UNITED STATES DISTRICT COURT
FOR THE
MIDDLE DISTRICT OF FLORIDA

DREW ADAMS, a minor,)
)
Plaintiff,)
)
vs.)Civil Action
)No.3:17-cv-00739-TJC-JBT
THE SCHOOL BOARD OF ST.)
JOHNS COUNTY, FLORIDA,)
)
Defendant.)

VIDEOTAPED DEPOSITION OF PAUL W. HRUZ, M.D., Ph.D
Taken on behalf of Plaintiff
November 20, 2017
(Starting time of the deposition: 8:58 a.m.)

Pl. Trial Ex. 090

I N D E X O F E X A M I N A T I O N

INDEX OF EXHIBITS

(The original exhibits were retained by the court reporter, to be attached to Mr. Gonzalez-Pagan's transcript.)

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DREW ADAMS, a minor, Plaintiff,	)
vs.	) Civil Action
THE SCHOOL BOARD OF ST. JOHNS COUNTY, FLORIDA, Defendants.	) No.3:17-cv-00739-TJC-JBT

VIDEOTAPED DEPOSITION OF WITNESS, PAUL W. HRUZ, M.D., Ph.D., produced, sworn, and examined on the 20th day of November, 2017, between the hours of nine o'clock in the forenoon and six o'clock in the evening of that day, at the offices of Veritext Legal Solutions, 515 Olive Street, Suite 300, St. Louis, Missouri before BRENDA ORSBORN, a Certified Court Reporter within and for the State of Missouri, in a certain cause now pending in the United States District Court for the Middle District of Florida, wherein Drew Adams, a minor, is the Plaintiff and The School Board of St. Johns County, Florida is the Defendant.

A P P E A R A N C E S

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The Videographer: Ms. Kimberlee Lauer

IT IS HEREBY STIPULATED AND AGREED, by and between counsel for Plaintiffs and counsel for Defendants that the VIDEOTAPED DEPOSITION OF PAUL W. HRUZ, M.D., Ph.D., may be taken in shorthand by Brenda Orsborn, a Certified Court Reporter, and afterwards transcribed into typewriting; and the signature of the witness is expressly not waived.

* * * * *

VIDEOGRAPHER: Good morning. We're going on the record at 8:58 a.m. on Monday, November 20th, 2017. Please note that the microphones are sensitive and may pick up whispering and private conversations and cellular interference. Please turn off all cell phones or place them away from the microphones as they can interfere with the deposition audio. Audio and video recording will continue to take place unless all parties agree to go off the record.

This is Media Unit No. 1 of the video recorded deposition of Dr. Paul Hruz, taken by counsel for the Plaintiffs in the matter of Drew Adams versus the School Board of St. Johns County, Florida, filed in the United States District Court for the Middle District of Florida. This deposition is being held at Veritext Legal Solutions, located at 515 Olive Street in St. Louis, Missouri.

My name is Kimberlee Lauer from Veritext, and I'm the videographer. Our court reporter is Brenda Orsborn, also from Veritext. I am not authorized to administer an oath. I am not related to any party in this action. Nor am I financially interested in the outcome.

Counsel and all present in the room and everyone attending remotely will now please state your appearances and affiliations for the record, and if there are any objections to proceeding, please state them at the time of your appearance beginning, please, with the noticing attorney.

MR. GONZALEZ-PAGAN: Thank you. Omar Gonzalez-Pagan of Lambda Legal for the Plaintiff.

MS. RIVAUX: Good morning. Shani Rivaux with Pillsbury Winthrop Shaw Pittman, on behalf of the Plaintiff.

MR. KOSTELNIK: Good morning, Kevin Kostelnik of Sniffen & Spellman on behalf of the Defendant.

THE WITNESS: Paul Hruz --

MR. HARMON: And this is Terry Harmon on the phone, as well, for the Defendant.

THE WITNESS: And Paul Hruz, pediatric endocrinologist, witness for the defense.

DR. PAUL HRUZ,

of lawful age, being produced, sworn and examined on behalf of the Plaintiff, deposes and says:

EXAMINATION

QUESTIONS BY MR. GONZALEZ-PAGAN:

Q. All right. Dr. Hruz, thank you for being here today. I know you're a busy man. As you're aware, I represent Drew Adams, the Plaintiff in this litigation, and I'll be asking some questions about your opinions in this case today. I just want to go over some ground rules just to get started. First, do you understand that you're under oath today?

A. Yes, I do.

Q. And that -- that this requires to testify truthfully?

A. Yes, I do.

Q. We cannot be speaking at the same time. It will be annoying to the court reporter. It will make it difficult for you to hear me, me to hear you. So please let me finish a question before you start answering it, and I'll strive to do the same as well, and let you finish answering before I go into another question. Is that agreed?

A. Very good. Yes.

Q. If you don't understand something I ask,

identity, a gender identity, that does not correspond with their sex.

Q. Okay. So now understanding that term, I ask you, would you agree with me that there are transgender people?

A. I would agree that there are individuals that have a gender identity that does not match their sex.

Q. Okay. Have you met with Drew Adams?

A. I have not.

Q. Did you request to meet with Drew Adams?

A. I did not.

Q. Did anyone tell you you could not meet with Drew Adams?

A. No.

Q. Have you evaluated Drew Adams?

A. Clarify what you mean by "evaluate."

Q. As a doctor, you conduct evaluations of your patients.

A. So I have not participated in the medical care of Drew Adams.

Q. Okay. So you have not treated Drew Adams either?

A. That is correct.

Q. And you haven't examined him, medically

examined Drew Adams either?

A. I have never met him.

Q. Did you ask for an independent medical examination?

A. I did not.

Q. Have you ever met with either of Drew Adams' parents?

A. I have not.

Q. Have you spoken with any of Drew Adams' treating physicians?

A. I'm -- I'm just trying to see if -- if the ones that were listed, if I've ever met them at a meeting. I've never spoke with them directly related to this case, no.

Q. So if you've spoken to any of the doctors, okay, you have never spoken with them about Drew Adams?

MR. KOSTELNIK: Form.

A. That is correct.

Q. (By Mr. Gonzalez-Pagan) Did anyone advise you that you could not speak to Drew Adams' treating physicians?

A. No.

Q. Do you believe that speaking with Drew Adams' treating physicians would have enabled you to

physiological definition.

A. He is post-pubertal, and that's how I define --

Q. So you consider him an adult?

A. No, I do not.

Q. So what -- what -- what would you consider Drew Adams, then?

A. I would consider him a post-pubertal female who identifies as a -- a male.

Q. Is it safe to say you consider him a post-pubertal teenager?

A. Yes.

Q. You said from a legal standpoint. From a legal standpoint, is Drew Adams an adolescent?

A. He has not reached the age of 18.

Q. And you -- just to clarify, you just stated that Drew is post-pubescent, correct?

MR. KOSTELNIK: Form.

A. Post-pubertal.

Q. (By Mr. Gonzalez-Pagan) Let me just rephrase that, because that was a form objection. Is Drew Adams post-pubertal?

A. Drew Adams is post-pubertal.

Q. Would you agree that Drew Adams is transgender?

A. I -- as I said earlier, he is a biological female that identifies as a male. By that definition, he would qualified as a transgender individual.

Q. Is Drew a transgender boy?

A. Again, you have to be very careful when you make the designation. The -- the terminology that is often used right now would classify him as a transgendered male.

Q. If Drew told you he was a boy, would you accept that?

MR. KOSTELNIK: Form.

A. It would depend on what he was asking in terms of that, if he was asking about his gender identity or his biology. If he was asking about whether he was biologically male or female, I would say that he's biologically female.

Q. (By Mr. Gonzalez-Pagan) And if he told you that his gender identity was male?

A. I would take him at his word.

Q. If Drew told you he uses male pronouns, would you use male pronouns?

A. My practice is to use as much respect as I can and within the confines of scientific and biological reality, I would not have [sic] not an objection to be able to identify him as he wished.

Q. So is that a "yes" or a "no"?
A. That is a -- to make sure I understand the question again, please address it again.
Q. If Drew asked you to use male pronouns, would you use male pronouns?
A. Yes.
Q. In your practice -- and I take it you've been practicing for several years, so in your practice, how many transgender patients have you treated in the past five years?
A. As stated explicitly in my declaration, I intentionally do not treat transgender patients.
Q. At all?
A. That is correct.
Q. In any -- for any treatment?
A. Oh, the ones that I'm aware of, I have not encountered any patients that have presented to me as transgendered for any other conditions. I have certainly encountered many patients where that was something under consideration or something that I suspected, but nobody has ever mentioned directly to me that they were transgendered.
Q. Okay. So to your knowledge, you have not treated any person that you knew was transgender?
MR. KOSTELNIK: Form.

A. Well, again, if you would -- yeah, that is true for -- for the -- the patient -- somebody like Drew Adams that was biologically normal. I have certainly cared for hundreds of patients that have disorders of sexual development. Many practitioners will include those in that designation. I believe that they are a completely different patient population than Drew Adams.

Q. (By Mr. Gonzalez-Pagan) What is gender dysphoria?

A. Gender dysphoria is the discomfort that one experiences related to gender identity that does not conform with one's biological sex.

Q. Is that the definition in the DSM?

A. Yes.

Q. It uses the word "discomfort"?

A. I'd have to go look back at the exact wording of that. It's the difficulty that they experience, psychological difficulty with that, yes.

Q. Okay. And based on your testimony, would you agree that you have not treated any transgender patients for gender dysphoria?

A. Yes, I would agree.

Q. Would you agree that Drew's treating physicians have diagnosed him with gender dysphoria?

A. I would agree, yes.
Q. Would you agree that Drew Adams suffers from gender dysphoria?
A. Based on the information presented to me, I would accept that. I have nothing to dispute that.
Q. What do you understand gender-affirming treatment to mean?
MR. KOSTELNIK: Form.
A. So gender-affirming treatment?
Q. (By Mr. Gonzalez-Pagan) Yes.
A. That is the treatment paradigm that rather than challenging the discrepancy between biological sex and gender identity, it is affirmed and validated in the individual, his -- encouraged in that transgendered identity.
Q. So I just want to clarify a little bit, because you used different words there for what's being -- you said not challenge, correct?
A. That is correct.
Q. You said that it's accepted, that they accept the gender identity of the --
A. And -- and I would say even encourage.
Q. So that's where I was going.
A. Yes.
Q. So you think not challenging is the same as

the person putting forward this clinic and trying to understand what care that was being proposed to be provided in the setting of that context in my role as the director of our -- or the chief of our division of endocrinology.

Q. Just to be clear, though, you have never sat in a meeting between a provider and a patient discussing their treatment options for gender dysphoria?

A. That is correct, I've never been in the room with a patient while that care is being discussed.

Q. All right. Would you agree that Drew Adams' doctors have concluded that gender-affirming treatment is appropriate treatment for him?

A. That is what they concluded, yes.

Q. Would you agree that Drew Adams' doctors have concluded that the gender-affirming treatment has been helpful to Drew?

A. I believe that that's what they claim, yes.

Q. Do you agree that Drew Adams' gender-affirming treatment has been beneficial for him?

A. It depends on what you mean by beneficial. I think that it is far too early to know what the long-term outcome -- outcomes are going to be from what is being provided for Drew Adams.

Q. As we stand here today, has the gender-affirming treatment been beneficial to Drew with regards to his gender dysphoria?

MR. KOSTELNIK: Object to form.

A. So similar to the literature that has already been published in this area, Drew, by the reports that I've read, is experiencing a -- a lessening of the dysphoria in relation to the gender discordance, and I would say that based on the information that I saw, the answer is yes.

Q. (By Mr. Gonzalez-Pagan) As we stand here today, do you agree that Drew Adams' gender-affirming treatment has improved his quality of life?

A. So again, I can't say with certainty what actually has improved his quality of life. I can say, based on the record, that he is better adjusted than previously.

Q. Dr. Hruz, you're an endocrinologist, correct?

A. That is correct.

Q. You're not a psychiatrist, correct?

A. That is correct.

Q. You're not a psychologist?

A. That is correct.

Q. Are you a licensed mental healthcare

provider of any kind?

A. I am not.

Q. Can you diagnose gender dysphoria?

A. I can -- I can diagnose gender dysphoria to the extent that my colleagues, as pediatric endocrinologists, follow the DSM-5 and look at the criteria and put the check boxes there. That is the extent of what my colleagues, as pediatric endocrinologists, do, and I'm just as capable of doing that as they are.

Q. As an endocrinologist, do you routinely diagnose conditions in the DSM-5?

A. I -- I do not -- well, let me -- I'm trying -- the reason I'm waiting is I'm trying to think as I put in my ICD9 codes in my visits, I do believe that I've actually added them, but I do not consider myself as a psychiatrist to making those diagnoses, no.

Q. Do you have any basis to know whether Drew Adams has suffered distress as a result of being denied access to the restroom consistent with his gender identity?

A. I can only evaluate what is contained within his patient chart and the literature -- or the information that was provided to me.

exact basis of that cannot be determined with -- in the context of what the medical record shows.

Q. Again, having reviewed the medical records, is there anything in the medical records that leads you to believe that Drew Adams' anxiety cannot be attributed in part to his being denied access to the restroom consistent with his gender identity?

MR. KOSTELNIK: Form.

A. There are certainly entries in the medical record that indicate that his treating providers believed that that was a contributing factor. Whether that was or was not true, I don't have a basis to judge.

Q. (By Mr. Gonzalez-Pagan) Okay. Do you agree that Drew Adams feels stigmatized as a result of being denied access to the restroom consistent with his gender identity?

MR. KOSTELNIK: Form.

A. My understanding from what I've read is that he does make that claim.

Q. (By Mr. Gonzalez-Pagan) Do you agree that Drew Adams' gender dysphoria is exacerbated as a result of his being denied access to the restroom consistent with his gender identity?

A. I can state that that claim has been made,

not -- not proven.

Q. Do you have any basis to dispute the claim?

A. No.

Q. Having never met, evaluated, examined or treated Drew Adams, can you offer an opinion regarding Drew Adams specifically?

MR. KOSTELNIK: Form.

A. My opinions in this case are based upon a review of the medical literature and in the condition itself, and that is what I am offering to the court in my serving as an expert witness.

Q. (By Mr. Gonzalez-Pagan) Okay. Can you point me to where you have specific opinions with regards to Drew Adams in your report?

A. I specifically cover the medical information. I do have a paragraph in there where I -- I go through the details of what the allegations are, and --

Q. Is that Paragraph 12?

A. I -- yes, that is correct.

Q. Is that a description of the case details?

A. That is correct.

Q. Is there any opinion specific as to Drew Adams in Paragraph 12?

A. No.

Q. Is there any opinion specific as to Drew Adams anywhere else in the report?

A. No. My opinions are based on -- near the end of my declaration, I specifically state the concerns in a -- in a general sense of all patients that are -- are faced with this particular condition. And I think that that certainly is pertinent to Drew Adams in addition to the many other individuals that are suffering from this condition.

Q. Okay. But none of those opinions are specific to Drew Adams?

A. They are applicable to all individuals that present as Drew Adams does.

MR. GONZALEZ-PAGAN: Move to strike as nonresponsive.

Q. (By Mr. Gonzalez-Pagan) Are they specific to Drew Adams?

A. They include Drew Adams. They are not limited to Drew Adams.

Q. Would you agree that those opinions are general in nature and not specific to Drew Adams?

A. Yes.

Q. Having never met, evaluated, examined or treated Drew Adams, can you make an assessment as to whether Drew Adams suffers from gender dysphoria?

clinical guidelines?

A. I would let them know that the clinic was available, and I would let the people in that clinic, if they chose to attend that clinic, present all of the information for the basis for their treatment approach.

Q. So you wouldn't inform the patient that the treatment is in accordance with the clinical guidelines?

A. I'm envisioning the hypothetical situation that you're talking about, and the extent of my normal clinic visit and how much time I have to present all of the -- the important aspects of clinical care, and I'm envisioning that there would be a limit of the -- the length of that conversation if I was going to adequately address all of the other relevant issues that I was caring that patient for [sic].

Q. Would you suggest that the patient seek conversion therapy?

A. No.

Q. Is the treatment at the transgender center consistent with the position and recommendations of the American Medical Association?

A. I -- as I understand it, yes.

Q. Is the treatment at the transgender center

consistent with the position and recommendations of the American Academy of Pediatricians?

A. The AAP, yes.

Q. Is the treatment at the transgender center consistent with the position and recommendations of the American Psychiatric Association?

A. I don't follow those as closely, but I would assume yes.

Q. Is the treatment at the transgender center consistent with the position and clinical guidelines of the American Psychological Association?

A. The same as the last answer. To my knowledge, I don't know them specifically, but I would say yes.

Q. Okay. Let's go a little bit for some of your memberships. You're a member of the American Medical Association, right?

A. No.

Q. Were you a member of the American Medical Association?

A. I was in the past, yes.

Q. Are you a member of the American Academy of Pediatricians?

A. Yes.

Q. Is your position in your report and as you

sit -- sit here today consistent with the position of the American Academy of Pediatricians?

A. It is not consistent with the -- the opinion that is presented by the AAP. Again, I will note that is not a -- a position that has been voted upon by the entire membership of the AAP.

Q. Are the -- all the positions adopted by the AAP voted upon by the membership?

A. No. In fact, they're usually voted on by a very small select committee, a -- a very minority of the entire academy.

Q. So the position of the AAP on this subject has been adopted via its regular procedures?

A. Yes. Which -- which I would add do not involve membership of the entire academy.

Q. Are you a member of the Endocrine Society?

A. Yes, I am.

Q. Are your positions here today and in your report consistent with the clinical guidelines of the Endocrine Society?

A. They are at odds with the recommendations that are put forward, the guidelines that are put forward for the treatment of gender dysphoria.

Q. You're a member of the Pediatric Endocrine Society, correct?

A. Yes, I am.

Q. Are your positions here today and the positions in your report consistent with the positions adopted by the Pediatric Endocrine Society?

A. They are not, and I've actually written to the PES on more than one occasion with my opinions and invited them to dialogue about the -- the scientific evidence that I have in dispute from -- that are included per the recommendations.

Q. And we've requested those comments, right?

A. Yes. And everything I have on file, I gave you everything I have. I don't have records of anything that I did not send you.

Q. You have published a body of literature in your career, correct? Right?

A. That is correct.

Q. How many peer-reviewed articles have you written and published regarding gender identity?

A. I have not published peer-reviewed articles on gender identity.

Q. How many peer-reviewed articles have you written and published regarding transgender people?

A. I have not written peer -- peer-reviewed papers on that topic.

Q. How many peer-reviewed articles have you

written and published regarding the treatment of transgender children and adolescents?

A. Again, as peer-reviewed, I have not written any.

Q. How many peer-reviewed articles have you written and published regarding the treatment of gender dysphoria?

A. I have not written any.

Q. How many peer-reviewed articles have you written and published regarding the use of restrooms by transgender students?

A. I have not written any.

Q. How many studies have you conducted regarding gender identity?

A. Conducted, I have not conducted any, but I am in the process right now of responding to a research funding announcement by the NIH to be able to engage in that research.

Q. But just to be clear, you haven't conducted any as we stand here today?

A. That is correct.

Q. And you -- have you submitted that proposal to the NIH?

A. I -- I have not.

Q. How many studies have you conducted

regarding transgender people?

A. I have not.

Q. How many studies have you conducted regarding the treatment of transgender children and adolescents?

A. I have not.

Q. How many studies have you conducted regarding the treatment for gender dysphoria?

A. I have not.

Q. How many studies have you conducted regarding the use of restrooms by transgender students?

A. I have not.

Q. So you have no experience treating gender dysphoria, right?

A. Treating gender dysphoria?

Q. Yes.

A. I have not -- as I said earlier, I have not treated patients with gender dysphoria.

Q. And you have no experience conducting studies regarding transgender youth and adolescents, correct?

A. Conducting studies, I have not, as I said, have not participated in any studies to date.

Q. And you have no experience conducting

studies regarding gender dysphoria?

A. I have not conduct -- as I said, I have not conducted any studies on gender dysphoria.

Q. Nor have you published any literature regard -- regard -- peer-reviewed literature regarding gender dysphoria?

A. Peer-reviewed, no.

Q. So having no experience treating transgender patients for gender dysphoria, no experience conducting studies regarding transgender people, and no experience publishing peer-reviewed literature regarding transgender people, you consider -- do you consider yourself an expert on transgender issues?

MR. KOSTELNIK: Object to form.

A. I am a physician/scientist who has extensively read the literature for the merits, as I do in any other condition, and I believe I have expertise related to my role as a physician and a scientist and a pediatric endocrinologist to adequately assess the quality and quantity of the literature that's present on this area.

Q. (By Mr. Gonzalez-Pagan) And having no experience treating gender dysphoria, no experience conducting studies -- scratch that.

Let's talk a little bit about your article,

with that, so --

Q. Is "Growing Pains" your only article on transgender people and gender dysphoria?

A. Yes.

Q. Are you familiar with the St. John Paul II Bioethics Center?

A. Absolutely.

Q. Is this St. John Paul II Bioethics Center a religiously affiliated institution?

A. Yes, it is.

Q. Is it part of the Holy Apostles College and Seminary?

A. Yes, it is.

Q. Did you speak at the St. John Paul II Bioethics Center just three days ago, on Friday, November 17th?

A. I did, yes.

Q. During your speech last Friday, did you -- you said, "The identity of the individual is interactively linked to the body and the soul of the person." Is that right?

MR. KOSTELNIK: Form.

