UNITED STATES DEPARTMENT OF JUSTICE

DRUG ENFORCEMENT ADMINISTRATION

Hearing

IN THE MATTER OF:	DEA Docket No. 1362
Schedules of Controlled Substances: Proposed Rescheduling of Marijuana	Hearing Docket No: 26-96

Wednesday,
July 1, 2026

700 Army Navy Drive
Arlington, Virginia 22202

The above-entitled matter came on for hearing, pursuant to notice, at 9:01 a.m. EDT.

BEFORE:

THE HONORABLE DEREK C. JULIUS,
Chief Administrative Law Judge

APPEARANCES:

On Behalf of the Government:

JAMES J. SCHWARTZ, ESQ.
STACY M. RACE, ESQ.
LISA K. MAN, ESQ.
Office of Chief Counsel
Drug Enforcement Administration
8701 Morrissette Drive
Springfield, Virginia 22152
[redacted]

On Behalf of the National Drug and Alcohol Screening Association:

DAVID G. EVANS, ESQ.
[redacted]

PATRICK D. KENNEALLY, ESQ.
Burke Law Group, PLLC
[redacted]

On Behalf of the Tennessee Bureau of Investigation:

REED N. SMITH, ESQ.
Assistant Attorney General
Office of the Tennessee Attorney General
[redacted]

APPEARANCES: (continued)

On Behalf of Smart Approaches to Marijuana:

JOHN M. MCNICHOLS, ESQ.
~~PATRICK F. PHILBIN, ESQ.~~
CHASE T. HARRINGTON, ESQ.
Torridon Law PLLC
[redacted]

On Behalf of the States of Nebraska, Idaho, and Indiana:

JOHN M. McNICHOLS, ESQ.
~~PATRICK F. PHILBIN, ESQ.~~
CHASE T. HARRINGTON, ESQ.
T. ZACHARY HORTON, ESQ.
Torridon Law PLLC
[redacted]

On Behalf of DUID Victim Voices:

PATRICK D. KENNEALLY, ESQ.
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DAVID G. EVANS, ESQ.
[redacted]

APPEARANCES: (continued)

On Behalf of Kenneth Finn, M.D.:

PATRICK D. KENNEALLY, ESQ.
Burke Law Group, PLLC
[redacted]

DAVID G. EVANS, ESQ.
[redacted]

ALSO PRESENT:

GRAYSON E. PHILLIPS, ESQ., Law Clerk
DECLAN HURLEY, Torridon Law summer associate

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(9:01 a.m.)

JUDGE JULIUS: This is Day 3 in the matter of Schedules of Controlled Substances: Proposed Rescheduling of Marijuana, Hearing Docket Number 2026-96, DEA Docket Number 1362.

This is Day 3 of our hearing. Let me start with taking roll call. So, Government Counsel, would you please state the appearances for your counsel today?

MR. SCHWARTZ: Good morning, Your Honor. Again, James J. Schwartz, Lisa Man, and Stacy Race for the Government.

JUDGE JULIUS: Thank you, Counsel.

MS. MAN: Good morning.

JUDGE JULIUS: For Smart Approaches to Marijuana?

MR. McNICHOLS: Good morning, Your Honor. John McNichols and Chase Harrington here on behalf of Smart Approaches to Marijuana.

JUDGE JULIUS: And for the opposed states of Nebraska, Idaho, and Indiana?

MR. McNICHOLS: John McNichols, Chase Harrington, Zach Hortron ~~Gordon~~. And joining us today is Declan Hurley, who is a summer associate

at my law firm.

JUDGE JULIUS: Excellent. Welcome, sir.

And for -- on behalf of DUID Victim Voices?

MR. EVANS: David Evans, Your Honor, and Patrick Kenneally.

JUDGE JULIUS: Excellent.

And on behalf of Dr. Kenneth Finn, M.D.?

MR. EVANS: David Evans and Patrick Kenneally.

JUDGE JULIUS: And for National Drug and Alcohol Screening Association?

MR. EVANS: Just David Evans.

JUDGE JULIUS: Excellent. You're wearing many hats today, Mr. Evans.

MR. EVANS: I'm trying to.

JUDGE JULIUS: I don't have on the attendance today the Tennessee Bureau of Investigation. Is that accurate? Anyone here for him or for that agency?

(No response.)

JUDGE JULIUS: And Phillip Drum is also not noticed to appear today.

Okay. So those two interested parties are not here.

Thank you, everyone, for the attendance. And unless there are any preliminary matters from anyone?

MR. McNICHOLS: None.

MS. RACE: No, Your Honor.

JUDGE JULIUS: Okay. Mr. Evans, please feel free to begin part 2 of your cross-examination on behalf of National Drug and Alcohol Screening Association.

MR. EVANS: Thank you, Your Honor. Your Honor, I would like to just very briefly put something on the record about Dr. Chiapperino. I've been a member of the National Employment Lawyers Association --

MR. SCHWARTZ: Your Honor, this is off the stand. This is not proper.

MR. EVANS: It has nothing to do with --

JUDGE JULIUS: Hold on. I -- I don't know what he's going to proffer. I'll --

MR. SCHWARTZ: It can't possibly be relevant or appropriate to -- to talk about Dr. Chiapperino, who's been dismissed. If he

comes in rebuttal, great. But for now, he has opportunity. He had a full hour to deal with it. This is not appropriate right now.

JUDGE JULIUS: Do you have evidence that you're trying -- that you would want to submit in argument?

MR. EVANS: I wanted to issue a warning that -- that Dr. Chiapperino should not be retaliated against for his testimony, but I can do that in person with the DEA.

JUDGE JULIUS: Okay. If you want to have a conversation with the DEA offline, that's --

MR. EVANS: Fine.

JUDGE JULIUS: -- perfectly acceptable. Thank you both.

WHEREUPON,

COREY BURCHMAN

was recalled as a witness by Counsel for the Government and, having been previously duly sworn, resumed the witness stand, was further examined and testified as follows:

CONTINUED CROSS-EXAMINATION

BY MR. EVANS:

Q Okay. Doctor, good morning.

A Good morning.
Q Is writing a prescription a medical activity?
A Yes.
Q Okay. And in -- in writing a prescription, are -- are you familiar with the federal law on how to write a prescription?
A No.
Q Okay. In writing a prescription, should you put in the drug name?
A Yes.
Q Should you put in the strength?
A Could you clarify that, please?
Q I would assume it would mean the potency. Maybe the -- I assume that means the potency.
A Okay. I -- yeah, I --
Q You know, there are medications that have higher and lower potencies.
A If -- if you mean the concentration of the particular pharmaceutical, I would concur.
Q Okay. And the dosage form, should that be in a prescription?
A Again, I'm not trying to correct you, but dosage and form are two different --

Q Well, let's just go --
A -- qualities of a -- of a pharmaceutical. If you mean dosage --
Q Dosage.
A -- yes.
Q Okay. And the quantity prescribed.
A Yes.
Q Okay. And the directions for use.
A Yes.
Q And the number of refills.
A Yes.
Q Okay. Now, you testified yesterday that you seem to allow most of these decisions to the dispensary technicians. Is that true?
A No.
Q I thought you said yesterday they decided the dose, which product to use, the amount. Didn't you testify to that yesterday?
A Not entirely.
Q Well, partially. What did you testify to?
A Yesterday, I testified that a physician or a healthcare provider, such as myself -- I'll speak in the first person -- has a frank discussion with the patient on the

aforementioned aspects of drug administration, as you described. I leave it to the patient to further discuss aspects of purchase and what I consider form factor with the dispensary technician.

Q Now, what does that involve? What decisions does the dispensary technician have to make with the patient?

A Well, as I just said, let me recapitulate. The patient then presents themselves to the dispensary, discusses with the dispensary technician pretty much the conversation that I had with the patient, and the dispensary technician then discusses the various options in terms of that drug administration.

Q Okay. In looking at dosing, deciding a dose, do you look at the frequency of administration?

A No.

Q Do you look at the duration of administration?

A I'm sorry. I don't quite understand the question. That -- that the duration of administration is an oxymoron.

Q It's an oxymoron? Okay. Well, let me try to explain it. "Duration" means length of time. "Administration" means doing something. So what I mean is the length of time to do something.

A Well, duration of administration, as you describe it to me, means how long it takes for a patient to ingest a dose. For example, if a patient is using an inhalational method of administration, the duration of administration in your descriptor means how long it takes for the patient to take the inhalational agent up to his or her lips and inhale. I think -- I don't want to think. Please continue. I'm sorry.

Q Have you ever determined the proper duration of administration for smoking a joint?

A Neither personally nor professionally, no.

Q Okay. And is there such a thing as duration of administration in taking a breathalyzer? Are you familiar with that?

A I -- I certainly do not understand your question, sir.

Q Oh. Okay. And what about time of administration? Should that be part of dosing?

A No.

Q So time of administration, as I understand it, means do you take it in the morning, the evening, after meals, all night long? You don't tell people when they should take it?

A Well, time specifically refers to a mark on a clock. I -- I believe, if I -- if I could just expound a little bit, I think what you're getting at, and forgive me for trying to correct you, is frequency of administration.

Drugs are dictated by prescription in terms of once a day, twice a day, three times a day, following meals. I mean, I don't really know each particular patient's habits. If -- if, for example, he works at night and -- and sleeps during the day, I wouldn't say have this at breakfast following meals.

Q Do you ask patients those questions to verify the proper time of administration?

MS. RACE: Your Honor, I just would like to object for -- I think that there's some vagueness here because I don't think we have fully established what drug he's talking about.

MR. EVANS: I'm talking about all

drugs, anything approved by the FDA or medical marijuana. I mean, we're now -- the doctor said that we are now in the marijuana space. Okay? So everything that I'm talking about deals with marijuana and -- and prescription drugs because I'm looking at the dosing requirements for a prescription drug.

JUDGE JULIUS: Okay. So just to be --

MR. EVANS: And you seem to want to be -- have now --

JUDGE JULIUS: Counsel, I want to make sure I understand your response to the objection.

MR. EVANS: Yes.

JUDGE JULIUS: Is it you're talking about any --

MR. EVANS: Yeah. Right now I am.

JUDGE JULIUS: -- medication?

MR. EVANS: Right now I am.

JUDGE JULIUS: Okay.

MR. EVANS: Okay.

JUDGE JULIUS: So point taken, but we've now got clarity of the scope of the question, so if you need to have it repeated, please let us know.

BY MR. EVANS:

Q Okay. These questions will be about -- about, in quotes, "medical marijuana." Do you discuss with patients the time of administration of medical marijuana?

A Not necessarily.

Q If the person was a truck driver, would you discuss time of administration with a truck driver?

A Yes.

Q Okay. So is it true that then the -- the person's profession or activity could affect your guidance on time of administration?

A Most assuredly.

Q Okay. And do you make those inquiries with every patient that you refer to marijuana?

A I do in the context of the clinical setting, and allow me an example. Particularly in pain medicine, we as physicians frequently allow the patient a good deal of leeway, and we use the -- the expression PRN, which means as needed.

And in the pain management setting, it's very useful to have a PRN order, in which case -- pain in human beings, depending upon the

nature of the pain, is episodic. It can be chronic, but by "episodic" I mean, for example, chronic low back pain, which constitutes a huge portion of my practice, or did.

If the patient wakes up in the morning, their back may be in agony, and so that individual would take -- and let's just talk about marijuana since that's why we're here. He might administer marijuana in a larger dose based on his clinical framework at that time.

And if in the afternoon that patient is very comfortable and he's sitting watching a ballgame and -- and not exacerbating his back pain, he may not need it. So, in that context, it doesn't serve the purpose to instruct the patient, "You must take this particular agent every eight hours around the clock." That's what pain management is about.

Now, in fixed doses, such as opioids, where we're dealing with a -- a -- what we call a steady state in the bloodstream, a patient needs to take their drugs, just like antihypertensive drugs or -- or anti-cholesterol agents. The -- the drug level needs to be consistent in the bloodstream for it to work.

But that's just not how it works and operates in general pain medicine.

Q Thank you, Doctor. Doctor, I think I'd better start asking you yes or no questions. I have limited time. So do you, in dosing, yes or no, look at -- consider the time of onset of symptoms?

A Yes.

Q Yes or no, do you consider the route or method of administration of marijuana?

A Yes.

Q For marijuana, do you -- are you concerned with the effectiveness of marijuana for a condition?

A Absolutely.

Q Okay. Do you consider the impact of marijuana on other preexisting conditions?

A I -- I don't want to put words in your mouth, but if you mean do I consider the results of marijuana therapy --

Q No. The impact of marijuana on preexisting conditions. "Preexisting conditions" means a condition that the patient has that is separate from the one that they're coming to you with --

A Oh. Oh, okay.
Q -- that preexists.
A Yeah. I -- I see your point now. Yes, I do.
Q Okay. Good. And do you consider safe alternatives to marijuana use for a condition?
A Of course.
Q Okay. Doctor, when you recommend marijuana to a patient, do you look at every single prescription medication they happen to be taking at that time?
A Yes.
Q Okay. Are you aware that marijuana reacts with dozens of prescription medications in a negative way? Are you aware of that?
A That question has to be parsed out. It's not a yes or no question. Answer. I'm sorry.
Q Okay. Are there prescription medications that may interact with marijuana in a negative way? Is that more clear?
A It -- it's more clear, but I wouldn't use the word "negative." All drugs have interactions. There's not one drug that's FDA approved, for example, that does not. Negative

is not really the connotation. It's that there are known interactions that one needs to be counseled on.

Q Okay. Could any of those -- looking at a patient's prescription medications, is there any circumstance where you would say, "Do not use marijuana because it does not do well with that prescription medication"?

A Yes.

Q Okay. You -- you work for a Veterans Administration advocacy or veterans and marijuana advocacy organization. Is that correct?

A I have an affiliation with one. I don't work for them.

Q You have an affiliation. You listed it on your CV.

A Yes.

Q And you're a veteran.

A Yes, sir.

Q Okay. Do you know the position of the Veterans Administration regarding the use of cannabis?

A I believe I do.

Q What is it?

A Veterans Administration physicians and other healthcare providers have only until recently not been authorized to discuss cannabis use with their patients, but that has changed in the last, I believe -- I -- in my -- in my -- if I can recollect, until recently.

Q Okay.

A The veterans -- the veterans hospital will not discharge or prevent a veteran from seeking veterans care and benefits if they are a registered user of marijuana in -- and I'll -- I'll just speak in terms of New Hampshire.

Q Okay. Now, does that mean that the Veterans administration doctors can use medical marijuana to treat PTSD, for example?

A I -- I really apologize. I don't understand the question, sir.

Q Okay. Let me see if you agree with this statement then. "However, research to date does not support cannabis as an effective PTSD treatment, and some studies suggest cannabis can be harmful, particularly when used for long periods of time.

"Given these concerns, the Veterans Administration of the Department of Defense

Clinical Practice Guidelines for PTSD recommend against the use of cannabis for treatment of PTSD." Do you know where that came from?

MS. RACE: Your -- Your Honor, just an -- an objection for the record. This witness has been proffered as an expert in pain management. It appears as if counsel is trying to obtain a medical opinion based on a mental health therapy for PTSD. To the extent that the witness is being asked a fact question, we don't object, but to the extent that he is -- that this witness is being asked to provide a medical opinion on a matter that is outside the scope of his expert designation, we object.

JUDGE JULIUS: Do you -- are you asking him as an expert or as a factual question, Mr. Evans?

MR. EVANS: Well, I'm -- I'm -- first of all, they went to some length to talk about his experience as a Navy doctor. Okay. He is affiliated with an organization, that I assume he understands what they are about, that advocates cannabis for PTSD. He should know that.

So this is on his CV. He testified

that he is talking about the marijuana space. Okay? There was no objection at the time when he said that. So I think anything to do with marijuana, particularly veterans -- and he seems to advocate for PTSD treatment for that -- I think is relevant.

And this was downloaded this morning from the Veterans Administration. That's a quote from the Veterans Administration National Center for PTSD, cannabis use and PTSD among veterans.

JUDGE JULIUS: Understood. I understand the objection. I'll allow him to answer the question as a fact witness, as a practitioner, but it will not be an expert opinion on the issue of pain management or anesthesiology.

MR. EVANS: Okay. Very quickly --

JUDGE JULIUS: Thank you.

BY MR. EVANS:

Q Doctor, what I read, were you aware that that was the -- the position of the PTSD -- National Center for PTSD and the Veterans Administration? Were you aware of that?

A Yes. And -- and let me just add that

the National Center for PTSD in the Veterans Administration is approximately 300 yards from my office in White River Junction, Vermont, and I happen to know personally the psychiatrist who is, you know, in charge of that program. And so I have a relatively strong foundation in the understanding of both the mechanism of PTSD, as well as the treatment of cannabinoids for PTSD.

However, I today am presenting myself as a domain expert in pain management. I'm not a psychiatrist, and I am aware of the VA's position.

Q Okay. Doctor, that was the question that I asked you. Are you aware of this position? That's yes or no. Are you aware?

A I -- I just said --

Q Are you -- are you aware that that is their position?

A Let me repeat what I just said 10 seconds ago. I am aware of their position.

Q Could you please answer yes or no? It's a very simple question.

MS. RACE: Your Honor, I object.

BY MR. EVANS:

Q I read something to you. Are you aware

of this? That's all I need to know.

MS. RACE: Your Honor?

JUDGE JULIUS: Go -- yeah. Just go ahead and answer the question.

THE WITNESS: Yes.

JUDGE JULIUS: Thank you.

MR. EVANS: Okay. Thank you.

MS. RACE: If I can just, on the record, Your Honor, just indicate that I think we're moving into a badgering territory, and so I -- I want to make sure that the Government's objection is on the record that this does appear to be a badgering of the witness. I appreciate and I understand and respect, Your Honor's position.

MR. EVANS: Your Honor, when a witness dodges questions, claims confusion, it is the duty of the counsel to zealously pursue getting an answer. I was never impolite to the doctor. I was professional. And he was going into a narrative, obviously, to waste time, and I would not call that badgering. I would call that professionally seeking an answer to a question.

JUDGE JULIUS: So, Counsel, what I will say to that is I agree that you were not

inconsiderate, rude in any way. You were very professional. I would ask that when questions are asked, allow the respondent to -- or the witness to answer the question.

