q -- Gender Dysphoria." And so, you write, "This

group typically presents in adolescence, but lacks

the history of cross-gender behavior in childhood 3

4 like the childhood-onset cases have. It is that

feature which led to the term Rapid Onset Gender 5 Dysphoria (ROGD)," citing to Littman 2018. 6

Did I read that correctly?

8 A Yes, that sounds correct.

Q And rapid-onset gender dysphoria is not a recognized diagnosis; is that right? 10

11 A Not in a diagnostic manual itself, but that shouldn't be interpreted to mean that the 12 13 phenomenon doesn't exist.

Q And the paper that you cite, Littman 2018, was 14 corrected as you note; right? 15

16 A There was a change to it, but nothing that meaningfully altered any of its actual conclusions. 17

18 Q On footnote 5 you reference, "After initial criticism, the publishing journal conducted a 19 reassessment of the article. The article was 20 expanded with additional detail and republished. 21 22 The relevant results were unchanged."

Is that a correct reading of the footnote there?

25 A Yes.

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Page 143

correct? This table? 1

A That sounds right. Just seeing what you have up there, that looks right, yes. 3

4 Q And seven of those were from the 1970s and '80s?

5 A Yes. As I say, this was ubiquitous, I would say since the '70s. It would be an error to say that all studies are old and, therefore, wrong. 7

O I'm just not asking you to say whether they're old 9 or not. I'm just asking a factual matter whether seven of them were published in the 1970s and the 10

1980s? 11

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A That looks right, yes. 12

> MR. STRANGIO: I'm happy -- I can keep going. It is an hour now if you want to take five.

MR. RAMER: Yeah, why don't we take five. MR. STRANGIO: Okay.

(A recess was taken.)

BY MR. STRANGIO: 18

Q So I'm going to fill in this exhibit, which is 19 one -- I'm going to take us to another section. So 20

we're in -- here on paragraph 135, page 59 of your 21

declaration, Doctor. It's at the bottom of the 22 23 page discussing what you're referring to as

adolescent childhood -- sorry, "Adolescent-Onset --24

25 A Yep.

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MR. STRANGIO: If we could, Joel, pull up 1 Exhibit 8. 2

Q Does this appear to be the notice of republication of the Littman 2018 article?

5 A It appears to be, yes.

Q And at the top it says -- and I can zoom in so we can look more closely -- "After publication of this article" -- sorry, do you see where it begins that? 8

9 A Yes.

10 Q And then going down to the next paragraph -- oh, sorry. Under the second part of this corrected 11 12 republication, there's a heading that reads,

13 "Emphasis that this is a study of parental

observations which serves to develop hypotheses." 14 15

Do you see that?

16 A Yes.

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17 Q And then here at the top, about four lines down, "Rapid-onset gender dysphoria, (ROGD) is not a formal mental health diagnosis at this time. This report did not collect data from the adolescents and young adults (AYAs) or clinicians and therefore does not validate the phenomenon." 22

Did I read that correctly?

24 A That's what that text says, but it's very difficult 25 for a person to know what that means and what it

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- 1 doesn't mean without having a better idea of how, you know, science publishing works. 2
- Q Well, so you noted that there was correction to the 3 4 article, but did not reference that ROGD is not a formal mental health diagnosis.

Why didn't you mention that?

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MR. RAMER: Objection to the form.

A It's not pertinent to the decision or question --8 to the decision -- to the clinical question and the pertinent decisions that followed from it. 10

> In the situation, the whole point of the current difficulty is that the profiles of the people coming to clinics and expressing profound often discontent that they do not match what is in the existing manuals and on which our existing knowledge base sits, that's the point.

> Whether this new profile of person is better helped and better served by ROGD as a diagnosis unto itself, or if they actually are suffering other kinds of problems but we're just noticing the ROGD part of it because it's what they're saying on its face value, or if, you know, the previously -you know, the well-characterized distinction between the adult-onset gender dysphoria -- and adult-onset gender dysphoria, if this is now just a

for granted that they're like one of the other

forms of gender dysphoria. 2

Q But in this paper, they're not saying it out loud;

right? It's their parents?

A Oh, in studies of youth that is -- that's very

common. That is -- as I say, it's difficult to

7 interpret that sentence once lifted out of, you 8

know, the rest of how this research is done. Interviewing parents and caregivers and so on is a

very, very routine method of studying minors. 10

11 Q Exclusively interviewing parents and not the minors themselves is routine? 12

MR. RAMER: Objection to the form.

14 A For one particular study, absolutely. It's when asking a question, you know, it is exquisitely, 15 exquisitely rare for any one study to be -- to 16 answer -- you know, to answer any question. 17

> Usually what we need, and the only way we know that we're on the correct path that we have the correct answer is when several different researchers working independently using different kinds of methods keep coming to the same result over and over. That's when we can be confident.

> So in any research investigating or that's the pursuit of any question including this one, we need

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new way of expressing one of those, well, we need to know that in order to know what to do with these

kids. That this new presentation is not in the, in 3

this case DSM is usually what people are referring 4 to, that's the whole point. 5

This is new and we don't know what to do with it. Therefore, the medically and clinically appropriate thing to do is nothing until we have a better idea of what the potentials are, the risks and benefits are.

When we're talking the removal of healthy functioning tissue, that's a method of last resort until we've exhausted the other alternatives which don't involve as much potential harm.

If, you know, after we've exhausted the other possibilities and realize, yeah, this really is the best balance of the potential risks and benefits, okay, let's go ahead. But that entire set of questions was skipped.

We don't know if this is an independent phenomenon, a new subset of an old phenomenon, and if it is which phenomenon. These are people coming in, you know, in great emotional distress. Okay, but that doesn't mean that it's automatically what it is that they're saying out loud. We can't take

studies that talk to the kids, that talk to the parents, that talk to their psychologists, that talk to the physicians and other studies that don't talk to a person at all and stick to objective measures, you know, of whatever is appropriate to the question.

So this one particular study was the one that interviewed parents. It is neither the beginning nor the end. Is it one piece of the puzzle and an important piece when we need, you know, and it goes in the pattern of all the others.

So it's that, you know, contribution one piece at a time, yes, that is absolutely a routine method for investigations studying minors.

MR. STRANGIO: If we could go back, Joel, to Exhibit 1. Sorry, Joel, did you hear that, Exhibit 1? Thanks.

BY MR. STRANGIO: 18

> Q Okay. Still on paragraph 135, you write after reference to the Littman article, "The patterns" -and this, let me -- I can zoom in for you, although I think you have this in front of you, Doctor.

"The patterns reported by Littman have now been independently replicated by another study which also found it to be a predominantly female

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phenomenon, associated with very high rates of

- 2 social media use, among youth with other mental
- 3 health issues, and in association with peers
- 4 expressing gender dysphoria issues." Citation to
- 5 Diaz 2023.
- 6 A Yes.
- 7 Q Is that right?
- 8 A That reading of the text is correct, yes.
- 9 Q And if we can pull up -- well, let's see if we can do this without pulling up the exhibit for the sake of our limited technological skills.
- Are you aware of changes to the Diaz article subsequent to publication?
- 14 A Yes, I am.

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- 15 Q And you're aware that the second author of the publication, Michael Bailey, has since made public that the paper has been retracted?
- 18 A Yes. Of course, I need to add the caveat that arm
  19 of the drama happened after I submitted this. So
  20 it wasn't -- you know, I didn't have that knowledge
  21 when I wrote and submitted it. But, yes, I know
  22 that that's happened in the interim.
- 23 Q So the article that you cite further the prop -the article that you cite for the proposition that the patterns reported by Littman have now been

whatever.

The way that these data came, it was ambiguous. There are, you know, different groups that have different policies and different principles for, you know, under what circumstances should people have undergone how thorough of an informed-consent process.

In this particular one, the relevant guidelines would be those of the publisher itself, Springer who publishes the journal that this was printed in.

The policy of Springer is that it was up to the discretion of the editor in chief. And the editor in chief which said that, yep, nope, fine with him.

However, after the publication of the article, you know, the nature of it and that people didn't like the conclusions that it came to started a --what I can only call a campaign to have it declared unethical, because they don't think that the editor's discretion was what they wanted it to be.

So, again, that became, you know, whatever pressures. And then it goes, you know, behind closed doors, and I don't know what's going on. And then the publisher ultimately decided to --

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independently replicated was retracted?

2 A Again, there are some nuances in that. There are

3 some nuances in that. The paper wasn't -- the

basis of the retraction of the paper, which isitself now a means of enormous controversy, was no

itself now a means of enormous controversy, was notactually about whether the contents were accurate.

No one has, you know, presented any demonstration

that the results that they reported were incorrect.

So to the extent that one is actually seeking the truth in that if one wants to know what's going on, as best as we could tell with these kids, you know, the conclusions they came to are perfectly valid and, again, exactly the same. They, you know, completely independently come to the same conclusion as the Littman paper.

To the best of my knowledge, the nature of the controversy, I guess I can call it, which led to the formal retraction was -- oh, goodness -- was the database was pre-existing. The nature of the data were already collected by the time -- I guess it was Bailey became involved.

And in research ethics, there are different criteria that they use for pre-existing databases versus, you know, actively going and recruiting people in order to participate in a study or

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that the paper should be officially retracted. But
there were never any allegations, and there were
never any conclusions that the content or the
conclusions themselves were in error.

So whether that should be -- so does that count or does that not count? It's hard for me to come to any conclusion that people are going to accept or reject the contents of that paper according to whether they accept or reject its implications. The content of the paper, however, has not been in question.

- has not been in question.
  Q But just as a factual matter, in this paragraph one of the papers was corrected and one was retracted?
- 14 A I don't think -- such a characterization, again,
   15 just kind of insinuates a situation that is the
   16 opposite of the truth.

The correction -- again, in general publishing a correction is the formal name of a post-publication change. It is -- you know, but in the context where people are, you know, liking or disliking a finding, the word correction is getting used to imply that one of the conclusions was wrong or something in it was incorrect, which is not the case.

The content that was changed to Littman was

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adding detail. None of the conclusions changed, no errors in it were found. It's the decision was, well, add the necessary detail in order to demonstrate that nothing was skipped because this particular audience isn't going to take anything for granted.

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So she added the detail, but the nature of editorial publishing is that such changes are called correction. So, again, to just take that sentence out is to -- is easily mistaken as an assertion that something was incorrect.

Same with the Diaz paper. To call it a retraction without the, you know, details of what led to the retraction is to insinuate or to kind of, you know, leave a reader or listener the impression that there was something wrong, that there was an error in the conclusions of the paper, and so its conclusions ought not to be given any weight.

That's not the case. The conclusions were never in question, and nobody's changed any of the conclusion -- nobody's asked for any changes to the conclusions or demonstrated that there was an error.

People have been -- there were people who were

letter they sent. The policy that they have, youknow, it was entirely explicit that it was left up

to editor's discretion. So essentially they as publisher overturned the editor's use of that

discretion.

Again, I don't think any of that is ambiguous. And I'm not aware of anyone anywhere in that pipeline -- at least the parts, you know, to which I'm privy, I've not seen any communications or evidence or discussion otherwise.

11 Q Going to page 62 -- uh-oh, what have I done? So 12 beginning on page 62 of your declaration, you 13 distinguish between suicide and suicidality; is 14 that right?

15 A Yeah, again, I hesitate to say that, you know, I
16 distinguish. I'm just, you know, orienting people
17 to the proper uses of the vocabulary. So people
18 who are, you know, not psychologists, you know,
19 reading this don't accidentally mistake one to mean
20 the other, which, again, especially in this context
21 very many groups are actively doing.

Q So, I mean, in essence you note that they're distinct clinical phenomena; is that right?

24 A I know that these are distinct phenomena, yes.

25 Q You note, sorry. I know that you know that. You

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- upset and protesting about -- well, again, their
   motivations are, you know, pretty -- are relatively
- clear, but the content -- the rule that was being
- contested was the method and amount of disclosure,you know, of the people who participated in the
- study. But there was never any question in the accuracy of the study itself.
- 8 Q Is your view that it was only retracted because of 9 external pressures?

MR. RAMER: Objection to the form.

- 11 A I haven't seen any evidence, and I haven't -- I don't think I've heard any accusations otherwise.
- 13 Q So you think that the journal just retracted it
- because of external pressures, not concerns about
   the informed consent as --
- 16 A The journal didn't retract it. The publisher did.
- 17 Q Excuse me, the publisher retracted it out of
- concerns about a lack of informed consent, that was not a true reason?

MR. RAMER: Objection to the form.

- A I don't think the situation breaks down quite that
   way. And it's essentially what the publisher
   themselves said. They indicated that they were
   receiving those kinds of communications. There
- was -- I'd have to go back and read the original

1 note?

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- 2 A Oh, I note that, yes.
- 3 Q I don't actually know, so --
- 4 A And perfectly legitimately, the public doesn't.
- 5 That's not their job. You know, this isn't the
- 6 kind of stuff that people discuss. And that's what
- 7 leads so many people to misunderstand the content
- 8 of these studies, especially when things are being
- 9 lifted out of context.

So in order to understand the context of these studies, you know, I have to start out with, as I say I do, here are the definitions. Here's how I'm going to use them. If you read these other, here's how they use them. Which one we use, I don't care, but as long as we're all using the same one, we can have a productive conversation.

17 Q And so, understanding they're distinct clinical phenomena, you would agree that both should be clinically addressed?

MR. RAMER: Objection.

- 21 A Oh, yes, absolutely.
- Q And that reducing suicide and reducing suicidalityare both positive outcomes?
- A Yes, absolutely. The difficulty that society comes to is that it is exactly because it is part of

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experimentees.

- these being such different phenomena that the way
- to deal with them effectively is very different. 2
- So --3
- 4 Q Understood.
- A -- not merely a matter of -- you know, using
- suicide when we mean suicidality, that's not
- merely, you know, exaggerating. It's failing to 7
- help get the right kind of help to the right group 8
- 9 of people. And so, you're disadvantaging them
- both. And everybody's harmed or failed to be 10 helped. 11
- 12 Q In paragraph 142, and this is on page 63, you
- write, "Social media voices today loudly advocate 13 'hormones-on-demand' while issuing hyperbolic 14
- 15 warnings that teens will commit suicide unless this is not granted." 16
- Did I read that correctly? 17
- A Yes, that's the content of my sentence.
- Q What are hormones-on-demand? 19
- 20 A With minimal assessment consideration of
- alternatives, it's removing whatever safeguard one 21 can find an excuse to remove. 22
  - This is another one of the differences that have changed over time, which is relatively apparent to those of us who have been in this field

that I'm describing is, you know, quite concretely

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As I say, it's the -- I'm referring very specifically to the removal of the safeguards that were in place when the available data were first gathered. And the reason why, that just because we're -- that after removing those safeguards and after removing the assessment procedures and so on, that expecting different -- expecting the same result after changing the -- after removing those safeguards is what makes the current situation an experiment, you know, without the knowledge of the

And I use the word hormones-on-demand to refer to situations where -- and to clinicians who believe that asking for hormones or medicalized transition services is sufficient, and from that point forward, the clinician's predominant duty, now with only very rare exceptions, to find ways to provide them. Rather than to accept it as one of the possibilities, let's try the less potentially risky ones first.

- 23 O And what -- who are the social media voices?
- 24 A Oh, again, the ones whom I happen to run into 25
  - regularly. There's certainly no shortage of them,

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- for long periods of time and have watched the
- removal of safeguards as opposed to people who have 2 recently come into the field and are only aware of 3
- the current status and don't realize that this is a 4
  - change.

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So people are often referring to, you know, history's long-standing criteria. No, the current criteria are not long-standing at all. These are brand-new and untested.

The subset of studies which suggest success use the relatively high standards that used to be in place at that time. Today people have removed the real-life testing requiring months, years in some cases, of psychotherapy and expect still to get the same results.

- Q There's no citation on this sentence about 16 hormones-on-demand; right? 17
- A Correct. And that's also why I put it in quotes. 18
- I'm using it as a general description to capture 19 the basic idea of what's going on. 20
- Q So that's not based on any specific practice? 21 MR. RAMER: Objection to the form. 22
- 23 A No, that's not true either. It's the -- you know, the term itself is, you know, my own expression in 24 order to describe the situation. But the situation 25

- only because his name is forefront of my mind for the moment, would be, for example, Jack Turban.
- 3 Q So you would consider Jack Turban to be a social media voice?
- 5 A Yes, I think it would be fair to describe him that
- 6 way. I don't want to be unfair to him either. I
- wouldn't say he's limited to being a social media 7 voice. 8
- 9 Q So you mean clinicians on social media?
- 10 A I would include clinicians on social media.
- O And you think that non-clinicians on social media 11 are relevant to your assessment of current clinical 12 13 practice?

MR. RAMER: Objection to the form.