A. Repeat that again, just so I make sure you said that accurately.

Q. (By Mr. Gonzalez-Pagan) During your speech

last Friday, you said, "The identity of the individual is interactively linked to the body and soul of a person." Is that correct?

MR. KOSTELNIK: Form.

A. That is correct.

Q. (By Mr. Gonzalez-Pagan) During your speech last Friday, you said about being transgender, that, in fact, it probably goes back to some of the early heresies in the church; is that correct?

A. The introduction that I was providing to that audience was trying to put the context of the discussion in the proper framework, and I specifically made the statement that I am not a philosopher, that I'm going to be talking about issues of science and medicine. And it was an introduction to that talk to -- for that audience.

Q. Okay. Do you know who Caitlyn Jenner is?

A. Yes, I do.

Q. Caitlyn Jenner is a transgender woman, correct?

MR. KOSTELNIK: Form.

A. Caitlyn Jenner, formerly known as Bruce Jenner, is somebody that has been widely advertised in -- in the media related to the gender transition that -- that Caitlyn underwent.

Q. (By Mr. Gonzalez-Pagan) Is Caitlyn Jenner transgender?

A. By definition, yes.

Q. In referring to a picture of Caitlyn Jenner, did you not say these pictures are often disturbing?

A. I did. And that was the slide -- specifically was the statement, not Caitlyn Jenner, but there were two other pictures presented in that talk of children saying I hate my body. That was what I was referring to.

Q. Just to be clear, when it comes to the treatment of transgender people and gender dysphoria, your only publication is in a religiously-affiliated journal and you've spoken to -- about the topic to religiously-affiliated institutions?

MR. KOSTELNIK: Form.

A. I have offered to speak at all institutions that have invited me. And to date, yes, that was -- that was the institute that -- that invited me to speak last Friday.

Q. (By Mr. Gonzalez-Pagan) When did you first become interested in the matter of transgender people and the treatment of -- for gender dysphoria?

A. It was about five to six years ago, as chief of our Division of Endocrinology, when the question

claims that were made by Drew Adams were scientifically justified and accurate.

Q. And just to be clear, you're not a psychiatrist?

A. That is correct.

Q. And you're not a psychologist?

A. That is correct.

Q. And you're not a mental healthcare provider of any kind?

A. That is correct.

Q. Have you ever been a school administrator for a public school?

A. I have not.

Q. Have you ever been a teacher for a public school?

A. Not for a public school, unless you consider my role as an educator at the university of -- or Washington University a teacher.

Q. Let me clarify. Have you ever been a teacher for K to 12 education?

A. No.

Q. Have you spoken with school administrators with regards to the access to restrooms for transgender students?

A. No.

Q. Just to clarify, did you submit an expert report or a rebuttal report?

A. An -- an expert opinion report. And I also submitted -- you requested information from prior litigation, and that included a rebuttal report.

Q. Okay. So you know the difference between a rebuttal report and an expert report?

A. Yes, I do.

Q. Okay. And the -- it is your understanding that the report that you submitted in this case is an expert report, not a rebuttal report?

A. That's my understanding. Again, I would rely on the legal counsel to -- to clarify if I'm in error there.

Q. What did you do to write your report?

A. Start back from five to six years ago when I started investigating the scientific information. I -- I -- I've gathered the information for the last five to six years, and initially I was not doing that for the purpose of writing an expert declaration. In fact, at the beginning I had no clue that I would ever be serving in this capacity.

But I drew upon that information that I obtained in the reading of the literature over the past five to six years, my conversations with parents

A. I provided everything that I have access to right now that I can recall. I'm only stating that there are likely other papers that I do not have access to, because I did not keep track of it at the time that I read them or looked at them.

Q. Okay. Have you spoken with Dr. Allan Josephson?

A. Yes, I have.

Q. When?

A. On multiple occasions.

Q. Can you please describe?

A. I met Dr. Josephson within the last year as -- it was probably in the spring at some point in time, the first time that I actually met him. We've had a number of conversations over this past year, specifically related to his expertise as -- as a psychiatrist and mine as an endocrinologist. I have drawn upon him for questions related to psychiatric issues that -- that I did not have expertise in, to gather his opinion.

Q. In what capacity did you first counter-interact with Dr. Josephson?

A. It was at a conference that was put together to bring experts from various disciplines to this question of -- of gender dysphoria.

Q. Who put that conference together?
A. The Alliance Defending Freedom.
Q. The Alliance Defending Freedom is a religiously-affiliated institution, isn't it?
A. If you say so. I don't pay attention to what their religious affiliation is.
Q. When was this conference?
A. It was in the -- I don't know the exact date, but it was in the spring.
Q. Where was this conference?
A. It was in Phoenix.
Q. Aside from you and Dr. Josephson, do you recall any other experts, physicians or clinicians that attended this conference?
A. Yes, there were -- there was several other psychiatrists and psychologists. I don't remember their specific names, unfortunately. There were people that are in the social sciences. There was one other endocrinologist. I'm trying to remember who else was there. There were several lawyers from the ADA.
Q. Do you have any documents pertaining to this conference?
A. Not that I saved, no.
Q. Just to clarify, is there anything you

university, they offer gender-affirming treatment for gender dysphoric youth?

A. Yes, they do.

Q. Do they offer reparative treatment as a treatment for gender dysphoria at Boston Children's Hospital?

MR. KOSTELNIK: Form.

A. The word reparative therapy covers a lot of connotation by different people but to my understanding, they do not make any specific effort in counseling to lead to the realignment of gender with sex, if that's what you mean by conversion therapy.

Q. Before you started researching the issues of dysphoria around five years ago, had you met with Dr. Spack then?

MR. KOSTELNIK: Form.

A. Prior to five years ago, I do not recall a specific encounter yet. I'm sure we interacted at some point at one of the international meetings.

Q. (By Mr. Gonzalez-Pagan) In Paragraph 7, you state that you have met with parents of children with gender dysphoria; is that correct?

A. That is correct.

Q. In what capacity have you met with the parents of transgender children?

A. Again, this was at the very early time frame when I was trying to investigate the claims for the treatment and care, and I wanted to get as comprehensive of a viewpoint as I could. The first encounter I had was with a mother of an organization called Trans Parent Child, and I sat down for lunch with her for an extended period of time, more to listen to the experience that she had in countering a transgender child that she had.

Q. With how many parents of transgender children have you met?

A. Met or spoken on the phone? I think lately many of them have been over the telephone. I would say it's less than a dozen, but it's quite a few, and it's actually increased certainly since the publication of the "New Atlantis" article.

Q. So in the last five years, you've spoken to less than a dozen parents of transgender children?

A. Yes.

Q. When you first met with the parent of the -- associated with the organization Trans Parent, was this before you dealt -- scratch that.

MR. GONZALEZ-PAGAN: You're going to object anyway.

Q. (By Mr. Gonzalez-Pagan) When you met with

the parent associated with the association Trans Parent, had you already delved into the literature regarding gender dysphoria?

A. I was starting the process. It was very early on, so I don't recall the exact timing. I had read some papers, but I was still in the very early investigative phase.

Q. You said you have been contacted by parents since the publishing of your article "Growing Pains." Is that correct?

A. That is correct.

Q. How many have contacted you since the publishing of the article "Growing Pains"?

A. I'm not keeping track of that.

Q. Less than 35?

A. It may be more than five. Probably less than a dozen.

Q. What did you discuss with the parents of the transgender children that have contacted you since the publishing of your article "Growing Pains"?

A. I specifically discussed the context of my "New Atlantis" article in my role as a physician, which I always take as being a teacher. I try to educate them on my understanding of the condition and the treatment paradigm that was being offered to their

access the bathrooms as the cause of Drew's distress is not supported.

Q. But you're not a mental health provider, right?

A. That is correct.

Q. And you've never met with Drew, right?

A. That is correct.

Q. Let's go back to the meetings with parents that you had when you were first delving into this topic?

A. Very good.

Q. You discussed that you met with a parent associated with an organization called Trans Parent; is that correct?

A. That is correct.

Q. What did you learn from that meeting?

A. I learned quite few things. The most important thing that I learned, and that was what I was actually seeking in the interaction, was to really understand the suffering that was going on in this family. I wanted to understand the dynamics of what was going on in the family, the approach that the parents had in dealing with the presentation of their child, what they had attempted to do to address this particular issue, and at that point in time, I was

approaching this in a purely investigative manner. I did more listening than anything else, asking questions about their lived experience.

Q. What did the parent tell you?

A. Well, that was many years ago, but I will try to summarize my recollection of that conversation. This was with the mother. And she shared that this child, who was a prepubertal in early grade school, told her, when the mother was talking -- they were combing hair or something of that nature -- that she would -- he, at that time, was a girl, so she was referring to him as a girl, and that the parents' reaction initially was shock, fear, trying to understand what was going on, trying to be able at that time -- this was early on in this resurgence -- or emergence, I should say of this discussion that's going on socially, so there wasn't, at that time, a lot of resources being published on the Internet.

So she shared her attempt to look at what experience people have had with this particular condition. And I saw at that time, certainly a parent that was desiring to do the best for their child, but having questions that were not answered, and at that time, with the information I had, I was certainly not able to provide any answers. And, in fact, at this

point in time, I don't think I would have been able to specifically answer the questions that she had as far as long-term outcomes, because we don't have that information. It was a very respectful conversation. It was very helpful. I think that it was mutually beneficial, but, again, the purpose was for me to understand this particular family and their experience with transgender identity.

Q. What is the organization Trans Parent?

A. All I know is it's a -- it's supposed to be a support group, and I think that the parents themselves, the woman I talked to at that time was trying to get out information so other people understood what they were experiencing.

Q. In that meeting with the parents of a transgender -- let me scratch that.

The next set of the questions I'm just going to be focusing on that one parent.

A. Okay.

Q. In that meeting with the parent of the transgender child, did you ever tell the parent that their child was not normal and would never be normal?

A. I did not, because I was still investigating and trying to understand what was going on.

Q. In that meeting with the parent of that

transgender child, did you ever tell that parent that their transgender son was a girl and would never be a boy?

A. I never said that, no.

Q. In that meeting with the parent of that transgender child, have you ever told -- scratch that.

In that meeting with the parent of a transgender child, did you ever tell the parent that surgeries attempting to change sex was wrong and went against God's plan for humanity?

A. No, not that I recall. That was many years ago, but I don't remember that, no.

Q. In that meeting with the parents of the transgender child, did you not urge them to read Pope John Paul II's writing on gender to fully understand God's plan regarding gender?

A. Thank you for reminding me. That was a long time ago, so this is bringing back some information. I believe that -- this was a personal conversation. This was a one-on-one conversation, and I think at the time that we began talking about that, she started relating her personal faith training, and I never back away from those conversations when people are asking me those questions, and I think that that's what led to that particular conversation.

in individuals. That was the intent of that statement, and I believe it is the useful statement for that purpose.

Q. I get that, so I'm not -- and I'm not trying to be like moving to strike here all the time, and I'm not trying to, but the question is, do you think that the limitation that those studies don't distinguish between post-pubescent and pre-pubescent youth is important?

A. I think that it is certainly something that needs to be considered, yes.

Q. Okay. Do you think you should have disclosed that to the court?

MR. KOSTELNIK: Object to form.

A. For the purposes of putting my declaration together, I believe that I adequately summarized my understanding of the situation related to Drew Adams' case.

Q. (By Mr. Gonzalez-Pagan) Drew Adams, by your own testimony, is a post-pubescent teenager?

A. That is correct.

Q. Don't you think that that limitation should have been disclosed to the court?

MR. KOSTELNIK: Object to form.

A. Drew Adams was also a late onset gender

dysphoric individual, and that is a population that was not covered in these studies, and there is no evidence as to what the outcome is in those individuals.

Q. (By Mr. Gonzalez-Pagan) Okay. So in any event, the studies, then, that you cite are inapplicable to Drew Adams?

MR. KOSTELNIK: Form.

A. I believe that they are applicable to him in the context of what is known, and I will assert there's so much that is unknown about this condition, I think it is relevant based on the quality of evidence that is and needs to be considered by the court.

Q. Are there any other limitations to the studies to which you cite in Paragraph 28?

A. There are many limitations to the studies. Most of the earlier studies had very small sample lines. There is -- again, since they were done over an extended period of time, the cultural milieu has changed, and so I think that there are many, many limitations of the studies, and that certainly needs to be considered. The fact is that they've all shown consistently the same result despite the fact that they were done in different patient populations during

marked as Exhibit C -- 6. Can you please mark -- go to the Page 2205. It's the last page.

A. Yeah, okay. Okay.

Q. Could you please read for me the conclusions -- well, actually, let's go back. Do you recognize this document?

A. Yes, I do.

Q. What is it?

A. It -- well, it's a treatment -- an update on the treatment and outcomes of precocious puberty.

Q. Okay. Is this a peer-reviewed journal article?

A. It looks like it's a -- a statement. I'm not sure exactly. It's a JC&M, so it probably went through some -- a peer-reviewed process, yes.

Q. Okay. Let's go to the conclusions, please.

A. Okay.

Q. Could you please read the conclusions for me?

A. "Precocious puberty is a common problem seen in pediatric endocrinology practice. Identification of the child with pathological pubertal development allows for accurate diagnosis and application of current treatment strategies. Recent improvements in therapeutic agents allow for a complete suppression of

CPP with less discomfort to the patient and improvement of height outcomes, particularly those less than six years old."

"Our major gaps in understanding lie in the area of long-term outcomes, including endocrine and metabolic effects of precocious puberty. The most striking deficit is the lack of long-term data on the psychological and behavioral effects of precocious puberty and the effects of GNRHA treatment. We can anticipate additional information on these aspects in the years to come."

Q. Is it safe to say that this article concludes that there's a lack of long-term data on the effects of the treatment of precocious puberty with puberty blockers?

A. That is correct.

Q. Yet you said that you provide puberty blockers as a treatment for precocious puberty?

A. That is correct.

Q. How does that square with your concern of providing gender-affirming treatment due to the lack of long-term data?

MR. KOSTELNIK: Form.

A. So any decision that a practitioner makes is made on a risk/benefit analysis, and the risk/benefit

Q. Are you aware that the AMA, quote, "opposes the use of reparative or conversion therapy for sexual orientation or gender identity"?

MR. KOSTELNIK: Form.

A. I'm aware of the WPATH saying that, and I -- I believe it may also be in the AMA statement as well.

Q. (By Mr. Gonzalez-Pagan) Are you aware that the American Academy of Pediatricians has stated that, quote, "In no situation is a referral for conversion or reparative therapy indicated"?

A. I'm aware of that statement, yes.

Q. Are you aware that a publication by the American Psychological Association and the U.S. Department of Health and Human Services states that interventions -- quote, "Interventions aimed at a fixed outcome, such as gender conformity or heterosexual orientation, including those aimed at changing gender identity, gender expression and sexual orientation are coercive, can be harmful and should not be part of the behavior health treatment"?

MR. KOSTELNIK: Form.

A. I am aware of that statement, but there is no scientific evidence to support that statement.

Q. (By Mr. Gonzalez-Pagan) On what basis do you disagree with that statement?

A. I never said that I was advocating for one position to the other. I merely said that there's no science to back up the assertion that this is -- needs to be mandated.

Q. So do you believe that Drew Adams should not be allowed to use the boys' restroom?

MR. KOSTELNIK: Object to form.

A. I have never made a school policy. I'm not a witness making any opinions about what the school policy is. I'm merely stating what the science is behind the treatment paradigm that is currently being advocated.

Q. (By Mr. Gonzalez-Pagan) So you do not have any opinion as to whether the current policy should or should not be implemented at St. John's County School District?

A. That would require me to have experience as a school administrator or making school policies, which I do not have that experience.

Q. So again, can you say whether the current policy of the School Board of St. John's County should or should not be implemented?

MR. KOSTELNIK: Form.

A. Again, I said I don't have the qualifications as far as making school policy to make

outcome as far as persistence or desistence.

Q. When did you first speak to Dr. Josephson about this case?

A. Oh, I believe it was within the last month.

Q. Did you speak to Dr. Josephson before or after you were retained as an expert in this case?

A. After.

Q. Just cleaning up a little bit. Going back to 2012 and 2013 again, you testified that you spoke to Dr. Norman Spack around 2012 and 2013?

A. Yes.

Q. Can you please describe that conversation for us?

A. Dr. Spack had come to Washington University and presented his treatment approach in the context of all the discussion that was going on at that time as to whether we should initiate the transgender treatment program. In addition to the talk and the question session after that, we had a panel or actually a round table discussion with a number of the different providers, not only within the Endocrine Division, but also with a representative from adolescent medicine, our psychologist, a number of different individuals. This was at the time when the Endocrine Society acknowledged that this care was

controversial, that it was unsettled as far as the science was concerned, and there was lots of discussion going on not only at my university, but at the national level.

The discussion at that time revolved around all of -- much of the data that I had not fully read. I read some of the papers, but I certainly hadn't read all of them, and there were differing opinions expressed at that point in time. The individuals that have gone on to direct that clinic and -- were certainly taking one approach, in my opinion, even at that time, made comments that -- of where my questions were related to that condition.

And I distinctly remember, and this actually led into the "New Atlantis" article at the very end, Dr. Spack recognized that I was unconvinced by the level of scientific evidence supporting this care, and I distinctly remember him saying, "Well, if you can't accept cross-hormone treatment, at least do puberty suppression because it's safe and reversible." And that's almost a verbatim quote, and I've heard this by many other individuals as well. And that prompted me to investigate the claims about whether that truly was safe and reversible, and that led to the "New Atlantis" publication.

Q. What were the opinions expressed by Dr. Spack besides saying that puberty blockers were safe and reversible?

A. He essentially made the argument based upon the Dutch experience that this was necessary to prevent individuals from committing suicide, that this was a life-saving intervention, and he took quite great pride in being able to participate at that stage of his career in that intervention. As far as the data presented at that time that this was a long-term solution, was not offered by Dr. Spack, and certainly the concerns related to the medical risks, and I believe at that point in time we were talking a little bit about philosophical discussions as well, as far as what it means to be a man and what it means to be a women. It was a very respectful conversation, but at the level of scientific evidence to support what he was recommending, I found it completely lacking.

Q. What do you mean by philosophical conversations about what it means to be a man and what it means to be a woman?

A. I mean exactly what it says. I don't remember the details of the conversation.

(Phone ringing. Whereupon an off-the-record discussion was held.)

Q. (By Mr. Gonzalez-Pagan) Do you need me to restate the question?

A. Please.

Q. What do you mean by the philosophical conversations about what it means to be a man and what it means to be a woman?

A. I would say it includes the discussion of -- from a biological standpoint about what it means to be a women. At that point in time there was lots of discussion about the terms "sex gender," "gender identity" and "sexual orientation" that was included in that discussion. There was, I believe at that point in time, a lot of conflicting assertions that were being made by different people about whether sex and gender were the same or different, and the arguments were being made pro and con. More specific details, I don't recall.

Q. And you stated that there was controversy about the provision of care for gender dysphoria at the time in the Endocrine Society?

A. That is correct. My first recollection was at one of the national Pediatric Endocrine Society meetings when this new paradigm was introduced. And as I recall, there was a very strong reaction by a number of members of the audience related to what was

amount of experience that somebody who is a clinical -- a full-time clinician versus -- now, I -- I know from my own experience many people that are listed on those clinical studies were not the ones that designed the trial. They're not the ones analyzing the data. Their role usually in those studies, as clinical faculty, are usually in filling out and the protocols that are present for those. And now the specifics of the trial that she's involved with, I would have to look in more detail to assess that in -- in greater detail.

Q. Okay. Do you know what her role is?

A. You'll have to tell me what the study is and -- and give me more information to be able to do that.

Q. Did you review Dr. Ehrensaft's expert -- expert report in this case?

A. I did.

Q. Have you published any peer-reviewed literature regarding gender dysphoria or transgender youth?

A. These are questions that I've already answered, and the answer is no.

Q. Okay. Are you aware that Dr. Ehrensaft has published a number of peer-reviewed articles regarding

IN THE UNITED STATES DISTRICT COURT FOR
THE DISTRICT OF SOUTH DAKOTA

TERRI BRUCE,)
Plaintiff,)
vs.) No. 17-5080
STATE OF SOUTH DAKOTA and)
LAURIE GILL, in her official)
capacity as Commissioner of)
of the South Dakota Bureau)
of Human Resources,)
Defendants.)

DEPOSITION OF DR. PAUL W. HRUZ, M.D., Ph.D.
TAKEN ON BEHALF OF THE PLAINTIFF
JULY 16, 2018

(Starting time of the deposition: 8:49 a.m.)

Exhibit
0003
9/29/2021
Hruz

I N D E X

E X H I B I T S

IN THE UNITED STATES DISTRICT COURT FOR
THE DISTRICT OF SOUTH DAKOTA

TERRI BRUCE,)
Plaintiff,)
vs.) No. 17-5080
STATE OF SOUTH DAKOTA and)
LAURIE GILL, in her official)
capacity as Commissioner of)
of the South Dakota Bureau)
of Human Resources,)
Defendants.)

Deposition of DR. PAUL W. HRUZ, M.D., Ph.D., produced, sworn and examined on the 16th Day of July, 2018 between the hours of 9:00 a.m. and 5:00 p.m. at the offices of Alaris Litigation Services, 711 N. 11th Street, in the City of St. Louis, State of Missouri, before Rebecca Brewer, Registered Professional Reporter, Certified Realtime Reporter, Missouri Certified Shorthand Reporter, and Notary Public within and for the State of Missouri.