I would not share the view that -- or assume that his statement -- that he did not understand the question as a way to dodge it, as you characterize. The Court itself instructs all witnesses to ask for clarification or state that they do not understand questions --

MR. EVANS: That's very fair.

JUDGE JULIUS: -- before answering them, because we want to make sure that they're not -- if there's an issue of understanding the question, we want to make sure that it's clarified.

MR. EVANS: Your Honor, you just recited the advice I give to all my clients.

JUDGE JULIUS: So --

MR. EVANS: Okay.

JUDGE JULIUS: Great minds think alike, sir.

MR. EVANS: Thank you. Thank you, Your Honor.

JUDGE JULIUS: So point well taken.

Please continue, Mr. Evans.

BY MR. EVANS:

Q Okay. Doctor, in your CV, you have written several articles about obstetric surgery. Is that correct?

A Yes.

Q And did you write an article on infant surgery?

A Not surgery per se, but the anesthesia associated thereof --

Q Okay.

A -- to be specific.

Q All right. Good. Would you recommend any form of marijuana for a pregnant woman?

MS. RACE: Your Honor, note an objection as well, but a medical opinion outside of pain management. To the extent that this is limited to pain management therapies, no objection, but to the extent that this is broad-ranging, which is what the question suggested, we just want to note the objection.

JUDGE JULIUS: Could you repeat the question so we can --

BY MR. EVANS:

Q Okay. You've written articles about

anesthesia regarding pregnant women, correct?

A You'll have to show me the articles. I don't believe I have. Did I write an article about women in pregnancy?

Q You wrote an article about --

JUDGE JULIUS: Yeah. Just make -- wait. Wait until you get back to the microphone, Mr. Evans. It's not picking you up.

MR. EVANS: Oh, I'm sorry.

BY MR. EVANS:

Q Did I give you your CV?

THE WITNESS: If it's possible -- I -- I'm sorry. Judge, could I see my CV again?

JUDGE JULIUS: I --

THE WITNESS: Because I have a lot of publications.

JUDGE JULIUS: I believe that's what Mr. Evans is looking for.

MR. EVANS: Oh. Oh, yes. I have it right in front of me here. Hold on.

JUDGE JULIUS: Mr. Evans, do you have any objection to the Court providing a copy of his CV for him to look at, or do you want to --

MR. EVANS: No, not at all.

JUDGE JULIUS: Okay.

MR. EVANS: I -- that's fine.
JUDGE JULIUS: We'll provide that to you, sir.
THE WITNESS: Thank you, sir.
JUDGE JULIUS: And that was Government's Exhibit 6.
MS. RACE: Yes, Your Honor. Thank you.
THE WITNESS: Thanks.
BY MR. EVANS:
Q Okay. Doctor, go to page 6 of your CV. Look at case reports. Did you write an article on fetal surgery and general anesthesia?
A Yes, sir.
Q Okay. Go to the next page, Item Number 18. Did you write a paper on pain relief and anesthesia in obstetrics?
A Sir, that -- that -- it was the name of the journal. That's not the title of the article. The title of the article is "Anesthesia for Fetal Surgery." That article had to do with the mechanism of pharmacology and --
Q That's fine.
A Okay.
MR. EVANS: I understand, Your Honor.

I mean, I understand.

BY MR. EVANS:

Q All right. Did you write an article on obstetric anesthesia?

A Which -- which number are you referring to?

Q This would be Number 19, "Education on Obstetric Anesthesia." Did you write that?

A Well, yes. That article had to do with how one teaches --

Q I'm not asking for --

A -- anesthesia.

Q Sir? Sir, did you write it, yes or no?

A Yes, I wrote that article, sir.

Q Okay. On 20, did you write an article called "Organization of an Obstetric Anesthesia Service"?

A Yes.

Q Okay. On 21, did you write an article on "Anesthetic Management of the Pregnant Surgical Patient"?

A Yes.

Q Can you briefly describe, what is "anesthetic management"?

A Without trying to be coy, it's the

management of anesthesia. It's the conduct of both general, regional, and -- and interventional anesthetic techniques to render a patient senseless during surgery or procedures.

Q Okay. Now, could that be -- that management of anesthesia in a pregnant patient be done before the patient delivers the baby? And by "before," I mean not an hour before, but like a month or -- or weeks before. Could that be something that you'd have to manage anesthesia on a pregnant woman, say she needed surgery for something else other than the pregnancy?

A Excuse me. And I'm not trying to be evasive. I have no idea what the question is.

Q We've got a pregnant woman, nine months. First month, nine months. Okay. Nine months is the delivery. Two months, she needs surgery for appendicitis. She's pregnant one or two months. What about that instance? That's before delivery, and she's pregnant. Is -- does that article -- does your -- does that article deal with that kind of a situation?

A Yes.

Q Okay. Now, what would you consider in

that situation where the woman is pregnant, she needs surgery, it's unconnected to the delivery, does that have anything to do with cannabis?

A No.

Q Okay. So you would not recommend cannabis or marijuana for a pregnant woman, yes or no?

A No.

Q Why not?

MS. RACE: Your Honor, just for the -- the record, my objection, which I would like to -- which I would -- am lodging right now, I think the question is vague. Are we talking about in surgery? Are we talking about after surgery? The -- the fact pattern was a surgical intervention, and now we're just talking generally about pregnant women. If we can just clarify that for the record, please, Your Honor.

MR. EVANS: I think I've been very clear. Okay?

JUDGE JULIUS: My understanding of the question --

MR. EVANS: First month, nine month, two month, surgery.

JUDGE JULIUS: My understanding of the

question was, would you -- would you recommend marijuana for a pregnant woman at any time?

MR. EVANS: For a pregnant woman -- I -- okay. I -- at any time during the pregnancy.

JUDGE JULIUS: Just to make the scope of the question clear.

MR. EVANS: Make that more clear.

JUDGE JULIUS: Thank you.

MR. EVANS: Okay.

THE WITNESS: Okay. I -- I just was thrown off a little because we were talking about surgery, and now we're talking about the use of --

Q I'm sorry. Okay.

A -- marijuana in a pregnant individual.

Q Would you recommend marijuana for a woman who is pregnant?

A I would not.

Q Why not?

A I'm not convinced that adequate long-term safety studies have been done in pregnant women for thousands of drugs. And as such, one, to be rational and conservative, attempts to weigh the benefits of the potential drug against the risks of an unborn child -- an

unborn fetus.

Q Good. Are you familiar with the position of the American College of Obstetricians and Gynecologists on this issue?

A I believe I am.

Q Okay. Okay. If you believe you are, do you understand that they have recommended that under no circumstances is there a reason for medical use of marijuana during a pregnancy? Are you aware that they made that statement?

A I'm -- I'm not aware that they made that statement, but I concur with it completely.

MR. EVANS: Very good. Okay.

Your Honor, I'd like to take the opportunity to present this position to the DEA because they have chosen not to accept any information past 2024. This is a conclusive study done in the end of 2025 --

JUDGE JULIUS: Okay.

MR. EVANS: -- that they should consider. And I'm -- which is -- I'm not putting in as evidence ~~a witness~~, but I want on the record that they're aware of it.

JUDGE JULIUS: So you're just handing this document to Government counsel? You're not

moving for its admission? Do I understand correctly, Counsel?

MR. EVANS: Excuse me, Your Honor?

JUDGE JULIUS: You're just handing that to Government counsel.

MR. EVANS: I just want on the record --

JUDGE JULIUS: You're not offering it as an exhibit?

MR. EVANS: -- that they can no longer say that they don't know about this; they got it.

JUDGE JULIUS: Okay. Thank you.

BY MR. EVANS:

Q Okay. I'm going to read some statements to you. And this has to do with dispensary staff, okay? And these statements are from studies. I can make them all available to you, and I'm just interested in your -- what you think about this statement.

"Moreover, harms associated with marijuana, such as addictiveness, were not acknowledged by dispensary staff." Does your dispensary staff acknowledge addictiveness of marijuana?

A Yes.

Q Okay. "Dispensary staff are providing medical advice to patients that may be harmful to patients." Is that happening? Are you aware of that?

A Am I aware that dispensary staff in -- in the context of New Hampshire are doing that? Is that your question?

Q Sure.

A There were two questions in that compound ask --

Q Well, are you aware -- is your dispensary staff, when they discuss dosage, when they discuss Dante's Inferno or Girl Scout cookies with the patients, are they saying, "Oh, by the way, this could be harmful"? Are they discussing any of the harms of marijuana? I mean, maybe the patient would say, "Oh. Hmm. I don't think I want to eat Dante's Inferno."

A In the state of New Hampshire, the alternative treatment centers include a pamphlet which was written by the Therapeutic Cannabis Board, which I sit, discussing both the risks and potential hazards of using the product, and that point is underscored by all of the

dispensary staff.

Q Very good. I'm glad they do that. Doctor, are you aware that this is pretty rare among dispensaries around the country? Are you aware of that?

A I can't comment. I -- I don't know.

Q Okay. And when is the patient supposed to be given this warning?

A Well, as I said, at the point of sale when the patient receives a product, in the dispensaries with which I have familiarity in the state of -- of, excuse me, of New Hampshire, they receive that pamphlet at the conclusion of the transaction, and, as well, it's underscored by the well-trained staff.

Q Okay. Is the patient given a chance to read this and then to decide that they don't want Dante's Inferno or Girl Scout cookies or blueberry pie or whatever else they could get?

A I don't have that granular a view on what one patient or another reacts and -- and refutes guidance --

Q Doctor --

A -- that the state mandates.

Q Doctor, is informed consent an

important thing between a doctor and a patient?

A Of course.

Q Are you ensuring that your dispensaries get informed consent for the patient before they purchase the products?

MS. RACE: Objection. We've allowed the -- your dispensary's reference throughout. The testimony early on was that he's associated; he doesn't own them; he doesn't control them; he doesn't direct them --

MR. EVANS: Okay.

MS. RACE: -- in the way that counsel -- so I just --

MR. EVANS: I'll withdraw the question.

MS. RACE: -- let it go, but --

BY MR. EVANS:

Q Are the dispensaries that you're associated with -- you're an advisor to at least one dispensary, right? The Tea Room?

A Yes. That's in Vermont.

Q Yeah. And you are a medical advisor to another cannabis company?

A Yes. Granite -- Granite Leaf in New Hampshire. I'm on the board.

Q Well, are you ensuring -- I mean,

you're a doctor. Are you ensuring that they get informed consent from the patients?

A As I understand informed consent, that is a process between a physician and a healthcare provider and a patient prior to any procedure. That context doesn't apply to a -- an individual who's purchasing marijuana from a dispensary. I've never heard of informed consent in that context.

Q Well, the difference here is that you are not doing informed consent because you're leaving dosing and a lot of issues up to the dispensary technician, okay? You turn it over to them. You let untrained, uncertified people make these decisions that the -- the patient has a right to be informed about beforehand. And you are a medical advisor; you are on the board. Are you making sure that the patients get informed consent?

Let me ask another question. Can marijuana be harmful to somebody?

A I'm quite confused by that question because it was about five questions.

Q I just asked one question. Can marijuana be harmful to somebody?

A Yes.

Q Okay. Are you making sure the dispensaries that you advise, you're involved with or whatever, are you making sure that they get informed consent to taking a medication that may be harmful?

A As I said, sir, about three minutes ago, informed consent is a discussion between a healthcare provider and a patient. It has no bearing on any conversation between a dispensary technician and a patient.

Q So are -- are you saying there should -- that it's okay that there's no conversation? I mean, you said -- you -- you're absolving yourself of the responsibility. You're absolving the technicians of their responsibility. Who's responsible for getting informed consent?

MS. RACE: I object. This is argumentative.

JUDGE JULIUS: It is venturing into argumentative territory. I also see that the time has expired.

MR. EVANS: Very good.

JUDGE JULIUS: But thank you very much,

Mr. Evans.

MR. EVANS: Thank you, Your Honor. I appreciate it.

JUDGE JULIUS: And again, I do, again, appreciate your flexibility for bifurcating your -- your cross-examination.

MR. EVANS: Your Honor, I have -- I've been so looking forward to this. This is one of the highlights of my 52 years of practicing law, appearing before you and having the honor to be an attorney in this case, so I -- I'm grateful throughout this whole process. Thank you.

JUDGE JULIUS: Thank you, sir.

So the next item on our schedule would be an opportunity for the Texas Bureau of Investigation to conduct a cross-examination. I'm sorry?

~~PARTICIPANT~~ THE LAW CLERK: Tennessee.

JUDGE JULIUS: I'm so sorry. What did I say?

~~PARTICIPANT~~ THE LAW CLERK: Texas.

JUDGE JULIUS: I'm so sorry. Tennessee Bureau of Investigation. That was a misspeak on my part.

I understand that that interested party

is not here today, so we would move on to the next item on the schedule, which would be DUID Victim Voices?

MR. McNICHOLS: If it pleases the Court, Your Honor, we've arranged among ourselves to take things a little out of order. I was going to do my examination on behalf of the opposed states, and then if I need additional time on behalf of Smart Approaches, after which Mr. Kenneally, on behalf of his clients, may do so.

JUDGE JULIUS: You anticipated my thinking on this one. I noticed when we put the schedule together, we didn't realize who would be speaking on behalf of the various things, and we realized that they were alternating. I have no issue with that.

Government, any objection?

MS. RACE: No objection.

JUDGE JULIUS: Okay. That's perfectly fine. Thank you so much for taking it among yourselves to solve an issue on the Court's behalf. Very -- really appreciate that.

MR. McNICHOLS: And if it's suitable to the Court, I'll start now, and we'll have our

comfort break at 10:30 as planned?

JUDGE JULIUS: Perfect.

MR. McNICHOLS: All right.

JUDGE JULIUS: Just let us know which party you're going to start on behalf of and --

MR. McNICHOLS: On behalf of the opposed states first

JUDGE JULIUS: Opposed states first?

MR. McNICHOLS: Yeah.

JUDGE JULIUS: Okay. And whenever you're ready, sir.

MR. McNICHOLS: Of course.

CROSS-EXAMINATION

BY MR. McNICHOLS:

Q Good morning, Dr. Burchman.

A Good morning, sir.

Q When in 2019 did you retire from the practice of medicine, sir?

A Well, I -- I haven't retired from the practice of medicine, just clinical medicine. I'm fairly heavily engaged in the medical school.

Q When in 2019 did you stop seeing patients?

A April 30th, 2019, at 5:50 p.m.

Q So it's fair to say then, sir, that as of today, you have not seen a patient in 7 years and 2 months and 12 hours?

A I have not delivered clinical anesthesia care or clinical pain management care in that time, but I have both seen, examined -- I'm a -- I'm a licensed physician. I've seen, examined, and opined on patients either by referral or -- or in discussion with other healthcare workers.

Q Have you delivered anesthesia to anyone in seven years and two months?

A I probably have.

Q Have you written a prescription for pain management to anyone in the last seven years?

A I don't believe so.

Q Sir, since October of 2019, have you been employed by the cannabis industry?

A October? Yes.

Q And in your role with the cannabis industry, have you served as the medical advisor for the American Trade Association of Cannabis and Hemp?

A I -- I had that designation, yes.

Q And that is the industry trade group that pursues the interests of the cannabis industry in the United States, correct?

A I don't know, actually, I'm sorry to say.

Q Did you have a paid position with the American Trade Association of Cannabis and Hemp?

A No.

Q On your CV, it says that you were the medical advisor for the American Trade Association of Cannabis and Hemp. Is that correct?

A Yes.

Q And as the medical advisor of this organization, sir, is it your testimony today that you don't know what they do?

A Not entirely.

Q Since -- or -- sorry, withdrawn.

Between 2019 and 2024, were you the chief medical officer for an entity known as Acreage Holdings?

A Can you repeat the dates? I'm sorry.

Q At any time in your life, sir, have you been the chief medical officer for a company called Acreage Holdings?

A Yes.
Q And Acreage Holdings is a cannabis supplier, correct?
A Yes.
Q It's a publicly traded company, correct?
A I believe so.
Q Okay. At one point it had operations in 12 states, correct?
A Correct.
Q It had more than 1,000 employees, correct?
A Correct.
Q It makes gummies, correct?
A Yes.
Q It makes topical cannabis products, correct?
A Correct.
Q It makes tinctures, correct?
A Correct.
Q It makes vapes, correct?
A Yes.
Q It makes full-flower botanical cannabis products, correct?
A Well, it -- the -- the botanical

products are made by plants, but they process it, if that's what you're implying.

Q Okay. We understand cannabis comes out of the earth, sir, correct.

Now, and Acreage Holdings was bought by a company called Canopy. Is that correct?

A I believe so.

Q For $3.4 billion, correct?

A That I don't know.

Q Was it -- and Canopy, you know, sir, is the largest cannabis company in the world, correct?

A Is that a question or a statement?

Q When I say "correct," that's a question.

A Okay. Ask -- could you repeat the question, please?

Q Is Canopy the purchaser of chief -- excuse me. Is Canopy, which purchased Acreage Holdings, the largest cannabis company in the world?

A I don't know.

Q Did Canopy purchase Acreage Holdings before or after you were working there?

A I don't know.

Q Do you currently have equity in Acreage Holdings?

A I don't believe so. I hold a small amount of stock in Canopy that was, I believe, converted from Acreage stock, but it's -- it's relatively worthless. I -- I don't -- but in answer to your question, no, I don't believe I do.

Q Okay. Well, how much, in terms of dollar value, do you own today in Canopy, sir?

A Probably $600.

Q Your resume also says that you are the chief medical officer of a company called Texas Patient Access, LLC. Is that correct?

A Yes.

Q And that's also a cannabis dispensary. Is it not?

A No.

Q What does it do?

A I believe it is an LLC that was competing for a Texas medical cannabis dispensary license, but I don't believe there is any business. I was -- so -- so no dispensary exists, sir.

Q Okay. So it's not a dispensary, but if

the business had taken off, it would have been one, correct, sir?

A I can't comment. I -- I have no -- I have no idea.

Q Did Texas Patient Access contemplate any form of business other than operating a cannabis dispensary, sir?