A No, I wouldn't say that either. How I use that 15 phrase, and how I would still use that phrase, 16 really, is that that is the medium through which 17 one would run into, you know, such voices. I mean, 18 if one is looking to find, you know, how these 19 ideas are getting communicated, they're largely 20 getting communicated through social media. 21

> It is hard to avoid the observation that it was the onset of social media that changed, you know, the public perception and treatment, including professional treatment, of gender

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1 dysphoria is one of very many, very profound changes that all started with identical timelines. 2 Among them is this sudden and exquisitely rapid, 3 4 literally exponential increase in rates of mostly adolescents, mostly biological female reporting 5 gender dysphoria. 6

7 It's unfortunate, it is not helping that generation at all. Gender dysphoria -- or that 8 enormous exponential increase in gender dysphoria 9 is only one of several dysphorias, all of which 10 11 have exponentially been increasing since the onset of social media. 12

- O What are the other dysphorias? 13
- A The other major ones are reports of depressions, 14 anxieties and, again, suicidality. 15
- Q On page 91, paragraph 204 -- Joel never should have 16 given me control of this. 17
- A Would it be inappropriate for me to say, oh, this 18 sounds like a significant other kind of a comment? 19
- O Okay. 204. Here, Doctor, you are talking about 20 21
- sterilization without proven fertility preservation options. You write, "Clinical guidelines for the 22
- medical transition of gender among children include 23
- the need to caution and counsel patients and 24
- 25 parents about what are euphemistically called

Page 164

- sperm. That would be a person who is fertile, and we are trying to maintain, we're trying to preserve 2 his fertility. To say that --3
- 4 Q So I understand that. This is a reference to the clinical guidelines for medical transition 5 generally. 6

So taking aside puberty blockers, there are fertility preservation options for persons who undergo hormone therapy, are there not?

MR. RAMER: Objection to the form.

11 A Again, that to me is why I referred to this as you've -- as a euphemism. There exists a range of interventions and a range of their harms.

> To pick the mildest phrase which describes the mildest harm, and then generalize that to apply to the entire range where the controversy is at the other extreme where there is again sterilizing these children, you know, we end up with a situation where the terminology is being used in accordance with the person's political or other views rather than my automatic preference as a scientist make the word -- make the phrase precise and accurate.

> And fertility preservation is amongst the terms that is, again, being a euphemism and not

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'options for fertility preservation.'" And then

you cite the Endocrine Society Guidelines.

Is that -- did I read that correctly? 3

4 A That's that one sentence, yes.

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Q Shouldn't clinicians counsel patients about options for fertility preservation? 6

MR. RAMER: Objection to the form.

A Again, that's why I'm pointing it or was trying to 8 emphasize that what I'm pointing out is that they're doing that euphemistically, where the term they're using is sterilization, which is essentially guaranteed for somebody who goes from 12

puberty -- or halted puberty with puberty blockers to cross-sex hormones.

The very phrase "fertility preservation" works under the assumption that you were fertile in the first place. And the sequence of blocking puberty and taking prepubertal gonads and putting them on cross-sex hormones is the prevention of ever-developing fertility. It's not preservation.

That's an adopting of the term -- adoption of a term if, for example, a man with testicular cancer is going to undergo chemotherapy, which, again, would, you know, interfere with, if not outright destroy, his ability to produce viable

Page 165

- accurately describing the risks and potential harms 1 in a way that would allow for a legitimate and 2
- meaningful calculation of the risk-to-benefit 3 4
- 5 Q But you don't think that counseling a patient that there are no options for fertility preservation in 7 some instances, and then counseling a different patient that there are some options for fertility 8 9 preservation in other instances is an appropriate way to describe a range of medical intervention? 10

MR. RAMER: Objection to the form.

12 A I haven't seen a document that does that. I don't believe the Henbury policy did that. It consisted only of the use of the mildest terms.

I also think it's an error to use, again, an all-encompassing term like patient. We are talking a prepubescent child and having an adult conversation about whether they want to have children. That conversation is not comparable in any meaningful way to a 30-year-old adult male, with in this example testicular cancer, who is able to come to an adult brain decision over children, not children, the potential for his own future

Asking a prepubescent that is using a global

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1 all-encompassing term like patient is another 2 example of obscuring the most, you know, severe and dramatic of these situations using exactly the same 3 4 term that we should use, you know, in describing the most mild of the range of issues and the risk-to-benefit ratio. 6

Q In that paragraph you write, "The decision to 7 undergo medicalized transition also represents the 8 decision never to have biological children of one's 9 own." 10

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Do you think that might be the most extreme interpretation of a range of potential outcomes? MR. RAMER: Objection to the form.

A Oh, again, the same. When somebody is giving one extreme, I'm pointing that out to -- you know, I'm red flagging it by pointing out the missing part of the extreme, which requires me to name the missing part of the extreme. The whole point is that this is a wide range.

20 Q But someone who, say, undergoes a double mastectomy can still have biological children of one's own? 21 MR. RAMER: Objection to form. 22

A The situation, at least in theory, can exist. But 23 there are no reliable numbers, I think either in 24 25 the U.S. or Europe, about the proportions and

Again, my purpose was to demonstrate that it is inappropriate to the point of misleading for a professional medical society of all groups to use only the mildest and most euphemistic of language ignoring -- again, in a document meant for physicians, not meant for the patients themselves, describing, you know, only the most optimistic balance of risk-to-benefit ratio as opposed to

And, again, in the case specifically of the Endocrine Society statement, in complete absence of the consideration -- I shouldn't say complete absence, but at the same time as failing to integrate the large number of complete unknowns and still unexplored alternatives before we get to the most dramatic of the options.

recognizing the full range of varying situations.

Q I'm just trying to understand this sentence that 17 18 vou wrote --

19 A I'm sorry.

20 Q -- which is, "The decision to undergo medicalized transition also represents the decision never to 21 have biological children of one's own." 22

> refers to patients who go from puberty blockers to hormone therapy; is that right?

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overlap of, in your example biological women, 1 undergoing mastectomy versus cross-sex hormones 2

versus puberty suppression. 3

> Of course, you know, sterility and decisions about the sterility being made by a prepubescent brain comes from people who are on puberty blockers pretty much as puberty starts and then going on to cross-sex hormones.

9 Q So you're describing a subset of the people who undergo medicalized transition in this sentence? 10 MR. RAMER: Objection to the form. 11

A Hang on, I was still stuck on the prior part. 12 Again, the sterility is for people who are on puberty blockers followed by cross-sex hormones.

A biological female put on puberty blockers and then put on cross-sex hormones doesn't develop the breasts for which a double mastectomy would be required in the first place.

19 Q So, I'm sorry, your phrase undergoing a medicalized transition only refers to people who go from 20 puberty blockers to gender-affirming hormones? 21 22

MR. RAMER: Objection to the form.

23 A I didn't mean my sentence to be a complete review of, you know, several different potential 24 combinations of the several different variables. 25

In that sentence, medicalized transition only

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Page 168

## MR. RAMER: Objection to form.

A No, my one sentence cannot be considered on its own without the other sentences that I purposefully put 3 it together with. 4

5 Q So you're not willing to say -- you're not willing 6 to accept that someone who only undergoes a mastectomy, for example, could still have 7 biological children of their own? 8

MR. RAMER: Objection to the form.

10 A In its context, my sentence doesn't contest that. I'm filling in the missing pieces. So the one 11 sentence taking out just, you know, ends up leaving 12 13 different pieces missing. It takes the whole set of them where I'm pointing out, you know, the 14 pieces of the puzzle are missing. So I'm alerting 15 the reader to the missing pieces. 16

> Well, it's true that I am not alerting people to the not missing pieces. I only need to alert people to the missing pieces.

So the one sentence on its own is what, in my view, is one of the missing pieces. There's no purpose to that sentence to point out the pieces that were already there to begin with.

Q Do you think that testosterone impairs fertility 24 for every natal female who takes it? 25

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Page 173

1 A For everyone? No. The most -- the powerful

- effect, the essentially sterilizing issue happens 2
- with the combination -- that happens from the 3 4 combination essentially applying cross-sex hormones
- to gonads that still have prepubertal cells.

Q Got it. 6

A So the automatic sterilization goes from the --7

- goes to people who essentially were going from 8
- 9 puberty blockers to cross-sex hormones without time
- in between to develop adult quality viable gonad 10 tissue, that I don't remember if it was in this 11
- 12 report, but it was exactly that error for which I
- was faulting several of the other experts, as they 13
- report, you know, some of the relatively mild side 14
- 15 effects of one or the relatively mild side effects
- of the other where the actual danger is in the 16
- combination, and nobody mentions the combination. 17 Q Understood. Earlier you were talking about 18
- prepubertal children making these decisions about 19
- fertility, but in the United States it's their 20 parents consenting to treatment; right? 21

MR. RAMER: Objection to form. 22

- A I don't think -- that doesn't really describe the 23 full sentence. It's not like the parents are 24
- 25 deciding -- the parents aren't talking with each

matter. That's the whole problem. In pediatric medicine in general, we have objective evidence of 2 3 an objective process for which we can give -- I'm 4 making this part up -- a blood test to verify that

the kid has -- you know, to use a usual example, 5 whatever intersex condition. 6

This is exactly the opposite condition. We have zero objective evidence, only subjective self-report from a prepubescent kid which conflicts entirely with all of the available objective evidence. That is entirely unlike the rest of the pediatric medicine -- or that is entirely unlike, if I can talk in italics, the process of general pediatric medicine.

15 Q On page 109 --

16 A I'm there. Speak of the devil.

Q Okay. So this is in paragraph 259. You write of 17 18 Dr. Turban, "Dr. Turban's employment as director of 19 a gender program in child and adolescent psychiatry represents a significant conflict of interest: The 20 income he derives from his medical treatment of 21 22 these children would be directly affected by the outcome of this case." 23

Did I read that correctly?

25 A Those are the sentence -- that's the sentence I

Page 171

wrote, yes.

other should we have grandchildren. The parents 1 are trying to figure out, you know, what would 2

help, you know, increase the mood or discomfort of 3 the profound unhappiness of their child. 4

And so, from their point of view, they're doing their best to do what they think their kid wants or what they imagine their kid would want or will have wanted when the kid is later an adult and

looking back on the whole thing. So the parents generally are trying to guess what the kid would want is -- what the kids would

want. It's also, I think, unfair to describe the parents' decision-making process as consent as if it's a cognitive process, when the consent is in the legal meaning they are providing on paper what we deem to be consent. But it's a misleading use of the term to equate legal consent with making the kid's decision for the kid, when the basis of what the parent's legal decision is going to be is their best guess for what they think the kid would want if the kid were an adult, which the kid isn't.

- 22 O And that's the nature of pediatric medicine as a 23 general matter?
- MR. RAMER: Objection to form.
- 25 A This isn't like pediatric medicine as a general

- 2 Q And Dr. Turban is a psychiatrist; correct?
- 3 A Yes, so far as I know.
- 4 Q And he is employed in a child and adolescent
- psychiatry program?
- 6 A Yes. Is it up to a year yet? Recently, but, yes.
- Q But you maintain that his income is derived from
- endocrine treatments?
- **9** A Did I say endocrine?
- Q You said his medical treatment. I don't know what 10 you're referring to there. 11
- 12 A I meant it relatively broadly. It's -- again, I 13 don't know details about how the specific hospital works. But the usual procedure, and I don't recall 14 him ever pointing out an exception, is to engage in 15 these procedures as a multidisciplinary team. 16

As a psychiatrist, he would ultimately be responsible for the mental health assessment or lack of mental health assessments used in deciding who would go on to endocrinological treatments. And the endocrinologist would be responsible then for ensuring the physical ability of the child to respond to the medications as desired, but not the decision whether to. 25 Q Do you think that everyone who works in a

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1 multidisciplinary gender clinic has a conflict of interest in these cases? 2

MR. RAMER: Objection to the form.

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- 4 A I don't see any way around the idea that when the legality of providing a service is in question that 5 there is a conflict of interest for the people 6 providing that service.
- Q Well, Dr. Turban doesn't provide any of the 8 services directly that are the subject of the 9 Indiana law; right? 10

MR. RAMER: Objection to the form.

- A I don't know what director would -- I don't know 12 what you mean by direct. If one is in charge of --13 I don't mean to equate the situations, but if one 14 15 is the manager of a McDonald's, just because you're not serving the hamburgers doesn't mean that you 16 are not affected if they shut down the whole 17 restaurant. 18
- Q So if they ban puberty blockers and hormones and 19 surgery, it's your view that not only are the 20 endocrinologists and the surgeons conflicted --21 possessing a conflict of interest, but the 22 psychiatrists are as well? 23
- MR. RAMER: Objection to the form. 24 25 A Yes, everybody involved in the provision of the

1 international outlier in this again, there can be,

- or I can imagine there existing a situation in 2
- 3 which, for example, a nurse is simply assigned a 4 department. And if one department is restructured
- or canceled, then he, she, or they are reassigned 5 to another clinic so that it's, you know, 6
- relatively invisible to them, I can imagine the 7 possibility for certain circumstances like that. 8

I cannot imagine such a situation from the person -- from a person legitimately holding the title director.

- Q Do you believe that the physicians who treat 12 patients at gender clinics would not have jobs if 13 puberty blockers and gender-affirming hormones were 14 15 banned?
- 16 A I would be surprised certainly if they became unemployed. But, again -- but they would be, you 17 18 know, in any meaningful way highly impacted.
- Q They couldn't practice other aspects of their 19 specialties? 20

MR. RAMER: Objection to the form.

- A They would be forced to. As I say, they would be 22 23 impacted, but I would be surprised if they ended up unemployed. 24
- 25 Q So their income wouldn't necessarily be impacted?

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- service. And if the -- to the extent that the 1 provision of the service is multidisciplinary, and 2
- he is the doctor -- he is the director directing 3 the entire process, he is ultimately responsible 4 for it. 5

And it would be that entire -- it would be the entire service he is directing that would be switching to the other use of the term directly influenced by regulations and findings that limit

or ban or restrict the provision of that very 10 11

Q So is it just the directors of the program or every 12 physician who works at a gender program? 13 14

MR. RAMER: Objection to the form. A I don't think I necessarily need to allow for the 15 possibility that there could be an exceptional 16 situation that doesn't immediately come to mind, 17 but to -- it's I can't think of a situation in 18 which one can be a specialist in providing a 19 specialized service that -- for which one would not 20 be in a conflict of interest if that service is 21 prevented. 22

The only exceptions, and I'm not even sure they count as exceptions, depending on -- again, in different hospitals in the U.S. is the

- MR. RAMER: Objection to the form.
- A I don't think that fairly describes the situation. It's -- I don't think that fairly describes the 3 situation, no. 4

Having one's means of income being required, 5 6 you know, against one's will to have to change what one does for a living in order to maintain one's 7 income represents a significant conflict of 8

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10 Q So based on that, are the only legitimate experts those who do not treat adolescents with gender 11 12 dysphoria?

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MR. RAMER: Objection to form.

15 A That's a different question. And as I enumerated within my report, it is a standard procedure in 16 producing a systematic review in order to get 17 people who do not have a direct interest in the 18 outcome of it. 19

> And that's exactly how Vivienne Cass in the UK was chosen. And that's how all of the other groups in all of the other countries were selected. To pick an odd example, if one wanted to know if reading fortune tea leaves were scientifically valid, you could not do it by asking only the

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fortune tea leaf readers.

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One needs to be able to -- in order to be without a conflict of interest, one needs to be one step further away than receiving income from the provision of the service in question.

Q So you believe Dr. Turban is biased because you 7 think his compensation is tied to a certain clinical outcome? 8

MR. RAMER: Objection to the form. 9 A I don't think I said biased. I'm, you know, 10 acknowledging he's in a conflict of interest. The 11 12 nature --

Q So you -- okay. Go ahead. Sorry. 13

A The nature of his writings suggest that, you know, he has very, very strong beliefs about the 15 situation. But, again, the term bias is for me to 16 engage in some mind reading that I'd hesitate to. 17 It is perfectly legitimate, and it's a matter of, 18 you know, objective evidence to indicate that this 19 is a legitimate conflict of interest. 20

Bias is more cognitive -- is a more cognitive situation, which is, I think, a legitimate accusation, but I couldn't say that I have an objective means of demonstrating it unlike conflict of interest.

Page 180 1 Q Do you think being paid by an advocacy organization

might have an improper influence on a clinician's opinion?

MR. RAMER: Objection to the form.

5 A I can imagine situations where it would, and I can imagine situations where it wouldn't. So I wouldn't automatically -- it would be a legitimate conclusion, but it doesn't have the automatic people provided -- the quality of service provision or the -- tenability's not the word. The safety and effectiveness of providing a service has to be conducted by people at arm's length from it.

If one is at a -- is in a position where one is advocating a particular view, then it's completely transparent that one is, you know, of that view or advocating for whatever that situation

That's entirely unlike healthcare where one is expected to be -- expected and depended upon to be entirely objective, but it's not -- the expectations and the people who were meant to be protected by it are of a different kind.

O Were you aware that Indiana's expert, Daniel Weiss, 23 testified before multiple state legislatures in 24 25 favor of laws like SEA 480?

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1 Q So you think that compensation can have an improper influence on a clinician's perspective?

MR. RAMER: Objection to the form. 4 A That's not a reference to the proper audience. The

people who are in need of protection, and the 5 people who are meant to be protected by 6

conflict-of-interest principles are not the

7 providers of the service, but the recipients of the 8 9

10 Q What are conflict-of-interest principles?

A Oh, I don't mean them -- as I said, I mean them 11 12 generically. If I were going to receive, you know, any medical service, I expect of the institutions, 13 whether it's government or medical boards depending 14 on one's jurisdiction, that if I'm going to be 15 receiving what I expect to be evidence-based 16 medicine, I expect that evidence to be evaluated by 17 people other than the person actually providing me 18 the service. 19

If I knew that the only person reviewing my provider was my provider, I would be in a very different situation of confidence in making my own healthcare decisions than if a person at arm's length were in charge of reviewing the procedures my provider provides.