A P P E A R A N C E S

FOR THE PLAINTIFF:

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clarify what you mean by formal education.

Q Well, I'll ask broadly; any kind of training of any sort that a doctor would get in the course of, you know, either their initial medical education or continuing education.

A So, working at a major academic institution, we're actually charged with providing medical education and so, to the extent that we've held journal clubs that we've had presentations with my colleagues where we've discussed the scientific evidence, where we've gone formally through the DSM Guidelines, where we've gone through the Endocrine Society Guidelines, that has been done at my institution. Have I sought out and gone to a separate conference related to gender dysphoria? The answer is no.

Q But, at your own institution, you've participated in these interactions, these journal clubs and other activities that address gender dysphoria and the treatment for gender dysphoria?

A That is a standard -- that is one of the components of what we do for all the conditions that endocrinologists are engaged in.

Q Okay. Have you conducted any research related to gender dysphoria or the treatment of

gender dysphoria?

A No formal trials, no.

Q Any other research?

A I've been in the area of HIV research for 20 years and conducted a number of scientific studies that -- but not directly related to gender dysphoria.

Q Yeah, I'm sorry if I was unclear. I didn't -- I know you've done research, but in the area of gender dysphoria, no research, is that right?

A I have not done any -- I'm not a clinical trials physician scientist. I'm a bench scientist.

Q What does that mean?

A I conduct laboratory research, so I'm engaged in hypothesis-driven research.

Q Okay. So, talking about research broadly, you haven't conducted any form of research relating to gender dysphoria, is that right?

A No, I have. I would consider research in looking at the extensive literature that's there is research. It's not a randomized controlled trial, it's not a formal study, but that would fit within the domain of research.

Q You mean reviewing research that was

published by other people? Is that what you mean?

A So, again, we can define research in many different ways. If you're asking the question about research, about gathering information, about the evidence that's available, I've done a considerable amount of research and that has consisted of looking at what published data is available supporting the recommendations that are being made. That I would consider research, but it is not a clinical trial.

Q Okay. And what people might call studies, scientific studies, have you done any scientific studies?

A Again, how you define studies, again, I have not done clinical trials.

Q Okay. When you were deposed in the Adams case, November, I believe it was, last year, you mentioned you were in the process of responding to a research funding announcement by the NIH to do research related to gender dysphoria or gender identity issues. Did I get that right?

A Yes.

Q Can you tell me the status of that?

A Yes. There are a number of logistical issues that are needing to be worked out. There is no funding for that particular study going on,

recruiting the people that are going to be necessary to conduct that study, again, I'm a pediatric endocrinologist. And to my knowledge, you know, that hasn't moved much beyond the initial planning stages. The proposal itself was a suggestion to address the question of -- a very particular question of the effects of pubertal blockade on the trajectory as far as the number of individuals that went on to cross hormone therapy and those that did not.

Q So, did you ever submit a proposal to NIH to do this research?

A No.

Q Okay. Did you ever respond to the funding announcement in any way?

A Depends on how you say "respond." I've already said I did not submit a proposal. I have taken that to colleagues. In fact, I've had very recent discussions with my colleague at Washington University that is interested in starting some sort of research effort. And I could speak at length of what I've recommended to him as far as how these studies should be conducted. I've been very disappointed that the rigor -- scientific rigor that's necessary for those studies is not currently

realignment of gender identity with sex that occurs when people do not get pubertal blockade, to the results of that particular -- again, it was a very small study -- would lead to that being asked as a hypothesis as to whether that intervention itself might have been influencing the outcome.

Q So, just to make sure I'm clear, it is still just a hypothesis that pubertal blockade could lead to persistence? That's not been proven?

A That is correct. And the opposite has not been proven as well.

Q I understand. Okay. Let's take your report from this case. Actually, before we turn to that, I forgot to ask one other question. Do you have experience conducting clinical trials on any topic?

A I've only been involved in one clinical trial. It's a very small study and my role was very minor.

Q And what was that topic?

A It was on the influence of insulin sensitivity on cardiac function.

Q I see. So clinical trials isn't your area of expertise?

A That is correct.

the meeting was?

A He was trying to convene a meeting so we could discuss the issues related to gender dysphoria. There was -- they were searching for somebody from the endocrine field that would be willing to talk over the issues that I had expertise in, that I had developed my understanding of what the literature showed, and he specifically said, You've got expertise in this area and we'd like to learn.

Q And did they talk about a need to develop expert witnesses for litigation?

A You know, I think that was implicit. I don't think that was -- I mean, I was not surprised when I was asked to serve as an expert. I'd actually submitted a declaration prior to that meeting. And I'm not sure exactly how that -- any of the details how I was asked to do that, but so I had already done some of the work there, so I made the assumption that that was one of the reasons why he invited me down.

Q Okay. So, the folks there were people who would potentially be expert witnesses in litigation?

A Not everyone that was there. I think there were people that explicitly said, I'm not

UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA
JACKSONVILLE DIVISION

DREW ADAMS, et al.,

Plaintiff,

v.

THE SCHOOL BOARD OF ST. JOHNS COUNTY, FLORIDA,

Defendant.

No. 3:17-cv-00739-TJC-JBT

DECLARATION OF DR. NORMAN P. SPACK, M.D.

I, Norman P. Spack, pursuant to 28 U.S.C. § 1746, hereby declare as follows:

1. I am over the age of eighteen and submit this declaration based on my personal knowledge.

2. If called to testify, I would testify truthfully based on my own experience and knowledge regarding the matters discussed herein.

3. I am a pediatric endocrinologist. I began practicing pediatric endocrinology in 1976 at Boston Children's Hospital. I have an undergraduate degree from Williams College, a medical degree from the University of Rochester, and completed my pediatrics residency and fellowship in Pediatric Endocrinology and Adolescent Medicine at Boston Children's Hospital.

4. I am an Associate Physician in Medicine at Boston Children's Hospital, the Co-Founder and Co-Director *Emeritus* of the Gender Management Service (GeMS) Program at Boston Children's Hospital, and an Associate Clinical Professor of Pediatrics at Harvard Medical School in Massachusetts.

5. In 2007, I co-founded the GeMS Program at Boston Children's Hospital. The first-of-its-kind program in the United States, GeMS provides comprehensive care to the unique group of gender nonconforming and transgender children and adolescents. The GeMS team consists of providers from Endocrinology, Psychology, and Social Work, and works closely with specialists in other departments in the hospital such as Adolescent Medicine, Urology, and Plastic Surgery to develop individual care plans that meet every child's medical and emotional needs, as well as the family's need for information and support.

6. Since its founding, the GeMS Program has been replicated by over 60 similar programs at pediatric academic centers in North America, including the now Transgender Center at St. Louis Children's Hospital.

7. In 2012, I was awarded a Bicentennial Medal by Williams College in recognition for distinguished achievement in the field of pediatric endocrinology and for helping reduce the suicide rate among transgender adolescents through my work with GeMS.

8. On or about October 9, 2013, I gave a presentation at St. Louis Children's Hospital regarding the founding of GeMS, the workings of a gender management program at pediatric hospital, and the medical treatment and care of ender nonconforming and transgender children and adolescents.

9. Following my presentation, I privately met with medical staff, including endocrinologists, at St. Louis Children's Hospital to answer their questions and share my knowledge and experience.

10. It was in the aforementioned context that I also met privately with Dr. Paul W. Hruz at St. Louis Children's Hospital when he approached me after my presentation.

11. During my private meeting with Dr. Hruz, Dr. Hruz directly expressed that he had "a significant problem with the entire issue" and "whole idea of transgender."

12. Dr. Hruz followed up his comments by stating, "For me, it is a matter of my faith."

13. During our conversation, Dr. Hruz did not discuss or mention that his issues or concerns were based on science.

14. In my experience, someone who acts out of science would go and see how gender management clinics work in order to form their opinions.

This declaration was executed on this ___ day of December, 2017 in Boston, Massachusetts.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

_____
Norman P. Spack, M.D.

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This declaration was executed on this 5 day of December, 2017 in Boston, Massachusetts.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Norman P. Spack, M.D.

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WISCONSIN

ASHTON WHITAKER, a minor, by his mother and next friend, MELISSA WHITAKER,

Plaintiff,

Civ. Action No. 2:16-cv-00943

KENOSHA UNIFIED SCHOOL DISTRICT NO. 1 BOARD OF EDUCATION and SUE SAVAGLIO-JARVIS, in her official capacity as Superintendent of the Kenosha Unified School District No. 1,

Defendants.

EXPERT DECLARATION of Paul W Hruz, M.D., Ph.D

1. I have been retained by counsel for Defendants as an expert in connection with the above-captioned litigation. I have actual knowledge of the matters stated in this declaration. My professional background, experience, and publications are detailed in my curriculum vitae, a true and accurate copy which is attached as Exhibit A to this declaration.

2. I received my doctor of philosophy degree from the Medical College of Wisconsin in 1993. I received my medical degree from the Medical College of Wisconsin in 1994. I am an Associate Professor of Pediatrics in the Division of Pediatric Endocrinology and Diabetes at Washington University School of Medicine. I also have a secondary appointment as Associate Professor of Cellular Biology and Physiology in the Division of Biology and Biological Sciences at Washington University School of Medicine. I served as chief of the Division of Pediatric Endocrinology and Diabetes at Washington University from 2012-2017. I served as the

Director of the Pediatric Endocrinology Fellowship Program at Washington University from 2008-2016.

3. I am board certified in Pediatrics and Pediatric Endocrinology. I have been licensed to practice medicine in Missouri since 2000.

4. My professional memberships include the American Academy of Pediatrics, the Pediatric Endocrine Society, the Endocrine Society, and the American Association for Biochemistry and Molecular Biology.

5. I have extensive experience in treating infants and children with disorders of sexual development and am an active member of the multidisciplinary Disorders of Sexual Development (DSD) program at Washington University. The DSD Team at Washington University is part of the DSD-Translational Research Network, a national multi-institutional research network that investigates the genetic causes and the psychologic consequences of DSD.

6. In the nearly 20 years that I have been in clinical practice I have participated in the care of hundreds of children with disorders of sexual development. In the care of these patients, I have acquired expertise in the understanding and management of associated difficulties in gender identification.

7. In my role as the director of the Division of Pediatric Endocrinology at Washington University, I have extensively studied the existing literature related to the incidence, potential etiology and treatment of gender dysphoria as efforts were made to develop a Transgender clinic at Saint Louis Children's Hospital. I have participated in local and national meetings where the endocrine care of children with gender dysphoria has been discussed and debated. I have met individually with several pediatric endocrinologists, including Dr. Norman Spack, who have developed and led transgender programs in the United States. I have also met with parents of

children with gender dysphoria to understand the unique difficulties experienced by this patient population.

8. Pediatric patients referred to our practice for the evaluation and treatment of gender dysphoria are cared for by an interdisciplinary team of providers that includes a psychologist and pediatric endocrinologist who have been specifically chosen for this role based upon a special interest in this rare patient population. Due to serious concerns regarding the safety, efficacy, and ethics of the current treatment paradigm, I have not directly engaged in hormonal treatment of patients with gender dysphoria.

9. My opinions as detailed in this declaration are based upon my knowledge and direct professional experience in the subject matters discussed. The materials that I have relied upon are the same types of materials that other experts in my field of clinical practice rely upon when forming opinions on the subject. The documents that I have reviewed specifically related to this case are 1.) the medical records for Savanah "Ash" Whitaker (AW0124-AW0223), 2.) the transcript of the deposition of medical expert witness Danial Shumer, MD, MPH, and 3.) the defendants' answer to plaintiff's amended complaint filed on October 18, 2016. A list of the published literature I have relied on is attached as Exhibit B to this declaration.

10. Over my career, I have provided expert medical record review and testified at deposition in less than a dozen cases. I have not given a deposition as an expert witness since 2012 and I have never testified at trial.

11. I am being compensated at an hourly rate for actual time devoted, at the rate of $300 per hour. My compensation does not depend on the outcome of this litigation, the opinions I express, or the testimony I provide.

Case Details

[redacted]

Basic Terminology

13. Biological sex is a term that specifically refers to a member of a species in relation to the member's capacity to either donate (male) or receive (female) genetic material for the purpose of reproduction. This remains the standard definition that has been accepted and used by scientists, medical personnel, and society in general.

14. Gender, a term that had traditionally been reserved for grammatical purposes, is currently used to describe the psychologic and cultural characteristics of a person in relation to biological

sex. Gender therefore exists in reference to societal perceptions, not biology.

15. Gender identity refers to a person's individual perception of being male or female.

16. Sexual orientation refers to a person's arousal and desire for sexual intimacy with members of the male or female sex.

Human sexuality in relation to fundamental biology and observed variations

17. Sex is genetically encoded at the moment of conception due to the presence of specific DNA sequences (i.e. genes) that direct the production of signals that influence the formation of the gonad to develop either into a testis or ovary. This genetic information is normally present on X and Y chromosomes. Chromosomal sex refers to the normal complement of X and Y chromosomes (i.e. normal human males have one X and one Y chromosome whereas normal human females have two X chromosomes). Genetic signals are mediated through the activation or deactivation of other genes and through programmed signaling of hormones and cellular transcription factors. The default pattern of development in the absence of external signaling is female. The development of the male appearance (phenotype) depends upon active signaling processes.

18. For members of the human species, sex is normatively aligned in a binary fashion (i.e., either male or female) in relation to biologic purpose. Medical recognition of an individual as male or female is typically made at birth according to external phenotypic expression of primary sexual traits (i.e., presence of a penis for males and presence of labia and vagina for females).

19. Due to genetic and hormonal variation in the developing fetus, normative development of the external genitalia in any individual differs with respect to size and appearance while maintaining an ability to function with respect to biologic purpose (i.e. reproduction). Internal

structures (e.g. gonad, uterus, vas deferens) normatively align with external genitalia.

20. Reliance upon external phenotypic expression of primary sexual traits is a highly accurate means to assign biologic sex. In over 99.9% of cases, this designation will correlate with internal sexual traits and capacity for normal biologic sexual function.

Gender Dysphoria in relation to Biological Sex

21. Although gender usually aligns with biological sex, some individuals experience discordance in these distinct traits. Specifically, biologic females may identify as males and biologic males may identify as females. As gender by definition is distinct from biological sex, one's gender identity does not change a person's biological sex.

22. Individuals who experience significant distress due to discordance between gender identity and sex are considered to have "gender dysphoria". Although the prevalence of gender dysphoria has not been established by rigorous scientific analysis, estimates reported in in the DSM-V are between 0.005% to 0.014% for adult males and 0.002% to 0.003% for adult females. Thus, gender dysphoria is a rare condition. It is currently unknown whether these estimates are falsely low due to under-reporting, or if changing societal acceptance of transgenderism and the growing number of medical centers providing medical intervention for gender dysphoria affects the number of persons who identify as transgender. Recent data suggests that the number of people seeking care for gender dysphoria is increasing with some estimates as high as 4-fold.

23. There is strong evidence against the theory that gender identity is determined at or before birth and is unchangeable. This comes from identical twin studies where siblings share genetic complements and prenatal environmental exposure but have differing gender identities.

24. Further evidence that gender identity is not fixed comes from established peer

reviewed literature demonstrating that the vast majority (80-95%) of children who express gender dysphoria revert to a gender identity concordant with their biological sex by late adolescence. It is not known whether individuals with gender dysphoria persistence have differing etiologies or severity of precipitating factors compared to desisting individuals.

[redacted]

26. The recently coined concept of "neurological sex" as a distinct entity or a basis for classifying individuals as male or female has no scientific justification. Limited emerging data has suggested structural and functional differences between brains from normal and transgender individuals. These data do not establish whether these differences are innate and fixed or acquired and malleable. The remarkable neuronal plasticity of the brain is known and has been studied extensively in gender-independent contexts related to health and disease, learning and behavior.

Gender Ideology

27. The modern attempt to equate gender identity with sex is not based upon sound scientific principles but rather is based upon ideology fueled by advocacy. Although worldviews among scientists and physicians, similar to society at large, differ, science is firmly grounded in physical

reality not perception. The inherent link between human sexual biology and teleology is self-evident and fixed.

28. The claims of proponents of transgenderism, which include opinions such as "Gender defines who one is at his/her core" and "Gender is the only true determinant of sex" must be viewed in their proper philosophical context. There is no scientific basis for redefining sex on the basis of a person's psychological sense of 'gender'.

29. The prevailing, constant and accurate designation of sex as a biological trait grounded in the inherent purpose of male and female anatomy and as manifested in the appearance of external genitalia at birth remains the proper scientific and medical standard. Redefinition of the classification and meaning of sex based upon pathologic variation is not established medical fact.

Potential Harm Related to Gender Dysphoria Treatments

30. The fundamental purpose of the practice of medicine is to treat disease and alleviate suffering. An essential tenet of medical practice is to avoid doing harm in the process. Due to the frequent lack of clear and definitive evidence on how to best accomplish this goal, treatment approaches can and do frequently differ among highly knowledgeable, competent, and caring physicians.

31. Persons with gender dysphoria as delineated in the DSM-V experience significant psychological distress related to their condition with elevated risk of depression, suicide, and other morbidities. Thus, attempts to provide effective medical care to affected persons are clearly warranted.

32. Efforts to effectively treat persons with gender dysphoria require respect for the inherent dignity of those affected, sensitivity to their suffering, and maintenance of objectivity in

assessing etiologies and long-term outcomes. Desistance (i.e. reversion to gender identity concordant with sex) provides the greatest lifelong benefit and is the outcome in the majority of patients and should be maintained as a desired goal. Any forced societal intervention that could interfere with the likelihood of gender dysphoria resolution is unwarranted and potentially harmful.

33. There is an urgent need for high quality controlled clinical research trials to determine ways to develop supportive dignity affirming social environments that maintain affirmation of biological reality. To date, three approaches have been proposed for managing children with gender dysphoria. The first approach, often referred to as "conversion" or "reparative therapy", is directed toward actively supporting and encouraging children to identify with their biological sex. The second "neutral" approach, motivated by understanding of the natural history of transgender identification in children, is to neither encourage nor discourage transgender identification, recognizing that the majority of affected children if left alone will eventually realign their gender with their sex. The third "affirming" approach is to actively encourage children to embrace transgender identity with social transitioning followed by hormonal therapy.

34. The gender affirming approach, which includes use of a child's preferred pronouns, use of sex-segregated bathrooms, other intimate facilities and sleeping accommodations corresponding to a child's gender identity, has limited scientific support for short-term alleviation of dysphoria and no long-term outcomes data demonstrating superiority over the other approaches. Claims that the other approaches have been scientifically disproven are false. Decades of research, most notably the pioneering work of Dr. Kenneth Zucker, have supported the efficacy of a more conservative approach for the majority of patients experiencing gender dysphoria.

35. Feelings of anxiety, depression, isolation, frustration, and embarrassment are not unique to children with gender dysphoria, but rather are common to children who differ physically or psychologically from their peers. Difficulties are accentuated as children progress through the normal stages of neurocognitive and social development. In the clinical practice of pediatric endocrinology, this is most commonly seen in children with diabetes. Attempts to deny or conceal the presence of disease rather than openly acknowledge and address specific needs can have devastating consequences including death. With proper acknowledgment of the similarity and differences between children with gender dysphoria and other developmental challenges, prior experience can guide the development of effective approaches to both alleviate suffering and minimize harm to school aged children experiencing gender dysphoria.

36. The Endocrine Society published in 2009 clinical guidelines for the treatment of patients with persistent gender dysphoria. The recommendations include temporary suppression of pubertal development of children with GnRH agonists (hormone blockers normally used for children experiencing precocious puberty) followed by hormonal treatments to induce the development of secondary sexual traits consistent with one's gender identity. This guideline was developed using the GRADE (Recommendations, Assessment, Development, and Evaluation) system for rating clinical guidelines. As directly stated in the Endocrine Society publication, "the strength of recommendations and the quality of evidence was low or very low." According to the GRADE system, low recommendations indicate "Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate". Very low recommendations mean that "any estimate of effect is very uncertain".

37. Clinical Practice Guidelines published by the World Professional Association for Transgender Health (WPATH), similarly, though less explicitly, acknowledge the limitation of

existing scientific data supporting their recommendations given and "the value of harm-reduction approaches".

38. Treatment of gender dysphoric children who experience persistence of symptoms with hormones (pubertal suppression and cross-hormone therapy) carries significant risk. It is generally accepted, even by advocates of transgender hormone therapy, that hormonal treatment results in sterility which in many cases is irreversible. Emerging data also show that treated patients have lower bone density which may lead to increased fracture risk later in life. Other potential adverse effects include disfiguring acne, high blood pressure, weight gain, abnormal glucose tolerance, breast cancer, liver disease, thrombosis, and cardiovascular disease.

39. Since strategies for the treatment of transgendered children as summarized by the Endocrine Society guidelines are relatively new, long-term outcomes are unknown. Evidence presented as support for short term reductions in psychological distress following social transition in a "gender affirming" environment remains inconclusive. When considered apart from advocacy based agendas, multiple potential confounders are evident. The most notable deficiencies of existing research are the absence of proper control subjects and lack of randomization in study design. Although appropriate caution is warranted in extrapolating the outcomes observed from prior studies with current treatments, adults who have undergone social transition with or without surgical modification of external genitalia continue to have rates of depression, anxiety, substance abuse and suicide far above the background population.

40. Evidence cited to support societal measures that promote or encourage gender transition, including the plaintiff's demand for use of preferred pronouns by teachers and the use of public restrooms, other intimate facilities and sleeping accommodations corresponding with the plaintiff's gender identity, as a medically necessary treatment for gender dysphoria is limited.