A I have no knowledge of that. I don't -- I know very little about the Texas entity ~~with~~ which you are describing. They approached me and asked me if I'd be interested in being a medical director of a potential entity if -- if the business ever flew, and I said, "Sure, I can put my name on it."

And -- but from what I understand, everything is basically a -- a paper designation. There is no bricks-and-mortar business, and that's the extent of my knowledge in that -- in that entity.

Q When we were discussing the Tea House yesterday, you mentioned that in your discussions with the owner-operator you helped her get financing. Do you recall that testimony?

A Yes.

Q And you heard the Government say a moment ago that you don't own that dispensary. Is that actually correct?

A Yes.

Q Do they owe you any money?

A No.

Q Now, I'm right, sir, that you were in the Navy for eight years; and, therefore, you don't get any military retirement. Is that correct?

A It was 13 years, and that is correct.

Q Okay. And are you still teaching on the faculty at Dartmouth Medical School?

A Yes.

Q Are you teaching courses?

A No.

Q When was the last time you taught a course at Dartmouth Medical School?

A As a clinician employed by Dartmouth at Dartmouth Hitchcock Medical Center, you know, I was involved in clinical anesthesia and pain management. We -- we don't teach courses. We take care of patients, but we give lectures to residents and medical students. We don't go to the medical school and teach courses on

pharmacology and pharmacodynamics, et cetera.

So it's -- it's really a continuum of experiential learning intraoperatively and -- and at the pain clinic. So to say I teach a course is kind of a misnomer.

Q Do you get paid any compensation by the medical school at Dartmouth?

A Unfortunately, no.

Q What percentage of your income since 2019 has come from your roles in the cannabis industry?

A Can you rephrase the question? I'm -- I'm not exactly comprehending what you're saying.

Q What portion of your income since 2019 has come from the cannabis industry?

A Maybe 5 percent.

Q What is your main source of income since 2019?

A My retirement IRA from 35 years of practicing clinical medicine. I draw that down probably every -- every three months.

Q Since 2019, when you've been working for Acreage Holdings, is it fair to say, sir, that you have been an advocate for expanding

marijuana as a form of therapy?

A I wouldn't say "advocate." I'm a supporter of non-opioid analgesia, and cannabis is one of those components.

Q And while you were employed at Acreage Holdings, you appeared on a podcast called Let's Be Blunt. Is that correct?

A Yes. That was with Montel Williams. I remember vividly.

Q So do I. And you also appeared on a podcast hosted by the Mary Jane Society. Is that correct?

A Yes.

Q Okay. And you've also -- and in both of those instances, both of those podcasts, you talked about potential therapeutic uses of cannabis, correct?

A I don't specifically recall the conversations, but it certainly seems reasonable, since that's kind of my lane.

Q And I know we're in the DEA here, but in case there are any naivetés here in this building, Let's Be Blunt and the Mary Jane Society both refer to cannabis. Correct, sir?

A Oh, yes, sir.

Q Okay. And you've also written about a half a dozen articles on LinkedIn talking about cannabis and its potential therapeutic uses. Correct, sir?

A I know I've written a number on LinkedIn, but I would -- I would agree without having the opportunity to look at those. I've -- I -- I do a lot of writing.

Q And in your writings and in your podcasts and in other -- your other public appearances, you have suggested that cannabis could be used to treat pain, correct?

A Yes, sir.

Q And PTSD, correct?

A Yes, sir.

Q And anxiety, correct?

A I don't recall, but it -- it sounds right.

Q And depression, correct?

A Certain components of cannabis are amenable to depression treatment, yes.

Q And nausea, correct?

A Absolutely.

Q And in the podcast with the Mary Jane Society, you suggested that animal studies on

using cannabinoids to treat cancer by reducing cell growth and limiting blood flow were very promising and really solid, correct?

A Yeah. The preclinical studies have demonstrated that certain cannabinoids are potentially useful anticancer agents.

Q And you suggested in one of your writings on LinkedIn that marijuana may be useful for treating COVID-19 symptoms, correct?

A That's true.

Q And, sir, you would agree with me that PTSD and anxiety and depression are all outside of your specialty in pain management and anesthesia, correct?

A Yes, sir.

Q And you are quite familiar as a physician with the Hippocratic Oath, are you not, sir?

A Yes.

Q And although I'm not a doctor, I think the tenets of that are first, do no harm. Do you agree that's one of the tenets?

A Yes, sir.

Q Okay. And you're aware, per the examination of Mr. Evans earlier, that the

Veterans Health Administration has asserted that using cannabis to treat PTSD can be harmful, correct?

A I'm sorry, I don't understand the question. Could you repeat it, please?

Q Sir, you're aware -- well, withdrawn. You would agree with me, would you not, that PTSD, anxiety, and depression are all mental health conditions, correct?

A Yes. For the most part, that's true.

Q And you're aware, are you not, that the American Psychiatric Association has stated that marijuana should not be used to treat psychiatric conditions because it will make them worse, correct?

A Well, sir, my domain is not psychiatry, and I have to say I'm not really familiar with the statements with respect to the American -- is it Psychiatric Society?

Q The American Psychiatric Association.

A Okay. Thanks.

Q If I understand, then, you are recommending marijuana to treat PTSD, anxiety, and depression, which you agree are all mental health conditions, without knowing the position

of the American Psychiatric Association as to the use of marijuana for those conditions, correct?

A I have to disagree with that statement, sir.

Q What did I get wrong?

A I believe, and I'd have to review the podcasts as well as the literature I've written, but I think my view is -- is fairly consistent. I understand and recognize the utility of cannabinoids in their therapy and that I am aware of studies which demonstrate efficacy in those aforementioned maladies.

But, more importantly, I have had the unique opportunity of dealing with hundreds of veterans, as well as families of veterans, and that real-world data, which is basically post-market surveillance in -- in FDA-approved drugs, is -- is as -- is as very much a value, particularly in the realm of marijuana therapy.

Q That is non-responsive to my question, sir. My question is whether you have advocated marijuana as a treatment for PTSD, anxiety, and depression, as you agreed you have, without knowing the position of the American Psychiatric

Association on the treatment of marijuana for those conditions. Correct?

A Correct.

Q And you've also advocated marijuana simply for wellness, unrelated to disease, correct?

A Well, I don't believe, sir, that that answer -- that question can be answered by a yes or no question.

Q I think it can, sir. Did you write an article called "Cannabis for Health"?

A That was the title, but as with --

Q Did you write an article called "Cannabis for Health"?

A I believe I did, sir.

Q In fact, you know you did, correct?

A I just answered that I do, sir.

Q And in the article "Cannabis for Health," you talked about using cannabanis (sic) -- cannabis to promote mindfulness, correct?

A I'd have to see the article. I -- I have no idea when I wrote that. Is it -- is it possible that you could provide it to me?

Q And in the article you talked about using cannabis to promote relaxation, correct?

A Excuse me. May I ask the -- Your Honor a question? Could I see this --

Q No, you may not, sir. You may deal with me. The question is, in your writings and in your public advocacy, you've promoted the use of marijuana for relaxation, correct?

A Without referring to the article, because I do a lot of writing, I'd -- I'd need to confirm that, but I will -- I will say that it is consistent in my view. So yes, correct.

Q Okay. And you've also promoted the use of cannabis for sleep hygiene, correct?

A Again, with all due respect, since I don't have the article in front of me, it might be difficult for me to accurately state that that's a correct statement.

Q Okay. But previously, sir, when I talked to you about relaxation, you said, "Well, I don't know what I wrote, but that's consistent with my views." It's certainly consistent with your views, is it not, that marijuana can be used for sleep hygiene, correct?

A Yes, sir.

Q And marijuana can also be used for social connection, correct?

A I don't know.
Q And you've also said publicly that marijuana can be used for physical activity and recovery from exercise, correct?
A Yes.
Q Now, in the subject of "Cannabis for Health," you used a word yesterday when describing the intake of cannabis, which was "combustion." You described -- do you remember that from yesterday?
A Yes.
Q And when you're talking about combustion, you're talking about the fact that the most common form of taking marijuana into your system is smoking, correct?
A If -- if you're referring to the inhalational method, that's correct.
Q And if I say "smoking," will you know that I'm referring to the inhalational method?
A Yes.
Q Now, am I right, sir, that since the 1960s, your profession has been against smoking, at least in the context of tobacco, correct?
A Yes. And not -- not only my profession, but many, I would say, mainstream

medicine.

Q Right. And, sir, when I say "your profession," I meant doctors in general and not specific to anesthesiologists, but I appreciate the clarification.

And you agree with me, sir, that marijuana smoke contains the same compounds as tobacco smoke, correct?

A That's not correct.

Q Sir, you agree with me that nicotine is an FDA-approved product, correct?

A Yes.

Q And it is also a central nervous system stimulant, correct?

A Yes.

Q And you have never counseled anyone to start smoking tobacco simply to take nicotine into their system. Is that correct?

A Yes.

Q Now you joined -- at least this is from your CV, sir, but tell me if I have this right -- you joined the American Medical Association in 1991, correct?

A Could I see my CV again, please, just to be accurate? I'm sorry.

Q Well, let me ask you this, sir. Did you join the American Medical Association more than 30 years ago?

A I assume yes.

Q Okay. And am I right, sir, that the American Medical Association does not endorse medical marijuana for the treatment of anything?

A I believe that's true.

Q And the American Medical Association does not endorse recreational marijuana at all, correct?

A The American Medical Association, for which approximately, I think, 15 to 20 percent of physicians ascribe, does not recommend marijuana use. I don't think it endorses it.

Q They do not endorse the concept of cannabis for health, correct?

A I would not know.

Q Do you actually think they might endorse the concept of cannabis for health?

A Well, the American Medical Association is not particularly an association in which I pay a lot of attention to except for its journal. So I -- I -- truthfully, I don't really know their position at the present time.

Q And you're saying you don't know their position on cannabis, correct?

A No, I -- I agree with you, sir, that it's my understanding that the AMA doesn't endorse the use of cannabis. But when you said cannabis -- the use of cannabis for health, I was just a little confused. I'm sorry.

Q You're also a member of the American Society of Anesthesiology, correct?

A I think I let that lapse, but I -- I was for many years. Yes, sir.

Q And the American Society of Anesthesiology does not endorse medical marijuana, correct?

A I -- I frankly don't know, sir.

Q Do any of the professional organizations or societies to which you belong endorse medical marijuana?

A Could I see my CV again, please? I'm sorry.

JUDGE JULIUS: Counsel, do you want him to look at it or?

MR. McNICHOLS: No.

JUDGE JULIUS: Okay.

BY MR. McNICHOLS:

Q Sir, you're familiar with the International Association for the Study of Pain?
A Yes.
Q And that is an association that deals with your medical specialty of pain management, correct?
A Yes.
Q And you're aware, are you not, that they do not endorse the use of medical marijuana in the treatment of pain?
A I believe that's correct, sir.
Q And on the subject of health, sir, is it fair to say that you take your own medicine?
MS. RACE: I just want to object to that for clarification. It seems to be vague.
MR. McNICHOLS: Yeah. That's fair. I'll withdraw the question.
JUDGE JULIUS: Thank you, Counsel.
BY MR. McNICHOLS:
Q On the -- I couldn't tell exactly what you were talking about on the Mary Jane podcast, but I understand from the questioning earlier today, perhaps by Mr. Evans, that you do not smoke marijuana. Is that correct?
A Do you mean personally?

Q Yeah. When I say "you" in this case, I mean Dr. Burchman.

A No, sir, I -- I don't smoke.

Q Right. But at least according to the account you gave to the Mary Jane Society podcast, you do like your THC cocktails, correct?

A Yes. I -- I won't say I like them, but I have -- I have used them. I think if -- if one were to compare -- well, I'll -- I'll just leave it at that.

Q Sir, when was the last time you ingested THC?

MS. RACE: Your Honor, I just would like to make an objection here. To the extent we're asking about medical treatment or therapies, I think that that should be well outside of the scope -- personal medical treatment and therapies, that should be well outside the scope of this hearing. And so I'd lodge an objection based on scope of the question.

MR. McNICHOLS: Okay. Now we -- I think we have the right to find out right now, Your Honor, whether the man's under the

influence of any intoxicating substance. And I want to know when is the last time he's taken one of these cocktails that he's advocated publicly.

JUDGE JULIUS: I understand the concerns regarding the scope of the inquiry. I will allow the question for the purposes that counsel has proffered them.

MS. RACE: If I could just make --

BY MR. McNICHOLS:

Q When is the last time, sir --

JUDGE JULIUS: It seems like we have another objection. If I could just make a statement. Understanding or being able to ask a witness whether or not they are under the influence of a substance that might alter testimony is a relevant inquiry for the purpose of the hearing, but that is not the question that was lodged.

JUDGE JULIUS: Counsel.

MR. McNICHOLS: Let me --

BY MR. McNICHOLS:

Q When is the last time you've had a THC cocktail, sir?

A I can't remember. Probably between

6 and 12 months ago. And I -- I just need to state I'm not under the influence of any substances. Perhaps caffeine, that's it.

Q If I understood your testimony a moment ago, sir, you said that you don't like them. Is that correct?

A Them?

Q THC cocktails.

A I don't follow the question. I'm so sorry.

Q I had thought earlier, perhaps I misunderstood your testimony, that you said you don't like THC cocktails. Was that your testimony earlier today, a few moments ago?

A I -- I honestly don't remember stating that. Did I -- did I say that?

Q The transcript will reflect whether you did or not, sir. Let me move on.

JUDGE JULIUS: Just for the record, I believe the testimony was when you -- you said on the podcast you enjoy them, and his testimony was, "I wouldn't say that I enjoy them." If you want to --

MR. McNICHOLS: Oh. Thank you, Your Honor. Let me --

JUDGE JULIUS: -- parse the language.
MR. McNICHOLS: Yes. Yeah.
BY MR. McNICHOLS:
Q Is that an accurate statement, sir, that you said earlier in your testimony you do not enjoy THC cocktails? Is that correct?
A If that's what I said on the podcast, that would be -- that would be accurate.
Q No, no. What I'm asking about is what you said in court a moment ago. Here today, did you say, "I don't enjoy them"?
A I'm -- I'm just a little befuddled. Sorry. If I said I don't enjoy them, my implication was it's not a practice. Like, I -- like, if I don't enjoy golf, it means I just don't play golf. It's not that I don't enjoy the game. And so if -- if one were to say, "Well, I don't enjoy THC cocktails," for me, subjectively, that statement refers to the fact that it's not a practice in which I engage with any regularity or exuberance.
Q I understand. Thank you for the clarification, sir. So just for the record, though, it's clear that on the occasions when you have imbibed THC cocktails, you did so for

recreation and enjoyment, correct?

A That would be accurate, yes.

Q Now, you mentioned some publications yesterday that supported the idea of medical marijuana as treatment for pain, and, in particular, the entourage effect. Did I recall your testimony from yesterday correctly?

A Yes.

Q Okay. And the entourage effect, as I understand it, is the idea that a cocktail or combination of chemicals may be more effective for a particular endpoint than any isolated compound. Is that generally right as to the concept?

A That's exactly correct.

Q Lucky. And in your discussion yesterday as to the publications that support that idea, I think I heard the name of Dr. Ethan Russo. Is that correct?

A Yes.

Q And he's written the articles that you're referring to, talking about the entourage effect and its benefits in pain management, correct?

A Dr. Russo has written multiple

publications, so I don't really --

Q Thank you, sir. Keep going.

A I don't really know the question. You'll have to rephrase it for me. I'm sorry.

JUDGE JULIUS: He -- he had asked for a rephrasing of the question.

MR. McNICHOLS: I'll withdraw.

BY MR. McNICHOLS:

Q You're familiar, sir, though, with the fact that Dr. Russo works for the cannabis industry. Are you not?

A No.

MR. McNICHOLS: If this is a suitable time for the comfort break, Your Honor, it might be a good breaking point because I think we're retrieving some materials for use on cross-examination.

JUDGE JULIUS: That's fine with the Court. Any objection?

MS. RACE: No, Your Honor.

JUDGE JULIUS: Okay. Thank you.

We'll go ahead and take our 15-minute comfort break a little early. Let's come back at 10:30 on the dot.

MR. McNICHOLS: Thank you.

JUDGE JULIUS: Thank you, everyone.

Please don't discuss your testimony with anyone --

THE WITNESS: Oh. Of course.

JUDGE JULIUS: -- during the break.

THE WITNESS: Thank you.

JUDGE JULIUS: And we'll be in recess for 15 minutes.

Thank you, everyone.

(Whereupon, the above-entitled matter went off the record at 10:15 a.m. and resumed at 10:30 a.m.)

JUDGE JULIUS: Ready to resume your cross-examination?

MR. McNICHOLS: Yes, Your Honor.

JUDGE JULIUS: Whenever you're ready, sir.

MR. McNICHOLS: Before we took the break, Dr. Burchman, we were talking about Dr. Ethan Russo, and my last question to you, I think, was whether he worked for the cannabis industry, and I think you answered that you didn't know one way or the other. Is that correct?

THE WITNESS: Yes, sir. Thanks so

much.

BY MR. MCNICHOLS:

Q You now have in front of you, Dr. Burchman, a printout of an article, and can you verify for me, sir, that the title of this article is The Case for the Entourage Effect in Conventional Breeding of Clinical Cannabis: No "Strain," No Gain? You see that, sir?

A Yes, sir.

Q And you see that the author of the article below that is one Ethan B. Russo. You see that?

A Yes.

Q And this was the article you were talking about yesterday as a publication that supports the idea of the entourage effect in marijuana as a treatment for pain, correct?

A No.

Q I'm sorry. It's a different article by Dr. Russo that you were referring to?

A That's correct. Thank you.

Q You've just been handed another document, sir, that's entitled Taming THC: potential cannabis energy and phytocannabinoid-terpenoid entourage effects by one Ethan B.

Russo. You see that, sir?

A I do.

Q Is this the article you were referring to as supporting the idea of the entourage effect of marijuana as a treatment for pain?

A Correct, but you read the title wrong.

Q I'm sorry.

A It's cannabis synergy, not cannabis energy and that's actually a very interesting distinction because this whole concept and thrust of Dr. Russo's -- the impetus of his statement, is about synergy and not energy. I thought that was a bit ironic.