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MR. RAMER: Objection to the form.

A I'm not even sure who that is.

3 Q And that he was compensated by Do No Harm for that testimony?

MR. RAMER: Objection to the form.

6 A Same, I don't think I know who that is.

Q Is that a conflict of interest to testify before a state legislature regarding a law and be 8 9 compensated by an advocacy organization?

MR. RAMER: Objection to the form.

11 A I'm still missing a piece. I don't know who or what it is that we're talking about. 12

13 Q Well, I don't think you even have to know who he is. He's one of Indiana's experts in this case, an 14 endocrinologist. But he testified regarding a law 15 like SEA 480, and for that testimony was 16 compensated by Do No Harm, an advocacy 17 organization. 18

I'm just trying to understand under your framework for conflict of interest, would that be one?

MR. RAMER: Objection to the form.

23 A No, I don't think so. Acting in a political capacity advocating for a political view doesn't 24 have the same expectations of neutrality as would a 25

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physician -- as a patient coming to a physician
expecting to receive objective feedback and advice
from the physician.

In a governmental situation, there will -there would generally be people advocating on one
side, people advocating on the other side. And the
influence of whatever money for whatever decision
it is, is almost, I don't know how cynical -- one
could be -- it would be perfectly fair to be
cynical. But that is not the same decision-making
process or position of vulnerability that a patient
has in expecting the advice they get from their own

doctors to be.

Q So is the conflict of interest you describe with respect to Dr. Turban about a conflict of interest with his patients, not as an expert in this case?

MR. RAMER: Objection to the form.

18 A The conflict I'm referring to is the combination of them.

20 Q Page 124 --

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MR. RAMER: Hey, Chase, we've been going for --

MR. STRANGIO: So the question I have is, I'm close to the end. Do you want to sort of go 20 more and try to wrap it up, or do you want to take

1 A Not in the manner -- not in that manner, no.

2 Again, not -- they're generally, unless they have

3 specific training, again, specifically for

4 assessment of such mental health concerns, it tends

to be limited to what a brief screening and

6 standardized questions of, in general, things to be

on the lookout for. But that's not the context or

situation that he's describing or -- that he's describing period -- semicolon. Nor is it the

basis for predicting what future situations that do

not currently exist will bring, you know, on the

basis of no evidence whatsoever.

Q And in the previous paragraph you write,
 "Dr. Shumer's report provides a highly misleading discussion of the risks of GnRH agonists and

cross-sex hormones."

Did I read that correctly?

18 A Yes.

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Q And are you an endocrinologist qualified to make
 assessments of the risks of GnRH agonists and
 cross-sex hormones?

MR. RAMER: Objection to the form.

23 A That statement doesn't require an endocrinological background.

25 Q Do you use social media?

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- a break and then finish? We can take a break, I
  can check in with my side, and then we'll just
  finish up after the break?
  - MR. RAMER: I'd appreciate the break.

5 MR. STRANGIO: Yeah, yeah, yeah, let's do it. Let's do it. I was trying to get us done, but

Let's do it. I was trying to get us done, but understood.

MR. RAMER: No, I appreciate that, too.

9 MR. STRANGIO: Yeah, it's fine. It's fine. 10 Five minutes?

MR. RAMER: Works for me.

Doctor?

THE WITNESS: Okay. See you in five.

14 (A recess was taken.)

15 BY MR. STRANGIO:

16 Q Okay. I'm on page 124, paragraph 299 regarding
17 Dr. Shumer, you write, "Despite his use of dramatic
18 terms, Dr. Shumer is not a mental health expert
19 qualified to assess mental health outcomes, and he

cites no evidence to justify any predictions of suicidality or other predictions of outcomes."

Did I read that correctly?

23 A Yes.

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Q Do medical doctors not typically assess their patient's mental health?

- 1 A A little bit.
- 2 Q Twitter as we've been discussing?

3 A Yeah, I try to keep it to roughly, you know, a 4 tweet or two a day. Usually I'm working on

5 something else and it occurs to me, oh, people

6 would be interested to hear that and I'll post it,

or there's a precious pithy thing that, ooh, that kind of crystallizes it, so I'll release that.

9 Q And is your handle @JamesCantorPhD?

10 A Yes, that's correct.

MR. STRANGIO: Can we pull up what's marked as Exhibit 11.

13 BY MR. STRANGIO:

14 Q On February 23 of this year, do you recall

tweeting, "The only ones who crave affirmation more than trans teens are their doctors"?

than trans teens are their do
A I recall that tweet, yes.

18 Q What did you mean by that?

A The interactions that I've had with them, with the ones who in turn discuss or refuse to discuss the

relevant issues on social media are unlike the

healthcare providers I interact with in any other aspect of human sexuality and unlike the scientists

I interact with on any other issue. There's much,

much less discussion of the content and much, much

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- more discussion of how it's going to look.
- Q And when you're talking about the interactions, 2
- you're talking about interactions on social media? 3
- 4 A Not just. Of course, you know, it is exactly
- because the bar for entry into social media is so
- low that, you know, the proportion of the publicly 6
- 7 available statements, it takes up so much more than it. But, no, it's not limited to social media. 8
- 9 O Do you think that doctors who treat transgender adolescents are doing so for reasons other than 10 concern for their patients? 11

MR. RAMER: Objection to the form.

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A As happy as I am to call out what I think is an 13 unhealthy influence of one's personal 14 characteristics in one's professional practice, I 15 wouldn't dichotomize it either. 16

I would not say as a general rule that -- I do believe, or I have every reason to believe, that they genuinely believe that they are helping, but the set of cases, situations, willingness to take on risks, willingness to disagree with a popular idea in the face of evidence suggests that there is, as I say, an unhealthy or disproportionate balance of the several inputs and motivations to behavior.

alternatives.

Q And is that description one that you would apply to all doctors that treat trans teens?

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MR. RAMER: Objection to the form.

5 A No, I would automatically hesitate to -- I would automatically -- I would reflexively refuse to --6

Q What about would you apply that description to most doctors that treat trans teens? 8

MR. RAMER: Objection to the form.

10 A I don't think there's a meaningful way -- no, I would have to couch it more than that. Again, I'm speaking, you know, on social media referring to the other people involved in the discussion on social media. And today, more than ever, the number of people that -- I think I was making this point earlier, that people with relatively moderate or relatively balanced or nuanced perspectives are silencing themselves for fear of being attacked by either extremists on one side or extremists on the other side for not being far enough to that given extreme.

> So it's because they've self-silenced. Again, outside of the people who were speaking publicly, and I mean to be speaking of the people who are speaking publicly, I would not reflexively

> generalize that to people who are keeping quiet --

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And, again, I don't mean to isolate people involved with this issue versus rest of world so much as I've been involved with very many, you know, controversial issues. That's not only the nature of sex research, but it's the nature above all the other branches, even of sex research, it's much more a part of the study and of atypical sexualities.

So relative to other care providers and other scientists involved with providing professional care to people with other atypical sexualities, the cluster of personalities, the type of conversations that are had and not had, the unwillingness to respond to the most legitimate, even published criticisms, this group of people are unlike those working in any other area of atypical sexuality. Q And what is -- who is this group of people?

MR. RAMER: Objection to the form. A People publicly advocating. I really want to say extremists, I think I want -- I have a hard time finding a different word than extremists, but people with an un -- with a disproportionate conviction of what they're doing is correct without having balanced it against the enormous number of unknown potential alternatives -- or potential

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publicly quiet.

3 Q Including those people who are keeping quiet publicly and continuing to treat adolescents with gender dysphoria with medical interventions? 5

MR. RAMER: Objection to the form.

- 6 A Well, again, the continuing to treat is to assume 7 that there was a baseline against which to compare 8 9 them that doesn't exist. This really wasn't 10 getting done in the way and by the numbers of people and without the supervision or tracking or 11 external review that --12
- Q I wasn't referring to the temporal in the way 13 you're responding. I just meant someone who's 14 currently prescribing, let's say, gender-affirming 15 hormone therapy to adolescents but isn't speaking 16 publicly on the matter. 17

Would this tweet apply to them? MR. RAMER: Objection to the form.

- 20 A No. Again, I pretty much mean it to be people who were speaking -- other people who were 21 participating in the same forum. 22
- 23 Q And so, when you refer to extremists, are extremists those who support the provision of 24 hormone therapy to adolescents with gender 25

18

1 dysphoria? MR. RAMER: Objection to the form. 2 A Not necessarily. There are -- what's missing are 3 4 the people who merely support. There are very -there are few speakers who merely support. 5 The people I would call extremists would be 6 those for whom there exists no alternative. There 7 is that -- the person asked for it has sufficient 8 9 basis to do everything you can to make sure that they get it. Rather than cover bases, let's try 10 10 other things first. Let's not start with the most 11 11 dramatic of alternatives. Let's skip all of the 12 12 many unknowns and we're not so sures and use it as 13 13 a method of first resort. And any resistance is 14 14 15 immediately dismissed as politically anathema 15 rather than we're not so sure, let's be more 16 careful until we can be more sure. 17 17 Q Is the Endocrine Society Clinical Practice 18 18 Guideline on treatment of gender dysphoria with 19 19 respect to adolescents an extremist's position? 20 20 MR. RAMER: Objection to the form. 21 21 A I don't have an objective way to differentiate 22 22 extremists from going farther than it should 23 relative to the quality of evidence available. 24 24 Q Have you treated any of the individual plaintiffs 25

I, Dana S. Miller, RPR, CRR, a Notary Public in
and for the County of Boone, State of Indiana at
large, do hereby certify that JAMES M.
CANTOR, PH.D., the deponent herein, was by me first

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duly sworn to tell the truth, the whole truth, and nothing but the truth in above-captioned cause.

That the foregoing deposition was taken on behalf of the Plaintiffs, appearing remotely from Toronto, Canada, on the 7th day of June, 2023, pursuant to the Applicable Rules.

That said deposition was taken down in stenograph notes and afterwards reduced to typewriting under my direction, and that the typewritten transcript is a true record of the testimony given by said deponent; and thereafter presented to said deponent for his/her signature;

That the parties were represented by their aforementioned counsel;

I do further certify that I am a disinterested person in this cause of action; that I am not a relative or attorney of either party, or otherwise interested in the event of this action, and am not in the employ of the attorneys for either party.

Page 191 in this case? IN WITNESS WHEREOF, I have hereunto set my hand A No. I have not. 2 and affixed my notarial seal this O Have you ever practiced as a clinical psychologist 3 in Indiana? 4 5 A No. I have not. Dana S. Miller O And do you have any personal knowledge of how treatment for gender dysphoria is provided to 7 Commission Number 0675790 adolescents in Indiana? My Commission Expires: A Not in any direct way. Again, the nature of my 9 January 17, 2024 10 expertise is not the specifics of the policy or the patients involved, but on the science according to 11 10 which the legal system and legislatures are 12 11 attempting to establish policy. 13 12 MR. STRANGIO: Just one sec. I'm going to --I 14 13 don't have anything else on my end. 15 14 THE WITNESS: That was a fast 20 minutes. 16 15 MR. STRANGIO: So I'll pass -- it was slightly 17 16 18 less. I'll pass the witness. 17 19 MR. RAMER: And I have no questions for the 18 witness. And we'd just like to review and sign. 20 19 AND FURTHER THE DEPONENT SAITH NOT. 21 20 22 21 22 JAMES M. CANTOR, PH.D. 23 23 24 24 25 25

(Originating Party) Chase Strangio, Esq. AMERICAN CIVIL LIBERTIES UNION 125 Broad Street 19th Floor New York, NY 10004 2 3 4 5 6 NOTICE OF DEPOSITION UNITED STATES DISTRICT SOUTHERN DISTRICT OF IN INDIANAPOLIS DIVISIO CASE NO. 1:23-cv-00595-JP 7 8 K.C., et al., 9 Plaintif(s, ) 10 -VS-11 THE INDIVIDUAL MEMBERS OF THE MEDICAL LICENSING BOARD OF INDIANA, in their official capacities, et al., 12 13 Defendants.) In compliance with the Indiana Rules of Procedure, Federal Rules of Civil Procedure and/or the Rules of the Industrial Board, you are notified that the signed original deposition of JAMES M. CANTOR, Ph.D., taken on the 7th day of June, 2023, has been sealed and submitted to the originating party, along with the attached Errata Sheet(s), if applicable. 14 15 16 17 18 19 20 21 (Date received by Circle City Reporting)
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1	MS. EAGAN: No, Your Honor.
2	THE COURT: All right. State's case.
3	MR. DAVIS: Your Honor, the State calls Dr. James
4	Cantor when you are ready.
10:39:28 5	THE COURT: I'm ready.
6	JAMES CANTOR, MD,
7	having been first duly sworn by the courtroom deputy clerk, was
8	examined and testified as follows:
9	DIRECT EXAMINATION
10:39:46 10	BY MR. DAVIS:
11	Q Good morning, Dr. Cantor.
12	A Good morning.
13	Q Would you state your full name?
14	A James Michael Cantor.
10:40:02 15	Q What is your profession, Dr. Cantor?
16	A I am a clinical psychologist and neuroscientist.
17	Q What degrees do you have? Academic degrees.
18	A Bachelor's degree in computer science and mathematics, a
19	master's degree in applied psychology, and a Ph.D in clinical
10:40:17 20	psychology.
21	Q Where do you work?
22	A I am currently in private practice in Toronto, Canada.
23	Q And what is the nature are there any particular focuses
24	of the counseling you provide or the research that you have
10:40:32 25	performed?

Christina K. Decker, RMR, CRR

Human sexuality and atypical sexualities. 1 2 Would that include studies of gender identity? 3 Yes, it is. Yes, it does. Are you knowledgeable about the research surrounding 10:40:47 5 gender dysphoria? Yes, I am. 6 7 Have you analyzed research concerning the benefits and harms of different ways of treating gender dysphoria? Yes, I have. 9 Α Do you have skills and expertise assessing the strengths 10:40:54 10 11 and weaknesses of scientific studies? Yes, I do. 12 Α And do these skills and expertise include judging what 13 those studies do and do not prove as a matter of science? 14 10:41:13 15 Α Yes. Have you treated people who presented with gender 16 17 dysphoria? 18 Yes. 19 MR. DAVIS: Your Honor, we proffer Dr. Cantor as an 10:41:25 20 expert on psychology, human sexuality, research methodology, and the state of the research literature on gender dysphoria 21 22 and its treatment. 23 THE COURT: Any objection? 24 MS. EAGAN: No, Your Honor. 10:41:37 25 THE COURT: All right. He will be accepted for that Christina K. Decker, RMR, CRR Federal Official Court Reporter

101 Holmes Avenue, NE
Huntsville, Alabama 35801
256-506-0085/ChristinaDecker.rmr.crr@aol.com

1 purpose. BY MR. DAVIS: 2 3 Dr. Cantor, there is a notebook in front of you with a blue cover. Would you please turn to the second tab? 10:41:51 5 I'm sorry. It just occurs to me I didn't bring my reading glasses. They're in my brief case. 6 7 MR. DAVIS: Your Honor, can the witness get his 8 glasses? 9 THE COURT: Absolutely. 10:42:43 10 THE WITNESS: Part 2, you said? 11 BY MR. DAVIS: 12 Yes. Tab 2, which is Defendants' Exhibit 2. Can you identify that document, Dr. Cantor? 1.3 14 Yes. That is my report, which I submitted for these 10:42:54 15 proceedings. 16 Thank you. 17 I think actually, since we just heard Dr. Antommaria, I 18 would like to begin with addressing some things that we heard 19 this morning. 10:43:02 20 Did you have the opportunity hear this morning's testimony by Dr. Antommaria? 21 22 Yes, I did. Did you understand Dr. Antommaria to testify that randomly 23 controlled studies are not available in this area of medicine? 24 10:43:16 25 Α Yes.

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Did he then say, if you understand -- as you understand, 1 2 that because the randomly controlled trials are not available, 3 we can rely on observational trials? That is roughly what I understood him to say, yes. 10:43:33 5 Do you have any response to that? Yes. That's not -- it is true that none of the existing 6 7 studies are randomized, but it is entirely untrue that we therefore can rely -- can make decisions based on the least reliable kinds of studies. There is a wide, wide range of studies in between, and 10:43:48 10 11 there's a wide, wide, range of different scientific methodologies that we can employ in order to minimize the laws 12 1.3 that we get from completely randomized studies. 14 It's also actually possible if we wanted to conduct such studies such as by allowing people to undergo different parts 10:44:09 15 of a treatment at different times, so we can compare the 16 17 differences between them when one group has started on that 18 type of treatment and the other hadn't yet. 19 Okay. So the randomized trials would be considered like 10:44:29 20 the gold standard, the top-tier level of scientific research? Randomization is one factor in determining how high 21 22 quality a study is. It is not a -- it's neither an all or 23 nothing. 24 I understand. But did I understand you to say that if you 10:44:47 25 assume that's not available, that's no reason to drop down to

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the lowest quality of evidence? 1 2 That is correct. Α 3 I understood Dr. Antommaria to testify that the level of evidence supporting the WPATH and Endocrine Society guidelines 10:45:05 5 is comparable to the level of evidence supporting other treatments in pediatrics. Can you respond to that? 7 I am not aware, of course, of all the other treatments in pediatrics. However, there are no studies yielding positive effects of either the Endocrine Society standards or the WPATH standards. 10:45:24 10 11 The studies which have shown effects have used the Dutch model, which uses a higher set of standards than either the 12 1.3 Endocrine Society or the WPATH group. 14 Speaking of the Dutch study, I also understood Dr. Antommaria to say there is no high quality evidence 10:45:42 15 16 supporting the use of psychotherapy alone for gender dysphoria. 17 Do you agree with that? 18 No, I do not. 19 What would you say in response? What's the countervailing 10:45:5620 evidence? There exists roughly 15'ish studies following up these 21 22 kids at all. All of the studies, which without exception that 23 used medical interventions also used psychological -psychotherapy at the same time. So all of the studies which 24 could seem to show a benefit for medical interventions are 10:46:17 25

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unable to distinguish that it was the medical intervention causing the benefit, versus the psychotherapy causing the benefit.