Recent studies reporting reductions in dysphoria following social transition of adolescent patients are small, poorly controlled and of insufficient duration to draw definitive conclusions regarding long-term efficacy. Long-term follow up of patients with gender dysphoria who have undergone social and hormonal transition with or without surgical intervention has shown persistent psychological morbidity far above non-transgendered individuals with suicide attempts 7-fold and completed suicides19-fold above the general population.

41. Of particular concern is the likelihood that forced societal affirmation including a requirement that the Kenosha Unified School District allow students to use sex-segregated bathrooms corresponding to gender identity rather than access to single unit facilities or provision of sleeping accommodations based upon gender identity rather than sex, will interfere with known rates of gender resolution. Any activity that encourages or perpetuates transgender persistence for those who would otherwise desist can cause significant harm, particularly in light of the current treatment paradigm for persisting individuals. As noted, permanent sterility can be expected with hormonal or surgical disruption of normal gonadal function. This is particularly concerning given that children are likely incapable of making informed consent to castrating treatments.

42. Dignity affirming support for adolescents with gender dysphoria does not necessitate facilitation of a false understanding of human sexuality in schools. Rather, policy requirements that can increase persistence of transgender identification have significant potential for inducing long-term harm to affected children.

43. There remains a significant and unmet need to better understand the biological, psychological, and environmental basis for the manifestation of discordance of gender identity and biological sex in affected individuals. In particular, there is a concerning lack of randomized

controlled trials comparing outcomes of youth with gender dysphoria who are provided mandated access to sex-segregated bathroom facilities corresponding with gender identity to youth provided single user facilities. This includes understanding of how forced public encouragement of social gender transition affects the usual progression to resolution of gender dysphoria in affected children. Such studies can be ethically designed and executed with provision of other dignity affirming measures to both treatment groups. Without this scientific evidence, it is impossible to assert that the approach using sex-segregated bathrooms is an essential component of treatment.

Pursuant to 28 U.S.C § 1746, I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Date: April 26, 2017

Signed: Paul W Hruz

Paul W. Hruz, M.D., Ph.D

EXHIBIT A

Curriculum Vitae

Paul W. Hruz, M.D., Ph.D.

Date: 04/26/2017 04:18 PM

Personal Information

Birthplace: WI
Citizenship: USA

Address and Telephone Numbers

University: Washington University in St. Louis
School of Medicine
Department of Pediatrics
Endocrinology and Diabetes
660 S. Euclid

Campus Box 8208

Phone: 314-286-2797
Fax: 314-286-2892
eMail: Hruz_P@kids.wustl.edu

Present Positions

Associate Professor of Pediatrics, Endocrinology and Diabetes
Associate Professor of Pediatrics, Cell Biology & Physiology
Researcher, Developmental Biology

Education and Training

1987	BS, Chemistry, Marquette University, Milwaukee, WI
1993	PhD, Biochemistry, Medical College of Wisconsin, Milwaukee, WI
1994	MD, Medicine, Medical College of Wisconsin, Milwaukee, WI
1994 - 1997	Pediatric Residency, University of Washington, Seattle, Washington
1997 - 2000	Pediatric Endocrinology Fellowship, Washington University, Saint Louis, MO

Academic Positions and Employment

1996 - 1997	Locum Tenens Physician, Group Health of Puget Sound Eastside Hospital, Group Health of Puget Sound Eastside Hospital, Seattle , WA
2000 - 2003	Instructor in Pediatrics, Endocrinology and Diabetes, Washington University in St. Louis, St. Louis, MO
2003 - 2011	Assistant Professor of Pediatrics, Endocrinology and Diabetes, Washington University in St. Louis, St. Louis, MO
2004 - 2011	Assistant Professor of Pediatrics, Cell Biology & Physiology, Washington University in St. Louis, St. Louis, MO
2011 - Pres	Associate Professor of Pediatrics, Cell Biology & Physiology, Washington University in St. Louis, St. Louis, MO
2011 - Pres	Associate Professor of Pediatrics, Endocrinology and Diabetes, Washington University in St. Louis, St. Louis, MO
2012 - 2017	Division Chief, Endocrinology and Diabetes, Washington University in St. Louis, St. Louis, MO

Appointments and Committees

NIH Study Sections

2005	NIH- NIDDK Special Emphasis Panel ZDK1 GRB-6
2009	NIH- ACE Competitive Revisions ZRG1 AARR-H (95) S
2009	NIH- AIDS and AIDS Related Research IRG
2011	NIH- Pediatric Endocrinologist K12 ZDK1 GRB-C
2014	NIH- Special Empahsis Panel ZRG1 BBBPY 58
2014	NIH- AIDS and AIDS Related Research IRG
2015	NIH- Cardiovascular and Respiratory Sciences Special Emphasis Panel ZDK1 GRB-J (02)
2015	NIH- NIDDK Special Emphasis Panel ZRG1 CVRS-Q (80)
2016	NIH Special Emphasis Panel ZRG1 AAR-M
2016	American Diabetes Association Research Grant Review Committee

University Affiliations

2008 - 2016	Director, Pediatric Endocrinology & Diabetes Fellowship Program
2010 - Pres	Pediatric Computing Facility Advisory Committee
2012 - 2017	Director, Division of Pediatric Endocrinology & Diabetes
2012 - Pres	Disorders of Sexual Development Multidisciplinary Care Program
2013 - Pres	Molecular Cell Biology Graduate Student Admissions Committee
2014 - Pres	Research Consultant, ICTS Research Forum - Child Health
2014 - Pres	Director, Pediatric Diabetes Research Consortium

Hospital Affiliations

2000 - Pres	Attending Physician, St. Louis Children's Hospital

Thesis Committees (*Chair)		Advisor
2008 - 2011	Kelly Diggs-Andrews	Simon Fisher
2008 - 2010	Irwin Puentes	Simon Fisher
2008 - 2010	Tony Frovola	Kelle Moley
2009 - 2010	Lauren Flessner	Kelle Moley
2010 - 2012	Katie Boehle	Kelle Moley
2010 - 2013	Candace Reno	Simon Fisher
2011 - 2016	Thomas Kraft	Paul Hruz
2013 - 2015	Chi Lun Pui	Audrey Odom
2013 - 2016	Leah Imlay	Audey Odom
2014 - Pres	Anne Robinson	Katie Henzler-Wildman
2015 - Pres	Allyson Mayer	Brian DeBosch

Scholarship Oversight Committees

2013 - 2016	Brittany Knipsein (Advisor: David Rudnick)
2016 - Pres	Pamela Smith (Advisor: Michael Whyte)

Licensure and Certifications

1997 - Pres	Board Certified in General Pediatrics
2000 - Pres	MO Stae License #2000155004
2001 - Pres	Board Certified in Pediatric Endocrinology & Metabolism

Honors and Awards

1987	National Institute of Chemists Research and Recognition Award
1987	Phi Beta Kappa
1987	Phi Lambda Upsilon (Honorary Chemical Society)
1988	American Heart Association Predoctoral Fellowship Award
1994	Alpha Omega Alpha
1994	Armond J. Quick Award for Excellence in Biochemistry
1994	NIDDK/Diabetes Branch Most Outstanding Resident
1998	Pfizer Postdoctoral Fellowship Award
2002	Scholar, Child Health Research Center of Excellence in Developmental Biology at Washington University
2013	Julio V Santiago, M.D. Scholar in Pediatrics

Editorial Responsibilities

Editorial Ad Hoc Reviews

AIDS
AIDS Research and Human Retroviruses
American Journal of Pathology
American Journal of Physiology
British Journal of Pharmacology
Circulation Research
Clinical Pharmacology & Therapeutics
Comparative Biochemistry and Physiology
Diabetes
Experimental Biology and Medicine
Future Virology
Journal of Antimicrobial Chemotherapy
Journal of Clinical Endocrinology & Metabolism
Journal of Molecular and Cellular Cardiology
Obesity Research
2000 - Pres Journal of Biological Chemistry
2013 - Pres PlosOne
2016 - Pres Scientific Reports

Editorial Boards

2014 - Pres Endocrinology and Metabolism Clinics of North America

Professional Societies and Organizations

1992 - 2004 American Medical Association
1994 - 2005 American Academy of Pediatrics
1995 - 2014 American Association for the Advancement of Science
1998 - Pres American Diabetes Association
1998 - Pres Endocrine Society
1999 - Pres Pediatric Endocrine Society
2004 - Pres American Society for Biochemistry and Molecular Biology
2004 - Pres Society for Pediatric Research
2004 - 2007 American Chemical Society
2005 - Pres Full Fellow of the American Academy of Pediatrics
2013 - Pres International Society for Pediatric and Adolescent Diabetes

Major Invited Professorships and Lectures

2002 St. Louis Children's Hospital, Pediatric Grand Rounds, St. Louis, MO
2004 National Disease Research Interchange, Human Islet Cell Research Conference, Philadelphia, PA
2004 NIDA-NIH Sponsored National Meeting on Hormones, Drug Abuse and Infections, Bethesda, MD
2005 The Collaborative Institute of Virology, Complications Committee Meeting, Boston, MA
2005 University of Indiana, Endocrine Grand Rounds, Indianapolis, IN
2006 Metabolic Syndrome Advisory Board Meeting, Bristol-Meyers Squibb, Pennington, NJ
2007 American Heart Association and American Academy of HIV Medicine State of the Science Conference: Initiative to Decrease Cardiovascular Risk and Increase Quality of Care for Patients Living with HIV/AIDS, Chicago, IL
2007 Medical College of Wisconsin, MSTP Annual Visiting Alumnus Lecture, Milwaukee, WI
2007 St Louis Children's Hospital, Pediatric Grand Rounds, St Louis, MO
2007 University of Arizona, Minority Access to Research Careers Seminar, Tucson AZ
2008 Boston University, Division of Endocrinology, Diabetes and Nutrition, Boston, MA
2009 St Louis Children's Hospital, Pediatric Grand Rounds, St Louis, MO
2010 American Diabetes Association Scientific Sessions, Symposium Lecture Orlando, FL
2010 University of Missouri Kansas City, School of Biological Sciences, Kansas City, MO
2011 Life Cycle Management Advisory Board Meeting, Bristol-Myers Squibb, Chicago, IL
2013 St Louis Children's Hospital, Pediatric Grand Rounds, St Louis MO
2013 St Louis Children's Hosptial CPU Lecture, St Louis MO
2014 Pediatric Academic Societies Meeting, Vancouver, Canada, May 5, 2014
2014 American Diabetes Association 74th Scientific Sessions, San Francisco, CA, June 13, 2014
2017 University of Michigan, Division of Pediatric Endocrinology, Ann Arbor MI

Consulting Relationships and Board Memberships

1996 - 2012 Consultant, Bristol Myers Squibb
1997 - 2012 Consultant, Gilead Sciences

Research Support

Non-Governmental Support

(Hruz)
Gilead Pharma
Novel HIV Protease Inhibitors and GLUT4

MHI-2017-593 (DeBosch) 2/1/2017- 1/31/2020
CDI
Prevention And Treatment Of Hepatic Steatosis Through Selective Targeting Of GLUT8

Completed Support

II (Hruz) 2/1/2012- 1/31/2015
CDI
Solution-State NMR Structure and Dynamics of Facilitative Glucose Transport Proteins

R01 (Hruz) 9/20/2009- 5/31/2014
NIH
Direct Effects of Antiretroviral Therapy on Cardiac Energy Homeostasis
The goal of this project is to characterize the influence of antiretroviral therapies on myocardial energy homeostasis and to elucidate how these changes in substrate delivery adversely affect cardiac function in the stressed heart.

Research Program (Hruz) 6/1/2009- 5/31/2012
MOD
Regulation of GLUT4 Intrinsic Activity
The major goals of this project are to investigate the ability of the GLUT4 tethering protein TUG and an UBL-domain containing N-terminal fragment of this protein to alter the intrinsic activity of the insulin responsive facilitative glucose transporter, to determine whether protein ubiquitination influences this association, and to characterize the role of the GLUT4 binding site on the modulation of glucose transport.

R01 (Hruz) 4/1/2007- 1/31/2012
NIH
Mechanisms for Altered Glucose Homeostasis During HAART
The goal of this project is to identify the cellular targets of HIV protease inhibitors that lead to peripheral insulin resistance, impaired beta-cell function, and alterations in hepatic glucose production and to elucidate the molecular mechanisms of these effects.

R01 Student Supp (Hruz) 6/10/2009- 8/31/2011
NIH
Mechanisms for Altered Glucose Homeostasis During HAART
The goal of this project is to identify the cellular targets of HIV protease inhibitors that lead to peripheral insulin resistance, impaired beta-cell function, and alterations in hepatic glucose production and to elucidate the molecular mechanisms of these effects.

(Hruz) 3/9/2010- 6/8/2011
Bristol-Myers Squibb
Protective Effect of Saxagliptin on a Progressive Deterioration of Cardiovascular Function

II (Hruz) 2/1/2008- 1/31/2011
CDI
Insulin Resistance and Myocardial Glucose Metabolism in Pediatric Heart Failure

Past Trainees

2014 - 2014	David Hannibal, Clinical Research Trainee
2005 - 2005	Dominic Doran, DSc, Postdoctoral Fellow Study area: HIV Protease Inhibitor Effects on Exercize Tolerance
2002 - 2010	Joseph Koster, PhD, Postdoctoral Fellow Study area: Researcher
2010 - 2014	Lauren Flessner, PhD, Postdoctoral Fellow Present position: Instructor, Syracuse University
2008 - 2011	Arpita Vyas, MD, Clinical Fellow Study area: Research Present position: Assistant Professor, Michigan State University, Lansing MI
2008 - 2009	Candace Reno, Graduate Student Study area: Research Present position: Research Associate, University of Utah
2005 - 2005	Helena Johnson, Graduate Student
2007 - 2008	Kai-Chien Yang, Graduate Student Study area: Research Present position: Postdoctoral Research Associate, University of Chicago
2007 - 2007	Paul Buske, Graduate Student Study area: Research
2006 - 2006	Ramon Jin, Graduate Student Study area: Research
2009 - 2009	Stephanie Scherer, Graduate Student Study area: Research
2006 - 2006	Taekyung Kim, Graduate Student Study area: Research
2008 - 2008	Temitope Aiyejorun, Graduate Student Study area: Research
2011 - 2016	Thomas Kraft, Graduate Student Study area: Glucose transporter structure/function Present position: Postdoctoral Fellow, Roche, Penzberg, Germany
2005 - 2005	Jeremy Etzkorn, Medical Student Study area: Researcher
2003 - 2004	Johann Hertel, Medical Student Study area: Research Present position: Assistant Professor, University of North Carolina, Chapel Hill, NC
2003 - 2003	John Paul Shen, Medical Student Study area: Research
2007 - 2007	Randy Colvin, Medical Student Study area: Researcher
2011 - 2011	Amanda Koenig- High School Student, Other Study area: Research
2009 - 2009	Anne-Sophie Stolle- Undergraduate Student, Other Study area: Research
2004 - 2005	Carl Cassel- High School Student, Other Study area: Research
2004 - 2004	Christopher Hawkins- Undergraduate Student, Other Study area: Researcher
2010 - 2010	Constance Haufe- Undergraduate Student, Other Study area: Researcher
2010 - 2011	Corinna Wilde- Undergraduate Student, Other Study area: Researcher
2008 - 2012	Dennis Woo- Undergraduate Student, Other Study area: Researcher Present position: MSTP Student, USC, Los Angeles CA
2007 - 2007	Jan Freiss- Undergraduate Student, Other Study area: Researcher
2004 - 2004	Kaiming Wu- High School Student, Other Study area: Research
2011 - 2012	Lisa Becker- Undergraduate Student, Other
2009 - 2009	Matthew Hruz- High School Student, Other Study area: Research Present position: Computer Programmer, Consumer Affairs, Tulsa OK
2011 - 2011	Melissa Al-Jaoude- High School Students, Other
2002 - 2002	Nishant Raj- Undergraduate Student, Other Study area: Researcher
2010 - 2010	Samuel Lite- High School Student, Other Study area: Research

Clinical Responsibilities

	General Pediatrician, General Pediatric Ward Attending: 2-4 weeks per year, St. Louis Children's Hospital
Pres	Pediatric Endocrinologist, Endocrinology Night Telephone Consult Service: Average of 2-6 weeks/per yr, St. Louis Children's Hosptial
Pres	Pediatric Endocrinologist, Inpatient Endocrinology Consult Service: 4-6 weeks per year, St. Louis Children's Hospital
Pres	Pediatric Endocrinologist, Outpatient Endocrinology Clinic: Approximately 50 patient visits per month, St. Louis Children's Hospital

Teaching Responsibilities

	Facilitator, Cell Biology Graduate Student Journal Club, 4 hour/year
	Facilitator, Discussion: Pituitary, Growth & Gonadal Cases, 2 hours/year
2000 - Pres	Lecturer, Medical Student Growth Lecture (Women and Children's Health Rotation): Variable
2000 - Pres	Lecturer, Metabolism Clinical Rounds/Research Seminar: Presentations twice yearly
2000 - Pres	Lecturer, Pediatric Endocrinology Journal Club: Presentations yearly
2009 - Pres	Lecturer, Markey Course-Diabetes Module
2009 - Pres	Facilitator, Medical Student Endocrinology and Metabolism Course, Small group
2009 - Pres	Facilitator, Biology 5011- Ethics and Research Science, 6 hours/year
2016 - Pres	Facilitator, Medical Student Endocrinology and Metabolism Course, Small group
2016 - Pres	Lecturer, Cell Signaling Course, Diabetes module, 3 hours/year

Publications

1. Hruz PW, Narasimhan C, Miziorko HM. 3-Hydroxy-3-methylglutaryl coenzyme A lyase: affinity labeling of the Pseudomonas mevalonii enzyme and assignment of cysteine-237 to the active site. *Biochemistry*. 1992;31(29):6842-7. PMID:1637819
2. Hruz PW, Miziorko HM. Avian 3-hydroxy-3-methylglutaryl-CoA lyase: sensitivity of enzyme activity to thiol/disulfide exchange and identification of proximal reactive cysteines. *Protein Sci*. 1992;1(9):1144-53. doi:10.1002/pro.5560010908 PMCID:PMC2142181 PMID:1304393
3. Mitchell GA, Robert MF, Hruz PW, Wang S, Fontaine G, Behnke CE, Mende-Mueller LM, Schappert K, Lee C, Gibson KM, Miziorko HM. 3-Hydroxy-3-methylglutaryl coenzyme A lyase (HL). Cloning of human and chicken liver HL cDNAs and characterization of a mutation causing human HL deficiency. *J Biol Chem*. 1993;268(6):4376-81. PMID:8440722
4. Hruz PW, Anderson VE, Miziorko HM. 3-Hydroxy-3-methylglutaryldithio-CoA: utility of an alternative substrate in elucidation of a role for HMG-CoA lyase's cation activator. *Biochim Biophys Acta*. 1993;1162(1-2):149-54. PMID:8095409
5. Roberts JR, Narasimhan C, Hruz PW, Mitchell GA, Miziorko HM. 3-Hydroxy-3-methylglutaryl-CoA lyase: expression and isolation of the recombinant human enzyme and investigation of a mechanism for regulation of enzyme activity. *J Biol Chem*. 1994;269(27):17841-6. PMID:8027038
6. Hruz PW, Mueckler MM. Cysteine-scanning mutagenesis of transmembrane segment 7 of the GLUT1 glucose transporter. *J Biol Chem*. 1999;274(51):36176-80. PMID:10593902
7. Murata H, Hruz PW, Mueckler M. The mechanism of insulin resistance caused by HIV protease inhibitor therapy. *J Biol Chem*. 2000;275(27):20251-4. doi:10.1074/jbc.C000228200 PMID:10806189
8. Hruz PW, Mueckler MM. Cysteine-scanning mutagenesis of transmembrane segment 11 of the GLUT1 facilitative glucose transporter. *Biochemistry*. 2000;39(31):9367-72. PMID:10924131
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EXHIBIT B

Exhibit B

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IN THE UNITED STATES DISTRICT COURT FOR
THE MIDDLE DISTRICT OF NORTH CAROLINA

MAXWELL KADEL, et al.	)	
	)	
Plaintiffs	)	
	)	Cause No.
vs.	)	1:19-cv-00272-
	)	LCB-LPA
DALE FOLWELL, et al.	)	
	)	
Defendants	)	

VIDEO ZOOM DEPOSITION OF DR. PAUL W. HRUZ

Taken on behalf of the Plaintiffs

September 29, 2021

Sheryl A. Pautler, RPR,

MO-CCR 871, IL-CSR 084-004585

(The proceedings began at 9:31 a.m. Eastern.)

Pl. Trial Ex. 094

INDEX OF EXHIBITS

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(Exhibits attached to transcritp.)

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vs.	)	1:19-cv-00272-
	)	LCB-LPA
DALE FOLWELL, et al.	)	
	)	
Defendants	)	

VIDEO ZOOM DEPOSITION OF WITNESS, DR. PAUL W. HRUZ, produced, sworn, and examined on the 29th day of September, 2021, between the hours of nine o'clock in the forenoon and eight o'clock in the afternoon of that day, via Veritext Zoom, before SHERYL A. PAUTLER, RPR, Certified Shorthand Reporter within and for the State of Illinois and Certified Court Reporter within and for the State of Missouri, in a certain cause now pending before the United States District Court for the Middle District of North Carolina, wherein MAXWELL KADEL, et al. are the Plaintiffs, and DALE FOLWELL, et al. are the Defendants.