Q Sorry. You can see, though, that below the name of Dr. Russo, that this particular study is sponsored by GW Pharmaceuticals, Salisbury, Wiltshire, UK. You see that, sir?

A I do.

Q Okay. And they make the drug, Sativex, don't they?

A I don't know.

Q You don't --

A Sativex is what you're referring to, but to be honest, in all honesty, I don't know who makes Sativex.

Q You don't know whether the author -- the company that funded this article or this study underlying this article actually makes a THC-related pharmaceutical. Is that correct?

A Yes, sir.

Q If you go back to the first article, the one that I handed you by Dr. Russo -- let me know when you're there.

A Got it.

Q And you see that below Dr. Russo's name, it says there International Cannabis and Cannabinoids Institute, Prague, Czechia. You see that?

A Yes.

Q And on the last page -- let me know when you're there.

A Got it.

Q There's something in the far right-hand column, about halfway down the page, called a conflict of interest statement. Do you see that, sir?

A Yes.

Q And you see that's where Dr. Russo writes, I am Director of Research for the International Cannabis and Cannabinoids

Institute. We serve clients engaged in cannabis commerce. Do you see that?

A Yes.

Q Now, you would agree with me that these writings by Dr. Russo are not the only writings on marijuana as a treatment for pain. Do you agree with that?

A Well, these writings don't specifically address pain management, sir.

Q Fair enough, sir. They're not the only writings about marijuana for any indication. There are lots of studies. You agree with that, don't you, sir?

A Oh, absolutely.

Q Okay and, in fact, good science as to marijuana or any other pharmaceutical has to take into account all the evidence, both favorable and unfavorable, for any course of treatment, correct?

A Yes, sir.

Q And by your estimation, sir, marijuana is the most researched drug there is, correct?

A It's certainly up there. I probably said that.

Q Okay. And I think you previously said

it has more than 30,000 citations on PubMed, correct?

A I said that at the time, but it's certainly more now.

Q And just for the record, sir, PubMed is a database of studies, articles on medical issues?

A Correct.

Q Okay. And I think you've even commented that there are more studies on PubMed on marijuana than there are on Tylenol, Humira, and Xanax combined, correct?

A Yes, sir.

Q Okay. And on the Mary Jane Podcast, you noted that marijuana has been subjected to more than 150 randomized controlled trials, correct?

A I may have said that. I don't recall.

Q But you weren't lying if you said that, correct, sir?

A I don't lie.

Q And you've also said that those randomized controlled trials are the gold standard for the FDA, correct?

A I said that at the time. I don't

necessarily believe that now.

Q Okay. But you'd agree with me, sir, that as of today, there is still no product approved by the FDA that's based on botanical marijuana, correct?

A That's entirely incorrect.

Q Oh, what product is there based on botanical marijuana that's been approved by the FDA?

A I'm so happy you asked that question. Just this past week, the cannabis spectrum extract VER-01 received what was called a breakthrough designation by the FDA, which, as far as I'm concerned, that is like the key to a golden lock. It kind of validates everything I have believed and worked for in the sense of marijuana entering phase three clinical trials, randomized clinical trials. This happened just this week. I'm kind of surprised that it's not the buzz of the room. That study, it's a very large study out of Germany, I think, Karst is the author in Nature Medicine. You could find it, I'm sure. That is kind of an earthquake that's rewriting the map in terms of the clinical acceptance of marijuana. In fact, that

kind of validates everything I said in the mid-2000s, and that was followed with Dr. Russo's, you know, entourage study. So, we really have now before us a validated, FDA -- it's not an FDA-approved drug, but the --

Q Well, that was my question, sir. I think, your testimony is that it's only now entering phase 3, correct?

A No, no. Phase -- you stand corrected. I'm sorry. Phase 3 clinical trials are done and because of the significant conclusions, such as that in this large phase 3 clinical trial of full-spectrum botanical cannabis, the FDA recognized not only the impact and importance but did a rare event and approved it as what's called a breakthrough, I don't know exactly the term because I'm not like a --

Q Sir, as of today, can this product be prescribed to patients in the U.S. under federal law or not?

A No, but your original question, sir --

Q That's my question, sir.

A That's.

Q That's my question to you.

A Well, I didn't really have the

opportunity to answer the question just prior to the question.

(Simultaneous speaking.)

Q Right. The government can ask you about that on their redirect, sir. This is my opportunity to ask you questions.

A Okay, fair.

Q Now, one thing you mentioned yesterday was the idea of using marijuana to transition off of opioids for pain. Is that right?

A Yes, or at the very least, significantly reduce the amount of opioids that patients are on. When we say transition, it doesn't necessarily imply a cessation of opioid medication.

Q And in the describing the transition treatments that you've done with your opioid patients -- and am I correct, sir, that you've treated more than 10,000 patients with opioids?

A Certainly in the context of anesthetic management and pain management.

Q Okay. And I think you testified that in the course of transitioning them, you first did that using dronabinol or Marinol?

A Yes, FDA-approved cannabinoid products.

Q Right. And that it was later in your career, perhaps 2016 to 2019, when you started doing the transition with botanical cannabis. Is that correct?

A Yes.

Q Okay. Now, Marinol or dronabinol is a THC or synthetic THC compound. Is that right?

A Yeah, it's the molecule.

Q Thank you, sir. But pain is not one of the indications for which it is FDA-approved, correct?

A Correct.

Q So in prescribing Marinol or dronabinol for one of your patients, you are engaging in what's called off-label prescribing. Are you not, sir?

A Yes.

Q You're replacing an approved drug with one that is not approved for the same indication, correct?

A That's correct.

Q And you agree, sir, that that's dangerous by FDA standards, correct?

A I don't know.

Q You don't know whether the FDA

considers it's dangerous to engage in off-level prescriptions. Is that correct?

A That's correct, off-label prescribing is not uncommon in medication management.

Q My question is only whether you know whether the FDA thinks it's dangerous or not, and I think your answer is you don't. Is that correct?

A In my previous answer, I acknowledged that, correct, I do not know that.

Q All right and when you're transitioning a patient from opioids to botanical cannabis, you're replacing an approved pain medication with one that is not recognized as a medication, correct?

A At the time, it wasn't recognized as a medication.

Q And, in fact, you're replacing a dose that was determined by you with one that allows the patient to, in your phrase, self-titrate, correct?

A Yes.

Q And in the context of using marijuana for pain management, does self-titration mean essentially, in the context of smoking, just

smoke until you feel better?

A Better is a rather generic term. I try to be very specific with my patients.

Q Let me try again, sir. In the context of self-titration and the use of smoked marijuana, is it simply smoke until you don't hurt?

A I would not phrase it in that way, sir. If you were my patient, I would say, take a dose, wait, you know, inhalational administration occurs usually within 60 seconds in terms of effect, maybe not peak effect, and I would instruct the patient to titrate by, you know, regulating the dose and wait a few minutes and see if the pain is beginning to subside. I have to be honest with you, most chronic pain patients ~~we're~~ are really looking to relieve their pain, but not totally. I mean, that would be ideal, but that's very difficult.

Q Let me try again then, sir. In the context of smoked marijuana, self-titration means smoke until it hurts less.

A Precisely.

Q Now, part of your discussion yesterday in the direct examination by the government was

your discussion about the risks of opioid use versus marijuana. Do you recall that testimony, sir?

A Yes.

Q I think you spoke about, among other risks, the overdose risks and also the challenges of withdrawal as between the two drugs. You recall that, sir?

A Yes.

Q And that was clearly a critical consideration to you and the patient when transitioning them from opioids to another form of treatment, correct?

A Yes.

Q But the risks of withdrawal symptoms and overdose are not the only adverse effects associated with marijuana, correct -- withdrawn. The risks of overdose and the symptoms of withdrawal are not the only risks or health hazards associated with drugs in general.

A Correct.

Q And you agree, sir, that from the standpoint of the practitioner and the patient that mental health risks are relevant as well, correct?

A Yes.
Q And before advising any patients on transitioning from opioids to marijuana, did you undertake any comparison of the mental health risks between opioid use and marijuana use?
A That is difficult to answer in a yes or no way.
Q Let me ask you this, sir. During your time in clinical practice, were you aware that marijuana is associated with psychosis?
A There is a correlation in certain segments of the population, yes.
Q And were you aware of that during the course of your clinical practice?
A Of course.
Q And you're also aware that marijuana has been associated with structural brain changes?
A Correct.
Q Decreased IQ?
A I'm aware of the correlations and associations, correct.
Q Impaired cognitive functions?
A Most definitely.
Q And psychotic disorders, correct?

A I am acutely aware of the literature and the hypothesis that there is a correlation, correct.

Q And in fact, of all drugs, marijuana has the highest rate of transition from psychosis to schizophrenia, correct?

A Not being a psychiatrist, I can't comment on that question. I'm sorry.

Q Are you in a position to dispute that, sir?

A To repeat my previous question, not being a student of psychiatric illness, I have no understanding or comment on that.

Q Now, sir, you agree with me that the mental health risks of marijuana are greater with chronic and long-term use than they are with acute use, correct?

A Not being a psychiatrist or studying psychiatric illness, I really can't answer that question.

Q Did you take into account the risks of chronic long-term marijuana use when advising your patients on transitioning from opioids to marijuana?

A Let me think about that for a second.

Q I hadn't thought this would be --
A Yes, yes. The answer is yes.
Q So, you were aware of the long-term chronic risks of marijuana use, correct?
A Yes.
Q And its association with psychosis?
A In certain patient populations, I have a concern about that correlation.
Q And if I understand your testimony from yesterday correctly, there are roughly 200 to 400 patients who you've helped transition from opioid use through marijuana. Is that correct?
A To the best of my recollection, yes.
Q Which sounds like about -- between two percent and four percent of your opioid patients, is that right?
A That number, in terms of opioid therapy to which I administered to patients, includes a large number of surgical patients, which aren't really in the same basket as my chronic pain patients with which I use medical, you know, cannabinoid therapy.
Q If we had to reduce the number -- withdrawn. The number of chronic pain patients who you treated with opioids, focus on that.

What's that number?

A Can you just repeat the question so I exactly know what you're trying to ask?

Q Let’s -- well, I thought you'd said yesterday that you'd had roughly 10,000 patients that you'd treated with opioids, and I think that today you said that includes both anesthesia and pain management together. Is that right?

A That sounds right, yes.

Q Limit it, sir, to pain management. How many have you treated with opioids solely for pain management, not anesthesia?

A This is a guess, but to my recollection, several thousand.

Q Okay. Well, back to my question, though. Am I right, though, that the number of people -- pain management patients, who you've transitioned from opioids to marijuana is between 200 and 400?

A Yes.

Q Okay. Now, of those 200 to 400, what percentage of them were you able to get off of opioids altogether?

A I would say 15 percent, 15 to 25

percent.

Q And then the remainder, whether it's 85 or 75, are patients who would be taking opioids into the indeterminate future, correct?

A Yes, with the goal being a lower dose.

Q Okay. And they would be then using marijuana into the indeterminate future, correct?

A Yeah, that's the goal. Correct.

Q Okay. And with how many of them have you followed up over the course of time in order to assess whether they were suffering from any mental health risks as the result of marijuana use?

A Do you mean in the context of today am I following them? Or you mean in the three years since medical, you know, there was medical approval in the state? I don't exactly follow your question.

Q Let me withdraw the question, sir. Let me try this one. Of the patients who you transitioned from opioids to marijuana, how many of them ultimately stopped, or what percentage of them, ultimately stopped using marijuana?

A I can't answer that. I wouldn't know.

Q As far as you know, they're all still using it.

A If it's addressing their pain in the context of which they initially saw me, and I manage them with my team, that drug regimen could be indefinite, yes.

Q Now, I want to talk to you about the standard that you apply to assess whether a treatment is appropriate. And am I right, sir, that last year you wrote on LinkedIn, I think it was in October of 2025, an article called Evidence-Based Review: Cannabis as a Treatment for Glaucoma? Did you write that?

A Yes.

Q Can we see that? Tab 1. While we're getting the exhibit, sir, can you just help us understand that glaucoma is an eye condition where there is some kind of excess pressure in the interior of the eye?

A Correct.

Q And in the article that we'll look at, you talked about the evidence that you would need to get behind cannabis as a form of treatment for glaucoma, correct?

A Correct. Thank you, sir.

Q And sir, you've been handed an article called Evidence-Based Review: Cannabis as a Treatment for Glaucoma, dated October 17, 2025. Can you verify for me that this is the article that you wrote, sir?

A Yes, and I did this at the request of the therapeutic board in New Hampshire. I'm not an ophthalmologist –

Q The only question is whether that's the article, sir.

A Oh, I'm sorry. Yes, it is.

MR. McNICHOLS: Thank you. We didn't designate this in advance, Your Honor, but we'd like to have this marked for identification as SAM Exhibit 46. And given that it's now been authenticated, we move it into evidence.

(Whereupon, the above-referred to document was marked as SAM Exhibit No. 46 for identification.)

JUDGE JULIUS: Any objection to the admission?

MS. RACE: No, Your Honor.

JUDGE JULIUS: SAM 46 will be admitted.

MR. McNICHOLS: Thank you. And to go back to the idea of cannabis -- oh, actually,

wait a minute. How much time do I have left on behalf of --

MR. PHILLIPS: Two minutes, 20 seconds.

MR. MCNICHOLS: I'm going to continue examining on behalf of my next client, Your Honor. Is it fine if the time just rolls over?

JUDGE JULIUS: We can do that.

MR. MCNICHOLS: Thank you.

JUDGE JULIUS: We'll just alert you when that time rollover happens.

MR. MCNICHOLS: Thank you, sir.

MS. RACE: Your Honor, if I can, just for clarification purposes, is this a SAM exhibit, or is this a state's exhibit?

MR. McNICHOLS: It's a SAM exhibit, 46.

MS. RACE: SAM exhibit? Okay.

MR. McNICHOLS: Yes, ma'am.

MS. RACE: Thank you.

MR. McNICHOLS: And you agree with me, sir, that based on the evidence you reviewed prior to writing this, that there was some evidence in clinical studies that cannabis could reduce pressure on the eyeball, at least in the short duration?

THE WITNESS: Yes, that's very

accurate.

BY MR. MCNICHOLS:

Q Right. It had a physiologic effect, in other words?

A Well, I don't know the mechanism but -- correct.

Q Okay. Right, and there were also some favorable animal studies that were consistent with the clinical studies, correct?

A Yes.

Q Okay. And they saw consistent results in terms of reduction in pressure in the interior of the eye, correct?

A Correct.

Q And you would agree with me, sir, that a physiologic effect by a drug is not enough to make it medically sound to recommend, correct?

A That's correct.

Q And I think this is consistent with the testimony you gave to Mr. Evans earlier today, but duration of effect also matters, correct?

A With respect to a therapy for glaucoma?

Q With respect to any therapy, sir, duration of effect matters when you're evaluating a drug as a potential course of

treatment, correct?

A It's one of the components one takes into account when calculating proper dosage and interval of administration.

Q You take it into account as a physician, correct?

A Oh, yes.

Q Right. And you would agree with me that disease modification also matters when you're considering a medication as a proposed form of treatment, correct?

A Yes.

Q Dosing frequency also matters, correct?

A Correct.

Q Side effects matter, correct?

A Correct.

Q And the recommendations of professional societies also matter, correct?

A To be honest with you, not as much. I'm the physician taking care of the patient. I know the medical literature and based on my training experience, I don't necessarily adhere to positions by medical societies to ~~relegate~~ regulate what I do with a patient, as long as I know I'm adhering to good and proper medical therapy and

treatment.

Q And you would agree with me, sir, that in the article you wrote about cannabis as a potential therapy for glaucoma, you, at section 5 of the article, took into account the position statements of both the American Glaucoma Society and the American Academy of Ophthalmology, correct?

A Yes, correct.

Q Okay, and you noted that neither of them approved cannabis as a treatment for glaucoma, correct?

A Correct.

Q And you noted also, in the course of your evaluation of glaucoma, that there were other treatments available besides marijuana that you could use for glaucoma, correct?

A Yes, because they were more favorable and had a better profile in terms of efficacy and patient utilization.

Q And you also took into account what the FDA said as well, correct?

A Where did I write that, sir?

Q If you look at 11.2, sir, under FDA perspective, I read it as saying, No approved

cannabis product for glaucoma. Can you verify that you wrote that?

A Yes.

Q Okay. And in the course of your article, you also said that there was a need for rigorous phase II and phase III trials to establish things like optimal dose, correct?

A Correct.

Q To establish the long-term safety profile of the drug, correct?

A Correct.

Q To establish the disease progression, correct?

A Where does it say that, sir? I'm sorry.

Q I'll withdraw the question. Now, you concluded on the basis of the considerations that we've run through that cannabis was not an appropriate therapy for glaucoma, correct?

A Yes.

Q And you noted that no major medical organization had got behind it, correct?

A I said that two minutes ago, but yes.

Q Right.

A If you need to recapitulate, yes.

Q And you said that the risks outweigh the benefits, correct?

A Did I say that somewhere in the paper?

Q Did you say it, sir?

A Could you show me where you --

Q Can you tell me without me showing you? It's your paper, sir. Did you say in this that the risks outweigh the benefits of using marijuana as a treatment for glaucoma? And I suppose if it helps you, sir, you can direct your attention to 12.3.

A Yeah, I'm reading it right now. Thank you.

Q I knew you'd get it.

A What I do say, if I may read it, is that the --

Q My only question is whether did you decline to recommend marijuana as a treatment for cannabis on the basis that the risks outweighed the benefits?

A No. Well, 12.3 does not say that. It just says there's a risk/benefit conclusion, and if I may read it, The documented risk and practical limitations substantially outweigh the modest and short-lived intraocular pressure reduction.

I don't say benefit.

Q Well, in the case of glaucoma, you agree that intraocular pressure reduction is a benefit, correct?

A It would be the goal, yes.

Q A benefit, correct?

A Well, don't speak for me. You told me to look at the statement and it says it, that the risks outweigh the benefits, and what I'm trying to say is I'm very precise with my words, sir. I say the documented risks --

Q Let's go on.