Of those studies, two were designed in a way that it was possible to peel apart the effects of psychotherapy versus medicine -- the Costa study and the Achille study. The full references are in my report.

In the Costa study, there was a -- there were two phases. There was a phase that people went through when they received psychotherapy alone. And then in the subsequent phase, they received both psychotherapy and medical interventions.

There were no significant differences between the group.

Both groups improved, and there were no significant differences between the group that received psychotherapy alone and the group that received psychotherapy plus medical interventions.

The other study, the Achille study, used a statistical method to control for the effects of psychotherapy. That group also improved after medical intervention, but when the effects of psychotherapy were statistically controlled, there was no additional benefit of the medical interventions after that.

- Q I want to break some of that down. You mentioned studies where all the participants were receiving both psychotherapy and medical-affirming care at the same time, right?
- A Correct.

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10:47:48 25 Q Is that the Dutch -- oh, is the Dutch protocol, the Dutch

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study an example of such a study? 1 2 Both Dutch studies, the 2011 and the 2014, yes. 3 If, at the end of that trial, you look and see the people that were receiving both psychotherapy and medical-affirming 10:48:06 5 care at the same time, improved in mental health at the end of the trial, can you as a scientist tell whether the improvement 7 is the result of the pharmaceuticals or the psychotherapy? Not in the design of those studies, no. That's what in 8 science is called a confound. Confound? 10:48:27 10 11 Correct. Α What does that mean, confound? 12 It describes exactly that situation. When two things are 1.3 done at once, when you see the result, you can't peel apart 14 which -- which of those two interventions was responsible or 10:48:37 15 16 the interaction between those two interventions was 17 responsible. 18 Okay. But the Costa and Achille study, on the other hand, they do provide scientific evidence that psychotherapy alone is 19 10:48:53 20 helpful, did --That's correct. 21 Α 22 Q Okay. 23 That psychotherapy is helpful and not the medical interventions. 24 10:49:01 25 Q I also understood Dr. Antommaria to say that he had not

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read studies about detransitioning. But if it ever became 1 2 relevant, he would make an effort to review such studies. 3 You are familiar with the body of the literature concerning gender dysphoria, correct? 10:49:21 5 Yes. 6 In your opinion, are the studies of detransitioning 7 relevant to someone trying to assess the benefits and harms of these treatments? 8 Yes, of course. It's very difficult -- detransition would be the situation that one is trying to avoid. The best way to 10:49:35 10 11 avoid a situation is to understand that situation. 12 Dr. Antommaria said that there are prospective observational trials that demonstrate the efficacy of puberty 13 blockers in gender-affirming care, and then later said the 14 trials he is referring to were primarily the Dutch group 10:49:59 15 16 studies. 17 Are those the studies you just mentioned, the 2011, 2014 18 studies? 19 Those are the Dutch studies that usually we use. I can't 10:50:12 20 know if he is referring to some other study that I didn't make a specific reference to. 21 22 That's fair. 23 In this area of medicine, when someone's talking about the Dutch studies, the Dutch group studies, is it your 24 10:50:25 25 understanding they're generally referring to these 2011 and

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2014 studies from the Dutch project? 1 2 Almost always, yes. 3 Okay. And those are the studies you just mentioned that have the confound problem, right? 10:50:36 5 Correct. You can't unpack whether it's the psychotherapy or -- not 6 7 from that study, you can't unpack whether it is the psychotherapy or the pharmaceuticals that are making the difference? That's correct. 10:50:47 10 11 Okay. More generally, I'd like to read for you a statement from the plaintiffs' brief in support of their 12 1.3 preliminary injunction motion. 14 For the record, it's Doc 8 at page 18. 10:51:07 15 Dr. Cantor, the plaintiffs wrote in that brief, For more 16 than four decades, medical organizations have studied and 17 created an evidence-based standard for the medical treatment of 18 transgender patients. This standard confirms that transition, 19 including puberty blockers and hormone therapy where 10:51:26 20 appropriate, is the only safe and effective treatment for 21 gender dysphoria? 22 Dr. Cantor, does the research literature support that 23 statement? 24 No, it does not. 10:51:37 25 Do you understand the plaintiffs primarily to be pointing

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to the guidelines of medical organizations such at WPATH and 1 2 the Endocrine Society and the American Academy of Pediatrics to 3 support their positions that wish to continue giving these treatments to children? 10:51:52 5 Yes. They cited those repeatedly. Okay. What observations have you had about the WPATH 6 7 guidelines and whether they have support in evidence? The WPATH guidelines and the Endocrine Society guidelines 8 have been tested among the set of -- as I say, roughly 15 outcome studies, some of them have used the WPATH quidelines or 10:52:13 10 11 Endocrine Society guidelines instead of the Dutch protocol. 12 And those studies demonstrated that there was no improvement at 1.3 all. 14 I shouldn't say none at all. One of them used several kinds of measures of improvement, and I think it was all but 10:52:36 15 one demonstrated no differences at all. And one small one gave 16 17 an indication that suggested the possibility. 18 Have these organizations acknowledged anything about desistance rates -- these organizations, I'm referring 19 10:52:57 20 specifically to WPATH and the Endocrine Society? I can't say that they've never addressed it, but to the 21 22 extent if it was ever addressed, they are grossly, grossly 23 minimized. 24 Can I refer you to paragraph 12 of your report on page 4? 10:53:33 25 I got it. А

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1 You say in that paragraph that the plaintiffs' 2 documentation -- and I assume by documentation, you mean 3 their -- the pleadings in this case and the briefs that you had seen? That's correct. 10:53:50 5 You said the plaintiffs' documentation misrepresents the 6 7 contents of the associations' policies themselves. Which associations were you speaking of there? 8 They mentioned several other societies which made short 9 10:54:04 10 statements in general support of sexual diversity, but without 11 actually issuing specific standards about how to treat people 12 in that community with what or at what ages. 1.3 And what inconsistencies did you see between what those organizations have said and the arguments you saw in 14 plaintiffs' briefing? 10:54:23 15 The plaintiffs referred to the societies as if they were 16 17 providing very specific support for very specific policies 18 rather than general recommendations to provide, for example, respect and values for diversity, but no specific guidelines. 19 10:54:48 20 Okay. Well, looking at paragraph 12, is one of your 21 points here looking at the bullet points that even WPATH and 22 Endocrine Society acknowledge as you write, that desistance of 23 gender dysphoria occurs in the majority of prepubescent children? 24 10:55:04 25 A That is correct.

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And then turning the page, were there other issues you saw 1 2 that the statements -- that these organizations believed and 3 plaintiffs' briefing was inconsistent with what the organizations had stated? 10:55:16 5 That the issue of mental health and that mental illnesses and similar concerns need to be resolved before considering 7 transition rather than depending on transition to be the resolution of, for example, depression and anxiety. 8 9 And have any of these organizations acknowledged that puberty-blocking medication is an experimental not a routine 10:55:42 10 11 treatment? 12 Yes, they have used that phrase. 13 Which organization? 14 Again, I would have to look up to see exactly who used which word. I believe it was WPATH, but I again have to go 10:55:52 15 16 back and check to make sure that it was they. 17 And let's turn to the American Academy of Pediatrics. And 18 I will refer you to your appendix. 19 And, Dr. Cantor, if you look at the top of the page, you 10:56:12 20 will see a line of blue figures. And it's page X out of 106. The appendix I am referring to is page 100 out of 106. 21 22 Got it. 23 What does the American Academy of Pediatrics or AAP, what do they recommend in this area of care? 24 10:56:42 25 A They recommend what I can best describe as affirmation on

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demand. 1 2 Okay. Did you review their recommendation when it came out? 3 Specifically I reviewed the sources on which they based 10:56:58 5 their recommendations. Okay. Did you write about that? 6 7 Yes, I did. And does that appear as an appendix to your report 8 beginning at page 100 of that pdf? That is correct. I summarized all of my comments. I 10:57:09 10 11 submitted them to a journal where they underwent peer review. And it's an official published peer-reviewed paper. 12 1.3 This is not a letter to the editor? 14 That is correct. This is part of a scientific -- now part of the scientific literature. 10:57:22 15 16 What did you comment upon? I really just checked what the authors of the AAP policy, 17 18 Dr. Rafferty, what their claims were, what they said was in 19 their references versus what was actually in their references. 10:57:43 20 And not only did their sources not contain what they were alleged to have obtained, they often contained the very 21 22 opposite of what the AAP policy said they contained. 23 Did you have an agenda to disprove -- to prove or disprove anybody when you undertook that review of the evidence? 24 10:58:01 25 I wouldn't say an agenda other than to set the record --A

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pardon the pun -- straight.

This was a situation where these sources I had known for many years. I had read them when they had first came out.

And when AAP came out with its policy, I was stunned by its content. And as I read what they were basing it on, my recollection was immediately this is not what those sources said.

So immediately I just started double checking myself. Did I misread something? Am I misremembering something?

And as I just checked in my own files with copies of these papers -- most of these papers already in it, my memory was correct. They said as -- the kinds of things I recalled them to be saying.

Because we were now talking a major medical association rather than an individual other scientist. This was different from just one scientist like me disagreeing with another scientist. This was now -- now had the potential to cause a great deal of damage to a great number of people.

So because I had the ability to do it, I simply summarized the contents of the original paper and contrasted point by point the claims being made by AAP and simply quoting verbatim what was in the original studies.

That entire thing was published, and the AAP has never responded. They were approached by the media, and they just would refuse to talk even to the media. They have yet to have

## Christina K. Decker, RMR, CRR

Federal Official Court Reporter
101 Holmes Avenue, NE
Huntsville, Alabama 35801
256-506-0085/ChristinaDecker.rmr.crr@aol.com

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any response. 1 2 So to date, the AAP has not responded to the criticisms 3 that you raised? That is correct. 10:59:42 5 I will refer you now to page 6 of your report. Going by the numbers at the bottom of the pages. 7 Α Yep. As you noted in your review of the plaintiffs' expert 8 report -- well, first off, did you review the expert reports 11:00:08 10 submitted by the plaintiffs by Dr. Hawkins and Dr. Ladinsky? 11 Yes, I did. And did you note that they studied a 2016 Olsen study 12 13 claiming that it proves that transition reduces the risk of 14 mental illness? That that was their claim? Correct. 11:00:23 15 Α Does the Olsen study show that? 16 17 Just referring to my own report. Ultimately, no, it did 18 not. There was several statistical errors in the Olsen study. The data were obtained then by the -- they -- upon request, and 19 11:00:45 20 Olsen provided their data to another author who reanalyzed -- I should say, correctly analyzed the Olsen data, who demonstrated 21 22 that Olsen's data did not contain evidence of improvement. 23 fact, it contained evidence of deterioration. So in your opinion, does the 2016 Olsen study support 24 11:01:04 25 plaintiffs' position that children need these affirming --

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these medicalized affirming treatments in order to improve 2 their mental health? 3 No, it does not. Making such a claim is a half truth. Ιt would ignore the subsequent entries in the scientific 11:01:20 5 literature. And what about the de Vries study that plaintiffs cited in 6 which you address on page 9 of your report? And does it show that medical transition of minors improves mental health? 9 No. It contains part of the confound. The de Vries study as part of a Dutch group also included psychotherapy during 11:01:43 10 11 transition. So it is not possible to differentiate which type of therapy, medical or psychotherapy, is responsible for the 12 benefits reported in that study. 1.3 14 I see. So participants in that study did have improved mental health, correct? 11:02:00 15 16 Α Yes. 17 But it's just not possible scientifically to tell what 18 caused the improvement? 19 Correct. Α 11:02:0620 And what about the Greene and Turbin studies plaintiffs' experts cited which you discuss in paragraph 24 of your report? 21 22 Α Yep. 23 Do those studies show that medical transition improves 24 mental health? 11:02:25 25 A No, they do not. These are retrospective correlational

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studies. They are not able of describing any causal effect 1 2 coming to any causal conclusion. 3 Okay. Now, you mentioned there that -- you say this very pattern is what one would predict from clinical gatekeeping. 11:02:43 5 What do you mean by clinical gatekeeping? One of -- across the various clinical standards are to 6 prevent somebody with mental illness from undergoing transition. So such people are being held back. They're being filtered out of groups who do undergo transition. So when a clinic then compares the people who underwent 11:03:03 10 11 transition to the people in their files who did not undergo transition, they are necessarily comparing a group of people 12 1.3 from whom the mental illness was removed and comparing them to a group of people from whom the mental illnesses were not 14 removed. 11:03:22 15 So when you see better mental health amongst the people 16 17 who had transitioned, the improvement is not because of the 18 transition, the improvement is because you have removed the 19 people with the worst mental health from the group in the first 11:03:40 20 place. Okay. So is it correct, then, that one thing you might 21 22 see in these studies is by picking out the people with the best 23 mental health, and giving them the treatment, then comparing them to the people with lower mental health, then, of course, 24 11:03:57 25 the people who went through the study would do better?

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That is correct. 1 2 Did you review any of the other studies that plaintiffs 3 have submitted into evidence such as the Allen study, the Turban articles, the Biggs (phonetic) study, the Lopez de Lara 11:04:24 5 study, Tordoff? Yes, I have. 6 7 Do you have any comments on those studies and whether they support plaintiffs' position? 9 They suffered from the same methodological problems as the other studies. 11:04:35 10 11 Did any of those studies support the position that medical transition improves mental health? 12 No, they did not. 1.3 14 In minors with gender dysphoria? Correct. No, they do not. 11:04:47 15 Α What has been called the Yale study by Brouware, 16 17 B-R-O-U-W-A-R-E, was the first named author. Did you review 18 that one? 19 Yes, I did, but it wasn't a study. 11:05:07 20 0 What was --Apparently, that was a report submitted by those authors 21 22 for another -- or for a combined set of court cases. 23 Okay. But you would not refer to that document as a 24 scientific study? 11:05:21 25 A From the Yale group with -- again, the name I don't -- I

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hesitate to try to pronounce, but, no, it was not a study at 2 all. It was those authors' report reviewing the literature and 3 providing their opinions. Okay. As a matter of fact, Dr. Ladinsky was asked about 11:05:39 5 that study yesterday. And for the record, that testimony appears on page 116 of the rough transcript. 7 The question was: In this document, do the authors also cite a number of peer-reviewed studies that contradict some of the supports or the principles that the State articulated as the reasons for SB 184? And Dr. Ladinsky responded, They do, a 11:06:00 10 11 considerable compendium of them. 12 Is she right? Did those authors show that there are studies that contradict the State's position in this case? 13 14 There was such a statement. There was no meaningful way to try to put together what claim went together with what 11:06:21 15 16 source. Rather than -- what's done more typically either in 17 science or in pause, best as I understand, is here the claim 18 and here is the source justifying it. Here is next claim, here 19 the source justifying it. 11:06:38 20 Instead, that document made a long series of unsourced claims and then provided a long series -- a series of very 21 22 large footnotes with 20 and 30 references. And there was just no way to see what fact was alleged to have come from what 23 24 source.

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Q So we've talked about whether the literature the

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plaintiffs' -- the studies that plaintiffs cite to support 1 2 their position. Let's talk about whether the literature 3 supports the State's position. But a little background first. Could you describe from your review of the literature just 11:07:17 5 what's the difference between adult onset gender dysphoria, child onset, and adolescent onset? And I know this is a broad 6 7 question, but I just mean like age groups. Usually we would be referring to these as a prepubescent 8 onset. Then the literature is very, very long, but reported on 11:07:37 10 adult onset. And by adult, on average, these were people in 11 their 20s and in their 30s and 40s. It was very, very 12 distinct. It was not, you know, a bell-shaped curve with some 13 midpoint around 18 or 19 years old. 14 It's only within the past --THE COURT: Hold on one second. 11:08:02 15 16 Go ahead. Sorry. 17 THE WITNESS: It's only within the past ten years or 18 so that a different profile has begun to emerge and was noticed by clinicians. And that now is being called either adolescent 19 11:08:20 20 onset or rapid onset. Now, all three of these groups have in common that they're 21 22 complaining about the same thing. Doc, I feel like I am in the 23 wrong body. Doc, I am the brain of one, but in the body of the 24 other.

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So the way that they describe it is similar. But every

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objective way we have of measuring these people shows that these are independent phenomena. They are not related except in the way that people describe the situation, describe what they're experiencing.

The best analogy I have would be if somebody came to a doctor saying I have a headache. Okay. I got it. Got that's a symptom. I have some more questions. But we cannot from that say that a migraine headache is the same thing as a tension headache is the same thing as having just suffered a head injury.