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Q. Okay. What is a wet lab?

A. A wet lab is really designating somebody that does hands-on research usually with either in-vitro or in-vivo studies, as opposed to a dry lab which mostly does literature searches or computer programming or things that do not involve experimentation with -- the reason the term comes, from wet reagents like buffers and solutions and bodily fluids.

Q. Is your research primarily conducted in a wet lab?

A. My -- until recently the vast majority of my research has been conducted in a wet lab. I have participated on a few occasions in clinical trials and have served as an adviser and consultant for colleagues in those types of studies.

Q. On how many occasions have you participated in clinical trials?

A. I never direct -- well, there was one trial at Washington University where I was more directly involved. But all of -- as far as principal investigator, all of my NIH funded research and service as a principal investigator has been done with my basic science research.

Q. Would you agree that clinical trials is

not your area of expertise?

MR. KNEPPER: Objection, form.

A. I would not agree with that statement. I would say that I -- in the course of the last decade that -- as I've been required to investigate the literature surrounding this particular issue of treatment of gender dysphoria, I have developed considerable expertise in clinical trials. And I also have previously served on institutional review boards. I did that while I was a medical student, where I reviewed the ethics of clinical trials and -- and in other ways as well. So I would say that covers my -- is included in my expertise as a physician scientist.

Q. (By Mr. Gonzalez-Pagan) Earlier you stated that the testimony you provided in the Bruce deposition was truthful; is that right?

A. To the best of my knowledge.

Q. In the Bruce deposition, you were asked: So clinical trials is in your area of expertise?

And you answered: That is correct.

MR. KNEPPER: Objection, form.

A. Can you please read that statement again? And it might even be helpful if we went to the area of that deposition so I can see the entire context.

But for now maybe you can just reread that just so I understand what that statement said.

Q. (By Mr. Gonzalez-Pagan) Well, let's -- my computer is not going to survive today. I apologize. It's on Page 39 of Exhibit 3.

A. Is there an easy way to navigate directly to a page without just scrolling down?

Q. Unfortunately I don't believe so. It's limitation of the medium. I apologize for that.

MR. KNEPPER: I will confirm that. Yeah. I haven't found one either.

A. Okay. So which line are you -- I'm on Page 39 right now.

Q. (By Mr. Gonzalez-Pagan) All right. So on line -- beginning on Line 23.

A. Okay.

Q. It says, Question: I see. So clinical trials isn't your area of expertise?

Answer: That is correct.

Did I read that correctly?

A. Well, if you read the preceding lines, it immediately followed a question about my direct participation in clinical trials where I clearly stated that there was only one clinical trial. That was the one I just mentioned to you at Washington

University. And similar to what I had in this deposition, my role in that project was relatively minor.

So in that sense, that does not mean that I do not have knowledge and experience in the context of clinical trials. It only means I have not directly participated in those clinical trials. Context is important.

Q. What is primary research?

A. I'm sorry. Primary research?

Q. Yeah.

A. Oh, so you're -- you're talking about the difference between conducting experimental -- directly conducting experiments versus systematic reviews and literature reviews of that nature. Is that the distinction you're trying to get at?

Q. Is that what you understand the distinction between primary and secondary research to be?

MR. KNEPPER: Objection, form.

A. That would be one definition that I would agree with, yes.

Q. (By Mr. Gonzalez-Pagan) Okay. Would it be okay if I were to adopt that definition, that primary research refers to conducting experiments --

experiments, etc. and not literature review or metanalysis of existing data?

A. For the purposes of this deposition, yes, that is fine.

Q. With that understanding, have you conducted any primary research relating to gender dysphoria?

MR. KNEPPER: Objection, form.

A. So if you're asking whether I have directly participated in clinical trials on gender dysphoria, the answer is no.

Q. (By Mr. Gonzalez-Pagan) Have you participated in cross-sectional studies related to gender dysphoria?

A. Again, I have not -- cross-sectional studies, you're meaning retrospective reviews?

Q. It could be longitudinal observational. It could be cohort studies. I guess my question is -- let me back up. Have you conducted any direct research relating to gender dysphoria that is not based on a literature review?

MR. KNEPPER: Objection, form.

A. It would depend on what your definition of conduct. I have not physically myself done those chart reviews or participated in the clinical

setting. My experience to what you had described as primary research is limited to my role as associate or assistant fellowship program director in supervising my fellows, two of whom are doing what we would -- what you would define as primary research.

I'm not the primary investigator, but I do have a role in directing my fellows in doing that research to make sure it's of the highest quality and standards that we expect of all of our fellows.

Q. (By Mr. Gonzalez-Pagan) When did you resume supervision of the fellowship program?

A. The official designation has happened since the time I filed my initial curriculum vitae. However, I have continually throughout my career been involved in the fellowship program.

One of the reasons I was reappointed as the assistant program director was that it was recognized that the area of scholarly research needed somebody with my background to be able to help the fellows to be able to select projects, select mentors and conduct research in the most rigorous manner. And that was a shortcoming that had developed since I had formally stepped away from

A. Okay.

Q. Well, actually, let me -- let me check. We've been going about an hour. Would you like to take a break right now or I can do this line of questioning? And we can --

A. I'm actually doing quite well. I'd be fine to keep pressing on.

MR. GONZALEZ-PAGAN: Sheryl, is that okay?

THE COURT REPORTER: That's fine.

Q. (By Mr. Gonzalez-Pagan) Okay. So if we go to the list of publications in your CV. Are you with me?

A. I am.

Q. In the category of journal articles, No. 48 is titled Deficiencies in Scientific Evidence for Medical Management of Gender Dysphoria. Did I read that correctly?

A. Yes. And I do see it here.

Q. Is that one of your publications relating to gender dysphoria?

A. Yes, it is. And it's probably one of the most highly cited of the papers that I provided.

Q. Sure. Is that a publication based on any primary research that you conducted?

MR. KNEPPER: Objection, form.

A. As which have defined it, no. It's a review of the literature and critical appraisal of the evidence.

Q. (By Mr. Gonzalez-Pagan) And that publication is -- that -- sorry. That -- that article was published in the Linacre Quarterly; is that right?

A. That is correct.

Q. Is the Linacre Quarterly a scientific publication?

A. It is an ethics journal. In fact, it's the longest standing continuously published ethics journal in the United States.

Q. Who publishes the Linacre Quarterly?

A. The NCBC.

Q. What does the NCBC stand for?

A. The National Catholic Bioethics Center.

Q. Turn to 50. Is this one of the other publications you have relating to gender dysphoria?

A. It's a letter to the editor.

Q. So it's not -- this is not a publication based on any primary research or scientific study you have conducted?

MR. KNEPPER: Objection, form.

A. As we have defined primary research, it is

merely a presentation of -- of concerns about the literature that has already been published.

Q. (By Mr. Gonzalez-Pagan) And as I understand this letter to the editor is a commentary on another publication, on another article; is that right?

MR. KNEPPER: Objection, form.

A. It includes more information than just the article itself. But, yes.

Q. (By Mr. Gonzalez-Pagan) And just pure curiosity, I don't know the answer to this, but are letters to the editor peer reviewed?

A. This particular one was. I recall when we were submitting this, that we were asked to make changes. And I interpret that as being peer reviewed.

Q. Well, I just want to clarify. There's peer review and then there's editorial review; is that right?

MR. KNEPPER: Objection, form.

A. There are numbers of different types of review; that's correct.

Q. (By Mr. Gonzalez-Pagan) Okay. As I understand peer review to mean, it is a process of objecting and circulating an author's work to the

scrutiny of others who are experts in the same field; is that right?

MR. KNEPPER: Objection.

A. That's how it's generally defined yes.

Q. Are you saying that the letter to the editor was circulated to experts in the field before it was published?

A. I don't know the details of how the letter was handled. I only can say that when we submitted it, we were asked to make revisions. It was reviewed by individuals with understanding of the area that was covered. I don't know any more details. And that's the way generally peer review occurs. One is not usually told who actually reviews the submission.

Q. The next publication, it's -- it's No. 2 under book chapter. It's titled Medical Approaches to Alleviating Gender Dysphoria. And it's a chapter in the book Transgender Issues in Catholic Healthcare; is that right?

A. That is correct.

Q. Who publishes the book, Transgender Issues in Catholic Healthcare?

A. That was also the NCBC.

Q. Is the book a peer-reviewed publication?

A. No.

Q. Going to the next page, there's a list of invited publications; is that right?

A. Yes.

Q. No. 6 is your article titled Growing Pains, Problems With Pubertal Supression in Treating Gender Dysphoria.

Did I read that correctly?

A. Yes, you did read it correctly.

Q. Is this a peer-reviewed publication?

A. It is not peer reviewed. It was editorially reviewed.

Q. The growing pains article was published in the New Atlantis; is that right?

A. That is correct.

Q. Is the New Atlantis a scientific journal?

A. It is not considered a scientific journal in the definition that we normally designate it. It was -- it's a journal that provides more broad readership to be able to distill topics of relevance at an understandable level to the lay public.

Q. At the time of the publication of the article, who published the New Atlantis?

A. Well, the New Atlantis.

Q. Was the new Atlantis a publication of the

ethics and public policy center?

MR. KNEPPER: Objection, form.

A. I believe that may be true. I didn't pay much attention to that.

Q. (By Mr. Gonzalez-Pagan) Let's turn to Exhibit No. 3, Page 44 -- sorry -- Page 46.

A. I went too far.

Q. You know what, it could probably be me. It's a few later. It's Page 49. I do apologize. Page 49.

A. I'm still scrolling, so. Okay. I'm there.

Q. Okay. Beginning on Line 13, it reads; Question: Okay. And the New Atlantis was founded by the Ethics and Public Policy Center; is that right?

Answer: I believe that that is correct.

Question: Okay. And that's a center dedicated to applying the Judeo-Christian moral tradition to critical issues of public policy; is that your understanding?

Answer: I believe that question came up at the last deposition. And I believe that that's an accurate statement.

Did I read that correctly?

A. You did read it correctly, yes.

Q. And you stand by that testimony?

A. Yes. I have no reason -- it's not something that I consider all that important. And I don't usually retain that. I've got so many other pieces of information for me to retain. But, yes.

Q. Going back to your CV, under invited publications.

A. I'm there.

Q. Okay. The next publication is an article titled The Use of Cross-Sex Steroids in Treating Gender Dysphoria; is that right?

A. That is correct.

Q. It was published in the National Catholic Bioethics Quarterly; is that right?

A. That is correct.

Q. Is this article, The Use of Cross-Sex Steroids, a peer-reviewed publication?

A. No, it is not.

Q. Is the National Catholic Bioethics Quarterly a peer-reviewed journal?

A. No.

Q. Is the National Catholic Bioethics Quarterly a scientific journal?

A. No. It is an ethics journal.

Q. All right. And the next publication, 8, under publications in your CV is Experimental Approaches to Alleviating Gender Dysphoria in Children; is that right?

A. Yes.

Q. And this is another one of your publications that relates to gender dysphoria?

A. Yes.

Q. Is this a peer-reviewed article?

A. It is published in the same journal as No. 7. And it is not a peer-reviewed journal.

Q. Okay. Do you have any other publications besides the ones that we just went through that relate to gender dysphoria?

MR. KNEPPER: Objection, form.

A. So there are -- I have no publications that have been added since the time I submitted this CV and it reflects my publications to date.

Q. (By Mr. Gonzalez-Pagan) Do you have any other publications besides the ones that we've discussed today relating to transgender people?

A. Not that I recall.

MR. GONZALEZ-PAGAN: All right. I actually do need to break. So if we can go off

scientific understanding of this condition. To my understanding, the transition from this definition as gender identity disorder to gender dysphoria was not based upon new scientific information.

It was more of a desire to alleviate the discomfort that one has in that label. So how we classify that really rests on the premises that one has about the underlying etiology. And I think that there are -- are more than one valid hypothesis or I should say premises that can be put forward, not necessarily all of equal weight.

Q. (By Mr. Gonzalez-Pagan) Okay. But what is your understanding of the condition of gender incongruent?

MR. KNEPPER: Objection, form, scope.

A. It's a very broad question. Could you narrow it down a little bit?

MR. GONZALEZ-PAGAN: John, what's the objection of the scope? I thought Dr. Hruz is here to testify about gender-affirming treatment for the condition of gender dysphoria and gender incongruent.

MR. KNEPPER: Hold on, Omar. You're free to ask the questions. I think the question I'm trying to understand is: Are you trying to ask

him to testify about -- as a psychiatrist or a psychologist? And it's not clear to me, you know, what the definition of gender incongruence -- are you -- it's not clear to me when you use that term, are you trying to say it's the ICD-11 definition or are you using something else?

I'm happy -- happy to let you continue to pursue this. I'm just as interested as you are. But I want to make sure that as you go through this, we don't end up -- we don't end up down a path where you're trying to say, now, ah-ha, he's coming here pretending to be a psychologist which is outside the scope of what he said he's going to testify to.

MR. GONZALEZ-PAGAN: Well, I mean, we have a 90-page report that I'm happy to go through.

MR. KNEPPER: Please do.

Q. (By Mr. Gonzalez-Pagan) Dr. Hruz, in your report, you state a number of opinions about the validity of the diagnosis of gender dysphoria contained within the DSM; is that right?

MR. KNEPPER: Objection, form.

A. I would be much more comfortable looking at the specific areas that you're referring to.

Because I present many things in my report as hypotheses. And without making definitive statements. So it would be most helpful if we can look at specific areas that you're referring to.

Q. (By Mr. Gonzalez-Pagan) Okay. So I guess what I'm curious about is, do you have a particular as a physician scientist, do you have a particular belief as to whether gender dysphoria is a disorder?

A. I have multiple scientific premises that I have and continue to consider. Again not of equal weight or validity. One of those premises is that this condition arises from a disconnect between neuronal biology and the bodily from -- sex -- bodily form of the body.

Another scientific premise is that this condition is due to the number of environmental, social, hormonal and neuronal components. So how we understand this condition is markedly influenced by the premise that we come to address the hypotheses that we're going to need to consider to develop clinical trials to establish safety and efficacy of treatment that provides the greatest benefit to the affected patients.

Q. Would you agree there are transgender people in this world?

A. Again, we have to be very careful about the terminology that we're using, to acknowledge that the condition of sex discordant gender identity, and there are individuals that -- that express an identity that is not in agreement with their biology is a true statement. That's undeniable that these -- there are individuals that have this experience of discordance between their gender identity and their sex.

Q. Do you believe that the experience of discordance between their identity and what you term their biology, is a disorder?

MR. KNEPPER: Objection, form.

A. So, again, it depends on what premise you're operating under. As far as whether this is a normal experience of -- of a human condition or whether it falls outside of -- of the norm for us as sexed beings. And, again, as a physician scientist I'm obligated to be able to consider all possibilities to be able to do the proper science to get at the ultimate question here as to what we can do to alleviate the suffering.

Q. (By Mr. Gonzalez-Pagan) Dr. Hruz, I guess I'm a little confused as to what it is that is your opinion here. Can you briefly summarize for me what

more cautious approach by the recognition that the studies that have been done up to this point in time do not give us an answer as to whether this is the best or the only course of intervention to alleviate that suffering. Is that -- is that what you're looking for?

Q. Thank you. I appreciate that. In your -- as part of your opinions, do you provide -- let me back up.

Do you express an opinion as to which modality of care should be provided to people diagnosed with gender dysphoria?

A. I believe that it's an ongoing scientific question about what the most efficacious approach is to provide the greatest benefit with the least amount of risk. And that is why I'm participating as an expert witness in this case, to bring to light for the benefit of the court that this is something that needs to be very much investigated to be able to get an answer to that question.

Q. Do you express an opinion as to which modality of care should be provided to people experiencing gender dysphoria?

MR. KNEPPER: Objection, form.

A. I would say because it's an unsettled

scientific question, that I don't have a firm opinion as to which is the best approach. Yet as time has gone on, more and more information is being generated that calls into question the affirmation-only approach.

Q. (By Mr. Gonzalez-Pagan) And I don't want -- what I'm trying to do is get clarity here. So would it be fair to say that you do not provide an opinion as to which modality of care should be provided for people experiencing gender dysphoria?

MR. KNEPPER: Objection, form.

A. My opinion is that based upon the lack of evidence for the gender -- gender-affirmation approach, that if we are going to provide interventions for this population that it is best done under a carefully controlled clinical experimental setting.

Q. (By Mr. Gonzalez-Pagan) You express that there are ongoing questions as to the efficacy of the gender-affirmation approach; is that right?

A. That is correct.

Q. Again for clarity's sake, are you -- you're not expressing an opinion with -- with medical certainty as to whether the gender-affirmation approach is effective or not; is

anxiety?

A. I would say that the answer is yes.

Q. So for people who experience gender dysphoria and do not have any other co-morbidity, what would you do to address their gender dysphoria while the clinical trials are being conducted?

MR. KNEPPER: Objection, form.

A. That's a broad question. And it depends upon the individual characteristics of the patient, including their age and including all of the other factors that are associated with that gender dysphoria. Was it a child who is prepubertal? Is it a child who is an adolescent? Is it an adult? Is it a child or an adult that, you know, all of the social situations or circumstances that they're involved in?

Again, without having a formal diagnosis of depression or anxiety or these other co-morbidities, all of that is going to impact how one approaches that particular patient.

Q. (By Mr. Gonzalez-Pagan) I guess here we're talking about this case, you said it's a provision of coverage for treatment for gender dysphoria; is that right?

A. That is the nature of this case, correct.

had a new chairman that came on board from the one that recruited me to that position. We disagreed in more than one area.

There was also my research program had been rapidly expanding and was getting into the area of drug development. I would say that the role of chief of any division is a thankless job. It requires a tremendous amount of time and effort. And so, you know, the decision to -- to step down from that position was actually very advantageous to my further career development. But, you know, it was one of the -- the gender center was one among many disagreements that I had at that time.

Q. Does the Washington University Transgender Center offer pediatric and adolescent gender-affirming care?

A. Yes. In the definition that we're talking about here meaning the GnRH agonist or puberty blockers, cross-sex hormones.

Q. Does the Wash --

A. In addition to --

Q. Does the Washington University Transgender Center offer hormone therapy as treatment for gender dysphoria in adults?

A. Does the pediatric center -- your question

is does the pediatric center provide care for adults?

Q. Well, my -- the transgender center offers both care to pediatric and adult patients; is that right?

A. So in general, the care that's delivered at St. Louis Children's Hospital spans birth to the low -- early 20s. There are individuals that are adults that are cared for by the adult endocrine division. And there's a separate team of doctors that participate in that care.

Q. Are you a member of the Endocrine Society?

A. Yes.

Q. The Endocrine Society publishes clinical practice guidelines regarding the treatment of gender dysphoria; is that right?

A. That's correct. Their initial document came out in 2009 with lead author Hembree and then they had a revision that was done in 2017.

Q. Showing you what's been marked as Exhibit 5.

(Whereupon Exhibit 5 was introduced for identification.)

A. Okay. I see it.

Q. (By Mr. Gonzalez-Pagan) Do you recognize

THE COURT REPORTER: Thank you.

MR. GONZALEZ-PAGAN: Borrowing a word from you, John.

Q. (By Mr. Gonzalez-Pagan) What is WPATH?

A. It's an organization known as the World Association of Professional Transgender Health. It is -- again, this is the organization that came out with their version seven of the guidelines quite a long time ago to provide their perspective on what should be done for people that experience sex discordant gender identity.

Q. Does the Washington University Transgender Center follow the WPATH guidelines?

A. Again, I will say that I'm not directly involved in the gender center. My understanding based on conversations with the director of that center, he claims that they do.

Q. Do you, yourself, provide treatment for gender dysphoria?

A. I will state that I'm a pediatric endocrinologist charged with treating hormonal diseases. And because I have not seen the evidence that supports the proper risk/benefit to that intervention, I do not provide that care, as I don't in any other area where I have not determined

appropriate benefit versus risk.

Q. Have you ever diagnosed a person with gender dysphoria?

MR. KNEPPER: Objection, form.

A. I'm a pediatric endocrinologist and my charge is to treat hormone related diseases. And therefore, I've not been called upon to make that diagnosis.

Q. (By Mr. Gonzalez-Pagan) Would you agree you do not have any clinical experience providing care for people for gender dysphoria?

A. I would not agree with that.

Q. Do you provide treatment for people?

A. I provide -- I provide treatment for hormone-related conditions that includes people with gender dysphoria.

Q. But specifically in treating gender dysphoria, do you have any clinical experience with regards to the treatment of that condition?

A. Since I'm a pediatric endocrinologist, my experience is limited to the treating of hormone-related diseases.

Q. Is that a no?

A. I have not treated with hormones for the purpose of alleviating gender dysphoria. I have

however treated patients that have experienced side effects related to that hormonal treatment including obesity, diabetes, dyslipidemia. So in that respect I have treated them, but not to address dysphoria. But, rather, the complications that have occurred in association with that treatment.

Q. Clarify, you said association, yes?

A. That's correct.

Q. Do you have proof -- do you have proof that it was caused by the treatment for gender dysphoria?

A. If I thought I had enough evidence to say cause, I would have said caused. I said association.

Q. Thank you. You've given a number -- Strike that.

Have you given presentations regarding gender dysphoria?

A. Yes.

Q. Have any of these presentations been at medical conference -- conferences or settings?

A. Yes. I've -- well, I've delivered many lectures to major academic centers during medical grand rounds. And I'm happy to detail those for you. It includes University of Tennessee, Texas

Tech, Notre Dame, the University of Montevideo. And there are probably others. I can't remember. So -- and so as being a grand rounds presentation in major medical centers, yes.