A Practical –

Q To the other words that you used that you were precise with, sir. One of the reasons that you thought that the documented risks outweighed the modest and short-lived intraocular pressure reduction was because patients have access to multiple FDA-approved treatments that are safer, more effective, more convenient, and that have established efficacy in preventing vision loss. Did you write that, sir?

A Yes, sir.

Q And in the course of writing this, as

to glaucoma, you thought that it was unhelpful to look for whether glaucoma was authorized under state medical marijuana programs, correct?

A Could you repeat the question, please? I'm sorry.

Q Yeah. In the course of your analysis of glaucoma in this article, did you say that it was unhelpful to look to whether states had authorized marijuana to be used to treat glaucoma?

A Can you indicate in the article where I state that?

Q I'll do my best, sir. If you go to section 11.1 -- let me know when you're there.

A Okay, got it.

Q And what you wrote there, tell me if I have this right: US medical marijuana programs. Multiple states list glaucoma as a qualifying condition. Programs based on public opinion rather than FDA regulatory process. Lack of physician oversight in product selection. No standardization of cannabinoid content. Limited quality control and testing requirements. Is that what you wrote, sir?

A Correct.

Q Now, you would agree, sir, that as an anesthesiologist and pain doctor, that the treatment of glaucoma is really not your specialty, correct?

A That's correct.

Q Right. And that you would never, in your field of pain management, apply a lower standard to patient care than you would apply in your writings, like in this LinkedIn article. You agree with that?

A Well, glaucoma is not pain, and therefore --

Q It's a challenge. Isn't it a physical malady, sir?

A Is what a physical malady?

Q What we've been talking about: glaucoma.

A Well, you just said pain, so I was confused.

Q No, you said pain.

MS. RACE: Your Honor, objection.

JUDGE JULIUS: Understood. Sustained. Let's just ask the question with the clarity that we're talking about glaucoma, just to get the record clear.

MR. McNICHOLS: My question to you, though, sir, is: As a pain doctor, when considering a course of treatment for pain, you wouldn't apply a lesser standard in your evaluation than you would when you applied it to glaucoma, which you're not an expert in, correct?

THE WITNESS: I take into context, sir, the disease that I'm dealing with, and in the context of glaucoma, cannabinoids were not as effective as available other therapies. In the context of pain management, marijuana has very attractive benefits to the pain patient that the degree to which is lacking in the approach of a cannabinoid therapy for the indication of elevated intraocular pressure, or, as you say, glaucoma. I know that was a long answer, but --

Q It's all right, sir.

A You know, it's apples and oranges.

Q Let me try this question -- let me try this question here. You agree with me that there are other medications that can be used to treat pain besides marijuana?

A Yes. We call those non-opioid analgesics as well as opioids, yes.

Q Right. And in other words, there's more medications than opioids and more medications than marijuana that fall within the spectrum of appropriate treatments for pain management, correct?

A Yes.

Q And that's something you would have to consider before you would recommend marijuana as a treatment for someone suffering from pain, correct?

A No.

Q You don't consider all available treatments?

A Well, I consider treatments, but I don't necessarily favor them over a cannabinoid. For example, Tramadol, which is a non-opioid analgesic, very aggressively used for pain management. It's not as good as cannabis, and so I would certainly -- and, you know, I'll have patients who -- I had this Marine, you know, veteran.

Q So that medication you just described, is that FDA approved?

A Which one?

Q The one you just described.

A Tramadol?
Q Yeah.
A Yes.
Q Okay.
A I believe it's a Schedule IV.
Q All right. And if I understand you correctly, that you recommend cannabis in lieu of Tramadol, a Schedule IV approved drug, correct?
A Absolutely. Tramadol's a pretty crappy drug.
Q I want to ask you just a few follow-up questions then about the questions you got at the end of your examination concerning some of the quality controls in the New Hampshire medical marijuana system. Do you recall that examination from yesterday?
A I think so, yes.
Q Let me be more specific. You described things like the QR codes and certificates of analysis that are available in the New Hampshire Medical Marijuana System. Is that right?
A Yes.
Q Okay. Now, did I understand you correctly that there are four dispensaries in

New Hampshire?

A I believe so.

Q All right. And where you live, actually, in New Hampshire is right on the border with Vermont, correct?

A Yes.

Q And in fact, the dispensary -- the Tea -- what's it called again? The Tea Room?

A The Tea House.

Q Tea House, yeah.

A Right.

Q Is it roughly six or seven miles from the Dartmouth campus?

A Probably, yeah. I bike that distance every day.

Q Okay. Okay. And marijuana is much more available in Vermont, which is an adult use state, than it is in New Hampshire. Is it not, sir?

A I can't answer that. I mean the New Hampshire program will only permit registered medical cannabis card people. And in Vermont, it's an adult use and medical program. So it --

Q Right. Well, where I'm going with this, sir, is you know of people who live in New

Hampshire who go to Vermont to get their marijuana, correct?

A Not necessarily. How --

Q Yes or no, sir? Do you know people who live in New Hampshire who go to Vermont to get their marijuana or not?

A No.

MR. McNICHOLS: Those are my questions, Your Honor, on behalf of both clients. Thank you, sir.

THE WITNESS: Thank you.

JUDGE JULIUS: Thank you, Counsel. It's now 11:10. Mr. Kenneally, do you want to begin your cross-examination?

MR. KENNEALLY: Definitely.

JUDGE JULIUS: We'll have a lunch break somewhere, maybe. I don't know how long you plan to go.

MR. KENNEALLY: Let's see how it goes.

JUDGE JULIUS: Okay.

MR. KENNEALLY: And if we get towards noon, I can see if we're close and maybe we could go a little bit extra time if that's necessary, and maybe after.

JUDGE JULIUS: Perfect. Thank you so

much.

MR. KENNEALLY: Does that sound good?

JUDGE JULIUS: Yep.

MR. EVANS: Your Honor, I would like to take the time in the afternoon for further cross-examination. I believe we have a client that Dr. Finn may later sit.

MR. KENNEALLY: Judge, that's a good question. And so I guess if the question to put before the Court is that, if I finish my cross-examination -- so let's say I do the hour, and then we have the other cross-examination with regards to Mr. Finn. I finish a little bit early. Could we swap out as counsel? Because I believe Mr. Evans may have some more questions and since we both represent Dr. Finn, would that be something that Your Honor would entertain?

JUDGE JULIUS: So let me, I want to make sure I understand the question correctly. You're going to handle DUID Victim Voices, Mr. Kenneally, and then split the time or questions for Dr. Finn?

MR. KENNEALLY: Mr. Evans may have some more questions for the doctor. I'm going to handle DUID voices. I could go over, and then

I'd like to go into Dr. Finn's time, an hour or more. Let's say I don't use all of Dr. Finn's time, so I'll give it to Mr. Evans.

JUDGE JULIUS: If you could just summarize what you said.

MR. KENNEALLY: Sure.

JUDGE JULIUS: Just to make sure we have it on the record.

MR. KENNEALLY: Let's say I do an hour for DUID voices. We then go into Dr. Finn's time with me. I finish, let's say, after 15 minutes. There's still 45 minutes left on Dr. Finn's time. Could Mr. Evans, "swap in" and take the remainder of that 45 minutes? Would the Court entertain that?

JUDGE JULIUS: Any objection from the government?

MS. RACE: I believe that is contrary to the Court's order.

JUDGE JULIUS: I do believe that it is as well. What I would suggest is do your questioning for DUID Victim Voices. We can take our lunch break, and then you and Mr. Evans can discuss who, of the two of you, would like to do Dr. Finn's opportunity for cross-examination and

perhaps over the lunch break consolidate the questions, and one person can ask them. Certainly, you can pass notes or questions and lists of questions to whoever is actually asking the questions.

MR. EVANS: Your Honor, I didn't know that I have a full hour. I probably have got 15 minutes, half an hour. Again, I try to like to get done as quickly as possible.

JUDGE JULIUS: Understood. But the preliminary order did state that only one lawyer would be able to ask the cross-examination or any particular examination.

MR. EVANS: Of course.

JUDGE JULIUS: So, I would like to keep with the preliminary order, and I would suggest maybe coordinating over the lunch break of how you'd like to handle –

MR. EVANS: Well, I can handle the last hour. That's fine. If you go an hour and I'll go an hour, and then that's fine.

JUDGE JULIUS: That certainly works for the Court, but if you come to a different agreement over the lunch break, I'm happy to hear whichever you would like to cover for Dr.

Finn.

MR. KENNEALLY: That sounds good, Your Honor.

JUDGE JULIUS: Okay. Thank you.

MS. RACE: Thank you.

JUDGE JULIUS: And so just for clarity, you're now speaking on behalf of DUID Victim Voices for your hour of cross-examination, correct?

MR. KENNEALLY: Please, Your Honor.

JUDGE JULIUS: Absolutely. Just want to make sure the record was clear. Whenever you're ready, sir.

CROSS-EXAMINATION

MR. KENNEALLY: Good morning or is it? It is still good morning, Doctor. Good morning.

THE WITNESS: Good morning.

BY MR. KENNEALLY:

Q My name is Patrick Kenneally. You can refer to me as Patrick or Mr. Kenneally, whatever your preference is. As the Judge said, I'm going to ask you a series of questions. If there's a question that you don't understand, just ask me to repeat it. If there's a question that you don't hear, I'm also happy to speak up

and repeat it as well. Okay?

A Thank you. Yes.

Q You're welcome. All right. Now you have an interest in the cannabis industry. You have a financial interest. Is that correct?

A Technically, yes.

Q Okay. Well, not technically. Five percent of your income since 2019 has come from the cannabis industry.

A Okay. Yes. Sure.

Q Okay. So how much is that? How much money have you made since 2019 from the cannabis industry?

A Oh, maybe I don't know. Geez, I don't know.

Q Well, maybe we can come at it this way. What is your annual income, sir, on average since 2019?

A That would include, I guess, my retirement income, right?

Q Yes.

A Okay, let's say 320,000 dollars a year.

Q Okay. So you're making tens of thousands of dollars each year from the cannabis industry, correct?

A No. I mean, the bulk of that income is from my IRA and investments from money I earned as a physician and --

Q So when you testified during Mr. McNichols' testimony earlier that five percent of your income annually comes from the cannabis industry, is that false?

A Well, I looked at it this way, and this is how I calculate it. You know, I probably need a pen and paper. I get about a little over 300,000 dollars in interest from my holdings in my IRAs, and my cannabis income is, you know, is very little, so --

Q How much is it each year, sir, since 2019?

A Every year, probably, I don't know, 30,000 or 40,000 dollars.

Q Okay. So when I said tens of thousands of dollars, that was an accurate statement.

A Okay, okay.

Q You're not board-certified currently, correct?

A No, actually, because I received my anesthesia boards in the '80s, that's a lifetime assignment.

Q Okay. So you are currently board-certified in pain?
A No.
Q Okay. So you're not board-certified in pain.
A Well, I was, but I –
Q No, no, no. I'm asking now. You're not board-certified in pain now?
A That's correct -- that's correct.
Q Okay. How many board-certified pain doctors are there?
A Where? In the United States?
Q In the United States. Mm-hmm.
A I have no idea.
Q Do you have an estimate?
A No.
Q Okay. Now, you've described yourself as being, quote, acutely aware of the evidence. You've described yourself as somebody that does not misspeak.
A I try not to misspeak.
Q Okay. And you also have extensive experience as somebody who's published a number of different papers, correct?
A Yes.

Q Okay. Would you consider yourself to be a researcher?
A No.
Q Okay. How many medical research papers have you published?
A Probably, I don't know, between 10 and 20. I have no idea.
Q All right. And in terms of scientific evidence, you've heard of what's called the evidence pyramid, correct?
A I have not heard that term. I'm sorry.
Q Okay. Well, you would agree that in terms of the credibility and the reliability of scientific evidence, there's a hierarchy of evidence. Would you agree with that?
A I really don't understand.
Q Well, at the top of the hierarchy --
A Your term.
Q The most reliable clinical medical evidence in terms of research would be systematic reviews and meta-analyses. Would you agree with that?
A No, not necessarily, sir.
Q Would you agree that generally speaking --

MS. RACE: Your Honor. Objection.

JUDGE JULIUS: Understood, just let him finish his answer.

MR. KENNEALLY: Okay. Go ahead.

JUDGE JULIUS: Go ahead, sir.

THE WITNESS: Meta-analyses, which are actually papers of studies of studies, where a meta-analysis of, say, chronic pain and opioids might look at 100 different papers and while it's interesting from a qualitative standpoint, it's a mess quantitatively, and so when one interprets medical literature, meta-analyses is a sort of totally different animal.

MR. KENNEALLY: Okay. So do you think that generally --

THE WITNESS: Well, can I just finish my answer? Meta-analyses is a totally different animal, and as such, personally, I don't know what hierarchy you're referring to or pyramid or whatever, but my point is, personally, for me, I weigh a published peer-reviewed medical -- the veracity of a peer-reviewed medical article based on the study design and the conclusions as well as the impact journal that it's in. I don't necessarily say, Oh, well, this is a meta-

analysis of 1,100 --

MR. KENNEALLY: Judge, I'm objecting on responsive at this point.

JUDGE JULIUS: It is going onto a little bit more of a narrative.

THE WITNESS: I'm sorry.

JUDGE JULIUS: So, if you could succinctly wrap up your answer.

THE WITNESS: All right. Well, his statement was that a meta-analysis is gold standard, and I disagree. No, sir.

MR. KENNEALLY: Okay. But would you agree that in the medical community, generally speaking, the medical community recognizes systematic reviews and meta-analyses to be the gold standard and at the top of the evidence hierarchy? Is it your --

THE WITNESS: I would disagree with that.

BY MR. KENNEALLY:

Q Okay, so you do not agree with that statement?

A I just said I don't agree with the statement.

Q Okay. Thank you. And then below that,

would you agree that the medical community generally considers randomized controlled trials to be below systematic reviews and meta-analysis on the evidence hierarchy? Do you disagree with that?

A I don't really have a concept of the medical paper hierarchy, so I'm not playing with you, I just don't understand your question. I'm sorry.

Q In terms of what constitutes credible, reliable scientific evidence, would you agree that randomized controlled trials with multiple participants, that's double blinded, would be more credible than a doctor talking about a single experience with a patient?

A Yes.

Q Okay. And in terms of your testimony yesterday, you mentioned a couple of studies, correct?

A I'm sure I did.

Q All right. And one of the studies was your own study, and it's called Substitution of Medical Cannabis for Pharmaceutical Agents for Pain, Anxiety, and Sleep. Do you remember that?

A Yes, sir. The Piper study.

Q Okay. And that's Brian Piper, Rebecca DeKeuster, Monica Beals, ~~Kathryn~~ Catherine Cobb, Corey Burchman, Leah Perkinson, Shayne L~~i~~ynn, Stephanie Nichols, and Alexander Abess. Those are the authors?

A Yes, sir.

Q Okay. And in 2017, did you have a financial interest in the cannabis industry?

A Yes.

Q Okay. I'm looking at the declaration of conflicting interest, and it says, The authors declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article. BJP. That refers to Brian J. Piper. Correct?

A Yes.

Q Okay. BJP has received supplies from NIDA, Bethesda, Maryland, and travel from the Wellness Connection of Maine, USA. RD, that refers to Rebecca DeKeuster. Is that correct?

A Yes.

Q Okay. Was employed with the Wellness Connection of Maine, which operates cannabis dispensaries. Similarly, LP and SL, that's Leah

Parkinson and Shane Lynn, are employed with the Champlain Valley Dispensary, USA. MB, SDN, and ATA, that's Alexander Abess, Stephanie D. Nichols, and Monica Beals, declare no conflicting interests. And would you agree with me that in this paragraph of declaration of conflicting interest, there's no statement by you declaring the conflict of interest that you had in 2017 by virtue of your financial interest in the cannabis industry?

A That's correct, but, you know, I would really have to check to see. I was involved in the cannabis dispensary, I believe, in New Hampshire, but I'd have to just check the dates to see when I started with that. I just can't remember.

Q Okay. So when I asked you, in 2017, did you have a financial interest in the cannabis industry and you responded, yes, that was not true. Is that what you're saying, or you're not sure if that was true?

A I'm absolutely not sure.

Q Okay. And you would agree with me that it says here, Similarly LP and SL are employed -- excuse me.

MS. RACE: Objection.
MR. KENNEALLY: Strike that. I'm going to go -- do you need me to clarify? Is that what you're asking?
MS. RACE: I just want to make sure that if you're asking the witness to verify that you've read something correctly, I don't know, is this in front of him? Is this study in front of him?
JUDGE JULIUS: I don't believe so.
MR. KENNEALLY: Okay.
JUDGE JULIUS: Are you just --
MS. RACE: That’s fine.
JUDGE JULIUS: Reading from it, Counsel?
MR. KENNEALLY: Yeah, I am, Judge.
JUDGE JULIUS: I don't think I even have a copy of it, so I'm just listening.
MR. KENNEALLY: Okay.
JUDGE JULIUS: And do I understand correctly? Is this in evidence yet, or --
MR. KENNEALLY: It's not.
JUDGE JULIUS: Okay. I just wanted to make sure I wasn't missing something.
MS. RACE: To the extent that counsel is asking the witness to verify that he's

reading correctly, that would not be permissible, since the witness doesn't have a copy in front. To the extent he's asking questions about the veracity of the study or his experiences with the study, I don't object to that.

JUDGE JULIUS: Okay.

MS. RACE: But I think the question was, you would agree with me this is what it says? And that's the reason for my objection.

MR. KENNEALLY: He's an author on the study, Your Honor, so I would expect him to know what's in it.

THE WITNESS: Yeah, but it was 10 years ago, and --

JUDGE JULIUS: Hold on, hold on, sir.

THE WITNESS: Sorry.

MR. KENNEALLY: You know what? I have a copy for the good doctor.

JUDGE JULIUS: Okay. Thank you. That'll resolve everything. Thank you.

MR. KENNEALLY: All right. Judge, how would you like me to mark this?

JUDGE JULIUS: You can do ~~DIUD~~ DUID Victim Voice~~s~~.

MR. KENNEALLY: May I give this to him?