The causes are different. How we respond to them is different. And the other characteristics about each of these are different. They only resemble each other in the most superficial ways.

Childhood onset or prepubescent onset gender dysphoria appears to be entirely unrelated to adult onset gender dysphoria. And the two of those appear to be entirely unrelated to the rapid onset or adolescent onset gender dysphoria.

## BY MR. DAVIS:

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Q Well, let's break that down. Adult onset, typically people who present with what you're referring to adult onset gender dysphoria, what age are they when they come into the doctors' office and say, something's wrong?

A On average, in their 30s and 40s.

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Okay. Has there been research considering whether 1 2 those -- that universe, the adult onset universe does well 3 after transitioning? Those who are mentally healthy by and large do, do well 11:10:08 5 after transition. 6 Can you apply those studies to consider whether someone with child onset gender dysphoria is going to do well after transitioning? 8 Because these are independent phenomena. information from one does not -- from one group does not 11:10:23 10 generalize to the other. 11 12 Comparing the adult and the child onset, what is the 1.3 difference that makes the studies of one, you know, it's not apples to apples? 14 11:10:35 15 Correct. Α Okay. What is the difference between those patients? 16 17 The -- they -- as I say, differed in just about every 18 objective measure we've been able to apply to them. 19 There are, of course, the ages themselves. Something --11:10:53 20 the sex ratios in them are different. The adults are almost 100 percent biological male. There's more of a mix amongst the 21 22 childhood onset. 23 The adults are almost always attracted to females. That 24 is to say, relative to being biological male, they are almost 11:11:13 25 always heterosexual.

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The childhood onset almost always are attracted to the 1 same biological sex. They are almost always homosexual. 2 3 Talking about the child onset, is that a new phenomenon, child onset gender dysphoria? 11:11:31 5 I wouldn't say new. It's been systematically studied for 20 to 30 years'ish. 7 From the literature that you reviewed, do most of these kids, if not socially transitioned and given hormones, will they want to transition after reaching puberty? 11:11:52 10 Generally not. 11 And page 36 -- excuse me -- paragraph 36 of your report, Dr. Cantor, what statistics do you provide about the rates of 12 13 desistance among those presenting with childhood onset gender 14 dysphoria? The exact numbers are between 61 to 88 percent of them 11:12:15 15 16 desist. In the appendix in my report, I list all of the 17 studies that have ever been conducted with that group, all the 18 outcome studies that have been conducted with that group. 19 We probably both need to slow down just a little bit 11:12:37 20 for... 21 I'm from New York. It just happens. Α 22 We'll do our best. 23 Dr. Hawkins was asked about your paragraph 36 yesterday. 24 And I will represent that on page 30 of the rough transcript, 11:12:54 25 she said that when the study such as the ones you're citing

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offers this elevated rate of desisters, quote, what we tend to 2 find is that the initial cohort that was given the diagnosis of 3 gender dysphoria is actually false. My question, Dr. Cantor, is: Does the research literature 11:13:15 5 support Dr. Hawkins's statement? No. As I say, I listed every single such study. 7 Do we have any tools today that reliably tell us which kids will desist and which kids will persist? No, we do not. There have been some attempts to develop 9 such a test, but they have never been able to find a good 11:13:34 10 11 characteristic, a feature, a pattern, a test result in which the majority continued to want to persist. 12 13 The best that they have ever been able to do was find a tool which distinguished unlikely to want to persist versus 14 even less likely to want to persist. 11:13:54 15 16 There's been testimony about something called the DSM-5. 17 Do you know what that is? 18 Yes, I do. Α 19 What is it? 11:14:04 20 The full name is the Diagnostic and Statistical Manual of Mental Illnesses, published by the American Psychiatric 21 22 Association. 23 If someone were to claim that now that we have the DSM-5 we may be able to do a lot better with identifying who's the 24

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desister and who is the persister, is there any research on

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that? 1 2 No. Nobody's ever tried to differentiating any of the 3 DSMs from DSM-I through its various versions to the current one. 11:14:38 5 So there have been at least five? There was a I, a II, a III, III-R, IV, IV then had a text 6 7 revision. They switched some of the commentary around the diagnoses, but they didn't change any of the diagnostic criteria themselves. There was then the 5. And there is as of last month a 5 again with a text revision, but no changes to 11:15:01 10 11 any of the actual diagnostic criteria. 12 THE COURT: Mr. Davis, how much longer do you think we 1.3 will be? 14 MR. DAVIS: Your Honor, direct will take us up to about noon, I would predict. There's just a lot to cover with 11:15:14 15 16 Dr. Cantor. 17 THE COURT: I am not rushing you. I am just trying to 18 get a road map of that. 19 So how long do we think cross might be? 11:15:25 20 MS. EAGAN: It's difficult to predict because I am not sure what else he may say, but maybe an hour, hour or less, I 21 22 would think. 23 THE COURT: All right. I am leaning toward an earlier lunch than we did yesterday. So maybe -- if it's okay with 24 11:15:45 25 you, let's just go ahead and find a stopping point at your

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leisure, and we will just pick back up after lunch. 1 MR. DAVIS: Thank you, Your Honor. This is as good as 2 3 any. THE COURT: Is it? 11:16:00 5 MR. DAVIS: Yes. We have just talked about DSM-5. Going to watchful waiting next. This is as good a place as 6 7 any. THE COURT: Okay. Good. With that said, then 8 9 are we still on target with your last witness? 11:16:17 10 MR. DAVIS: Yes, Your Honor. Ms. Wright is here. I 11 don't know if she is in the courtroom yet or not, but she is in Montgomery, and she will be ready to go when we finish with 12 1.3 Dr. Cantor. 14 THE COURT: We think the length of that witness would 11:16:30 15 be what? 16 MR. DAVIS: Oh, I would say direct would be well under 17 30 minutes, but I don't know about cross. 18 THE COURT: Okay. All right. Okay. Well, I think 19 we're on target. 11:16:38 20 Let's take a good long lunch today. Let's see here. Let's come back at 12:45. 21 22 MR. DAVIS: Thank you, Judge. 23 THE COURT: Thank you. 24 MR. DOSS: Judge? 11:16:54 25 THE COURT: Yes?

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MR. DOSS: Closing, how long would you like? 1 2 THE COURT: You know, I mean, this is important. I'm 3 not going to, you know, jack everybody up on this, but to the extent you can hold it to around 25, I think would probably be 11:17:07 5 a good thing. And in your openings, I think you really road mapped it 6 7 very well, both sides did. So, you know, again, I know the arguments. I'm really 8 interested in, you know, some analysis with case law. And I am going to be directly asking about a few cases. I'm very 11:17:22 10 11 interested to know parallels between the Arkansas decision and that law. And then I may give you some hypotheticals that you 12 1.3 won't like. See you after lunch. 14 11:17:40 15 (Recess.) 16 THE COURT: All yours, Mr. Davis. 17 MR. DAVIS: Thank you, Judge. 18 BY MR. DAVIS: 19 Welcome back, Dr. Cantor. 12:51:00 20 We spoke earlier about the Dutch protocol. Did the participants in those Dutch studies have psychotherapy before 21 22 beginning treatment? Before that study? 23 They were receiving treatment as part of their participation in the study. I don't think they reported 24 12:51:21 25 whether anybody happened to have attempted psychotherapy before

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approaching the clinic at all. 1 2 Okay. Forgive me if I'm mistaking which study is which. 3 I was reading about a study that described the psychotherapy that was available to the participants as extensive. And that 12:51:40 5 that extensive psychotherapy was at least two years. Which study am I thinking of? 7 That wouldn't have been a particular study so much as what they use in their process in general. 9 And then the Dutch group was reporting the results, you know, of -- periodically over the course of the study. 12:51:56 10 11 I see. But by the time the first set of results, their earlier 12 13 study, the 2011 study, the participants in it will have already been through a substantial amount of therapy. 14 12:52:13 15 Okay. They also emphasize that in assessing the children that 16 17 it's a very extensive assessment, and the assessment itself was 18 also ongoing over the course of the study. 19 So even before deciding who might be eligible for 12:52:30 20 hormones, they have now many, many months to years' experience 21 with the particular case even with a particular child even 22 before making a decision. That's very, very different from 23 just having an appointment, taking a test, and then having a diagnostic decision an hour later. 24 12:52:46 25 Q That is exactly what I was meaning to ask you about.

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was using sloppy language. 1 2 So this extensive assessment that happened before some of 3 these children began treatments, they were assessed, you said, over a course of a couple of years? 12:52:59 5 Correct. 6 Okay. So does literature support having such an extensive 7 assessment period before subjecting someone to these treatments? 8 9 I don't know if I would say support it, but all of the conclusions that come from the literature depend on it. 12:53:16 10 11 Thank you. 12 Is there a way of treating gender dysphoria that some practitioners refer to as a watchful waiting approach? 13 14 Yes. Watchful waiting usually refers specifically to withholding any decision about medical interventions until they 12:53:40 15 have a better idea or feel more confident for a particular case 16 17 about whether that kid is going to be a persister or desister. 18 It is given the knowledge that that's available that the 19 majority of these kids do desist. Nobody wants to make a 12:54:00 20 decision upon first appointment. And so -- so they tend to provide psychotherapy, whatever 21 22 kind of care, whatever is appropriate to the individual kid 23 until enough time has gone by to give -- to suggest is this a kid whose feelings like they're feelings are slowing down and 24

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they just need more time, are they building up, or are they

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staying steady?

So the watchful waiting period would be postponing any decision about medical interventions until the clinicians had some confidence.

Q While you are watching and while you are waiting, are you just leaving him alone, or her?

A No. That would be the time during which one would be supplying a therapy for whatever else is going on in the kid's life.

Q Okay.

A Usually they're associated with -- there's a great deal of what we call comorbidity. They're also suffering from other problems at the same time, either depressions, anxieties, early evidence of personality disorders, for example. And it's never clear whether their gender dysphoria is a result of those other psychological problems.

So by helping them develop the tools to deal with those other problems, if they remain dysphoric afterwards, we know that the dysphoria wasn't the result of those other problems. So rather than just leaving them alone, they're still receiving support, and the family is still receiving support over that period.

Q So I believe you pointed out in your report that clinical guidelines suggest that mental health issues such as the comorbidities you mentioned should be resolved before

# Christina K. Decker, RMR, CRR

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transition; is that correct? 1 2 Yes. Α Okay. Why? 3 Because it's never clear what's causing what. We cannot 12:55:44 5 from a correlation conclude anything about a causation. It's very possible, and it's been frequently observed that a lot of 6 7 these kids are using gender issues as an explanation for the unhappiness that they're experiencing elsewhere in their life. 8 So rather than developing the skills to -- for example --9 better social skills. If a person feels awkward and they're 12:56:04 10 11 withdrawing from kids their own age, we are not sure if they want to transition because they're blaming gender dysphoria for 12 13 why they feel unpopular or uncomfortable, and we're not --14 versus we can't tell if anxiety or depression is a result of how they're being treated by the rest of society. 12:56:27 15 So it's only by helping them deal with and by giving them 16 17 the skills to overcome those other disorders that we can see if 18 the gender dysphoria itself resolves just as a result of that. 19 So if a person is suffering from depression, or is 12:56:48 20 struggling with their own sexual identity, or some type of abuse, or any of these other comorbidities, explain how this 21 22 psychotherapy process would work, how a psychotherapist such as 23 yourself would try to dig down into the issue and see if that is something that's generating these feelings that are being 24 12:57:08 25 mistaken as gender dysphoria, or whether the gender dysphoria

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is its own thing.

A Just to be specific, I'm specifically an adult clinical psychologist. I see clients ages 16 and up. So it wouldn't be me personally.

What the literature shows about these kids is that they can be very, very diverse. It certainly is feasible that they are experiencing, for example, depression or anxiety as a result of social transphobia, but that doesn't explain the other things that we're observing.

For example, a transphobia doesn't cause autism, which is another very, very common disorder in that group. Transphobia wouldn't cause the development of borderline personality disorder, which we're seeing in very, very, large proportions among the teenagers.

So although certain symptoms like anxiety and depression can feasibly be the result of social reactions to being trans, but that does not explain the overall phenomenon. What does better explain the overall phenomenon is that there is some thing troubling this kid, and it is resulting in both the psychological symptoms, depression, anxiety in someone, and also producing the gender dysphoria, that discomfort with being their natural sex.

Q I would expect this could vary wildly from patient to patient, but if you -- and I recognize and thank you for clarifying that you deal with a more adult-age group.

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But if you're helping someone, an adolescent, work through 1 2 some of these issues, how often do you think a psychotherapist 3 would want to see the patient and over what period of time? It does vary widely. And the kind of disorders that 12:58:57 5 they're reporting do tend to be the kinds that require very long-term interventions. 6 7 As I say, autism, and related Asperger's syndrome, and also very, very high rates of borderline personality disorders, which, again, is a very, very long-term disorder to help somebody deal with. 12:59:14 10 11 Fair to say this would not be two or three sessions? Correct. This would be over the course of months or 12 13 years. 14 Does the research literature show that there are risks associated with medical transitioning? 12:59:30 15 Yes, quite substantial, including both loss of --16 primarily loss of function, and depending on the person's point 17 18 of view, whatever the cosmetic effects are. 19 What are the risks of the watchful waiting approach in 12:59:48 20 providing psychotherapy in helping the child deal with any 21 underlying emotional issues? 22 There don't appear to be any, at least any concrete. 23 I will refer you to paragraph 68 of your report, 24 Dr. Cantor. 13:00:06 25 Tell me what the advantages there are to a patient, what

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opportunities it opens up to him or her if any emotional issues 1 are dealt with before the decision to transition. 2 3 If a person fails to deal with whatever emotional issues before it transition, and then transitions and discovers that 13:00:30 5 they continue with whatever psychological issues are pervading them, they have gone through the entire transition process entirely unnecessarily. They haven't been helped. They have 7 now lost whatever -- they have now been sterilized, lost whatever sexual -- or other functions, but it hasn't actually resulted in any improvement in their psychological function. 13:00:49 10 11 If you go the other way around and you help the person deal with psychologically whatever it is that's going on, they 12 13 still retain the option for transition after that. And it's 14 that situation that the professional societies have repeatedly -- that the standards of care have repeatedly 13:01:05 15 16 pointed out. 17 So watchful waiting approach does not eliminate a person's 18 ability to transition to the opposite sex later in life if they 19 so choose? 13:01:1920 Α Correct. Does the research literature show there's any relationship 21 22 between children who present with gender dysphoria and those

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Yes. The large majority of the ones who believe that they

who later in life turn out to identify as gay?

were born the wrong sex turn out to be gay or lesbian.

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To a prepubescent child who doesn't yet have a sex drive, they have no way to interpret why they feel different from other boys or other girls their age. It's only with the onset of sex drive that they start -- and start developing crushes and physical attractions that they now have the information they need to realize why they're different. But to an eight year old or to prepubescent children, the only explanation they have for why they're not like other boys or not like other girls is they must be the wrong sex. They're misinterpreting their feelings.

THE COURT: Let's take a quick time out.

So, you know, I guess I'm wondering how both sides are wanting me to use all this expert testimony. I mean, the Eleventh Circuit has said more than one time that, you know, medical psychiatric professionals are in a far better position to make decisions about medical and psychiatric issues than judges are.

So I guess I want to know from each side real quickly, how do y'all envision that I use these experts? I mean, are you asking me to say, well, this guy's science is junk and this guy's science is perfect; or something in between? What am I -- tell me how you envision me using this.

MR. LACOUR: May I?

THE COURT: Perfect. Absolutely.

MR. LACOUR: Your Honor, as we began the opening

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statements, when there's an area of medical uncertainty, the State has wide discretion to regulate. So if it's not so clear to you as to which side's experts have it right, if you see that uncertainty, then under Supreme Court precedent, the State is allowed to regulate.

The State has to think about all 5 million Alabamians. We have to take all that into account when regulating in these areas where it is not certain.

The judge has an important but a limited role in our federal system to see whether those judgments the State has reached in those areas of uncertainty somehow conflict with the Constitution.

And we submit we have come forward with evidence to at least put into question whether there is this consensus that has been proclaimed by the plaintiffs here.

Again, I think the bar on the plaintiffs is quite high, to show an absence of uncertainty, or to show some great certainty.

And when you look at the international studies and the literature reviews, when you hear from very qualified experts like Dr. Cantor, who have applied great rigor to these studies that are being relied upon by the plaintiffs, by their experts, by the AAP, for example, then I think that is enough to create that doubt to create that space for uncertainty. And when that is there, the State can step in.

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Federal Official Court Reporter
101 Holmes Avenue, NE
Huntsville, Alabama 35801
256-506-0085/ChristinaDecker.rmr.crr@aol.com

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So that's how we see it. We don't think that you sit here as an independent medical board to assess whether a particular treatment is going to be the best for any particular individual. The role of the federal courts in our federal system, the laboratories of democracy is to see if we have done something that is somewhat inexplicable.

I think there is ample evidence to explain why the State has done what it's done in addition to the lengthy legislative findings in SB 184.

We have come forward with multiple experts from fields of endocrinology, psychology, and pediatrics, and have brought forward substantial amount of other peer-reviewed research and literature reviews to show that this very novel area of the law -- keep in mind the UAB clinic didn't open until seven years ago. This is a novel area of medicine, rather -- is just, in the State's judgment, too risky. And if that's a reasonable judgment for the State to make, then that's the end of the case.