Q. Aside from grand rounds, have you provided any presentations regarding gender dysphoria at any medical conferences or sites?

A. Well, I would consider grand rounds a conference.

Q. Grand rounds is when there's an invited lecturer at a particular hospital and everybody is invited to attend; is that right?

A. So you're asking about national meetings, like the Endocrine Society meetings or such?

Q. Well, let me just clarify what grand rounds are for the record. So what are grand rounds?

A. Grand rounds are usually a recurring series of talks given by experts in various fields to the relevant scientific community about topics of interest to those physicians. And generally, it involves the presentation of high quality scientific evidence for the conditions that those physicians in the audience would encounter.

Q. Okay. So you have not conducted any

studies for any gender dysphoria, right?

A. I believe we answered that question earlier when we went through my CV.

Q. Well, I'm just wondering what your presentation of the grand rounds are since you have not conducted any such study?

A. It was providing the same types of evidence that I presented in my expert declaration about the scientific studies that have been done or need to be done in this field. Presenting the various hypotheses for etiology and potential treatment. The various side effects that are known or potentially could occur. So it includes all of -- or very similar information regarding the scientific studies that I presented in my expert declaration.

Q. And now, to continue aside from grand rounds, have you provided any presentations regarding gender dysphoria in any other medical conferences or settings?

A. I would have to -- I'd have to think through my list. It's actually most of the major presentations that I've made are listed within my CV. So I'd have to look back as to what I listed there. But if you're asking about the Endocrine

Society or the pediatric Endocrine Society or those types of organizations, I have not presented at those conferences.

Q. Are you familiar with the gender and sex conference?

A. Yes. And are you referring to the one in Madrid.

Q. That was going to be my question. Did you participate in the gender and sex conference in Madrid in 2018?

A. I don't recall the exact date. But if it was 2018, yes, I did present there.

Q. Did you know that the conference was billed as, quote: A rebellion against the gender ideology and its freedom destroying damaging law, closed quote?

A. I -- I don't recall that language being presented to me when I agreed to present at that conference.

Q. Did you know that the conference was focused on opposing what it termed "gender ideology"?

A. You know, again, I was asked -- and this is true for -- if you're going to go through the list of all of the places that I've spoken at. When

I've been invited to present at any of these conferences, my desire is to provide the most accurate and up-to-date scientific information related to the condition of gender dysphoria.

I am willing to present to any audience that is willing to hear that information. I don't make judgment about what the motives are of the individuals organizing the conference. But merely serve with my area of expertise and my knowledge to be able to further that discussion in a productive manner. And that applies to that sex and gender conference in Madrid.

Q. Who organized the gender and sex conference in Madrid?

A. I do not recall the entity. I'm sure you'll tell me. But again that wasn't who invited me was not as important as whether I was going to be given the opportunity to present the information objectively on this particular condition within my area of expertise.

MR. GONZALEZ-PAGAN: Oh, shoot. John, I just published an exhibit without a label. Do you have any objection to me calling it Exhibit 6?

MR. KNEPPER: Having done that very same

thing, Omar, let me take a look at it. But, no, I -- I cannot imagine I will have an objection. Actually it labeled it as Exhibit 6 automatically, but there's no stamp.

MR. GONZALEZ-PAGAN: There's no stamp, yes.

MR. KNEPPER: Sheryl, you'll have to put the stamp on it. But I'm completely okay with calling that Exhibit 6.

MR. GONZALEZ-PAGAN: Thank you.

(Whereupon Exhibit 6 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) Dr. Hruz, I'm showing you what's been marked as Exhibit 6.

A. I can see it.

Q. And I apologize for the formatting. Some pages don't print as well as others. This appears to be a press release following the conclusion of the gender and sex conference which you were talking about; is that right?

A. I've never seen this document before.

Q. Okay. If you go to the second page.

A. Okay. I think I'm there.

Q. It talks about the gender and sex -- in the paragraph beginning eight speakers, sort of --

A. Okay. I'm there. I've got it now.

Q. Okay. It speaks of the gender and sex conference as being organized by HazteOir.org and its international platform, CitizenGo; is that right?

A. That's what it says here, yes.

Q. And does that -- is that in keeping with your recollection about who organized the gender and sex conference?

A. Yes. I seem to recall now that you've jogged my memory. That is correct.

Q. Okay. And then on the third page in the middle, there's a paragraph beginning: The rest of the panel experts and lecturers was made up by Professor Glenn Stanton; Dr. Paul Hruz; the sociologist, Gabriella Kuby; and the former transsexual, Walt Heyer.

Did I read that correctly?

A. I see the paragraph that starts Stanton assured that and, in quotes, the gender theory is unscientific, is that what you're --

Q. Just above.

A. Oh.

Q. I skipped the links in reading those.

A. Ah, okay. I see that, yes.

Q. Okay. So it is your recollection then that you presented at this conference; is that right?

A. Oh, yes. I do recall the conference. I just didn't until you reminded me. I didn't know who organized it.

Q. You used the term "gender ideology" in your report; is that right?

A. I have used that term in the course of my investigation of this condition, yes.

Q. What is gender ideology?

A. I would define ideology is including statements that are made on a non -- a non-scientific basis with premises and goals that are outside of science.

Q. Do you consider any healthcare professional that subscribes to the gender-affirming treatment model to be a gender ideolog?

A. I think you're conflating different terms. You mentioned gender-affirming medical care and ideology; those are two separate --

Q. Well, that's my question. My question is, does somebody that provides or advocates for gender-affirming treatment, is that person a person who subscribes to the gender ideology?

turn to, to be able to define, you know, the condition and the treatment approach. And I --

Q. Isn't that true for many psychiatric conditions?

A. Absolutely. I would -- absolutely. It is not unique to the area of gender dysphoria. In fact, in talking, you know, to those that are engaged more in the field of psychiatry, they will acknowledge that the rudimentary nature of the discipline in comparison to the rest of the medical -- medical enterprise, it is a very known and serious shortcoming. And there is a desire certainly to -- to fill in those gaps.

And there's actually hope that as time moves forward with the advance in tools that one has, to study neurobiology and address some of these questions. But there will be an opportunity to provide clearer answers that are more evidenced based.

Q. Sure. But, I mean, isn't that the nature of science and medicine; we don't know everything, period?

A. We know far less of the psychiatric conditions that are listed in -- or many of the psychiatric conditions -- I wouldn't say all -- that

Q. But your practice is in the field of endocrinology, not psychiatry; is that right?

A. I think we've touched upon this earlier, but I'm happy to expound upon that. Is --

Q. Well, it's a yes or no.

A. I'm a physician scientist. So I'm very qualified to talk about deficiencies in scientific evidence that are present in this particular area.

Q. So you're not a psychiatrist?

A. I covered that earlier. That I'm a pediatric endocrinologist. Yes, that's correct.

Q. Are you aware that the revision of the DSM involves the establishment of a scientific review committee that evaluated and provided guidance on the strength of evidence of any proposed changes?

A. You know, that is how they describe the process. I again have asked for the evidence, scientific evidence for the change between gender identity disorder and gender dysphoria and then even the move to shift toward the ICD code of gender incongruence, that is based upon a scientific evidence, rather than something other than that.

Q. You also make reference in your report with statements by Thomas Insel, the then director of the National Institute of Mental Health, that it

field forward. So I think that's entirely consistent with my interpretation of the whole question.

Q. Were you aware that two weeks after the statement that you reference from Dr. Insel, Dr. Insel issued a joint statement with the American Psychiatric Association stating that, quote: The American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders, along with the International Classification of Diseases represents the best information currently available for clinical diagnosis of mental disorders.

Were you aware of that statement?

A. Yes. And that is completely in agreement with my opinion that I put forward here as well.

(Whereupon Exhibit 7 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) Showing you what's been marked as Exhibit 7.

A. I have it.

Q. Okay. This is a statement issued by Thomas Insel, the then director of the National Institute of Mental Health, and Jeffrey Lieberman, the then president elect of the American Psychiatric Association; is that right?

A. Yes. I believe -- well, I don't know for sure, but I agree.

Q. Okay. Right below DSM-5 and RDoC, colon, shared interests, it states: The authors of this statement.

Do you see that?

A. I see the two authors, Thomas Insel and Jeffrey Lieberman, correct.

Q. All right. Going to the second paragraph, it reads: Today the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders, along with the International Classification of Diseases represents the best information currently available for clinical diagnosis of mental disorders. Patients, families and insurers can be confident that effective treatments are available, and that the DSM is the key resource for delivering the best available care. The National Institute of Mental Health has not changed its position on DSM-5. As the National Institute of Mental Health research domain criteria project website states, the diagnostic categories represent that in the DSM-IV and the International Classification of Diseases 10, the main contemporary consensus standard for how mental disorders are

diagnosed and treated.

Did I read that correctly?

A. You read it correctly. Yet what follows in the next paragraph is more pertinent to the statement that I made in the declaration acknowledging the fact that the DSM is not sufficient for researchers and the statement was related to the basis for research funding. So, you know, taken in context, this document is completely in line with the statement that I made about the limitations of the DSM.

Q. But the DS -- the DSM -- this is a case about the treatment of gender dysphoria; is that right?

MR. KNEPPER: Objection form.

A. So as we've been talking about all morning, okay, the ability to have effective treatments is based upon quality research. And if the DSM is not sufficient for researchers to be able to conduct their scientific study, because of how the DSM generates their diagnostic codes, I think that that understanding is completely relevant to why one needs to be aware of that.

Q. (By Mr. Gonzalez-Pagan) All right. Going to what is the fifth paragraph, the second to last

sentence. It states: As research findings begin to emerge from the RDoC effort, this finding may be incorporated into future DSM revisions and clinical practice guidelines. But this is a long-term undertaking. It will take years to fulfill the promise that this research effort represents for transforming the diagnosis and treatment of mental disorders.

Did I read that correctly?

A. You did read it correctly.

Q. Is there a reason why you did not include this follow-up statement from Dr. Insel regarding the DSM views and reliability in your report?

A. You know, I could have put the entire document that you have here into the report. The point being made, I think, is one that I fully agree with. I think that as we be able to -- are able to incorporate science into the DSM, it is going to increase in its validity and its usefulness. But in its current state there is acknowledged in this statement itself by the fact that this research is needed. It acknowledges the deficiencies that currently exist. So there's a whole host of other things that I could have included in my declaration. The point that was intended, I think, was

sufficiently made and supported even by this document that you put forward as a new exhibit.

Q. Sure. But in clinical qualification to your statement is that that doesn't exist yet, and that the DSM is the best current available tool that we have according to this statement?

MR. KNEPPER: Objection, form.

A. The point I made is that there are deficiencies in how it was -- or limitations how the DSM has been put together. And that is relevant to the understanding of how we put forward hypotheses for efficacious treatments. And so I would say that, you know, that's -- the state of knowledge in this area is -- is what is of concern and how we are using the DSM beyond its capabilities without knowledge of molecular or physiologic mechanisms for most of the psychiatric diseases is a major limitation which is acknowledged by the authors of this document. That is what I believe is important for the court to recognize and to understand as we move forward in this conversation.

Q. (By Mr. Gonzalez-Pagan) In your report you speak of three modalities of treatment for gender dysphoria; is that right?

A. I would say three different categories

based upon different underlying scientific premises. I think the reality of interventions are much broader than that and not as easily demarcated into three categories. But indeed, I do present those in my declaration.

Q. And these modalities, are they reparative therapy, watchful waiting and the affirming approach?

A. That is how I presented it, correct. And, again, if it would be helpful, if we're going to talk about it, if we can direct ourselves to that part of my declaration.

Q. We'll get there. Are you familiar with Ken Zucker's work?

A. Yes, I am.

Q. In fact, you repeatedly cite Dr. Zucker throughout your report; is that right?

A. Yes, I do, among other people, yes.

Q. What do you understand to be the model of care that Dr. Zucker employed?

A. Broadly speaking prior to his clinic being shut down was to approach care in a way to understand the underlying basis for the sex discordant gender identity in that era was referred to as gender identity disorder.

And to -- one of the approaches that he used was to help facilitate an individual to realign their gender identity with their sex. And if that was not possible, would then advocate for moving forward with affirmative approaches.

Q. So under Dr. Zucker's model, affirming care would be provided if there was persistence of cross-gender identification into adolescence and adulthood?

A. Based upon the information that Dr. Zucker had at the time that he was engaged in that care, that was how he proceeded, yes. He was not privy to the information that has come forward in the last several years about outcomes with that affirmative approach.

Q. What is the watchful waiting model?

A. Again, all of these approaches are based upon different scientific premises and it is based upon the experience that the majority of prepubertal children that experience sex discordant gender identity, if merely left alone, will have spontaneous realignment of their gender identity with their sex.

And it is again, whether it's intended or not, perceived as to be a desirable

outcome. And that those individuals that have that experience will not be exposed to gender-affirming medical interventions with all the associated risks and questionable benefits that we -- that I mentioned already. And I certainly can share more information if you would like.

Q. Let me introduce you to what's been marked as Exhibit 8.

(Whereupon Exhibit 8 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) Do you have access to the exhibit?

A. Yeah. I'm seeing it now, correct.

Q. This is a publication on -- it's an article on adolescent health medicine and therapeutics; is that right?

A. I'm seeing that here. Is this a peer-reviewed journal -- a peer-reviewed article, just so I know?

Q. I'll answer that question for you then. The answer is yes, but it's the next exhibit.

A. Okay. I'm sorry. Did you have a question for me?

Q. Not yet.

A. Okay.

Q. I will represent to you that this is a peer-reviewed journal, but -- and I'll come back to -- to another exhibit to discuss that with you. But turning --

A. The reason I ask that was because it's a review article. And even in peer-reviewed journals, not all reviewed articles are reviewed with the same rigor. So that's -- but thank you.

Q. Let's exit out of that exhibit. And if my computer will cooperate.

(Whereupon Exhibit 9 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) All right. I'm introducing what's been marked as Exhibit 9.

A. I have the document, just so you know.

Q. Great. Do you see where it describes the journal as an international peer-reviewed, open access journal focusing on health, pathology and treatment issues specific to the adolescent age group?

A. That's true. Just below the ISSN number.

Q. Correct.

A. Yes, I see that.

Q. Okay. So you would agree that it is a peer-reviewed journal?

A. Yes. They're claiming it is. I would have no reason to doubt that.

Q. Okay. So going back to Exhibit 8. If you can turn to Page 61 of the document.

A. Okay. Are you referring to the highlighted area?

Q. Well, we're going to go to the bottom of the right-hand -- right-hand column.

A. Okay.

Q. Under the watchful waiting model.

MR. KNEPPER: And, Omar, let's identify on the record the highlighting is not in the underlying document, but it's been added.

MR. GONZALEZ-PAGAN: For the record, the highlighting in the exhibit has been added by me. Otherwise the document is unaltered.

Q. (By Mr. Gonzalez-Pagan) The highlighted portion states -- reads: In contrast to live in your own skin approach, a young child's demonstration of gender nonconformity, be it gender identity, expressions or both, is not to be manipulated in any way, but observed over time. If a child's cross-gender identification and affirmations are persistent over time, interventions are made available for a child to consolidate a

transgender identity, once it is assessed, through therapeutic intervention and psychometric assessment as in the best interest of the child. These interventions include social transition (the shift from one gender to another, including possible name change, gender marker change and gender pronoun changes), puberty blockers and, later, hormone and possible gender-affirming surgeries.

Did I read that correctly?

A. Yes.

Q. So under the watchful waiting model, gender-affirming care is provided for adolescents and adults if they persist in the cross-gender identification; is that right?

MR. KNEPPER: Objection to form.

A. That's correct according to this use of the model, yes.

Q. (By Mr. Gonzalez-Pagan) Well, the watchful waiting model was developed by -- it's the Dutch model. It was developed in the Amsterdam Center of Expertise on Gender Dysphoria; is that right?

A. That's my understanding.

Q. Under the gender-affirmative model, medical and -- no medical and surgical interventions are initiated until after the onset of puberty; is

that right?

A. If you're talking about there's no reason to block puberty that hasn't started yet or to intervene with cross-sex hormones until that age; that is correct.

Q. Did you disclose to the -- in your report that under Dr. Zucker's model, under the watchful waiting model, and under the gender-affirmative model, gender-affirming medical treatment is indicated if cross-gender identification persists into adolescence and adulthood?

A. I would challenge you on the assertion that it's indicated. I would say that the model itself bases itself on the next step of intervention. Whether there's a prudent approach is really what is of concern with the literature that we have available. So the models itself indeed -- and they actually differ in not only in the timing of when one engages.

The affirmative model actually begins earlier with social affirmation, not just medical intervention. And there's different scientific premises that are underlying -- underlie these two different approaches.

Q. But under each of the models of the three

models that we've discussed, medical and surgical care is provided as a mode of treatment?

MR. KNEPPER: Objection, form.

A. Under the model. So let me be clear. Okay. So the reason for the watch and wait approach is to know that in prepubertal children that present with gender dysphoria, that the vast majority of them will have that spontaneous realignment, other gender identity with their sex, by varying estimates ranging from 50 to 98 percent. I think 88 -- 85 percent is a good average based upon the published literature.

That means that this would apply to 15 -- at most 15 percent, maybe even less, that would have persistence. It also makes the assumption -- and this is certainly one that one considers with the current social environment as to whether the influence of the social affirmation component, you know, is -- is provided.

So the underlying premises are different in the two models. One has a premise that there are a number of factors that led to the gender dysphoria. And the vast majority of individuals, that they may differ from one patient to another. There is no biological test that one can do to

determine which of these individuals are going to have persistence or have that spontaneous realignment. And the safest course of action is to do nothing until things are sorted out.

The gender-affirmative model makes a scientific premise that when one experiences sex discordant gender identity, it reflects something that is innate and immutable. And, therefore, a prudent approach would be to immediately engage in social affirmation followed by these hormonal interventions. I hope that I've stated that clearly enough for you and for the court.

Q. (By Mr. Gonzalez-Pagan) Sure. But ultimately as to the question for transgender people who persist in their cross-gender identification by definition into adolescence and adulthood, medical care and surgical care if indicated under any of the three models, that being Zucker's model, the watchful waiting model or the gender-affirming model?

A. I don't know that I would distinguish what we were talking about earlier with the Zucker model being -- I think you're doing that more as the reparative therapy.

And this is based upon again the

issue at hand of the emerging scientific evidence that leads one to question whether this provides a long-term solution to the problem of dysphoria. And, again, I will state again that there are many concerns about the presumption in proceeding with affirmative care that can be challenged by the outcomes that one is observing about how well these individuals are doing after receiving the gender-affirmative care.

So this is -- these are statements in this particular paper by Dr. Ehrensaft that is based upon the presumption that those are -- who receive the affirmative approach are going to be completely cured of their difficulties that they experience. And my point is that when you say indicated, it fails to recognize the -- the challenges that are emerging for that outcome.

Q. Sure. But my last question wasn't whether it was indicated. My last question is whether under each of the three models -- and let me clarify something. You discuss a reparative therapy model in your report; is that right?

A. Yes. Can we again go to that part just so you can direct me just so we can be looking exactly at what I wrote.

Q. Sure. It's Page 49 going into Page 50.
A. Thank you very much. Okay. Very good.
Q. My point is --
A. I do remember what I wrote. I just want to make sure we're talking about the same thing.
Q. My point is that -- that I'm trying to distinguish actually there are four models, if you will. The Ken Zucker model is distinguished from reparative therapy in that -- in a significant way.

And let's go to Page 61 of Exhibit 8, the highlighted portion above the watchful waiting model. It states: If by the arrival of puberty a child is still exhibiting cross-gender identification and expressing a cross-gender identity, that child should be supported in transitioning to the affirmed gender including receiving puberty blockers and hormones once it is assessed from clinical interviews and psychometric testing that the affirmed gender identity is authentic.

Did I read that correctly?

A. Yes.
Q. Okay. So my question was whether you disclose in your report that under the watchful waiting model and/or Ken Zucker's approach,

gender-affirming medical care is provided after the onset of puberty?

A. I'm trying to -- let's go back again to my report and the context of the discussion that I'm putting forward. You said that was -- we were on page -- page or bullet point No. 59, I think you said.

Q. Page 49, going into 50.

A. 49. Okay. That's where I -- that's where I lost you. I was on 59. Sorry. So I would also add that the presentation of three broad categories -- and you've mentioned a variation of one of those categories saying there are four approaches. I would -- I would posit it that there's a number of other hypotheses that have been put forward about treatment approaches that --

Q. Did you disclose any of those other approaches in your report beyond the three that you listed in this paragraph?

A. Let me explain what I mean by that. Okay? As I repeatedly said in my declaration that there are multiple hypoth -- alternative hypotheses that can be put forward about the most prudent approach to care. These broad categories provide the foundation for understanding the design and

implementation of these various applications of these broad categories.

The point of dividing it up into three categories is to really -- and I think that that is still valid -- that the starting underlying scientific hypotheses or the scientific premise, I should say, varies in these three different approaches. How that scientific premise is translated into hypotheses that lead to care approaches is -- is at issue here. And that I think is the important point that I wanted to illustrate for the court. And make it very clear that what is put forward by the plaintiff experts, and they said this repeatedly, is that the affirmation-only approach is the only accepted intervention in the care of gender dysphoria youth. And in this paper here and in my declaration, you know, challenge that as far as the most prudent approach. And that's the point of why it was included in a benefit for the court.