JUDGE JULIUS: Yeah, that's fine. And whatever the next number, unless it's a proposed exhibit, however you want to number it sequentially, we can do it for identification. Looks like DUID Voices has Proposed Exhibits 1 through 84 is what I have.

MR. KENNEALLY: Your Honor?

JUDGE JULIUS: Yes.

MR. KENNEALLY: I have a copy for Your Honor.

JUDGE JULIUS: Oh, thank you so much. So I guess we're marking this as DUID 85?

MR. KENNEALLY: 85.

JUDGE JULIUS: For identification. Thank you, Counsel.

(Whereupon, the above-referred to document was marked as ~~DIUD~~ DUID Exhibit No. 85 for identification.)

THE WITNESS: Hey, thanks.

MR. KENNEALLY: All right, and if you go to the end there and you looked at the conflicting -- Doctor, did I give you my copy? Is there handwriting on there?

THE WITNESS: Yeah. You want this one?

BY MR. KENNEALLY:

Q Yeah. Can I have that back.

A Of course.

MR. KENNEALLY: Your Honor, would you mind sharing with the witness just for one second?

JUDGE JULIUS: Sure. Just for everyone's awareness, I did write at the bottom lower-hand corner DUID 85 ID. So that's the only alteration I've made.

THE WITNESS: Thank you.

MR. KENNEALLY: Thanks. You know what? I've lost my copy. Oh, I see. Approach, Your Honor?

JUDGE JULIUS: Of course.

MR. KENNEALLY: I gave it back to Your Honor.

JUDGE JULIUS: Oh, okay. Would you like him to use that one?

MR. KENNEALLY: That’s fine. Either one.

JUDGE JULIUS: You can keep it, sir.

THE WITNESS: All right. Thanks.

MR. KENNEALLY: All right. Let's get back to it. All right, now we've been talking

just about declaration of the conflicting interest, and I'm on page 7 of the study and just the very last sentence it says, MB, SDN, and ATA declare no conflicting interests. So to the extent that you did not have conflicting interests in 2017, it would've been declared there, correct?

THE WITNESS: What page are you on, sir? The last one -- 7?

BY MR. KENNEALLY:

Q The bottom of page 7, declaration of conflicting interests.

A Yes, and I'll just say that I would really need to check --

MR. KENNEALLY: Objection, non-responsive.

MS. RACE: Your Honor --

JUDGE JULIUS: I'm sorry, what was the last question that was posed?

MR. KENNEALLY: That if he had a conflicting interest to declare in 2017, it would've been there. His answer was yes.

MS. RACE: Your Honor, if I could be heard.

JUDGE JULIUS: Okay.

MS. RACE: I believe that the witness was qualifying his answer and he should have the ability to do so if the answer is responsive to the question.

JUDGE JULIUS: Okay, so your answer to that question was yes?

THE WITNESS: Well, I'm just a little confused about something. I apologize. I would need to probably look at my –

MR. KENNEALLY: Judge, I have a limited amount of time --

JUDGE JULIUS: I understand, Counsel.

MR. KENNEALLY: And I'm on the clock, and to the extent that the witness is confused about something and wants your Court's advice or otherwise, I just would ask that that not count against my time, and I just --

JUDGE JULIUS: Understood.

MR. KENNEALLY: Okay.

JUDGE JULIUS: We can get a --

MR. KENNEALLY: Okay. I'd like to ask another question.

JUDGE JULIUS: Go ahead, sir. Did you have anything to add to your --

THE WITNESS: Well, just that the --

the only conflict of interest I would have would be with my involvement in Prime, which was the progenitor to Granite Leaf, and I would just have to look at my professional time line to see when I got involved in that to see if, in fact, it was inadvertently admitted that I had a -- a conflict of interest. That's all I'm trying to say. It was certainly not through any conscious obfuscation.

MR. KENNEALLY: Okay. Now, this was a study where people were recruited from a cannabis dispensary, is that correct?

THE WITNESS: Yes.

BY MR. KENNEALLY:

Q All right. And it involves a number of participants who essentially were already using cannabis, correct?

A Possibly. It could be that they were new users and cannabis naïve.

Q Okay, but many of the --

A I don't think that was characterized.

Q Okay, but the people that were recruited were recruited from a dispensary that they showed up to voluntarily, correct?

A Yes.

Q All right. And you would agree with me that those who had tried marijuana previously did not find it useful in treating any of their medical conditions, didn't like marijuana, stopped using marijuana, wouldn't be at the dispensary to be recruited, correct?

A I can't say that would be correct.

Q Okay, so people that had tried marijuana, stopped using marijuana, and are no longer using marijuana or purchasing marijuana, your statement is that they would go to a dispensary and potentially be recruited into this study?

A Yes.

Q Okay. And it's a one-time retrospective survey, is that correct?

A I believe so.

Q All right. And there was no control?

A No, this was a survey.

Q Okay. And it was based on what people could recall, correct?

A Yes, that's how surveys work.

Q There was no dosing data that was collected.

A Correct.

Q All right, and did you attempt to control for the diet of participants?

A No, there were no controls, sir.

Q Did you attempt to control for exercise?

A There were no controls, sir.

Q Did you attempt to control for any sort of lifestyle changes?

A There were no controls, sir.

Q All right, and this is one of the studies that you have relied on, in your opinion, that medical cannabis treats chronic pain?

A This is an example of real world data, and so it is very similar to any sort of post-market surveillance survey data.

Q Okay. Another study that you mentioned was Staci Gruber. Do you recall that?

A Yes.

Q All right. And is that study entitled No Pain, All Gain: Interim Analysis From a Longitudinal Observational Study Examining the Impact of Medical Cannabis Treatment on Chronic Pain and Related Symptoms? Is that the article you were referring to?

A I would have to see the article, sir. I read a lot.

MR. KENNEALLY: Okay. Please let the record reflect that I'm marking this as DUID Voices 86.

(Whereupon, the above-referred to document was marked as DUID Voices Exhibit No. 86 for identification.)

JUDGE JULIUS: That would be the next number, yes.

MR. KENNEALLY: Okay. Please let the record also reflect that I'm tendering a copy --

MS. RACE: Thank you.

MR. KENNEALLY: To the DEA. May I approach?

JUDGE JULIUS: Yes, you can give everything to Mr. Phillips here. Thank you.

THE WITNESS: Thank you, Mr. Phillips.

MR. KENNEALLY: All right, now this is another one of the studies that you had mentioned yesterday, which you're relying on in your conclusion that medical cannabis treats chronic pain. This –

THE WITNESS: Excuse me. I'm sorry. I didn't mean to interrupt.

BY MR. KENNEALLY:

Q Okay. This study involved how many -- what was the sample size?

A It was quite low. I believe it was 37 patients.

Q Was there a control?

A Yes.

Q There was a placebo?

A No.

Q Okay, and this study also found that medical cannabis improved anxiety of the 37 small sample size participants, correct?

A I'd have to review the data and results. I was mainly interested in the impact on chronic pain, not the related symptoms. Do you want to give me a chance to look at the anxiety scores?

Q Sure. Could you look at the abstract? Because it says --

A Well, there's highlighting over part of it. It's hard to read, but I'll do my best here. The inter --

MS. RACE: Your Honor, to the extent that the Objection -- if I may be heard.

JUDGE JULIUS: Yeah.

MS. RACE: To the extent that the witness has a copy that has highlight on it, I'll just note that -- I'm sorry. I retract that. Wrong copy. My apologies, Counsel.

JUDGE JULIUS: Yeah, I see it does appear darker gray on the black and white photocopy image. But I do see that there is certain text throughout the document that does appear to be what would be highlighted, but is reflected as darker gray box over the text.

MS. RACE: Just wanted to make sure we're looking at the same version. Thank you.

THE WITNESS: Okay.

MR. KENNEALLY: Doctor, would you agree with me that the 37 patients showed an improvement in anxiety?

THE WITNESS: Let me look under the results and see, because I just want to be as exact as possible.

BY MR. KENNEALLY:

Q Doctor, let me draw your attention to page 4.

A Okay, great. Thanks. I appreciate the help.

Q And it's subheading at the very bottom,

pain rating versus mood, anxiety, and sleep ratings. And it says, Correlation in – and it says at the very bottom. You with me?

A Yeah, I got it. Thank you so much.

Q Correlation analysis examining the relationship between improvements from baseline to three months of medical cannabis treatment on pain symptoms and clinical ratings of mood, anxiety, and sleep revealed improvements of pain-related distress were significantly associated with -- Oh, I can't read that. No. I withdraw the question. All right, now, Doctor, one of the other studies that you mentioned was the National Academy of Science. Is that correct?

A The National Academies of Science, Engineering, and Medicine from --

Q Systematic review from 2017, correct?

A Yes. Yep, yep.

Q All right, and if I recall your testimony from yesterday you indicated that it provided extremely good evidence to support cannabis for chronic pain. Is that correct?

A I'm sorry, but the previous question, you said the study, and that publication was not

a study.

Q Systematic review. I apologize.

A Okay.

Q I'll rephrase, it's a systematic review, 2017. If I refer to it as a study, I mean systematic review. Okay?

A Going forward, yes.

Q Yes. Okay. So would you agree with me that yesterday you said that that provided extremely good evidence that cannabis treats chronic pain, correct?

A I would have to see what I said yesterday, but I concur with your summary that I felt it was a very favorable demonstration of an accepted medical use.

Q Okay. And you're very well familiar with this study, correct?

A I am.

Q Acutely aware of it.

A Well, of the review, not the study per se. It lists several hundred studies.

Q But you've read the study. You've read the systematic review.

A I read all 440 pages of it, correct.

Q Okay. And you're aware, and in the

course of your treatment, one of the things that you want to familiarize yourself with is not just the clinical evidence in support of a favorable indication, but you also want to familiarize yourself with the dangers of prescribing that type of medication, correct?

A Well, well, the danger's not of prescribing it but the danger is of a patient ingesting that medicine.

Q Okay.

A Right. There's no danger in prescribing it.

Q All right. And you're aware that the National Academy of Sciences found substantial evidence that marijuana use significantly and this is the systematic review, so if I said study, I meant systematic review. In 2017, National Academy of Sciences systematic review found significant -- excuse me, substantial evidence that marijuana use significantly increased the risk of psychosis and schizophrenia. You're aware that that was one of the findings, correct?

A I am.

Q Okay. And you're aware that they said

that it was most apparent and that the connection was closest with most frequent users, correct?

A When you say connection, we're talking correlation, and that would be correct.

Q Okay.

A I'm sorry to parse your words, but words matter quite a bit.

Q I appreciate that. You would have made a great lawyer, Doctor. Everyday users are the users that have the most or -- you would agree with me that most frequent users would include everyday users as opposed to monthly users or people that use annually, correct?

A Yes.

Q All right. And when we're talking about chronic pain, those are probably the type of patients that are likely to use most because they suffer from chronic pain, which is regular pain ongoing out into the future. Would you agree with that?

A I don't understand the question. I'm sorry.

Q Well, you would agree that -- well, for any of your chronic pain patients, do you

recommend use every day?

A Use of medication or marijuana specifically?

Q Marijuana, medical marijuana. Mm-hmm.

A It depends on the patient. I don't recommend -- it's -- pain management is such that you should take medicine when you have pain.

Q For any of your chronic pain patients, do you personally recommend use every day?

A Not necessarily.

Q Okay. Have you ever recommended use every day for one of your chronic pain patients?

A Oh, yes.

Q Okay.

A Absolutely.

Q And about how many of the thousands that you've treated?

A I would say the majority.

Q Okay. Now, you're aware that the National Academy of Sciences found that cannabis use increased the risk of development of depressive disorders, correct?

A There is a correlation, yes.

Q Okay. And you're aware that the

National Academy of Sciences in their 2017 systematic review, which you cited, found that cannabis use increased the incidence of suicidal ideation and suicide attempts, correct?

A That's correct, but we can't confound correlation with causation. That's --

Q And it found further that the suicidal connection was higher with the incidence of use. In other words, heavier users had an increased risk of suicidal ideation, correct?

A In some studies in that review, that is correct.

Q Okay. And you're aware that the National Academy of Sciences in their 2017 review found that cannabis use increased the risk of suicidal completion, correct?

A I'd have to look at that study again. It's been a while.

Q So you're not aware, as you sit here today?

A No, I didn't say I'm not aware. I said I would need to look at that study to confirm your question.

Q Do you advise your -- are you aware, as you sit here today, that the National Academy of

Sciences found that there is an association between cannabis use and completion of suicide? As you sit here today.

A No.

Q Okay. So then do you advise your patients when you're providing them with medical cannabis, do you advise them that there's an association between the use of this product, which I'm giving you, and them completing suicide?

A Yes.

Q So then you're aware that there is a con --

A I'm so sorry. Can I --

Q I'm going to withdraw the question.

A Can I correct my last answer?

Q There's no question pending, Your Honor.

JUDGE JULIUS: If he has, well --

MR. KENNEALLY: Doctor --

JUDGE JULIUS: Wait for a question.

MR. KENNEALLY: Doctor, you're aware that the National Academy of Sciences found that cannabis use impairs cognitive domains of learning, memory, and attention, correct?

THE WITNESS: Incorrect.

BY MR. KENNEALLY:

Q Okay, you do not know that.

A Could you repeat the question? I'm sorry.

Q Okay. You're aware that the National Academy of Sciences 2017 found that there was evidence that cannabis use impairs cognitive domains of learning, memory, and attention, correct?

A No, that's not correct.

Q Okay. Not correct in that you're not aware of it?

A No, again, it's a paper that I would need to look at, but I don't believe it states that it could impair it. I believe it states that there is an association with it because impair implies causation.

Q Let me rephrase the question.

A And causation is totally different than correlation.

Q Fair enough. Would you agree that the National Academy of Sciences, in their 2017 systematic review, they found that there is moderate evidence of a statistical association

between cannabis use and the impairment of cognitive domains of learning, memory, and attention?

A Yes. Association is the operative word.

Q Now, as somebody who's acutely aware of the research and, of course, is concerned about patient safety, you're aware of the 2025 study by the American College of Cardiology, who, after reviewing 4 million records, found that marijuana users ages 18 to 50 had six times higher odds of experiencing heart attack, four times higher odds of ischemic stroke, double the risk of heart failure, and three times the risk of experiencing a major cardiovascular event. Are you aware of that study?

A I am aware of that study.

Q And when you counsel your patients, and when you say, okay, we'd like to get you on a regimen of medical cannabis. We think it's going to help you with your chronic pain, do you say, oh, and by the way, taking this drug could increase your risk of a heart attack by a factor of six?

A Well, I never say by the way when I'm

discussing risks, first of all. And second of all, this data is very complex, and as one would understand, there are very many compounded confounding variables when dealing with administering any drug and then looking at other potential problems. For example, you know, with cardiac issues, if there is concurrent tobacco history, a family history of coronary disease these are called confounding variables. So, I always talk to patients about the potential risks of cardiogenic effects of marijuana, but I always do it in the context of eliciting other risk factors that could potentially imply that that patient is at risk.

Q Okay. So the American College of Cardiology, that study didn't control for smoking. Is that what you're saying here today?

A I would need to look at the study to refresh --

Q As you sit here today, the American College of Cardiology, do you know, as you sit here today, whether or not that study controlled for smoking?

A Well, as I just said, I don't know because I'd need to review the study.

Q Okay. And as you sit here today, do you know whether or not that study controlled for any of the other “confounding factors” that you just talked about?

A As I sit here today, I can't categorically say that I know that in that I may have read this study, you know, a while ago, and I would need to refresh myself to see what the limitations of the study were, sir.

Q What is hyperemesis syndrome?

A Cannabis hyperemesis syndrome is a protracted situation where episodic or, what we call in medicine, idiosyncratic use, that is, just indiscriminate use, or without a history thereof, of somebody using marijuana developing intractable vomiting.

Q Daily use?

A Not necessarily.

Q Could it be daily use?

A Yes, of course.

Q Okay. And it's an intractable form of vomiting that can last days?

A Yes.

Q Okay, have you ever heard the term scromiting?

A No.

Q Okay. Well, it's a conflation of the word screaming and vomiting to describe hyperemesis syndrome. You've never heard that?

A Doesn't sound like a medical term to me, sir.

Q Okay. And would you consider hyperemesis syndrome, as you described cannabis withdrawal, to be -- and when you're throwing up, screaming for days on end, would you consider that to be the last embers of a burning fire?

MS. RACE: Objection. Objection, Your Honor. I think that's vague.

MR. KENNEALLY: I'll withdraw the question.

JUDGE JULIUS: Thank you, Counsel.

MR. KENNEALLY: Prior to coming here today, have you considered the clinical research showing that prior cannabis use increases the risk of opioid use?

THE WITNESS: Can you repeat the question, please?

BY MR. KENNEALLY:

Q Okay. Yesterday, you talked about how

you think that medical cannabis can be a good drug to transition people off of opioid use, correct?

A Yes.

Q Okay. Are you familiar with Wilson et al. 2022 in the Journal of Addiction entitled Weeding Out the Truth: A Systematic Review and Meta-Analysis on the Transition from Cannabis Use to Opioid Use and Opioid Use Disorders, finding that those with prior cannabis use were 2.5 times more likely to develop opioid use disorder? Are you familiar with that study, sir?

A Well, not being an addictionologist, I generally don't read that literature.

Q Okay. So, studies showing that cannabis use actually increases the risk of developing an opioid use disorder, that's literature that you don't read and are impervious to?

A I would have to look at that article. I'm very skeptical of the validity of that article, sir, and I have not read it, I can tell you that.

Q All right. Well, try this one. Are

you familiar with ~~Olsen~~ Olfson et al., 2018~~2~~ in the American Journal of Psychiatry? Do you consider that to be an authoritative journal?

A Yes.

Q Okay. Entitled Cannabis Use and Risk of Prescription ~~Perception~~ Opioid Use Disorder in the United States, finding after analysis of a national pool that cannabis use was associated with increased development of non-medical prescription opioid use and opioid use disorder. Are you familiar with that study, sir?

A I believe I am.

Q Okay. Are you familiar with Ferguson et al., 2006 in the Journal of Addiction entitled Cannabis Use and Other Illicit Drug Use: Testing the Cannabis Gateway Hypothesis, finding as part of a 25-year birth cohort study in New Zealand that the frequency of cannabis use was significantly associated with the use of other illicit drugs and other illicit drug abuse dependence issues? Are you familiar with that study, sir?