THE COURT: All right. Mr. Doss.

MR. DOSS: Your Honor, I'm unaware of a case that establishes that principle that's so long as there's uncertainty and a reasonable judgment, then that alone is sufficient for the State to violate constitutional protections.

The standard of review is what I think helps frame some of this testimony. So, for example, if strict scrutiny applies,

# Christina K. Decker, RMR, CRR

Federal Official Court Reporter
101 Holmes Avenue, NE
Huntsville, Alabama 35801
256-506-0085/ChristinaDecker.rmr.crr@aol.com

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it is the State's burden to establish a compelling state interest. And that its infringement on the constitutional protection has been narrowly tailored.

And I guess to preview Your Honor for closing, that is a key focus that I plan to spend some time with in closing on why this testimony we've heard yesterday and today, number one, does not establish a compelling State interest. But number two, even if you assume that it does establish some interest by the State, the interest that the State has identified and the regulation that it has imposed are mismatched. It's not narrowly tailored for the very reasons offered by the State through its witnesses.

And based on the standard of review, it is not a reasoned judgment. That's not the test for when a constitutional violation has occurred. The test is whether there is satisfaction of this demanding standard for the law's viability.

And so as I mentioned in opening, I don't think that Your Honor's job for the purpose of this hearing is deciding ultimately maybe even who is right. It's to show that there is scientific -- there are standards of care that exist, there are approved approaches to dealing with these issues. These are real medical diagnoses. These are real medical treatments.

And though the State may disagree them, that's not enough to establish the violation of the constitutional rights, Your

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THE COURT: And on that note, at least from what I can tell from both sides, State and government, and original plaintiffs, am I correct to say that everybody agrees that these are real diagnoses? Or no?

MR. LACOUR: Your Honor, could you --

THE COURT: And I am going to say this one more time. I don't need head nods. It is out of hand. This is not entertainment. This is the real world and the law. So we're not in a movie theater. I don't need head nods. I don't need approval or disapproval. If you want to do that, take it outside.

Go ahead.

MR. LACOUR: Your Honor, I think -- Your Honor, we agree that gender dysphoria is a psychological diagnosis, but as we have shown in both our written evidence and through witness testimony from both defense witnesses and plaintiffs' witnesses, we don't know whose gender dysphoria is likely to persist. And that's very important.

Even Dr. Antommaria this morning said that if you -- the level of certainty you have --

THE COURT: You are giving me more detail than I want. I just need you to answer my question.

MR. LACOUR: Okay. Can I respond to something Mr. Doss said before?

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THE COURT: Very quickly. 1 2 MR. LACOUR: He is unaware of the standard. We cited 3 it multiple times in our P.I. response. It's Gonzales vs. Carhart, a 2007 decision from the Supreme Court where the 13:09:32 5 federal government had regulated partial birth abortion. That was an area of medical uncertainty. 6 7 There were -- I will go back and I will look at the filings in that case, but I would be shocked if the AMA did not chime in, in favor of the plaintiffs who were challenging the ban on partial birth abortion there saying that it was a safe 13:09:46 10 11 or necessary -- medically necessary treatment for some people. 12 It was enough that Congress found medical uncertainty there. And there were values, as well, in unborn life that 13 14 Congress was able to promote even though there were medical organizations. 13:10:04 15 I will confirm this before closing, but I am fairly 16 17 certain there were medical organizations who were not fans of 18 Congress's action there. 19 Even so, and even in an area like abortion where there is 13:10:1620 more law at least for the last 49 years in that space, addressing some right to abortion, even then, that ban was 21 22 upheld by the Supreme Court. 23 THE COURT: And I'm sure you can get into that on

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Let's go back to my original question. Just answer it

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closing.

1	succinctly for me.
2	MR. LACOUR: And that would be are these real
3	diagnoses?
4	THE COURT: Yes. Just answer my question in two
13:10:41 5	sentences.
6	MR. LACOUR: Gender dysphoria is a diagnosis. I think
7	the debate is how should it be treated. And SB 184 is
8	expressed in Section 6.
9	There's no ban on psychotherapy whatsoever. The ban only
13:10:58 10	applies to these novel risky potentially long-term
11	harm-inducing or causing medications.
12	THE COURT: So no argument from the State on status,
13	diagnosis, any of that? You are only your only issue is
14	treatment; is that correct?
13:11:17 15	MR. LACOUR: Correct, Your Honor.
16	THE COURT: Got it. Thank you.
17	Anything else, Mr. Doss? And I will give the government a
18	shot
19	MR. DOSS: No, Your Honor.
13:11:25 20	THE COURT: if they want to be heard.
21	MR. CHEEK: Nothing else to add that hasn't already
22	been said, Your Honor. Thank you.
23	THE COURT: Okay. All right.
24	Mr. Davis, I have gotten right in the middle of your
13:11:34 25	witness again. Sorry. Pick it back up.
	Christina K Decker PMP CPP

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MR. DAVIS: I certainly understand, Judge. 1 2 BY MR. DAVIS: 3 Okay. Dr. Cantor, we to try to pick up where we were. Let's take two young boys, eight years old, say. So 13:11:52 5 puberty hasn't started yet. They both have gender dysphoria, even though they may not really understand it yet. 7 And I know I'm asking you to assume some things that an outside observer may not be able to confirm just by looking at that child. And let's assume that both those young boys would, if not 13:12:06 10 11 intervened with transitioning care, would both grow up to 12 identify as gay. 13 So the boy who is left alone to go through natural puberty, what does he come to understand once puberty kicks in? 14 Once he -- as puberty kicks in, of course, sex drive comes 13:12:24 15 16 in as a part of that, and he starts experiencing sexual attractions and sexual arousal. 17 18 That, then, because he is experiencing it towards other 19 men, teachers, peers, whoever it is, he can now -- he now has 13:12:41 20 the opportunity to understand the nature of his experiences and why he doesn't feel quite like other boys, why he doesn't feel 21 22 as masculine, and why he doesn't feel as masculine. 23 Now, in otherwise healthy circumstances, he will grow up to be a healthy gay man. 24 13:12:57 25 Q Now, the other boy is given puberty blockers. What

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happens in his case? 1 2 Such a person who does not develop sexual -- the capacity 3 for sexual arousal and sexual attractions because the very biological features which produce that have been held from him, 13:13:14 5 he never experiences an orgasm. He never experiences sexual arousal, and doesn't have the opportunity to understand the other potential explanations for why he feels the way he does, and go from a child's understanding of why he doesn't feel like other boys, to an adult's understanding of why he doesn't feel like other boys. 13:13:36 10 11 By blocking puberty, you are blocking the very information that he needs to understand his own situation. 12 13 And you are not claiming to describe every person who is experiencing gender dysphoria, I take it? 14 Correct. 13:13:49 15 Α Does the evidence show that sexual orientation changes 16 17 after a person identifies as gay or lesbian? 18 There is no evidence to suggest that sexual 19 orientation is unstable or changes. 13:14:05 20 What does the evidence show about whether a person's gender identity can change? 21 22 That shows the very opposite. Among the children, it 23 changes in the majority of them. They're even people who identify and describe themselves, 24 13:14:19 25 for example, as being fluid, the very definition of which is

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that their gender identity changes on a constant basis. 1 2 Are you familiar with the argument that if we do not allow 3 minors to transition medically, the result will be increased suicides within these group of young people? 13:14:38 5 I've heard that said, yes. 6 Does the research literature support the argument that denying these treatments will lead to an increase in 7 suicidality? 8 No, it does not. Are you familiar with what other countries are doing, with 13:14:50 10 11 respect to treatment of gender dysphoria? 12 Yes, I am. Α 13 Are there any changes going on in recent years? 14 Very much. In fact, things -- it's almost as if the pendulum has reached its far point, and it's now coming back to 13:15:10 15 a much more moderate evidence-based tone. 16 17 There was really -- sparking off of the social media age 18 more than anything else, we're able to identify a greatly, 19 greatly accelerated, great and greatly expanded number and type 13:15:31 20 of person who was potentially going to go through transition 21 entirely, unlike the groups which we had previously studied. 22 Several countries, especially in Europe, permitted them with lower and lower standards. And then once the reports 23 started coming out that that was failing greatly, they're now 24 restricting very, very quickly and very, very greatly. 13:15:53 25

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The two most substantial bans have been in Sweden and in Finland. And there are also now very, very strong statements urging the medical field to pull things back in the UK and in France.

Q Dr. Ladinsky testified yesterday that -- I don't have her exact words in front of me -- but she said that what's going on in the UK and Sweden and Finland isn't as relevant here because those countries have a centralized health-care system, whereas we have a less centralized health-care system, and all these experts unrelated can see the same child.

That's a poor paraphrase. The record will speak for itself. But assume she made that type of testimony. Would you agree with her?

A No. I can't see the logic of it. It's certainly feasible, in fact, more than likely that decisions are made differently when there are centralized boards and a centralized authority charged specifically with reviewing the evidence that will be the basis of the medical procedures of that country, and the U.S. lacks that.

But there's no reason to think that that situation would change the actual outcomes of the actual children getting the actual interventions.

Q So is it possible, then, that a more centralized health-care system may provide the ability -- an even greater ability to study and evaluate the risks and benefits of

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gender-affirming care? 1 2 That's demonstrably true. That is exactly the process 3 they have gone through. They have published the results of exactly their reviews, and that is how their health-care 13:17:40 5 systems -- that is what their health-care systems are 6 responding to. 7 The American professional associations have not gone through such a comprehensive process. They're merely coming up with policies and citing only individual pieces of studies that appear to support it, rather than a comprehensive review. 13:17:54 10 11 I want to close a loop on adolescent onset gender 12 dysphoria. We talked about ways different groups are 1.3 different. 14 What's unique about this group of adolescent onset, or you referred to it also as rapid onset gender dysphoria? 13:18:11 15 Yeah. It's been called both. 16 Where both the childhood onset and the adult onset are 17 18 primarily male, the adolescent -- the adult onset and childhood 19 onset are primarily male. The adolescent onset is primarily is 13:18:28 20 female. They present with a different set -- it's a different epidemiological set of characteristics, and the evidence that 21 22 we have about both adults and children don't seem to apply to 23 that middle group. Does this group of people presenting with gender dysphoria 24

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in their adolescence -- you said primarily female?

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Yes. 1 Α 2 Do they tend to have any issues or comorbidities in common 3 with each other? The most common one of those would be borderline 13:18:57 5 personality disorders and other difficulties with integrating socially into their environments. As I say, such as autism and 7 Asperger's syndrome. You are not saying that's true for everyone presenting 8 with gender dysphoria for the first time in their adolescence? Correct. 13:19:13 10 11 Q But many? 12 Α Correct. 13 What does the research literature show about the 14 desistance or detransition rates of people who transition after first presenting with gender dysphoria in their adolescence? 13:19:25 15 16 There has never been any such study. 17 Did you review the plaintiffs' reply brief, Dr. Cantor? 18 Yes, I did. Α Did you see any response to your report in plaintiffs' 19 13:19:41 20 reply? 21 Not a single comment. My name was never mentioned. None 22 of the studies that I cited were referred to. None of the 23 arguments were addressed. I don't believe I was quoted anywhere in it, unlike the other experts. 24 13:19:56 25 Q I did note a line that the plaintiffs criticized the

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defendants' experts in general for relying on older studies. 1 2 Yes. I saw that claim. I was a bit confused by it. 3 In my report, I provided a comprehensive list of every single study. There were 11 in total. So the old studies were 13:20:18 5 listed, the new studies were listed. It was comprehensive. It was also a tangential argument. As I said, the 11 6 7 studies which have been conducted were unanimous in their findings. They all found the same thing. The majority desists. So it doesn't matter even if one did rely only on the 13:20:33 10 11 older studies, the newer studies showed exactly the same thing as the older studies. 12 13 We spoke a little bit about some of the things we heard 14 from Dr. Antommaria this morning. I want to turn to some of the things in his report. 13:20:55 15 You reviewed his written expert report, did you not? 16 17 Yes, I did. 18 He -- Dr. Antommaria wrote on -- in paragraph 17 of his 19 report -- and I will find a copy if you need it, but this is 13:21:07 20 one sentence. Quote, gender-affirming medical care is supported by 21 22 clinical studies. Is he right? 23 That's true for adults, but that's not true for the other 24 groups. 13:21:21 25 Q And Dr. Antommaria spoke about how if a drug is FDA

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approved in one area, it's okay to use it off label in another 1 2 area? 3 That's what he said, yes. What does the research literature say, or what opinion do 13:21:44 5 you have about using the same drug, a puberty-blocker in the case of a person who's six, seven, eight, the purpose is to --7 precocious puberty, what about the cases of precocious puberty and using puberty-blockers to help someone medically transition at the beginning of normal puberty? Well, the ability to use a medication off label is not a 13:22:03 10 11 blanket permission to give any drug you want for any reasons you want or for any conditions you want. 12 13 Ultimately, it's going to depend on what the scientific literature itself says, which in turn is what the various 14 regulatory bodies use to make their decisions to decide what's 13:22:22 15 16 off label or on label to begin with. 17 So because a medication would be useful for some people in 18 some situations and some circumstances, does not mean it's 19 automatically going to be useful for other people in other 13:22:37 20 circumstances. Indeed it could be deleterious. If you use a puberty-blocker in somebody with precocious 21 22 puberty, you are pushing somebody who is far below the average 23 age of puberty, and you are bringing them closer to the species-typical range of puberty. 24 13:22:55 25 If you give that same drug to somebody who is already

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having a typical age of puberty, you are now pushing them 1 2 outside of the species-typical age. 3 Thank you, Dr. Cantor. I am going to sum up. Does the research literature 13:23:21 5 support plaintiffs' claims that we need to treat children and adolescents with gender dysphoria with social transition puberty-blockers and cross-sex hormones? I'm sorry. Could you say that -- I missed the first half 8 of that sentence. 13:23:33 10 My apologies. 11 Does the research literature support plaintiffs' claims that we need to treat children and adolescents with gender 12 13 dysphoria with social transition, puberty-blockers, and 14 cross-sex hormones? No. That's terrible overstatement. 13:23:46 15 16 Does the research literature support Alabama's description 17 of these treatments as experimental? 18 Yes. They're fairly called experimental. 19 When does a drug or a course of treatment stop being 13:24:02 20 experimental? That's an excellent question. There is no real test for 21 22 There is no objective way to decide something is one 23 versus the other. 24 Science is never finished. It's always possible for there always to be some future piece of information that changes what 13:24:14 25

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we know.

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There are, of course, you know, different situations -drugs, issues under active investigation, where it's very clear
that it's still experimental, and others where, you know, there
is only very little question left.

For this particular situation, we have a very small number of studies that in certain situations might look like they might be helping, but a much larger body of better performed studies showing that the improvement is not actually coming from the transition itself.

Indeed, there were other areas of the report that were referred to already ongoing studies testing exactly these interventions. Well, that there exists ongoing tests of these interventions is pretty much the definition of calling something experimental.

- Q If scientists are eventually able to replicate the same results under the same conditions over and over again, can you then pretty much say something is established?
- 19 A Yes.
  - Q Has anybody been able to replicate the results of, say, the Dutch study that showed at least some positive results with a combination of treatments?
- 23 A No. Most of the studies have demonstrated no improvement 24 in these children from medical transition.
- 13:25:32 25 | Q Do you understand plaintiffs to argue that Alabama is out

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of step with groups like the American Academy of Pediatrics? 1 Yes, I've heard them say that. 2 3 What's your response? Well, it's actually the American Academy of Pediatrics 13:25:54 5 which is out of step with the international standards. Is there a consensus, a medical consensus internationally 6 7 in support of these treatments? There is now a very quickly developing one. It is still 8 ongoing debate, so I would hesitate to describe it -- describe that there is a solid consensus. 13:26:12 10 As I say, really what we have seen is a pendulum swing 11 12 which is overswung and now is substantially and very quickly 13 correcting itself. 14 Is the pendulum swinging in favor of medical transition 13:26:27 15 use of puberty-blockers and cross-sex hormones for children and 16 adolescents? 17 No. It's swinging now against that. 18 Is there a medical consensus in the United States for the 19 best way to treat gender dysphoria? 13:26:39 20 Α No, there is not. 21 MR. DAVIS: Thank you, Dr. Cantor. 22 THE COURT: So I do have a question myself. 23 Dr. Cantor, you said that an adult should be affirmed in 24 their transgender status. 13:26:58 25 THE WITNESS: An otherwise mentally healthy adult,

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1 yes. 2 THE COURT: All right. So make it clear to me, then, 3 when should an adolescent or a child be affirmed in that status? 13:27:10 5 THE WITNESS: That, to me, is an empirical question. We are not sure actually when the best time do that is. 6 7 Every time we check, we keep finding that, no, that's not 8 exactly the right way. No, that's not exactly quite working. 9 And when we do think we have run into a clue that gives us an idea of when, we are not able to recreate that situation. 13:27:26 10 11 THE COURT: Is that case by case, then? 12 THE WITNESS: I would hesitate to say case by case 13 exactly because --14 THE COURT: Let me rephrase it. Under what circumstances would you affirm a child or an adolescent? 13:27:44 15 THE WITNESS: I can't say that there's a situation --16 17 all of the situations will be gray. I can't think of any 18 evidence that would give us the kind of certainty in any case 19 that would outweigh the potential risks. 13:28:19 20 THE COURT: So you would never affirm a child or an adolescent? 21 22 THE WITNESS: Not with the current evidence available, 23 no. 24 THE COURT: Okay. All right. Cross? 13:28:28 25 CROSS-EXAMINATION

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BY MS. EAGAN: 1 2 Good afternoon, Dr. Cantor. 3 Good afternoon. Dr. Cantor, you are an adult clinical psychologist, 13:29:15 5 correct? Yes. 6 7 You are not a medical doctor? 8 Correct. Α 9 Your private practice -- in your private practice in Toronto, the average age of your patients is 30 to 35 years 13:29:22 10 11 old? 12 Average, that would be about right, yes. Α 13 You've not ever provided clinical care to transgender prepubertal children? 14 13:29:39 15 Correct. Α 16 You have not provided care to a transgender adolescent 17 under the age of 16? 18 Correct. The extent of your experience, Dr. Cantor, working with 19 13:29:52 20 transgender adolescents consists of counseling six to eight transgender patients between the ages of 16 and 18; isn't that 21 22 correct? 23 Yes. So your clinical experience with gender dysphoria really 24 13:30:09 25 lies in the counseling of adult patients?