The affirmation approach is not the sole approach. And there are alternative approaches that haven't been adequately investigated and that need to be investigated. And this is an area of unsettled controversial treatment that is going on

currently.

Q. Sure. But ultimately there's a distinction that they are different, right? Under all three of these models, gender medical care and surgical care is provided after the onset of puberty?

MR. KNEPPER: Objection, form.

A. I would say that is an important distinction because if the underlying --

Q. (By Mr. Gonzalez-Pagan) The modalities of treatment, are they different?

A. If the outcome of the affirmation approach is proven to be not effective it would change the way that one applies that model to the effected patients.

Q. But on the altering model, you're providing medical care after the onset of puberty. So the real difference has to do with prepubertal children and how they're treated; is that right?

A. Well, let's talk a little bit about the emerging demographic of what we are experiencing right now. Many of the people --

Q. But that's not my question, though. Like --

A. Okay. I don't think it applies

exclusively to the prepub -- medical care -- I would say the hormonal interventions apply only to people that have progressed at least to stage two puberty. Social affirmation applies across the board and would be relevant whether one presented during adolescence or in childhood.

Q. But social affirmation is not a medical or surgical treatment.

A. Many would argue that. And I would say in a technical sense, that is true. However, there are many concerns that are evidenced in the literature, that that influences the trajectory of the children as to whether they go on to medical care. So many can and have argued that it is the first step that is leading them on to the subsequent hormonal interventions. So I think it is relevant.

Q. In Paragraph 50 in discussing -- in describing the watchful waiting approach, you note that this approach may include the use of scientifically validated treatment, e.g., CBT, for the patient's anxiety, depression, social skill deficits or other issues.

But you do not note that gender-affirming medical care and surgical care are provided under this approach. I'm just wondering

why you did not provide that context in your report?

A. Because that's under the premise that the affirmative approach actually provides benefit, and throughout my declaration I have raised multiple concerns with existing published data that lead to a presumptive or tentative conclusion that at best we should have more caution to that approach.

Q. So at best your description of the watchful waiting approach in this paragraph is incomplete?

MR. KNEPPER: Objection.

A. Let's read through and we can even read it into the record if you'd like, the way that I present that. Because that's where I think it's important to look at this in context.

Q. (By Mr. Gonzalez-Pagan) Actually let's just -- let's just go to Paragraph 53 of your declaration. It states: Another controversy --

A. Hold on. I'm not there yet.

Q. Okay. I'll wait for you.

A. It's a long paragraph.

Q. Well, I'm right at the beginning of Paragraph 53.

A. It starts with "assistance"?

Q. Paragraph 53.

A. Paragraph 53 talking about another controversy, the watchful waiting treatment; is that what you're talking about?

Q. Sure.

A. Okay.

Q. I'll just read the heading: Another Controversy, the watchful waiting treatment modality involves no medical treatment and is currently the best specifically -- sorry -- is currently the best scientifically supported intervention for young children reporting gender dysphoria.

But the watchful waiting model does involve medical treatment; isn't that right?

A. Perhaps to clarify that statement when I say young children when we're referring to prepubertal children, that is true, and it is actually included in the Endocrine Society guidelines. As far as the concerns about intervening and the caution that should be expressed precisely because of the high rates of desistence.

So that statement, again, when we're talking about social affirmation and your contention as I'm hearing it as you're stating it is social affirmation is not technically a medical intervention. And I think we've already discussed

that. That it is relevant as far as the first step in influencing the trajectory of these individuals.

Q. This case --

A. And there's also --

Q. So this case involves gender-affirming care, right?

MR. KNEPPER: Object to form.

MR. GONZALEZ-PAGAN: I apologize, Sheryl.

A. So -- so -- okay. Let's -- let's also move on. So if -- if you then look at the first stage of medical intervention which involves the administration of an GnRH agonist or also known as a puberty blocker, significant concerns that that normal trajectory where you see the majority 50 to 98, I would say 85 percent have the desistence. That demographic or that statistic changes drastically in those individuals that have received that first step of pubertal blockade and that actually most of the studies that have been published thus far says the vast majority of -- it's not 100 percent. It's very close to that -- will go on cross-sex hormones. So again that is not -- that is more the affirmative model.

The watch and wait model would posit that as a child begins into their puberty, that

acknowledging that the bodily changes that occur may heighten the level of dysphoria that they experience. But as they go through that developmental process, that experience of puberty is actually critically important in the overall integration of one's identity with their sex. And that would be consistent with the watch and wait model. So that again, as being presented in this one review article by Dr. Ehrensaft -- much more I could say about that -- I think there's much more to be said about the way that these models are being presented.

Q. The study that you -- the study to which you refer regarding persistent cross-gender identification following the provision of GnRH analogue, is that the de Vries study?

A. That's the one that shows a hundred percent persistence or a hundred percent moving that across sex hormones. There's been subsequent ones where it's not been a hundred percent, but it's been the 90 percent range.

Q. You say that those studies pertain to the application of the gender-affirmation model, but the de Vries study is actually speaking to the watchful waiting model. It is the Dutch model.

A. We need to say a lot more about that if we want to flesh that out for you. I don't know that you've adequately characterized the Dutch model. And I will add that the Dutch model was presented a decade ago with a different patient population that is currently presenting at the gender clinics across the world. And even --

Q. But that's a different point than -- than the one that we're talking about, right? You indicated that the affirmation model -- studies show that the affirmation model leads into persistence, but you're relying on a study based on the Dutch model.

A. Well, I would qualify that statement. I didn't say that it leads to that model, because the way the study was conducted, you know, causal effect cannot be inferred. Okay? So I would moderate that. But I would say it's certainly of concern that that number is drastically different than the prior studies that have shown that rate of spontaneously -- spontaneous realignment with gender identity with sex.

Q. But those are different populations, right? I mean, we're talking about prepubertal and pubertal youth versus prepubertal youth?

A. Not necessary -- so, again, you know, it would be much more helpful to talk about specific studies. In the de Vries study, the whole basis of giving pubertal blockers applied only to pubertal patients.

Q. That's by definition any person who's receiving puberty blockers.

A. No necessarily.

Q. It has to happen at the onset of puberty.

A. Well, yes, onset of puberty, that would be the only indication for giving it in the area of pediatrics.

MR. GONZALEZ-PAGAN: All right. How about we break now for lunch?

MR. KNEPPER: Dr. Hruz?

MR. GONZALEZ-PAGAN: Well, I'm -- I'm hungry, so.

MR. KNEPPER: I know. This works with your diet?

THE WITNESS: Yeah. I think as we go through this, I'm going to be happy just plowing through. So it's going to have to come from your end if you want to take a break.

MR. GONZALEZ-PAGAN: Well, it's coming from my end. Because I -- I'm running on a

have to demonstrate a concept of what we call non-inferiority. So if that's the natural outcome, so if there's a realignment with gender identity with sex and that obviates the need for them to go on to receive hormonal treatment of any sort at all, that would be a desired outcome.

The challenge is that in those individuals, there is no reliable diagnostic test to predict which of those children are in the category of 85 percent, like we go to this realignment versus the subset that's going to persist in that sex discordant gender identity.

So that's the challenge. So I would say I wouldn't be so firm to make an absolute determination of the best course of action, but I wouldn't say that any alternate approach would have to prove that non-inferiority outcome.

Q. (By Mr. Gonzalez-Pagan) Okay. And the desistence study speaks to prepubertal youth who were diagnosed with gender identity disorder under the DSM-III or the DSM-IV; is that right?

A. So this is -- I'm very much aware of that critique, and the way that people have attempted to dismiss that desistence literature based upon that difference of gender identity disorder versus gender

dysphoria. It's very interesting that if you look in detail for example at that same paper the number of people based upon the criteria --

Q. I'm sorry, Doctor. I apologize for interrupting. But I guess -- I'm happy to go into a conversation about this. But I guess I have a predicate question, which is I want to establish whether it's true or not that the desistence studies are based on prepubertal children diagnosed with gender identity disorder as opposed to gender dysphoria under the DSM-5?

A. Well, older studies would certainly necessitate that they use the diagnostic criteria that was available at the time the study was conducted. And some of them -- and most of those studies were the era prior to the revision of the DSM-5 giving the gender dysphoria diagnosis.

Q. Are you aware of any studies looking into the desistence in prepubertal youth using the DSM-5 criteria?

A. You know, that is an outstanding question and I'm very happy to share with you the problems with that question. In the fact that because of what has happened in the approach to the care of these individuals, the opportunity because of the

widespread adoption of the affirmation only approach and the early adoption of social affirmation makes it very challenging to be able to even put forward as a hypothesis a study that would be able to operate under the current diagnosis of gender dysphoria.

And I think that's very problematic as we seek to understand the natural history of this disease, and we seek to find ways to alleviate the suffering that will be sustained long-term in these individuals. I think it's the fact that the discussion is not allowed to occur and the studies have not been proposed and conducted. And even if they were, there would be challenges in the current environment of really encouraging that social affirmation approach.

So the answer to the question is that there are many problems that currently exist as to why those studies have not been reported and would be very difficult to perform at this point in time, yet would be essential to providing the best care for these individuals.

Q. Okay. But you do not know of any studies documenting an 85 percent desistance rate for kids diagnosed -- prepubertal kids diagnosed with gender

dysphoria mode in the DSM-5?

A. I'm not aware the question has actually been investigated by a scientific trial. Not that there's data that says it doesn't exist, but that it has not been investigated. The only data that's available right now are people that have received that social affirmation which clearly shows that that demographic has changed. And, you know, if you ask this as a hypothesis --

Q. I appreciate that, Dr. Hruz. We'll get to the demographic changes later on. But I want to stay focused. So going back, the studies have to do -- the studies in desistance that you reference have to do with prepubertal children; is that right?

A. The ones that were done previously that I'm referring to dealt with prepubertal children. Now, there's another component of this, that of -- you divided this between prepubertal and adults. And it's very necessary if we're going to adequately address this question to consider what happens during the period of puberty.

Q. Okay. Are there studies that document desistence during the period of puberty?

A. There are case reports. There are not -- and there's a growing -- this gets at the --

Q. In your report you state that case reports are not valid scientific evidence.

A. They are useful for hypothesis generation. They're not useful for making definitive causal conclusions. That is correct.

Q. So are there any studies showing high desistence among adolescence diagnoses with gender identity disorder?

A. There are not. And the reason for that, again, is because in many of the studies where one looks at this, there's a very, very high dropout rate in many of the subjects where one can't conclude at all what the outcomes were. Based upon the available evidence, more by case reports of growing number of people experiencing this desistence, that did occur when it's experienced post pubertally would lead one to raise hypotheses to be investigated in a rigorous scientific manner to address that question.

Q. You believe that all medical treatment needs to be subjected to randomized clinical trial?

A. It depends on -- so every medical decision that is made is based upon consideration of the overall risk and the overall benefit. And I think that the greater the risk, the greater the scrutiny

are certainly --

Q. But that's just a hypothesis; is that right?

A. You know, all along here, I've been tell -- I've been stating, and I hope very clearly, that much of my opinion is based upon hypotheses and alternative hypotheses, because there is no definitive answer to this question. But the prevailing current hypothesis that's not presented as a hypothesis, it's presented as an established fact, is that gender-affirming interventions are the solution to gender dysphoria. And that is what I challenge. And that is what, I think, is very important for this court to understand, is that the scientific evidence does not support that as being a cure for all of the difficulties that these individuals are experiencing.

Q. Going back to the desistence studies. What is the error rate for the desistence studies that you rely on?

A. So the error rate is -- there's a number of factors. I'm glad that you brought this up as far as, you know, how we think about the reliability of studies. So this is a problem throughout the literature. And I've addressed this in my

Q. (By Mr. Gonzalez-Pagan) Are you aware that the American Psychiatric Association opposes reparative therapy efforts regarding gender identity?

A. Now we're into a new line of questioning about medical societies. But I'm aware of -- of the general recommendations for affirmation only. That is entirely consistent with what has been put forward by WPATH, American Psychological Association. There's a little bit more caveat in the Endocrine Society guidelines. I think they're a little bit more cautious in the prepubertal children, at least in the 2009 document cautioned against social affirmation in recognition of the same desistence literature that I'm referring to. Again, not just my opinion. This is the professional societies in the 2009 guidelines acknowledged those studies of being relevant to that consideration of treatment.

Q. Sorry. I just don't want us to go down a different path. I'm not talking about the general position statement about gender-affirming care. I am talking about the physician statements regarding conversion therapy. Are you aware that the American Psychiatric Association opposes conversion therapy

eff -- conversion therapy efforts?

A. The reason I answered in the way I did to your previous question was not to evade the question. It was merely to -- you began with a professional association. And so it's necessary to acknowledge what the basis of those statements are. The APA recommends the affirmative approach to care.

Q. Okay. But that's not my question. That is a different position statement. And I'm glad -- yeah, the APA does do that. But does the American Psychiatric Association also have a position statement regarding conversion therapy?

A. Okay. Thank you. Because you used the word "conversion therapy" for the first time. I think it's very important for us to acknowledge when we're talking about reparative therapy and what people talk about as far as conversion therapy. That's actually a pejorative term that actually is trying to equate these efforts to realign gender identify with sex to a completely different condition related to same sex attraction with methods that virtually everyone would recognize as being unethical.

And so I think it's an injustice to -- and the statements are often made in the

literature published talking about conversion therapy.

Q. All right. One second. Let's just go -- let's just go to Page 49 of your report, Paragraph 52.

A. Sorry. Paragraph 52?

Q. Yeah. So very last sentence going into the next page of your report states: The first approach often referred to as conversion or reparative -- reparative therapy --

A. Correct.

Q. -- is directed to or actively supporting and encouraging children to identify with their biological sex.

Did I read that correctly?

A. I could add often incorrectly referred to as conversion therapy. I think that's probably something I could have added to my declaration to indicate that. I think it's incorrect and an injustice to use that term to describe the approach to -- to addressing gender dysphoria.

Q. Are you aware that the American -- you know what, let's -- I apologize. I forgot the stamp again. It is marked Exhibit 10. Do you see that?

(Whereupon Exhibit 10 was

introduced for identification.)

A. Correct. I see this.

Q. (By Mr. Gonzalez-Pagan) Okay. Under the position heading at the bottom of the page, in Paragraph 2, it states: APA recommends that ethical practitioners respect the identity for those with gender diverse expression.

Did I read that correctly?

A. I'm in the wrong paragraph. You said the second paragraph?

Q. Under -- under the heading position at the bottom of the page?

MR. KNEPPER: Omar, I think you made -- I think you swapped gender and diverse. But it's just -- in other words, I think you read gender diverse expression and it's diverse gender expression.

Q. (By Mr. Gonzalez-Pagan) Sure. Let me just read that again. Are you there?

A. I'm here. Okay. I'm sorry. I was reading the introductory paragraph. Sorry.

Q. Okay. It states, Paragraph 2, quote: APA recommends that ethical practitioners respect the identity for those with diverse gender expressions.

Did I read that correctly?

A. Yes.

Q. Then just below that on Paragraph 3 on the next page, it states, quote: APA encourages psycho -- psychotherapies which affirm individual's sexual orientations and gender identities.

Did I read that correctly?

A. Yes.

(Whereupon Exhibit 11 was introduced for identification.)

Q. (By Mr. Knepper) Showing you what's been marked as Exhibit 11.

A. I see it.

Q. Okay. This is a resolution by the American Psychological Association on gender identity change efforts. Is that right?

A. That's the title of this document, correct.

Q. It's dated February 2021; is that correct?

A. That's correct.

Q. Go to the second page, third to last paragraph on the right-hand side column. And it's use of GICE as an acronym for gender identity change effort; is that right?

A. I see that, yes.

Q. It reads: Whereas, GICE has not been

shown to alleviate or resolve gender dysphoria (Bradley and Zucker, 1997; Cohen-Kettenis & Kuiper, 1984; Gelder and Marks, 1969; Greenson, 1964; Pauly, 1965; and SAMHSA, 2015).

Did I read that right?

A. You did.

Q. If you go to Page 3, the last two paragraphs, on the right-hand side column, it states: Be it therefore resolved, that consistent with the APA definition of evidenced-based practice (APA 2005), the APA affirms that scientific evidence and clinical experience indicates that GICE put individuals at significant risk of harm.

Be it further resolved that the APA opposes GICE because such efforts put individuals at significant risk of harm and encourages individuals, families, health professionals, organizations to avoid GICE.

Did I read that correctly?

A. You did.

Q. Okay. So the American Psychiatric Association and the American Psychological Association both oppose reparative therapy as a form of treatment; is that right?

A. Gender identity change efforts as stated

in the document, which again is different than what people generally equate with conversion therapy, in quotes.

Q. And the American Psychiatric Association and the American Psychological Association consider gender identity change efforts to be unethical and harmful; is that right?

A. That's what's stated in these documents.

Q. All right. I will apologize in advance, that exhibit is large and will make navigating it a little difficult. Hopefully it will take a little bit longer to upload.

(Whereupon Exhibit 12 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) Showing you what's been marked as Exhibit 12. It's a document entitled Understanding the Well Being of LGBTQI Plus Population. Is that right?

A. That's the title in the document that I'm looking at, yes.

Q. It appears to have been published in 2010; is that right?

A. It says 2020.

Q. Sorry. 2020.

A. Okay.

correctly. And that many of the studies that are referenced here have major methodologic weaknesses and the strength of the statement based upon that evidence in light of the emerging evidence that is coming forward, for example, in the other studies that we've discussed already today --

Q. Well, let's --

A. -- this conclusion can be scrutinized.

Q. Let's move to the next page. The highlighted statement reads: The available evidence suggests that sexual orientation and gender identity conversion efforts were ineffective and dangerously detrimental to the health of SGD population, especially for minors who are unable to give informed consent.

Did I read that correctly?

A. I'll say again, you read it correctly. And the meaning of that statement and context of the whole paper is something that we can discuss later.

Q. Would you agree that it is the position of the National Academies of Sciences, Engineering and Medicine that conversion therapy is harmful?

MR. KNEPPER: Objection, form.

A. I don't know whether the small panel of people that were included in generating this

consensus statement represents the entire views of the entire membership of that society. I know from my own experience that for the other societies that I'm involved with these types of consensus statements are not brought to the entire membership of the organization. I can only conclude that the members that were present on this panel made those conclusions. I would not go as far as to say that it was supported by every member or even majority or even substantial number of the rest of that group.

Q. (By Mr. Gonzalez-Pagan) If you go to the fourth page of the PDF.

A. Back up to the top now? Okay.

Q. On the last sentence, the second clause, it states: It represents the position of the National Academies on the statement of facts; is that right?

A. That is what is stated here, and that is also stated by other organizations that have put forward similar statements. The same concern applies, that just because they put it forward, it does not mean that -- that the entire membership has been able to weigh into this question or those that wish to do so.

Q. Was the review that you referenced in

A. You know, again I don't have the answer. I don't know.

Q. Okay. Are you aware that in the United Kingdom, medical and surgical care is provided for transgender adolescents post puberty and for transgender adults?

MR. KNEPPER: Objection to form.

A. I guess I didn't understand the question there.

Q. (By Mr. Gonzalez-Pagan) Sure.

(Simultaneous speakers.)

Q. (By Mr. Gonzalez-Pagan) You talk about -- you talk about the reviews in the United Kingdom, in Finland and in Sweden. So I'm curious, are you aware -- are you aware whether in the national health system in the United Kingdom, they provide coverage and treatment for gender dysphoria in post prepubertal adolescents and adults?

A. So I think it's reflected in the recent Tavistock versus Bell decision. It is recognized that this is an area of controversy and that is an unsettled question about --

Q. Well, the Tavistock decision has to do with minors. I'm talking about adults and cross-sex hormones and surgery. Are you aware whether in the

United Kingdom they provide coverage and treatment of cross-sex hormones and surgery as a modality of treatment for gender dysphoria?

A. Yes, I do.

Q. Okay. Same question with regards to Sweden?

A. Sweden -- again, I'm a pediatric endocrinologist. And I think that the caution that is put forward in relegating this care to the setting of -- of an experimental setting is where it's been pulled back with concerns based upon the --

Q. The restrictions to which you speak all relate to the provision of puberty blockers; is that right?

A. No. I think it's more extensive than that. But it -- it acknowledges that based upon the literature that there's not very stong evidence and then instructs that this care be delivered with the safeguards exactly as I'm saying, you know, it should be done here in the United States. Recognizing that this is --

Q. That's in the context of minors, though; is that right?

MR. KNEPPER: Objection, form.

A. Again, that's what I've addressed in my declaration. And that is my --

Q. (By Mr. Gonzalez-Pagan) But with regards to transgender adults in Sweden, does the nationalized healthcare system in Sweden provide coverage and treatment for gender dysphoria in the form of hormones and surgical care?

A. You know, I would say this is outside the scope if we're getting into a discussion about insurance coverage. My expertise is in looking at the scientific data about the affirmation and other --

Q. Well, you rely on the national reviews of Sweden, Finland, and the United Kingdom. So --

A. Correct.

Q. -- I'm wondering if you rely on the national reviews, I think it's pertinent and relevant whether you disclose in your report that these countries provide for the treatment and coverage of this care?

MR. KNEPPER: Objection, form, scope.

A. As a pediatric endocrinologist and physician scientist, my service to this court is not to opine upon -- I know it's a big part about this case about insurance coverage. My role in this

gender-affirming treatment for adults?

A. Again, I would have to say for me to comment specifically about that, we would need to have the document in front of me to be able to look through all of the papers. It was a very extensive study. And there are a number of papers there.