A Yes, and in the 14-year interval since that publication, that data has been discounted by many other subsequent studies.

Q Okay. Well, here's one from 2015. Are you familiar with ~~Cicadas versus Villa~~ Secades-Villa et al., as I said, 2015, in the International Journal of Drug Policy entitled The Probability and Predictors of the Gateway Effect: A National Study, finding that cannabis users had higher rates of progression to other illicit drug use, including opioids? Are you familiar with that study, sir?

A I believe I read that, and again, in the intervening 11 or 12 years since that study, multiple studies have refuted the basis –

Q Didn't you just say that you were unfamiliar with the literature with regard to the rate of cannabis use and how that transitions into opioid use? I mean, didn't you just say that that is not the literature that you viewed?

(Simultaneous speaking.)

A No, I believe I said I believe I said that I'm not an addictionologist, and I don't generally read, you know, the Journal of Addiction Medicine.

Q Okay.

A That's what I said.

Q Okay. Do you agree with me that there's no statistical association based on studies between reduced opioid overdose deaths and marijuana legalization either medically or recreationally?

A I'm sorry, can you repeat this question?

Q Sure. Do you agree with me that there's no clinical evidence to support the hypothesis that legalization of marijuana, either medically or legally, reduces the amount of opioid overdose in that state? Do you agree with me on that?

A It's a very controversial topic. I'm not being thick here, maybe it's just a little fatigue. Can you repeat the question just a bit more slowly? Because there's a lot of different variables in it. I'm sorry.

Q I talk fast.

A You do.

Q Do you agree with me that there's no clinical evidence to support the hypothesis -- you with me?

A Mm-hmm.

Q Okay. That states which legalize

cannabis either recreationally or medically -- you still with me?

A Mm-hmm.

Q Okay. That that reduces the number of opiate overdose deaths in that state. Do you understand the question?

A No, I don't. I'm sorry.

Q Okay.

A I don't understand your question.

Q So where did you lose me?

A You're asking me if I agree.

Q Do you agree?

A I'm so sorry. You're asking me if I agree that there are studies that exist --

Q No. No, no. Do you agree that there is no clinical evidence, medical studies or otherwise, to support the hypothesis? Okay? Do you agree no clinical studies support the hypothesis that legalizing cannabis in a state reduces opioid deaths in that state?

A No. There, I think I finally got it, sorry. There do exist publications that demonstrate, that postulate that the enactment of medical cannabis laws decrease opioid use.

Q Terrific. What are they?

A Well, the landmark one and the one I used to hang my hat on is Bachhuber from JAMA, I think in -- I don't know -- the mid -- 2014 or somewhere around there. And interesting, and I was really excited when I heard that, but I think that study was refuted.

Q Okay. So the study that you're referring to to support your position was refuted, correct?

A Well, I didn't say it was my position.

Q Okay.

A I never -- I don't believe I stated that use of medical cannabis in states that authorize it reduced opioid deaths.

Q Yeah, but it stands to reason, though, right? Like, if what you're saying is that people can transition off of opioids, which have far worse side effects and withdrawal symptoms, and they can transition to marijuana, it would stand to reason that if you legalize cannabis recreationally and medically, made it more available to people to use as opposed to their opioids, that opioid deaths would be reduced. No?

A That's exactly correct, but the

Bachhuber study, and the reason it was refuted was, you know, the operative word is people, and they looked at populations. They looked at numbers. They didn't examine people.

Q And it would stand.

A And that's really the sticking point.

Q And it would stand to reason that if cannabis did not effectively treat pain, that people who needed opioids for their pain would not transition off of opioids to cannabis, correct?

A You know, maybe it's just the manner and the way you're presenting the questions. It's a bit tortuous for me to kind of dissect what you're trying to ask me.

Q Are you familiar with the study Shover et al., published in PNAS 2019, entitled Association Between Medical Cannabis Laws and Opioid Overdose Mortality Has Reversed Over Time, finding that there was no evidence that recreational cannabis laws were associated with changes in opioid overdose mortality?

A Yeah.

Q Are you familiar with that study?

A I actually am, and it's because the

data was looking at population numbers and not individual patients.

Q Okay. Are you familiar with Segura et al., 2021? This was an NSDUH -- this was a federal study published in the International Journal of Drug Policy entitled Association Between Fatal Opioid Overdose and State Medical Cannabis Laws in the U.S. National Survey Data, 2000 to 2011, finding no overall association between state medical cannabis laws and fatal opioid overdose deaths. Are you familiar with that study, sir?

A I am.

Q Okay. Are you familiar with ~~Alkoser~~ Alcocer 2020 in Public Health, entitled Exploring the Effects of Colorado's Recreational Marijuana Policy on Opioid Overdose Rates, finding after analyzing data from 1999 through 2017 no impact of recreational legalization on opioid deaths in Colorado? Are you familiar with that study?

A I believe I read it, but I'd have to refresh myself and look at all the study design aspects of it to judge its merits of validity.

Q Okay. Are you familiar --

MS. RACE: Your Honor, if I could just

a point of clarification? It's noon for the noon break. Is this something -- are we going to continue going? Should we plan on a break for purposes of scheduling one?

MR. KENNEALLY: Judge, I got one more question.

JUDGE JULIUS: We discussed -- just one more question? I was going to say, you have --

(Simultaneous speaking.)

MR. KENNEALLY: I got one more question, and then we can take a break.

JUDGE JULIUS: Okay. I was going to say you have 18 more minutes. I didn't know if you wanted to just finish off, and then we can take lunch then --

MS. RACE: Thank you.

JUDGE JULIUS: And shift it back. I don't -- I understand the difficulties of bifurcating sometimes. So if you just have one more question.

MR. KENNEALLY: I just have one more question. I really appreciate the Court's indulgence.

JUDGE JULIUS: Sure, absolutely. I just want to make sure we're all on the same

page. And so would that conclude the DUID Victim Voices?

MR. KENNEALLY: Not sure.

JUDGE JULIUS: Okay.

MR. KENNEALLY: I'm not sure if I could just have a moment with counsel to talk about that.

JUDGE JULIUS: Sure. No problem.

MR. KENNEALLY: Okay. Appreciate it, Judge.

JUDGE JULIUS: Please continue, Counsel.

MR. KENNEALLY: All right.

JUDGE JULIUS: Yes, I'm flexible.

MR. KENNEALLY: All right. So you have not had a chance to review Alkoser Alcocer and determine whether or not you find the methodology sufficient?

THE WITNESS: Correct.

BY MR. KENNEALLY:

Q Are you familiar with Mathe~~u~~r and Rhum ~~Room~~, 2023, in the Journal of Health Economics, entitled Marijuana Legalization and Opioid Deaths, and finding after an in-depth analysis over 1999 to 2019, the authors concluded that

reducing opioid mortality is not among the benefits of legalizing medical or recreational marijuana? 2023 study. Are you familiar with that one?

A I would have to review that to see if I read it. I can't recall. I'm sorry.

Q Do you know if you considered that prior to testifying here today?

A Could you ask the question again?

Q Do you know if you considered that study prior to testifying here today?

A I am not aware that I did.

MR. KENNEALLY: I'd request that we break for lunch, Your Honor. I'll talk with Mr. Evans with respect to the remainder of the 18 minutes, and we should have an answer for you first thing when we get back from lunch.

JUDGE JULIUS: Sounds like a plan.

(Whereupon, the above-entitled matter went off the record at 12:01 p.m. and resumed at 1:01 p.m.)

MR. EVANS: Good afternoon, Your Honor.

JUDGE JULIUS: I know before we took the lunch break, there was discussion about how you and your co-counsel might split up the time

this afternoon.

MR. EVANS: I think I --

JUDGE JULIUS: I don't see your co-counsel here. Do we --

MR. EVANS: He's --

JUDGE JULIUS: -- just get you this afternoon?

MR. EVANS: -- he's gone. He's gone. And we have 18 minutes left. I will do what I can to --

MS. RACE: Object. Okay, sorry.

JUDGE JULIUS: I was just going to say, you get a full hour for --

MR. EVANS: Oh, I do?

JUDGE JULIUS: Dr. Finn. Yeah. He was just using the DUID Victim Voices time.

MR. EVANS: Oh, I misunderstood.

JUDGE JULIUS: You have 18 minutes of that.

MR. EVANS: Oh, wow.

JUDGE JULIUS: And you have a whole hour for Dr. Finn.

MR. EVANS: I would love to explore the marijuana space.

JUDGE JULIUS: You have a full hour,

sir.

MR. EVANS: I don't even know if I'll take a whole hour, but --

JUDGE JULIUS: Well, you have more than 18 minutes.

MR. EVANS: Oh, great.

JUDGE JULIUS: All right.

MR. EVANS: That's terrific. Your Honor, Mr. Kenneally presented some exhibits to the Court, and he would like me to move that they be accepted in evidence. I think we marked them.

JUDGE JULIUS: So we had for identification DUID Victim Voices 85 and 86, I believe. Is that correct, Mr. Phillips?

MR. PHILLIPS: Correct.

JUDGE JULIUS: Mr. Phillips? Okay.

MR. PHILLIPS: Correct.

JUDGE JULIUS: Any objection to DUID 85 and 86?

MS. RACE: Your Honor, I may. I'm just looking for those copies right now. Would they be there? Thank you. If Your Honor would just give us one minute to separate the SAM versions from -- no, I don't see them either. If we can,

for the record, identify which ones we are talking about.

JUDGE JULIUS: 86 is an article, Experimental and Clinical Psychopharmacology is the main title. No Pain, All Gain: Interim Analyses From a Longitudinal Observational Study Examining the Impact of Medical Cannabis Treatment on Chronic Pain and Related Symptoms. I believe 85 the witness had my copy. I don't have it in front of me.

MS. RACE: Oh.

MR. EVANS: If you would --

JUDGE JULIUS: If you have it there, thank you, sir.

MS. RACE: I'm sorry, Your Honor.

DR. BURCHMAN: Is that the one?

JUDGE JULIUS: No.

MS. RACE: Yes.

JUDGE JULIUS: It's the other one. I have that one.

MS. RACE: I have located my copies.

JUDGE JULIUS: Oh, thank you, sir.

MS. RACE: So 85 --

DR. BURCHMAN: I don't know which one it is.

MS. RACE: -- is the Piper study that Dr. Burchman testified that he was familiar with, so we have no objection to that.

DR. BURCHMAN: Yes, he's --

MS. RACE: He's the author.

JUDGE JULIUS: I'm so sorry. Ms. Race, if you could repeat that.

MS. RACE: Yes, I'm sorry. I should have paused.

JUDGE JULIUS: I was shuffling papers with the witness. I apologize.

MS. RACE: Exhibit 85 is the Piper study from 2017, of which Dr. Burchman is an author. We have no objection to that.

JUDGE JULIUS: Okay, 85 will be admitted.

(Whereupon, the above-referred to document marked as DIUD Victim Voices's Exhibit No. 85 was received into evidence.)

MR. EVANS: Thank you, Your Honor.

MS. RACE: And 86 is the Gruber study that Dr. Burchman testified about on direct, and we have no objection to that either.

JUDGE JULIUS: Very good. DUID Victim Voices 86 will also be admitted.

(Whereupon, the above-referred to document marked as DUID Victim Voices's Exhibit No. 86 was received into evidence.)

MS. RACE: Thank you.

JUDGE JULIUS: So thank you both. Appreciate that. That did not come out of your time, by the way, Mr. Evans.

MR. EVANS: I don't think I'm going to go a whole hour.

JUDGE JULIUS: Just wanted to make sure you knew.

MR. EVANS: Okay.

JUDGE JULIUS: Whenever you're ready, sir.

CROSS-EXAMINATION

MR. EVANS: Thank you. Doctor, yesterday, is it correct that you characterized withdrawal from opiates as a dumpster fire?

THE WITNESS: Yes.

BY MR. EVANS:

Q What did you mean by dumpster fire?

COURT REPORTER: I'm sorry, can you push the microphone back? A little bit further?

THE WITNESS: Further? Okay.

COURT REPORTER: That's great.

JUDGE JULIUS: Thank you.

THE WITNESS: The colloquial term dumpster fire in medicine refers to a chaotic, extremely noxious and unstable situation.

MR. EVANS: Okay. But it is somewhat contained because it's in a dumpster, correct? Usually those are metal containers.

THE WITNESS: It's an analogy, sir, not a literal characterization of the situation.

BY MR. EVANS:

Q Okay, so --

A Is this okay?

Q How did you characterize --

JUDGE JULIUS: One moment. I just want to make sure that we get the microphone positioned correctly for the record.

COURT REPORTER: We're getting your breathing into it, can you try to move it away?

THE WITNESS: I could stop breathing.

(Laughter.)

JUDGE JULIUS: No, no. It should be bendable.

THE WITNESS: How about that? Is that good?

COURT REPORTER: Yes, thank you.

THE WITNESS: Okay. Sorry.

JUDGE JULIUS: Thank you. Thank you, Mr. Evans. Resume when you're ready.

MR. EVANS: And if I'm correct, you characterized withdrawal from marijuana as glowing embers in a dying campfire?

THE WITNESS: Yeah, I think that's a reasonable analogy.

BY MR. EVANS:

Q Okay, have you ever seen anybody in psychosis?

A Yes.

Q And would you consider a psychosis impact on a person's life the dying ember of a campfire?

A No, not at all.

Q Would that be a dumpster fire?

A Could be.

Q It could be. Okay. Are you aware of a paper called Psychosis Associated With Cannabis Withdrawal: Systemic Review and Case Series, published in the British Journal of Psychiatry? Are you familiar with that study?

A What year is that, sir?

Q It would've been, I'm not sure if it

has a year on it. It's looks like it's 2024. Fairly recent.

A I don't --

Q Perhaps after the NPRM -- well, could be past the NPRM.

A I may have read it. I'm not sure.

Q Well, here's the conclusion of the study, and you tell me if you agree with this. Abrupt cannabis withdrawal may act as a trigger for the first episode of psychosis and a relapse of an existing psychosis. So, it’s two things, it can start one off or it can restart one.

MS. RACE: Objection.

JUDGE JULIUS: What's the objection?

MS. RACE: To the extent that this question is seeking expert witness testimony in the area of psychiatry or mental health that is outside of the pain management expertise, I object. To the extent that counsel's asking about a factual question, we don't object to it, but the witness has already indicated he doesn't recall whether he read this study.

JUDGE JULIUS: Understood.

MR. EVANS: Well, Your Honor, if I may?

JUDGE JULIUS: Yes, if you'd like to

respond.

MR. EVANS: He clearly understands what a dumpster fire is, and he's testified that a psychosis could be a dumpster fire this could be a manifestation of and he has testified about withdrawal from opiates and withdrawal from marijuana. They made no objection when he talked about that.

JUDGE JULIUS: Understood. I just want to get clarity. Are you asking him in his capacity as a practitioning physician or as an expert on pain management and anesthesia?

MR. EVANS: I would say as a physician. He's here in both capacities.

JUDGE JULIUS: He is.

MR. EVANS: Okay.

JUDGE JULIUS: I think the objection was that he wouldn't be able to opine on that as the expert in pain management or anesthesia.

MR. EVANS: Well, that's fine.

JUDGE JULIUS: But I will allow the question.

MR. EVANS: Yeah.

JUDGE JULIUS: So long as it's understood that the answer is in his personal

capacity as a fact witness.

MR. EVANS: Right, would the Court recall that --

JUDGE JULIUS: Sustained in part, I suppose with that understanding I'll allow the question.

MR. EVANS: I have an objection to him being considered an expert witness, which I have not withdrawn.

JUDGE JULIUS: I understand.

MR. EVANS: Okay.

JUDGE JULIUS: Yes, and you may continue to argue that in your --

MR. EVANS: Okay. All right.

JUDGE JULIUS: ~~Cross~~ Closing.

MR. EVANS: So, let's just pick up again. It can start an episode of psychosis or a relapse of an existing psychosis. Acute psychotic symptoms can emerge after the cessation, as well as, following the use of cannabis. Do you agree with that?

THE WITNESS: I can't because in my capacity as a pain management physician, the cannabis withdrawal that I have witnessed is not characterized by psychotic episodes. I'm not

saying they don't exist. I'm not a psychiatrist or an addictionologist, so it's not really the sphere in which I deal. I merely counsel patients on the risk of cannabis use disorder when taking cannabis on a long-term basis and the sequelae thereof with respect to cessation of those modalities.

BY MR. EVANS:

Q Okay, now, can long-term use of cannabis result in psychosis?

MS. RACE: Same objection. Just fact witness versus expert witness testimony.

JUDGE JULIUS: Understood. I'll allow the question.

THE WITNESS: I don't know the answer to that.

MR. EVANS: Okay. Have you ever, in your marijuana world, ever seen a case of cannabis-induced psychosis?

THE WITNESS: No.

BY MR. EVANS:

Q Okay, you spoke earlier of cannabis hyperemesis syndrome. Do you recall that?

A Yes.

Q And you said that results can be long-

term vomiting.

A Well, protracted vomiting.

Q Protracted vomiting.

A Right.

Q Okay.

A Long-term implies over a span of weeks, months, or years. Protracted, in the sense of that syndrome, is it's fairly poorly characterized but anywhere from 24 to 96 hours.

Q Okay. Can vomiting result in a person's death?

A No.

Q Can anorexics who force themselves to vomit and thereby depriving their body of certain --

MS. RACE: Objection.

MR. EVANS: -- chemicals and so forth.

JUDGE JULIUS: Let's get the --

MR. EVANS: Well, this is a physical question right now. It's not a psychiatric question.

JUDGE JULIUS: Let's get the whole question out and then –

MR. EVANS: Okay.

JUDGE JULIUS: Go ahead, Mr. Evans.

MR. EVANS: Okay, is it true that anorexics, who vomit a lot, can deplete their body of electrolytes?

THE WITNESS: Yes.

MS. RACE: Objection.

MR. EVANS: Okay. What is the objection?

MS. RACE: My objection is you are calling for expert witness testimony outside the pain management designation.