Federal Official Court Reporter
101 Holmes Avenue, NE
Huntsville, Alabama 35801
256-506-0085/ChristinaDecker.rmr.crr@aol.com

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Correct. 1 Α And you acknowledge that gender dysphoria in children does 2 3 not represent the same phenomenon as adult gender dysphoria, correct? 13:30:24 5 Correct. 6 And, in fact, to use your words, they differ in every known regard, from sexual interest patterns to responses to 8 treatments? 9 Correct. Dr. Cantor, you have never diagnosed a child or an 13:30:36 10 adolescent with gender dysphoria? 11 12 Correct. Α 13 Never treated a child or an adolescent for gender dysphoria? 14 13:30:48 15 Correct. Α You have no experience personally with monitoring patients 16 17 who are undergoing puberty-blocking treatment? 18 Α Correct. You don't know what type of monitoring is typically done 19 13:31:04 20 or not done on those types of patients; isn't that fair? 21 Α No. 22 No, that's not fair? 23 Well, you -- I personally didn't do it, but I am aware of 24 the procedures that are done. 13:31:15 25 Q. Okay. But you have no experience with that? Christina K. Decker, RMR, CRR

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That's correct. 1 2 Similarly, you have never monitored -- or you have not 3 monitored an adolescent or teenage patient on hormone therapy? Correct. Until -- well, I wouldn't be monitoring the 13:31:34 5 status in any case, so, yes, that's correct. I am going to switch to UAB Children's, the gender clinic 6 7 here in Alabama. 8 Have you ever spoken to a child or adolescent who was treated at the gender clinic here in Alabama? 13:32:00 10 No. 11 Have you ever spoken to any former patients of the clinic? Q 12 Α No. You weren't here yesterday to hear Dr. Ladinsky talk about 13 the treatment protocols they have at children's UAB, were you? 14 Correct. 13:32:12 15 Α You weren't here to listen to the results of treatments 16 17 provided to adolescent patients at UAB's Children's in the 18 gender clinic; fair? 19 Yes. They have never published them. 13:32:27 20 And you weren't here to hear them? 21 Correct. Α 22 Dr. Cantor, you have no personal knowledge of the 23 assessment or the treatment methodologies that are used here in 24 Alabama at UAB Children's Hospital, correct? 13:32:42 25 A Correct. Correct.

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You do not know the disciplines of the medical providers 1 who are part of the treatment team involved in that assessment 2 3 at UAB Hospital? Correct. 13:32:56 5 Now, I heard your opinion that it's important to assess the mental health issues of an adolescent patient to see 6 7 whether that is a potentially contributing factor to gender 8 dysphoria and whether there's a need to address. That's a fair statement of your opinion? 13:33:17 10 I'm sorry. Would you repeat that, please? 11 Sure. It's your belief that mental health issues need to be assessed and addressed before a transition occurs? 12 13 Α Correct. Do you know what assessment protocols at UAB Children's 14 13:33:31 15 are to address mental health issues before a child is put on any transitioning medication? 16 17 No, I do not. 18 Do you have any idea or do you know what the doctors at 19 UAB Children's discuss with their adolescent patients about the 13:33:48 20 risks and the benefits of medical treatments at UAB? 21 No. Α 22 Wouldn't you agree -- well, never mind. I am going to 23 move on. 24 Dr. Cantor, I want to talk with you a minute about -- or a little bit about your criticisms of the various studies 13:34:18 25

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regarding the efficacy of puberty blockers and hormone 1 2 treatments, okay? 3 Yep. As I understand your report and your testimony today, one 13:34:36 5 of the criticisms you have of some of those studies is that it relies on participant's self-assessment I believe is the 7 language that you used. Essentially, it is based upon what socially transitioned 8 youth and their family is reporting about their mental health in these studies? 13:34:53 10 11 I would say that's incomplete. My criticisms would be 12 relying on such subjective accounts entirely for all the 13 decision making rather than using it as one part of the decision making. 14 In other words, basing your study based upon what the 13:35:08 15 participants in the study tell you how they're feeling at 16 17 different points in the study? 18 Being limited to that is a problem, yes. 19 And I believe the way that you phrased it, you said, 13:35:22 20 subjective self-reports about how one is doing may not be 21 reflecting reality objectively. 22 Correct. 23 But, Dr. Cantor, self-reports about how one is doing may 24 reflect reality, fair? A That's correct. 13:35:38 25

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So when somebody says, I am doing well, my mental state is 1 2 better, that very well may be the case? 3 May be the case, yes. Another complaint that you have, I believe, is what you 13:35:58 5 call confounded data. And I believe you referred to the de Vries study for that? 7 The two de Vries's studies, yes. As a matter of fact, it's all but two of all papers in that set of literature. And by confounded data, the way that I am understanding 13:36:13 10 it, what you're saying is that you are not able to tell because 11 the data is, quote, confounded, whether one's improved mental health for a minor who has socially transitioned, whether that 12 13 came from the actual medical services, whether it came from the psychotherapy, or whether it came from the combination of both? 14 Correct. 13:36:34 15 Α 16 But one thing, Doctor, that you do have to admit is when 17 adolescents with gender dysphoria have transitioned through a 18 combination of medical services and psychotherapy, you have to 19 admit that based upon the studies, their mental health 13:36:55 20 improved, correct? There were several studies that showed no improvement 21 22 even though -- even though they were receiving both. 23 listed them in my report. 24 Can you direct me to where in your report those are, 13:37:11 25 please, sir?

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1 Sure. Α 2 THE COURT: While he is looking, did you say your 3 target is an hour; is that right? MS. EAGAN: Yes, sir. I believe I should be able to 13:37:33 5 be done in an hour. 6 THE WITNESS: Page 20, footnote 40. 7 BY MS. EAGAN: I'm sorry, sir? 8 Page 20, footnote 40. The Carmichael study, the 9 Hisle-Gorman, et al, study, and Kaltiala. 13:37:48 10 11 My full sentence was, New studies continue to appear at an 12 accelerating rate, repeatedly reporting deteriorations or lacks 1.3 of improvement in mental health, footnote 40 -- or again, those were the specific studies -- and then or lack of improvement 14 beyond psychotherapy alone, footnote 41. 13:38:23 15 16 Certainly, Dr. Cantor, though, there are many study -- or 17 there are studies that indicate when adolescents with the 18 combination of medical service and psychotherapy transition, 19 their mental health has improved. You agree with that 13:38:40 20 statement? I would have to check to see if the number is zero or a 21 22 handful. There have been reports of there having been such 23 improvement, such as the Branstom study, which once it was 24 reanalyzed, discovered to have problems, and the finding was withdrawn. 13:39:00 25

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So there -- again, I would have to go through and check to 1 2 be sure that it's not zero. It would be fair to say that there might have been a study which found such a thing. But the 3 majority of studies are finding either no improvements or 13:39:17 5 deteriorations, or it's a situation that we call a failure to replicate. 6 7 Sir, I am a little bit confused, because I want to go to two of your studies that you have actually talked about today, the Costa study and the Achille study. Now, as I understand your testimony today, in those 13:39:33 10 11 studies, there was -- the studies reported that there was an improvement in mental state for adolescents who were treated 12 13 with medication and psychological treatment in transition that there was an improvement, but in those, you said you can't tell 14 whether it's from the medication or from the psychological 13:39:58 15 16 treatment? 17 No. The Costa study and the Achille study associated the 18 improvement specifically with the psychotherapy and ruled out that the effects were due to the medical interventions. 19 13:40:13 20 Okay. Well, let's pull those studies, Doctor, and let's look at those. 21 22 If you could, there should be a notebook up there that has plaintiffs' exhibits in it. Is that one plaintiff, sir? 23 24 If you could please, sir, turn to Plaintiffs' Exhibit 34.

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13:40:55 25

Α

Yes.

All right. Plaintiffs' Exhibit 34, is this the -- do you 1 2 say Costa or Costa? 3 I'm sorry? Do you say Costa? 13:41:05 5 My guess is Costa. I have never met the person. 6 All right. Exhibit 34 that you have in front of you, is that the Costa study? Yes, it is. 8 Α All right. So, Doctor, I first want to focus in on --9 well, let me ask this: This study was aimed at assessing 13:41:18 10 gender dysphoric adolescents' global functioning after 11 psychological support and after puberty suppression, correct? 12 1.3 Α Yes. 14 Bear with me. I am going to take this out so I can put it up on the Elmo, sir. 13:41:42 15 16 All right, sir. I am going to direct your attention to 17 results that I have highlighted on my copy. Okay? According 18 to the abstract here, the results? 19 Α Yes. 13:42:18 20 At baseline, gender dysphoric adolescents showed poor functioning with -- it defines the mean scores. So baseline 21 22 means at the start of the study, correct? 23 Usually it does. I would have to check that that's 24 exactly how they used the term.

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Q All right. We will get to the details of that in a

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minute.

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Okay. Gender dysphoric adolescents' global functioning improved significantly after six months after psychological support. And then it goes on to say, Moreover, gender dysphoric adolescents receiving also puberty suppression had significantly better psychosocial functioning after 12 months of puberty suppression compared to when they had received only psychological support.

Did I read that right, sir?

- 13:43:07 10 A Yes.
  - 11 Q Do you remember the methodology that was used for this 12 study, sir?
  - 13 A Roughly.
  - 14 Q Pardon?
- 13:43:14 15 A Yes. Roughly.
  - Q Sorry. I meant to -- all right. And do you recall that the methodology was everybody started at baseline. For the first six months all of the adolescents received psychological counseling. And then for the next 12 months beyond that, one group received puberty blockers, and one group just continued to receive psychological counseling. Do you recall that?
  - 22 A Yes.
- 23 Q All right. And then I am going to direct you, sir, to
  24 page 2211 of the -- if you look at the blue writing on the top,

  13:44:12 25 it's page 6 of 9.

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1 Yes. Α 2 All right. And I am going to direct you, sir, to on the 3 CGAS on follow-up? Α Yes. 13:44:32 5 All right. And I am going to start at the second paragraph where it says delayed eligible. Do you see where I 7 am talking about? 8 Yes. Α 9 This is talking about there were three follow-ups, right, at 6 months, at 12 months, and at 18 months for this study; is 13:44:43 10 11 that correct? 12 That sounds familiar to me, yes. And let's read through that together. 13 14 Delayed eligible gender dysphoric adolescents, who received only -- and gender delayed, GD adolescents, is your 13:44:55 15 16 recollection that those were adolescents who were eligible to 17 receive puberty blockers, but they delayed them for six months 18 so that they had everybody at a -- doing psychological study? 19 Do you remember this is the group that gets the puberty 13:45:17 20 blockers? 21 Yes, that sounds correct. 22 Okay. The delayed eligible gender dysphoric adolescents 23 who received only psychological support for the entire duration 24 of the study -- excuse me -- I take that back. 13:45:29 25 This was actually the group that just got the

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psychological -- had significantly better psychosocial 1 2 functioning after six months of psychological support, okay? 3 However, despite scoring better at the following evaluations, they did not show any further significant 13:45:47 5 improvement in their psychosocial functioning. Did I read that right? 6 7 Yes. Also, the delayed eligible group continued to score lower 8 than a sample of children adolescents without observed psychological psychiatric symptoms even after 18 months of 13:46:04 10 11 being in psychological support. 12 So what that's saying is after 18 months, they were still below a group that did not have psychological therapy or 13 14 issues, correct? 13:46:20 15 Yes. Α On the contrary, the immediately eligible group, who at 16 17 baseline had a higher, but not significantly different 18 psychosocial functioning than the delayed eligible group, did not show any significant improvement after six months of 19 13:46:40 20 psychological support. However -- and this is the key --21 immediately eligible adolescents had a significantly higher 22 psychosocial functioning after 12 months of puberty suppression compared to when they had received only psychological support. 23 Did I read that correctly? 24 13:47:03 25 Yes.

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Then you see at the top of this, there is a chart. And 1 2 when you look at this chart, the bottom is actually the three 3 different check-ins. Time zero is baseline, when the study started, right? 13:47:18 5 Yes. 6 Time one is the six-month check-in, correct? 7 Α Yes. And during that six months, both groups are getting just 8 psychotherapy, correct? 13:47:31 10 Yes, I believe so. 11 The rest -- and just to orient us. 12 The red group, the red line is the group of adolescents who only got psychotherapy or psychotherapy through the entire 13 18-month study, right? 14 13:47:46 15 Yes. Α 16 The green line that you see that goes up -- goes up and 17 keeps going up, that is the line of adolescents who receive 18 puberty blockers; fair? 19 Yes. Α 13:47:59 20 And so, Doctor, to get to the ultimate conclusion of this 21 study that you say shows that puberty blockers don't work or 22 don't give any improvement in mental condition over 23 psychotherapy, the conclusion, this study confirms the effectiveness of puberty suppression for gender dysphoric 24 13:48:37 25 adolescents. Recently, a long-term follow-up evaluation of

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puberty suppression among gender dysphoric adolescents after 1 2 that CSHT, which is hormone therapy and GRS, which is puberty 3 blockers, has demonstrated that gender dysphoric adolescents are able to maintain a good functioning into their adult years. 13:49:00 5 This present study, together with this previous research, indicate that both psychological support and puberty 6 7 suppression enable young gender dysphoric individuals to reach 8 a psychosocial functioning comparable with their peers. 9 Did I read that conclusion correctly? 13:49:17 10 Yes. 11 THE COURT: Ms. Eagan, when you reach a comfortable 12 spot, let's take a post-lunch break. 13 MS. EAGAN: Perfect. We're good, Judge. We can go ahead and break now. 14 13:49:35 15 THE COURT: Okay. I will see you in 15 minutes. 16 (Recess.) 17 THE COURT: Go ahead, Ms. Eagan. 18 MS. EAGAN: Thank you, Your Honor. BY MS. EAGAN: 19 14:09:00 20 Dr. Cantor, my understanding from paragraph 63 of your declaration is that the other study that you point to in 21 22 support of your assertion that testing revealed that puberty 23 blockers did not improve mental health any more than mental health does on its own is the Achille study you mentioned 24 earlier today; is that right? 14:09:29 25

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1 Yes. Α If you, please, sir, could turn to Plaintiffs' Exhibit 42 2 3 in that binder in front of you, and this would be the plaintiffs' exhibits that we were looking at earlier. 14:09:42 5 Yep. Got it. 6 All right. Is Plaintiffs' Exhibit 42 the Achille study that we just mentioned? 8 Yes. Α 9 All right. 14:09:59 10 MS. EAGAN: Your Honor, do you mind if I take this off 11 of this? 12 THE COURT: That's fine. 13 BY MS. EAGAN: All right. I am going to -- so this is Plaintiffs' 14 Exhibit 42. 14:10:15 15 And the Achille study, again, was -- in this case if we 16 17 look at the abstract, the background of the study or the 18 purpose of the study was to examine the associations of 19 endocrine intervention puberty suppression and/or cross-sex 14:10:35 20 hormones therapy with depression and quality of life scores 21 over time in transgender youths. 22 That was the purpose of the study, correct? 23 Α Yes. 24 And looking down to the results section, between 2013 and 14:10:5625 2018 -- so this went over a five-year period, right?