And so I would have to look through the papers to specifically look at the inclusion criteria, whether it was exclusively in kids or included adults and, again, how he defined, you know, adulthood, whether it's post prepubertal, post 18, early 20s. You know, many people have different definitions of that. And so --

Q. All right. Same line of questioning with regards to Finland. Did you disclose that Finland provides through its national -- nationalized health care system gender-affirming treatment for gender dysphoria for adults?

MR. KNEPPER: Objection, form, scope.

A. I'm going to state again that for me to opine on that, I would need to look at, in those studies, what the inclusion -- inclusion criteria and whether it extended into adulthood.

Q. (By Mr. Gonzalez-Pagan) My -- my -- my question is not pertinent to the report. It's not a

question of whether they reviewed it. It's a question whether that care is provided in Finland.

MR. KNEPPER: Objection, form.

A. I will say again that this is a question related to insurance coverage. And I'm a pediatric endocrinologist, physician scientist opining on issues of science, not on medical coverage.

Q. (By Mr. Gonzalez-Pagan) One moment, please. Let's take a -- well, actually no. We'll come back. In your report you disclose the Bell v. Tavistock position; is that right?

A. That's correct.

Q. That was a decision from December 2020 in the United Kingdom?

A. Correct. And it was before the appeals court decision came out recently.

Q. And you submitted an expert report in Tavistock; is that right?

A. In that Bell versus Tavistock case, I did.

Q. Are you aware that the Bell v. Tavistock case dealt solely with the ability of a minor to provide informed consent on their own?

MR. KNEPPER: Objection to form.

A. So the decision was based on that. But that was not what I was opined [sic] to comment on.

there's no indication here that this was a peer-reviewed document. It wasn't published in a journal in the typical way that we do it. So it's a Council for Choices -- recommendations of the Council for Choices in Healthcare in Finland. So this is -- the council itself came to this conclusion to answer your question.

Q. Let's go back to Exhibit 12.

A. I'm there.

Q. All right. We're going to go to Page 12-10. It is Page 311 of the PDF.

A. I wish there was a way you could just type in the number and get to it.

Q. Don't we all.

A. Okay. This is with the section that's titled Guidelines and Policies Related to Gender-Affirmation?

Q. That's right.

A. Very good.

Q. The highlighted statement states: Clinicians who provide gender-affirming psychosocial and medical services in the United States are informed by expert evidence-based guidelines. In 2012, the World Professional Association for Transgender Health, WPATH, published Version 7 of

the Standards of Care for the Health of Transgender, Transsexual, and Gender-Nonconforming People, which have been continuously maintained since 1979, and revisions for Version 8 are currently underway (Coleman, et al., 2012). Two newer guidelines have also published -- have also been published by the Endocrine Society (Hembree, et al., 2017), and the Center of Excellence for Transgender Health (UCSF Transgender Care, 2016). Each set of guidelines is informed by the best available data and is intended to be flexible and holistic in application to individual people. All of the guidelines recommend psychosocial support in tandem with physical interventions and suggest timing interventions to optimize an individual's ability to give informed consent. Mental and physical health problems need not be resolved before a person can begin a process of medical gender-affirmation, but they should be managed sufficiently such that they do not interfere with treatment.

Did I read that correctly?

A. You indeed read that correctly.

Q. Okay. This is a consensus study report by the National Academies of Sciences, Engineering and Medicine of the United States; is that right?

record. This is Media Unit No. 5. The time is 4:05 Eastern time.

Q. (By Mr. Gonzalez-Pagan) Dr. Hruz, one of the critiques in your report is that puberty blockers have not been approved by the FDA as a treatment for gender dysphoria; is that right?

A. That is correct. Although it's important to understand why that is a relevant piece of information.

Q. Well, let's go to page 50 of your report.

A. I'm there.

Q. Okay. On the -- there's a number of statements that you bold and italicize, but on the third -- the sentence involving the third bold and italics.

A. Okay.

Q. It's like in the middle of the page. It states: The off-label prescription of this drug is legal but unethical outside the setting of a carefully controlled and supervised clinical trial.

Did I read that correctly?

A. You did.

Q. And why is that?

A. So, again, this relates to the statements that are made that these drugs are known to be safe

in this patient population. And we really don't have the scientific evidence to make that statement. Because it's unknown what the -- some of the effects are known, but many of the effects are unknown, to be able to expose people to this intervention, not only to expose them to that, but to make the statement that it is known to be safe with that absence of evidence, it really finds itself outside of what I'd consider ethical.

Q. Just for clarify, what do you understand "off-label" use to mean?

A. Oh, it's actually very common in the area of pediatrics. It's to prescribe a medication for something that it has not been FDA approved. So it could be for another -- a drug that's approved for one purpose and using it for another purpose. Most often that's how it's used.

Q. Have you personally ever prescribed any drugs on an off-label basis?

A. Very frequently do.

Q. Do you do so even in the absence of randomized clinical control trials?

A. Usually when I prescribe them off-label, there are randomized controlled trials in different populations that I turn to. I look at the relative

risk and -- but I don't make the statement that we know with definity [sic] about the safety of a medication in a way that we don't have that information.

Q. And you said usually. So there are times when you prescribe off-label drugs even in the absence of clinical controlled randomized trials?

MR. KNEPPER: Objection, form.

A. Usually when I'm prescribing it, what we would consider off-label most often, it is for a condition that is not markedly different for the use that it is being given only that it had been approved most often for adults rather than children.

Q. (By Mr. Gonzalez-Pagan) And clinical control trials are actually relatively rare in the pediatric population?

A. No. I would say that -- I mean, that's the standard that's accepted especially for medication use. The reason why they're not done in pediatrics is that usually there's a substantial cost associated with that. People are looking at market share and, you know, how much it's going to cost to be able to study that drug in that patient population. Yet it's already been studied in a randomized control trial in a similar population

without the same caveats that we consider when we look at this question of pubertal blockade.

Q. What is the FDA?

A. The Food and Drug Administration.

Q. Does the FDA regulate prescription drugs?

A. Yes.

Q. What is the FDA's decision with regards to a prescription of off-label use of drugs?

MR. KNEPPER: Objection, form, scope.

A. You know, I don't know that they have a statement that there is an ethical responsibility that all physicians who are prescribing off-label. It also applies both to the prescribing physician and it also applies to the pharmaceutical company that's making the medication.

If it's off-label, they cannot market it to a group of people that it wasn't approved for. Physicians that prescribe off-label medications accept the responsibility, you know, for the risks and benefits. And they're obligated to inform their patients of the evidence that they have, where it comes from, and the basis for recommending that medication.

That's true for all medications, but certainly when you're using it off-label, you know,

it involves consideration of the indication, how applicable the randomized control studies that have been done to approve the drug are applicable to the population that you're going to use it for.

(Whereupon Exhibit 14 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) Showing you what's been marked as Exhibit 14. Do you have that in front of you?

A. I do.

Q. This appears to be a notice by the Food and Drug Administration in the Federal Register dated November 18, 1994, pertaining to a citizen petition regarding the Food and Drug Administration's policy on promotion of unapproved uses of approved drugs and devices, request for comments.

A. I see that.

Q. Did I -- did I describe the document correctly?

A. I've not read the entire document. But that section that you read was read correctly.

Q. Okay. Going on to the second page. It's a highlighted portion. I will represent any highlights in the document were done by me. And

there are no other alterations to the document.

The highlighted portion reads: Over a decade ago, the FDA Drug Bulletin informed the medical community that once a drug product has been approved for marketing, a physician may prescribe it for uses or in treatment regimens of patient populations that are not included in approved labeling.

The publication further stated unapproved, or more precisely unlabeled uses may be appropriate and rational in certain circumstances and may, in fact, reflect approaches to the drug therapy that have been extensively reported in medical literature. Valid new uses of drugs already on the market are often first discovered through serendipitous observations and therapeutic innovations, subsequently confirmed by well-planned and executed clinical investigations.

Did I read that correctly?

A. You did, indeed.

Q. Your report doesn't acknowledge that the long-standing position of the FDA has -- with regards to off-label use of drugs?

MR. KNEPPER: Objection, form.

A. I would say that this paragraph that you

read does not directly apply for the reason for my consideration of this use of GnRH agonist in pubertal adolescence for gender dysphoria is the same. And it's important to note in this paragraph, it says the word "may." It doesn't guarantee that it is. And it reflects the nature of the application that one is providing.

(Whereupon Exhibit 15 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) Introducing what has been marked as Exhibit 15. Noted below, the creator of the document is a printout of a web page from the Food and Drug Administration's website. It is titled Understanding and Approved Use of Approved Drugs Off-Label.

Did I read the title of this web page correctly?

A. Yes, you did.

Q. Okay. Moving on to the second page, there's a highlighted portion. I will stipulate for the record that any highlights in this document were inserted by me and that there are no other alterations to the document.

The highlighted portion of the document states: From the FDA perspective, once the

FDA approves a drug, healthcare providers generally may prescribe the drug for an unapproved use when they judge that it is medically appropriate for their patient?

Did I read that correctly?

A. You indeed read it correctly.

Q. Before opining as to whether the use of off-label puberty blockers should be considered unethical, did you review the positions of the FDA with regards to off-label use?

A. Again, I'm very, very familiar with that. Maybe perhaps not these specific documents, but I -- this is entirely consistent with my understanding of the off-label use of drugs.

(Whereupon Exhibit 16 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) Showing you what's been marked as Exhibit 16. I'll represent this is a guidance for institutional review board for clinical investigators published by the Food and Drug Administration dated January 1998. It is titled Off-Label, an Investigational Use of Marketed Drugs, Biologics and Medical Devices.

Did I represent the document correctly?

A. You correctly read the title of this document.

Q. There is a highlighted portion in the first page of the exhibit. I'll represent that all the highlights were added by me to that exhibit. And there are no other alterations to the document.

The highlighted statement reads: If physicians use a product for an indication not in the approved labeling, they have the responsibility to be well-informed about the product, to base its use on firm scientific rationale and on sound medical evidence, and to maintain records of the product's use and effects. Use of the marketed product in this manner when the intent is the practice of medicine does not require the submission of an Investigational New Drug Application, Investigational Device Exception or review by an Institutional Review Board.

Did I read that correctly?

A. You read that section correctly.

Q. Do you acknowledge this guidance of the FDA in your report?

A. You mean the statement that I made about the ethics of prescribing the medication and the need does not require that, but it does not mean

that it's not the approach that should be done. So that one -- for example, it's not malpractice and one's not going to lose their license by prescribing a medication off-label in this manner.

However, when we look at the use of this -- the GnRH agonist with a reference that I made to the FDA off-label use involves product use that is not the same as what it is used in the treatment of prepubertal children and the risks require -- and because of the risks of the intervention and the lack of knowledge, it's very different than many of the other times that I myself have used off-labeled use of medications.

So the statement itself is accurate. It is consistent with my understanding of the FDA guidelines for that. And I think my statement in my declaration fully reflects the reason why it is of ethical concern in this case.

(Whereupon Exhibit 17 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) Showing you what's been marked as Exhibit 17. Are you familiar with the American Academy of Pediatrics?

A. I was a member of the American Academy of Pediatrics for over 20 years.

Q. This is a policy statement by that organization titled Off-Label Use of Drugs in Children; is that right?

A. That is the title of the statement, yes.

Q. I'll represent that there are highlights within this document. Those highlights have been added by me. And there are no other alterations in the document.

On the abstract in the highlighted portion, it states: However, off-label drug use remains an important public health issue for infants, children and adolescents, because an overwhelming number of drugs still have no information in the labeling for use in pediatrics. The purpose of off-label use is to benefit the individual patient. Practitioners use their professional judgment to determine these uses. As such, the term "off-label" does not imply an improper, illegal, contraindicated or investigational use. Therapeutic decision-making must always rely on best available evidence, the importance of the benefit for the individual patient.

Did I read that correctly?

A. You read it correctly. And I would

comment that the very last sentence is at the heart of my concern about how it's -- GnRH agonists are being used in the setting of gender dysphoria.

Q. So is your critique that the use of GnRH analogues [sic] for the treatment of gender dysphoria is unethical because it's not the best available evidence in your opinion?

A. There are many layers to the question. I would say that many of the people that are prescribing these drugs are not even aware of the emerging evidence that is coming forward about lack of efficacy and the risks of these medications. They're relying on their decision based upon statements made by many of the organizations that you mentioned earlier that -- that are not considering the relative risk-benefit analysis. And so a provider, unless they've had the opportunity like myself and others who have been familiar with the literature, are going to be misled with the assumption that this is the available evidence, supports its use.

Q. Well --

A. Many of the people that are prescribing these medications have not read those papers, not considered those papers, not considered the poor

Q. (By Mr. Gonzalez-Pagan) Dr. Hruz, how did you first come to be an expert in transgender litigation?

A. Well, I think it was a recognition of my knowledge of the -- of the subject area and -- that I had in a number of different settings including the grand rounds talks that I said previously and some of the things that I've been discussing for the last -- since almost ten years now.

Q. Do you know what the Alliance Defending Freedom is?

A. Yes.

Q. Have you met with staff from the Alliance Defending Freedom in order to discuss how to serve as an expert in cases involving transgender issues?

A. My involvement was mostly to tap into my knowledge and expertise in this area, to inform that organization of some of the relevant issues. I've never been coached on how to be an expert witness, nor have I necessarily been encouraged in any way. These requests have generally come from the litigating lawyers, how they received my name or to what extent and in what ways they became familiar with my knowledge and expertise in this area is not known to me.

Just like the other groups that I've spoken to, I've been more than willing to be -- to share the knowledge that I've accumulated over this last decade in this area.

Q. Did you attend a meeting at the Alliance Defending Freedom offices in Arizona in 2017?

A. I don't recall the exact date, but I did travel to Arizona to meet with other individuals that also had unique areas of expertise in the area, yes.

Q. Just to clarify, was that one or two meetings?

A. I think I've had two separate meetings. The first was much shorter. And the second one was much more of presentations with actual data.

Q. What was discussed in that first meeting?

A. Again, it was many years ago. But my recollection was just to understand what was going on. It was -- it was the same types of questions about the care that is being proposed and offered. But it was much less defined, I think, at that point in time. It was more of an informal type of meeting.

Q. Who was in attendance at that first meeting?

A. I suspected you were going to ask me. And, you know, honestly I don't remember the exact composition of the people that were there. If you happen to know, I can acknowledge or deny whether they were there or not. But I've met literally hundreds of people over the last ten years in various settings. I do know that at that first meeting, Allan Josephson was there. And I believe that Mark Ramirez was there as well.

Q. Was Jeff Shafer there?

A. Yes. He actually at that time was working for ADF.

Q. Was Gary McCaleb there?

A. Yes. And he was one of the first contacts I had from that group.

Q. When they invited you to this meeting, what was the invitation, what did they tell you it was going to be about?

A. They had desired to convene a group of people that had knowledge in this area and to be able to discuss that, is my recollection at that point in time.

Q. Was Ryan Anderson there?

A. He was at one of the meetings, the two meetings, I'm not sure which -- which one.

Q. About how many people were in that first meeting?

A. Probably about eight to ten if you include Jeff Shafer and Gary McCaleb. You know, no more than a dozen, probably less than that.

Q. And the second meeting, you indicated that it involved some presentations; is that right?

A. That's correct.

Q. Was it also in Arizona?

A. Yes.

Q. Who was present at the second meeting?

A. Similar to the first meeting. And, again, I may get mixed up, the first and second meetings. There were different people that were present. I know that Walt Heyer was at one of the meetings. Oxy Horvath was at one of the meetings as well. You'd have to give me the other names if there was any. I'm drawing a blank. It was a while ago.

Q. Was Mark Regnerus at the second meeting?

THE COURT REPORTER: I'm sorry. What was that name?

A. He was only at --

MR. GONZALEZ-PAGAN: Mark Regnerus, R-E-G-N-E-R-U-S.

A. I believe he was at one of the meetings.

I'm not sure which one.

Q. (By Mr. Gonzalez-Pagan) Was Patrick Lappert at one of these meetings?

A. He would have been likely at the second meeting.

Q. Was Paul McHugh at any of those meetings?

A. No.

Q. Was Michelle Cortella at any of these meetings?

A. I've encountered Michelle at a number of different settings. I'm trying to think back. I honestly -- I just can't remember. She may have been at one of them.

Q. Was Quinton Van Meter at any of these meetings?

A. I have met with him. I'm just trying to think of what the circumstances and when he was there. Again, you know, I've met so many people over many different years in many different venues. It's challenging for me to remember who was in what meeting.

Q. Did the ADF lawyers discuss the need to develop expert witnesses for litigation?

A. Again since it was several years ago, I'm trying to remember the exact content. I think the

main focus was -- was understanding what was going on to be able to understand from multiple different perspectives. One of the most helpful outcomes for myself was the opportunity to talk to the transitioners. These are adults that have had the experience of going through the affirmation approach only to discover eight to ten years after that, that it did not solve their problems.

It was similar to my efforts to connect with parents and -- that were experiencing this with their children as part of my understanding of the unique circumstances facing these individuals. That's what I walked away with more than anything else. Whether there was discussions about, you know, whether there were -- were litigation going on is -- I just don't recall.

Q. Were you aware that the Alliance Defending Freedom is a religious organization?

A. I think that's -- if you travel to their headquarters, that's hard to miss.

Q. Let's go back to your report, Exhibit 1. On the third page, Paragraph 7.

A. We're on my expert report. Okay.

Q. Page 3, Paragraph 7.

A. Thank you. I'm going to go to my clean

copy that I have printed out. Okay.

Q. Okay. It is mentioned that you also spoken with parents of children experiencing gender dysphoria and earlier you mentioned that you had spoken with Eli Coleman; is that right?

A. That is correct.

Q. And Eli Coleman is one the authors of the WPATH standards of the care; is that correct?

A. He's one of the lead authors, correct.

Q. In Paragraph 7 you state that you have met individually and consulted with several pediatric endocrinologists including Dr. Norman Spack, who had developed and led transgender programs in the United States; is that right?

A. That is correct.

Q. Who's Norman Spack?

A. Norman Spack was from Harvard. He was actually probably the first person to introduce the Dutch model of care to the United States. In the latter years of his career, he became a very outspoken advocate for that approach. In fact, Dr. Spack was invited to Washington University very early on when the question was being proposed to start the gender center at Washington University.

Q. And you discussed the treatment of gender

dysphoria and transgender people with Dr. Spack?

A. That's correct.

(Whereupon Exhibit 19 was introduced for identification.)

Q. (By Mr. Gonzalez-Pagan) Showing you what's been marked as Exhibit 19.

A. So this is the declaration for Norm Spack for the Drew Adams case, correct?

Q. That's correct, yes. Have you seen this document before?

A. I've heard of it. I believe I saw that during the -- my involvement in the Adams case.

Q. He mentions that on or about October 19, 2014 -- sorry. On Paragraph 8 of the declaration on Page 2, he mentions that on or about October 9, 2014, he gave a presentation at St. Louis Children's Hospital regarding the foundation of GeMS, the workings of a gender management program at a pediatric hospital, and in medical treatment and care of gender and nonconforming and transgender children and adolescents; is that right?

A. Other than the word "gender" is misspelled, yes.

Q. It goes on to say on Paragraph 9 on the next page that following the presentation, he met

privately with medical staff including endocrinologists at St. Louis Children's Hospital to answer their questions and share his knowledge and experience.

He then goes on to say that he also in that context met privately with you at St. Louis Children's Hospital when you approached him after the presentation.

Do you recall that?

A. I recall the meeting both with the faculty -- I don't specifically remember the private meeting afterwards. I do remember we had kind of a round table. We actually sat around a circle with other colleagues of mine and addressed questions. But I -- it certainly would be in agreement with where I was at that point in time in an understanding for the proposal for care involving affirmation.

Q. He goes on say that during his meeting with you, you directly expressed that you had, quote, a significant problem with the entire issue, closed quote, and, quote, whole idea of transgender, closed quote. He then states that you followed up these comments by stating, quote, for me it is a matter of my faith, closed quote.

Do you recall making these statements to Dr. Spack?

A. I do not.

Q. Do you deny making these statements to Dr. Spack?

A. I do not recall making those statements. And it really seems to be -- I'm not sure of the context of the conversation, where that came from. This was a time shortly after our institution was considering the adoption of the affirmative care model for starting their gender center. And very clearly at that point in time, I was very early in investigating the literature and I remember talking with my colleagues at that very same time about the questions that I had about the science, about some of the statements that were being made.

One of the questions that came up related to some of the assertions about more in the area of anthropology as far as a human being and whether it was possible for one to change one's sex. I recall that at that point in time, you know, the people were just starting to make the comments like in one of the other cases where Dr. Atkins would make the statements gender is sex. And I certainly challenged those assertions at that time.

So this is a period of discovery for me. And for me to make a definitive statement like that is not really even logical from where I was at that point in time.

Q. Are you familiar with the St. John Paul, II, Bioethics Center?

A. Yes.

Q. Is St. John Paul, II, Bioethics Center a religiously affiliated institution?

A. I believe it is, yes.

Q. Did you speak at the St. John Paul, II, Bioethics Center in November of 2017?

A. I'm not sure of the exact date. But I did deliver a talk to that group.

Q. During that talk, did you not state about being transgender that, quote, in fact, probably goes back to some of the early heresies in the church, closed quote?

MR. KNEPPER: Objection, form, scope.

A. You know, I'd have to see the context of when that statement was made and how it was being portrayed to that audience, whether it was in response to a question with context that is not included in your question.

Again, as you mentioned, this was a