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Yes. 1 Α 2 And there were 50 participants in the study, correct? 3 That sounds right, yes. All right. And that they received endocrine intervention 14:11:17 5 both -- some were in the form of puberty blockers, and some were in the form of cross-sex hormones, but endocrine -- and 7 over that time period and completed three waves of questionnaires. 8 Is that your recollection of this study? 14:11:30 10 Yes, roughly. 11 Okay. And when that was -- with those treatments, mean 12 depression scores and suicidal ideation decreased over time, 13 which means their depression was -- went down, or they got better. Suicidal ideation went down, which is improvement, 14 correct? 14:11:50 15 16 Α Yes. 17 While mean quality of life scores improved over time. 18 And then it goes on to say, When controlling for 19 psychiatric medications and engagement in counseling, 14:12:03 20 regression analysis suggested improvement with endocrine 21 intervention. And then it goes on to say that this reached 22 significance in male to female participants. And the male to 23 female participants, those are ones that were receiving hormone therapy, correct? 24 14:12:23 25 I believe they were both receiving hormone therapy. It A

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was not significant in one group, and so they're just reporting 2 the successful in the other and not reporting the nonsuccessful 3 group. Well, let's talk about that. Let me pull up paragraph 63 14:12:39 5 of your declaration. When you're discussing this study, here is what you said. 6 7 You said that upon follow-up, some incremental improvements were noted; however, after -- so, in other words, upon follow-up, they saw improvements. But after statistically adjusting for psychiatric 14:13:07 10 11 medication and engagement and counseling, quote, most predictors did not reach statistical significance. 12 13 And that's your basis -- that statement is your basis to say there was not a statistical significance of difference 14 between just counseling versus with meds; is that right? 14:13:26 15 16 I'm sorry. Could you say that part again? 17 The language that you seize onto, to say that puberty 18 blockers did not improve mental health more than mental healthcare did on its own --19 14:13:43 20 A Right. -- was the statement in the study that most predictors did 21 22 not reach statistical significance. 23 Well, I wouldn't say that I derived that just from that sentence. It's just easier to convey that idea to readers by 24 14:13:56 25 using the sentence. My evaluation of the study is by those

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statistics directly. 1 2 All right. Let's go to the language in the study that 3 they talk about, the regression analysis that you were just referencing there. 14:14:11 5 Okay. And this is here in the regression analysis. Let me first say this: The mean changes over time. And 6 7 it does say, Mean depression scores decreased. Quality of life improved, but did not reach statistical significance. 9 But then when you go on to the regression analysis, here is what it says. It says, Given our modest sample size --14:14:39 10 11 which in this case was 50 people, right? 12 Α Yes. 13 Given our modest sample size, particularly when stratified by gender, most predictors did not reach statistical 14 significance. 14:14:57 15 So one of the contributing factors to that, of course, was 16 17 the size of the number of participants, correct? 18 Yes. In statistics, that's a truism. The precision of the statistics is the direct -- direct result of the sample 19 14:15:20 20 size. Okay. And then it goes on to say, That being said, effect 21 22 sizes values were notably large in many models. In the male to 23 female participants, only puberty suppression reached a significance level. And it gives the number in one of the 24 14:15:43 25 sample -- one of the tests, and associations with the two other

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scores approached significance. 1 2 And then it goes on to say, For female to male 3 participants, only cross-sex hormone therapy approached statistical significance. All right. Statistical significance are not -- on all 14:15:57 5 planes, the numbers improved, correct? 7 That's -- the very meaning of determining -factoring in whether something is statistically significant or not. Ultimately, the writers of this study stated, if you look 14:16:15 10 11 at the next paragraph -- or look on the discussion part if you 12 want -- can you see the screen up here? 13 Oh, I have the same thing on this screen. 14 Oh. You have got one. Okay, good. Our results suggest that endocrine intervention is 14:16:31 15 associated with improved mental health among transgender youth. 16 Did I read that right? 17 18 Yes. Those are their words. 19 Doctor, to be clear, you agree that the U.S.-based medical 14:17:15 20 association guidelines and position statements are in support for the use of medical treatment combined with mental health 21 22 treatment for adolescents with gender dysphoria, correct? I don't think I would phrase it quite that strongly. Most 23 of the associations are using relatively vague terms. And it's 24 14:17:35 25 not clear when they're talking about adults or children, when

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they're talking about transition, medical services versus 2 psychotherapy, or a relatively blanket statement of 3 demonstrating respect. I can only accept that they're endorsing a particular treatment when they're endorsing a 14:17:54 5 particular treatment. So is there a specific association or specific statement 6 7 you have in mind? The major medical associations that were involved in this 8 space endorse the use of medications to treat gender dysphoria in children -- excuse me -- gender dysphoric adolescents once 14:18:08 10 11 they reach puberty when appropriate? 12 I can think of two medical associations, one 13 interdisciplinary association, and the other -- and all of the 14 others are, as I say relatively, vague words of support, and it's not clear exactly what it is that they're recommending. 14:18:44 15 16 Well, my understanding is what you like to look at is the 17 international standards. That's what you're talking about 18 today in support of your opinions? 19 Oh, I looked at each of them, and I think I described each 14:18:59 20 of them. I did my best not to leave any out. 21 So, and according to you, the Dutch approach is 22 internationally the most widely-respected and utilized method 23 for the treatment of children who present with gender 24 dysphoria? 14:19:13 25 Α Yes.

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And the Dutch approach is also, I believe, what you call 1 2 that watchful waiting approach? 3 No. Okay. The Dutch approach is what is accepted -- I have 14:19:24 5 already said what you said. 6 The Dutch approach says social transition can happen at 7 age 12, puberty blockers may be prescribed at age 12, hormones at age 16, and then resolve other mental health issues before transition. That's the Dutch method? 14:19:43 10 Yes. 11 Do you know how that approach aligns with protocols that 12 are utilized at UAB Children's in Alabama? 1.3 I don't know. 14 In any event, what you say is internationally the most widely-respected and utilized method for treatment of children 14:20:03 15 16 who present with gender dysphoria, you would agree that that 17 approach would be a felony in Alabama with this new law, 18 correct? 19 Yes. It's true that the Alabama law didn't leave an 14:20:26 20 exception for research purposes. Okay. So let's talk about the European countries that you 21 22 mentioned very briefly, the UK, Finland, Sweden and France. 23 When you look at those four European countries, Doctor, 24 not one of them has enacted a ban to puberty blockers and

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hormone treatments as Alabama has done here, correct?

14:20:46 25

1 No. Α 2 That's not correct? 3 Correct. That is not correct. UK has not fully banned puberty blockers and hormone 14:21:00 5 treatments in youth 18 and younger? That's correct. 6 Finland has not banned -- let me ask it this way: Has 7 Finland banned blockers and hormone treatments in youth ages 18 and under for gender dysphoria? Yes, I believe it has. 14:21:16 10 11 It has? Q 12 I believe so. Α A blanket ban? Should I refer you to paragraph 131 of 13 your declaration, sir? 14 14:21:47 15 Hang on. That's just where I am now. Α 16 Okay. 17 Oh, yes, they did leave an exception for hormones. 18 total ban was on surgery. 19 Thank you, sir. 14:22:05 20 Sweden, has Sweden put an absolute ban on puberty blockers? 21 22 Α Yes. 23 Q And bear with me. Have they put a ban on puberty blockers 24 and hormone treatments in youth ages 18 and under for gender 14:22:23 25 dysphoria in Sweden?

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18 and under? 1 2 Yes, sir. 3 They allowed exceptions for 16 year olds -- 16 year olds within research circumstances. 14:22:32 5 Has France banned the use of puberty blockers and hormone treatments for adolescents ages 18 and under? 7 Α No. Can you point me to a single country, Doctor, in Europe 8 that has put a blanket ban on the use of puberty blockers or hormone treatments for youth ages 18 and under for gender 14:22:50 10 11 dysphoria? 12 Blanket ban in the way you're describing it, no. THE COURT: How about any country? 13 THE WITNESS: No, not that I know of. 14 BY MS. EAGAN: 14:23:04 15 I want to turn very briefly to the subject of -- I will 16 17 use your word desistance. 18 If you turn to paragraph 36 of your declaration. 19 Α Yes. 14:23:36 20 In that -- you state, Among prepubescent children who feel 21 gender dysphoric, the majority cease to want to be the other 22 gender over the course of puberty ranging from 61 to 80 percent 23 desistance across the large prospective studies. 24 I know that's a point that you also raised earlier today. So I want to ask this question: Of those that number, do 14:23:59 25

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you know, Doctor, what percentage of those kids cease to want 2 to be the other gender -- that's using your words -- before or 3 as they enter puberty, in other words, before they actually get into puberty? Do you know how many of those desisters are in 14:24:27 5 that window? I must not be understanding your question, because it makes me want to say the same number that's in the report, 61 to 88 percent. What's different from what I said and what you're asking? The 61 to 88 percent, is that children that realign with 14:24:39 10 11 their birth sex before -- or as they're entering into puberty, that's that number? 12 13 Yes. 14 Okay. All right. So I want to focus on a different 14:25:01 15 category of youth. Let me ask you this: The medications in 16 the United States, puberty blockers and hormone treatments 17 cannot be given to kids for gender dysphoria until after 18 they've actually entered into puberty, correct? 19 Very many clinics are doing it as close to the beginning 14:25:23 20 as soon as puberty starts as they are able. 21 But it's once they have entered puberty? 22 Α Yes. So let me ask you about that category of youth. 23 And that is adolescents who have entered into puberty, 24 okay, and who have been -- have suffered from gender dysphoria 14:25:38 25

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persistently, consistently, and insistently in childhood 1 2 leading up to puberty, okay? 3 Okay. Do you have any data regarding what percentage of those 14:25:58 5 individuals desist after they enter into puberty? No. I don't think that level of follow-up has yet been 6 7 conducted. And, Doctor, in fact, it's your belief that the 8 majority -- that while the majority of prepubescent kids cease 14:26:35 10 to feel trans, you know, to puberty or during puberty, in other words, as they enter into puberty, the majority of kids who 11 12 continue to feel trans after puberty rarely cease? 13 That does seem to be the case, yes. Okay. Doctor, are you being paid to be here to testify 14 14:27:10 15 today? 16 Α Yes. 17 What's your rate? 18 400 an hour. Α 19 Who is paying your fees? 14:27:14 20 Α The Alabama state -- State of Alabama. 21 Okay. Dr. Cantor, have you attempted to recruit parents 22 in Alabama whose children have gender dysphoria and were 23 prescribed or referred to gender-affirmative treatments, have 24 you tried to recruit them to give a witness statement in this 14:27:38 25 case that they believe the treatments are harmful?

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1 No. Α 2 Do you tweet? 3 Yes. MS. EAGAN: Your Honor, may I approach? 14:27:49 5 THE COURT: Yes. 6 BY MS. EAGAN: Doctor, I've marked as Plaintiffs' Exhibit 45 a tweet 7 Dr. James Cantor retweeted. And it's -- let me say this: Is this a tweet that you actually did? 14:28:40 10 No. I --11 Q You retweeted? 12 Retweeted, exactly. Α From a group called Genspect, or what's -- I don't tweet. 13 Would you call that a group? I guess it's a group called 14 Genspect? 14:28:56 15 16 It's there is a group called Genspect, and this is their 17 Twitter account. 18 All right. And then you retweeted it? 19 Yes. Α 14:29:03 20 And it says, Urgent. Attention. Alabama parents, if your child experienced gender dysphoria and was prescribed or 21 22 referred to gender-affirmative treatments and you believe these 23 treatments are harmful, please direct message, e-mail us at 24 once. We are looking for witness statements. Can be anon. 14:29:26 25 By anon, I guess that means anonymous, correct?

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1	A That would be my reading, yes.
2	Q All right. Doctor, have you seen a sworn statement under
3	penalty of perjury for any Alabama parent whose kid received
4	puberty blockers or hormones and the parent said the
14:29:50 5	medications hurt their kid more than they helped them?
6	A I'm sorry. Did you ask have I seen such a statement?
7	Q Yes, sir.
8	A Not that I recall.
9	MS. EAGAN: Nothing further.
14:30:05 10	THE COURT: Any redirect?
11	MR. DAVIS: Short.
12	THE COURT: Ms. Eagan, did you intend to offer that
13	into evidence or no?
14	MS. EAGAN: Oh, yes. Thank you, Judge. I offer
14:30:37 15	Plaintiffs' Exhibit 45.
16	THE COURT: It will be admitted.
17	REDIRECT EXAMINATION
18	BY MR. DAVIS:
19	Q Dr. Cantor?
14:30:51 20	A Hi.
21	Q Is it true as a clinician you are not treating anyone who
22	has presented with gender dysphoria as an adult or as a child?
23	A I treat adults with gender dysphoria, not children.
24	Q You are not treating them while they are adolescents or
14:31:09 25	children, you are not currently treating someone who is like

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under age 16? 1 2 Correct. 3 Okay. But you are familiar with the research literature on these issues, correct? 14:31:19 5 Yes, quite. 6 And even those that are studying -- or children in adolescents? A Of course. 8 You're knowledgeable about the treatment they're receiving? 14:31:29 10 11 Yes, very. 12 And are you knowledgeable about what the research shows 1.3 about the efficacy of these treatments? 14 A Yes. You had an exchange with Ms. Eagan where you admitted that 14:31:35 15 a fact that is self-reported by a participant may be true? 16 17 Correct. Α 18 What's the rest of that sentence? 19 It is certainly not necessarily true. We need something 14:31:53 20 objective before we can make any decisions upon it. Let's turn to the Costa study. That's at Tab 38 of the 21 22 book of plaintiffs' exhibits. 23 MR. DAVIS: Your Honor, I'm sorry. I left a notebook. 24 May I step over? 14:32:40 25 THE COURT: Certainly. Christina K. Decker, RMR, CRR

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101 Holmes Avenue, NE
Huntsville, Alabama 35801
256-506-0085/ChristinaDecker.rmr.crr@aol.com

THE WITNESS: I'm sorry. You said Tab 38? 1 2 BY MR. DAVIS: 3 I was mistaken, Dr. Cantor. It was 34. 34 of the defendants'? 14:33:02 5 No. Of the plaintiffs' book. Yes. Now I'm back there. 6 7 Okay. Now, you have a line in your report in paragraph 57 of your report that I will just read to you. 9 It says, Both groups improved in psychological functioning over the course of the study, but no statistically significant 14:33:25 10 11 differences between the groups was detected at any point? 12 Correct. 13 Okay. Are the three groups represented by the three 14 colored lines -- the three groups you're talking about, the three groups on the three colored lines on this chart I'm 14:33:41 15 16 showing you? Part of the information is contained in that graph, yes. 17 18 Okay. Does this table tell us more about the statistical 19 significance or lack thereof shown in the Costa study? 14:34:02 20 Yes, it does. The results of this table, although much harder to read, indicate that there was no statistical 21 22 significance between the groups. 23 Okay. 24 What was changing in the groups was change over time 14:34:13 25 within the group relative to the same group previously. But

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- there were no changes -- no significant differences between the groups themselves.
- 3 Q Okay. What does it mean in a study if a finding lacks 4 statistical significance?
- 14:34:29 5 A That there was a substantial probability of getting a 6 pattern like that just by random chance.
  - Q And are there any reasons other than puberty suppression that the delayed group did not have the same change over time as the immediately eligible group?
- 14:34:45 10 A It's not exactly clear if they didn't change just as much.
  - 11 That's one of the ambiguities that, again, comes from
  - 12 statistics. When you look at it in different ways, you can see
  - 13 different aspects, different aspects of it.
- 14 Q And the authors actually noted statistical significance or
  14:35:1115 lack thereof, did they not, in the language that are bracketed
  16 there? It says, this difference failed to reach significance
  17 possibly because of sample size?
  - 18 A That is correct.
- 19 Q Have you said anything about the Costa study in your report that you need to withdraw after your exchange with
  - 21 Ms. Eagan?
  - 22 A No. Everything I said is accurate.
  - Q Okay. Is the same true for everything that you have said about the Achille study?
- 14:35:39 25 A Yes. Everything I said was accurate. Nothing in the

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prior discussion changed it. 1 2 The UK is still reviewing these treatments, are they not? 3 They are in the middle of deciding what to do with what they have now discovered from their comprehensive review of the 14:35:57 5 literature, which showed what they were doing was wrong. What did they discover? 6 7 They discovered that they said exactly what I said, that there is no evidence to support the medical transition of these children. 14:36:09 10 And they have not yet decided how to respond to that 11 revelation, correct? 12 Correct. They have now taken that report, and they're now reorganizing and deciding exactly what it is that they're going 13 14 to do. And in France, is it not correct that they've said about 14:36:21 15 hormones that the greatest reserve is required for their use? 16 17 That is correct. 18 And is it true that, quote, they have said that speaking 19 of hormones, they're irreversible nature must be emphasized? 14:36:38 20 Α That is correct. And in Sweden, is anyone under 16 getting puberty blockers 21 22 or hormone treatments? 23 Α No. That is banned. And what about over 16? Youth -- like --24

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Between 16 and 18, they're permitted to do it, but only

14:36:51 25

Α

1	within recognized research programs. A regular physician
2	can't.
3	Q And how many such research programs are going on at
4	present?
14:37:04 5	A Oh, in Sweden?
6	Q Are you aware of any?
7	A I am aware of one lab that has two locations. I don't
8	know what its current status is with its current research
9	program.
14:37:20 10	Q Okay. Can you say whether a single child under 18 is
11	currently receiving hormones for the purpose of transitioning
12	in Sweden?
13	A I don't know.
14	MR. DAVIS: Thank you, Dr. Cantor.
14:37:39 15	THE COURT: Any recross?
16	MS. EAGAN: No, Your Honor.
17	THE COURT: May this witness be excused?
18	MR. DAVIS: Yes, of course, Your Honor.
19	THE COURT: All right. You can step down, sir.
14:37:48 20	THE WITNESS: Thank you.
21	THE COURT: All right. Call your next witness.
22	MR. DAVIS: Your Honor, the State calls Ms. Sydney
23	Wright.
24	THE COURT: All right.
14:37:54 25	SYDNEY WRIGHT,
	Christina K. Decker, RMR, CRR

101 Holmes Avenue, NE
Huntsville, Alabama 35801
256-506-0085/ChristinaDecker.rmr.crr@aol.com

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The only ones who crave affirmation more than trans teens are their doctors.

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EXHIBIT 11
Witness: James Cantor
Date: 6/7/23
Dana Miller, RPR, CRR