MR. EVANS: That's not -- any doctor should know this -- any doctor should know this. This is not anything to do with psychiatry.

MS. RACE: It assumes facts not in evidence. It's also not relevant, but specifically, it seeks --

MR. EVANS: Well, I --

MS. RACE: A medical opinion that is beyond his expertise as been designated here or as the government requested his designation, Your Honor.

JUDGE JULIUS: Understood. I'll allow the question as to his practice as a physician, to the extent he's able to answer it.

MR. EVANS: I will relate it.

JUDGE JULIUS: But I'll rule the question is outside the scope of the provisional expertise.

MR. EVANS: I will relate it to cannabis.

JUDGE JULIUS: Perfectly. Thank you.

MR. EVANS: So, could an anorexic vomit to the point where they deprive their body of electrolytes, and could that result in death?

THE WITNESS: Theoretically, yes.

BY MR. EVANS:

Q Okay. Now, somebody that has cannabis hyperemesis syndrome and is vomiting a lot, would they be depriving their body of electrolytes?

A Yes.

Q And could that result in death?

A I would think yes.

Q Are you aware of any literature documenting deaths due to cannabis hyperemesis syndrome?

A Yes.

Q Okay. I want to look at the conditions approved in New Hampshire for marijuana. Now you testified earlier that -- and tell me if I

got this wrong, that you wrote an article saying that marijuana and glaucoma are not a good match. Is that correct?

A Well, I didn't state not a good match. I said, there seems to be a paucity of evidence that marijuana use as a therapy for glaucoma is questionable.

Q Isn't it true, Doctor, that the American Glaucoma Society has said that using marijuana can cause blindness if with somebody with glaucoma? Do you understand the mechanism there?

A Well, glaucoma in and of itself is a factor in the loss of eyesight. If there's concurrent use of marijuana, I am unaware of any physiologic implication that marijuana would be a contributory factor to the loss of retinal function.

Q Well, you cited their position paper in an article, and I suggest you go back and read it, the going up and down when you use marijuana, and just tell me if you agree with this, the raising or lowering of the ocular pressure, first of all, cannot be sustained with marijuana because the effects of marijuana are

short-term. You'd have to be smoking a joint 24 hours a day. Is that correct?

A That's correct.

Q Okay.

A But excuse me, I just need some clarity. When you say going up and down, do you mean in changing in body position and dependent position?

Q No, I'm sorry, the intraocular pressure.

A Okay.

Q Okay? The problem with glaucoma is you got too much of it, and marijuana in a study years ago said that it lowered -- are you familiar with that study?

A Well, there are many studies that demonstrate the dynamics behind intraocular pressure in a diurnal fashion, that is over the period of 24 hours. So, when you say that study, I'm not really certain what you're --

Q All right. Well –

A -- implying.

Q I'm bringing up the point. It's on the record. I suggest you go back and read the opinion. The going up and down of the

intraocular pressure plus decrease in blood flow can result in danger to the optic nerve and can cause loss of vision. Are you aware of that?

A I'm not aware of the paper to which you speak, and I must say, as a medical professional, your characterization of the physiology of retinal blood flow and optic nerve vitality is inaccurate.

Q Well, I suggest you go back and read their position because I just read it over lunch. I suggest you go back and read it. Doctor, your CV says that you are on the New Hampshire State Therapeutic Medical Cannabis Oversight Board. Is that correct?

A Yes.

Q And what is your function on that board?

A Well, I'm one of the ranking members. I'm a physician member. There are some that are non-physicians. That board is charged with both advising and receiving information from the legislature. It is informing patients, healthcare providers, as well as the legislature on the risks and potential benefits of marijuana. And as well, we are charged annually

with reviewing medical literature and assessing the appropriateness of the current state's qualifying conditions and symptoms. And then finally, we have patient public access and hearings to allow patients of the state to voice their concerns and questions thereof.

Q Can people file a petition to that board to get a medical condition added to the list or detracted from the list? Are those petitions available?

A I believe so.

Q Okay. And may I ask, why have you not petitioned that board to remove glaucoma from the list of illnesses that you can get marijuana for in New Hampshire?

A Well, that's a great question. I was charged, even though I'm not an ophthalmologist, I was charged with writing that paper for the Therapeutic Cannabis Board, and we are in the process of doing that very thing. We were charged with potentially eliminating a qualifying condition and we held a public hearing. There was a fairly significant patient turnout because the patients don't really want qualifying conditions contracted. But we felt,

in a medically appropriate way, marijuana isn't really effective for it and so it's in the process, so TBA.

Q Excellent. I'll follow that. If there's anything I can do to help you with it, I'd be happy to. One of the conditions that is a condition you can get marijuana for is for generalized anxiety. Is that correct?

A You mean for the state of New Hampshire?

Q Yes. I'm only talking about New Hampshire right now.

A Sorry. The source of that, do you know the date on which that --

Q ALS I know is that as of last night --

A Is that current?

Q It's on the state website.

A Okay. So am I aware of it? Is that what you're asking?

Q Yes. Oh, excuse me. Pardon me. Pardon me. I did write a note. 2024, it was added.

A Okay.

Q Pardon me. Sorry.

A Yes.

Q Okay, have you ever given marijuana to somebody that has generalized anxiety?

A Well, I don't give marijuana to anyone, sir.

Q Have you recommended marijuana for anybody that has generalized anxiety?

A Only in the context of a pain management patient who has anxiety associated with a primary complaint.

Q Okay. And would that be generalized anxiety, or would that be specific anxiety? If they're having an anxiety about one thing, wouldn't that be specific, not generalized?

A Well, not being a psychologist or a psychiatrist, I am not particularly prescient on the differentiation of the two. I mean, in medicine we generally refer to anxiety as an anxiety disorder, whether it's general -- and subcategories of that would be generalized anxiety disorder, in which every aspect of life causes anxiety or, what was the other term you used? Specific anxiety.

Q Specific anxiety.

A Yeah, so that would be perhaps a trigger.

Q Okay.
A But I fail to -- it's not in my lane to assess the various silos that anxiety lives in.
Q Okay, I understand. But you are authorized in New Hampshire to recommend marijuana for it, correct?
A Yeah, healthcare providers have that ability.
Q Okay. And in diagnosing generalized anxiety, what guidelines could a doctor utilize? Because any general practitioner --
MS. RACE: Objection.
MR. EVANS: Excuse me. Any general practitioner under the law doesn't require, it doesn't say only psychiatrists can do this. Any doctor in New Hampshire can do it, and I would assume it'd have to be a doctor that has a DEA license. But so any doctor can diagnose generalized anxiety and give marijuana for it. Are you aware of any guidelines defining generalized anxiety?
JUDGE JULIUS: So hold, please.
MS. RACE: Your Honor, my objection is both first, it appears as if we're also now still seeking opinion testimony that's outside

the pain management space. Further, there is some testimony and narrative in the presentation by Counsel as if Counsel's testifying about how the system works without verifying that with the witness. And actually, I'll leave it there.

JUDGE JULIUS: Okay.

MS. RACE: Thank you.

JUDGE JULIUS: So, as to the first objection, understood. The question is being asked as a physician, not in the pain management expertise.

MR. EVANS: Right. And what –

JUDGE JULIUS: As to -- I will acknowledge the question was a lengthy one.

MR. EVANS: Okay.

JUDGE JULIUS: I just want to make sure --

MR. EVANS: I'll cut it down, Your Honor.

JUDGE JULIUS: Thank you very much.

MR. EVANS: What I'm trying to do by this line of questioning is to see how it works in New Hampshire, okay?

JUDGE JULIUS: Okay.

MR. EVANS: We haven't been presented

with how it works nationally. They have asked us to focus on New Hampshire, so I'm just trying to understand what's the system. How do you work the system? How do you do it in New Hampshire? So, you're on the Therapeutic Medical Cannabis Oversight Board. So if somebody came up -- and how long you been on that board, since 2018?

THE WITNESS: I believe so.

BY MR. EVANS:

Q Okay. So, this was added on 2024, so generalized anxiety was added during your tenure on the board. Do you recall how that went?

A I recall that we discussed it as a group and agreed. It was initiated by a legislator, I remember him specifically, and he, in fact, was a medical practitioner. And so I do remember the discussion, yes.

Q Did you set any guidelines for helping practitioners make a recommendation for marijuana concerning generalized anxiety?

A Well, the board is not charged with setting guidelines specifically for practitioners in their diagnostic process, that is something that practitioners do between

themselves and their patients. We are charged with understanding and presenting qualifying indications --

Q Okay.

A For medical cannabis use.

Q Okay. Now if -- and by the way, who are healthcare practitioners in New Hampshire that are authorized to do this?

A I believe it's dentists, nurse practitioners, obviously physicians, perhaps naturopaths. I just can't remember.

Q Okay. Well, I can certainly understand generalized anxiety for dentists. I think they'd have a lot of use of that. So, if a doctor does not comply with the medical marijuana law in New Hampshire, is there a method for filing complaints against that doctor?

A Could you rephrase the question so I understand what you mean by comply with the medical marijuana law, please?

Q Well, there's a medical marijuana statute. It says you will do certain things. So supposing a doctor does not do one of those things that he or she is supposed to do, okay?

For example, doing an evaluation with a patient, meeting with a patient, that's a requirement in New Hampshire, correct? Okay --

JUDGE JULIUS: Can we get a verbal answer?

THE WITNESS: Yes.

MR. EVANS: Yeah, okay. I mean, you can't just have somebody call you up on the phone and say, I want medical marijuana, and you give them medical marijuana, could you?

THE WITNESS: That's not how the process works, no, sir.

BY MR. EVANS:

Q I understand. I'm talking about when the process doesn't work. Can you just do it by somebody calling you on the phone saying, I'd like to have a marijuana card?

A No.

Q Okay. Now, if a doctor gave out a marijuana card under those circumstances, what could be done about that doctor?

A Well, I don't believe it's the responsibility of the oversight board to in any way enforce that, but I would imagine that the State Board of Health would be involved in

investigative and punitive action.

Q Okay. Is that the Department of Health, or is it the Board of Medical Examiners?

A No, sir. The Board of Medical Examiners is a national body that accredits physicians in medical specialties.

Q Well, there are states that have Board of Medical Examiners, aren't they? New Jersey's one of them. I'm pretty sure --

A Well, I'm sorry, I'm not aware.

Q It was before them. Okay, all right. That brings up a question, in talking about glaucoma, you apparently -- and you've characterized yourself as a research nerd -- you mentioned in glaucoma that you had done research that multiple states list glaucoma on their list of conditions that can be obtained from marijuana. So you did? How did you find out that information?

A First of all, I'm not a researcher. I'm a clinician -- or was a clinician. One can ascertain the qualifying conditions of any state just from accessing databases that demonstrate how and where the aspects of medical marijuana occur in various states.

Q Okay and in preparing for your testimony, which was going to deal with the national picture, did anybody ask you to find out what was going on in states other than New Hampshire and Vermont?

A Well, it's my understanding that my testimony was going to -- while I do have, you know, a relatively good understanding of how things occur nationally, my focus is New Hampshire, and it remains so.

Q Now, you just said that you have a, what is it, a relatively good understanding of what's going on nationally. What are the things that you have a good understanding of? What categories?

A Strictly speaking, I would say generally speaking, to obtain a medical qualification for marijuana as a patient, it involves an assessment by a healthcare provider. And as I said, in different states, there are different baskets of healthcare providers. Like, I think some states allow chiropractors and podiatrists --

Q Veterinarians?

A I beg your pardon, sir?

Q Veterinarians? I'm sorry. I'm testifying. Go ahead. Finish your answer.

A I lost my train of thought. I'm sorry. I understand that an assessment by a healthcare provider is necessary with a patient exam, and I believe in some states it's done through telemedicine now. An assessment and qualification and certification of a condition is necessary in order for a patient to obtain the privilege of accessing marijuana from a regulated medical marijuana.

Q Okay. And the conditions that you can get medical marijuana for, do they vary from state to state?

A Yes.

Q Okay, are you aware of any -- you're a research nerd -- any document that would show us everything that's going on in the states?

A I'm sorry. Can you repeat the question in a way that I could understand it?

Q Are you aware of any document that -- because this is supposed to be a national approach, we've not received any national data. Are you aware of any database anywhere where you can look and find out what's going on in the

rest of the country?

A I'm not trying to be difficult. I just don't understand what you mean by what's going on.

Q How medical marijuana programs are operating in the other states -- are you aware of a database where that could be accessed by the public?

A I don't believe so.

Q Okay. Well, I don't want to testify here, but I wish that when you leave here, you investigate that further. I think your answer will change. So now, let's talk about -- oh, and I wanted you to answer a question I don't think you answered last time. I was asking you about informed consent in New Hampshire, and you indicated that you didn't think it was your role to get informed consent. And you indicated, if I got it correctly, that the dispensary technicians didn't have that role. And my question was, who has the role of getting informed consent.

MS. RACE: Objection.

JUDGE JULIUS: Hold your answer. Basis of objection?

MS. RACE: I believe that mischaracterizes the testimony.

MR. EVANS: I'm sorry. I didn't hear that.

MS. RACE: I believe that mischaracterizes the testimony as to whether or not Dr. Burchman indicated that he has to get informed consent from his patients and the role of informed consent in that relationship.

MR. EVANS: He did not testify to that. He never testified that he got informed consent. He explicitly denied that he did. Check the record.

JUDGE JULIUS: Well, you can respond.

MS. RACE: I believe that I am accurate and that the testimony is not as counsel has presented to the Court. So, my objection remains that I believe that that mischaracterizes the --

MR. EVANS: Okay.

MS. RACE: The testimony further to the extent that it was presented as Counsel has indicated, and it's already been asked and answered as well.

MR. EVANS: All right. Let me reframe

the question then.

MS. RACE: Thank you.

JUDGE JULIUS: Fair enough.

MR. EVANS: Okay, Doctor, could you tell the Court, please, what is informed consent?

THE WITNESS: Informed consent is a written record of a discussion that a physician or healthcare provider has with a patient prior to a procedure or a medical activity that transpires between the physician or the healthcare system and the patient. It usually involves a discussion of risks and benefits.

BY MR. EVANS:

Q And do you --

A And, excuse me, and that the patient fully understands and all questions were answered.

Q All right. And do you get that written consent from every one of your patients that you recommend marijuana for?

A I can't recall. I would have to look at the form. I just know --

Q How many? I'm sorry.

A I'm sorry. Go on.

Q How many people have you recommended that they get medical marijuana? What's the number?

A Well, as I said, I did it with a team, and so if you're talking how -- and I talk to every patient, but it might be that the forms are filled out by some of my underlings. And so if I had to give a number, in my you know, as best as I can recall, probably between 200 and 400.

Q Okay. So 200 or 400 times, you don't know whether or not there's a written consent?

A It's an attestation. It's not a consent, I believe.

Q An attestation? And what is the difference between a written consent form and attestation?

A Well, I just went through a fairly detailed description of an informed consent. An attestation is merely affixing a signature that a conversation occurred.

Q Okay.

A I am attesting to the fact that this patient is telling me he has Parkinson's disease, and I'm attesting to the fact, based on

my medical judgment and study of his medical record, that that's true.

Q Okay. And so that, in your mind, is informed consent?

A No.

Q Okay. My understanding last time you testified is nothing about that, and I was pointing out that you weren't doing it. You said that the technicians would do it. Now, all of a sudden, these informed consents have appeared. Could you produce them with -- under HIPAA -- confidentiality? Do you have copies of these written consents?

MS. RACE: Objection. This, as I noted before, as the government's noted before, this completely mischaracterizes the earlier testimony and is, I think, not relevant. He's asking for the production of records from Dartmouth, which was six years ago, in possession -- we haven't even talked about whether or not Dr. Burchman even has them in possession. This is just kind of well outside the bounds. I argue this is.

MR. EVANS: Well, let me ask you this. Do those written consents exist?

THE WITNESS: As I said, it's been quite a while since I have qualified a patient or, you know, so --

BY MR. EVANS:

Q How many years ago did you qualify patients?

A I believe I stopped in 2019.

Q Okay. So you have not since 2019 made a recommendation to anybody to get medical marijuana?

A No, I think I think I may have one or two.

Q You got a written consent? Informed consent?

A As I said, it's an attestation. I don't believe it's a consent. I mean, I'm trying to give you my best recollection, sir.

Q Okay. An attestation is quite different from an informed consent. Informed consent implies mutuality between the physician and the patient. The patient understands what's going to happen. Attestation is only your view of what's going to happen. Isn't that true?

A Yes.

Q Okay. I want to talk a little bit

about CBD. Do you recommend CBD, or have you recommended CBD?

A Yes.

Q Okay. The dispensaries that you're connected with, do they sell CBD?

A Well, CBD is a component. It's a cannabinoid that is incorporated into cannabis preparations. The plant produces it. Various strains have differing concentrations. Some are totally devoid of CBD, and some are actually devoid, almost devoid of THC, and the majority of the primary constituent is CBD.

Q Okay. What is the amount of THC that goes into CBD that's considered hemp?

A Can you repeat the question? Because I don't understand, I'm sorry.

Q We have CBD.

A Mm-hmm.

Q Can CBD also contain delta-9-THC?

A No, they're separate, completely separate molecules, sir. Cannabidiol and tetrahydrocannabinol are structurally different. They act actually at different receptors. That would be like saying ibuprofen is the same as Lipitor.

Q So, CBD, in your opinion, always completely stands alone when it's sold, just plain old CBD?

A No, I didn't say that, I just said that they're two different drugs.

Q Well, they might be two different drugs but are they -- often, when you go in one of those laboratory reports, it's true that they report on different cannabinoids.

A Yeah, those are ingredients in --

Q Okay.

A You know, it's like if you get a can of soda and it says, sodium benzoate, water, carbonation, three percent orange juice, those are all separate components of a product.

Q Okay.

A And you could conceptualize, you know, cannabis, either a plant or a product of cannabis, as having these separate constituents.

Q How many forms of THC are there?

A It depends who you ask, but then the most common naturally occurring THC is delta-9 tetrahydrocannabinol. There is a lower form called delta-8. It just means that the double bond is on a different section of the molecule,

and there are other, what we call, isomers or variations of the configuration of the atoms in the molecule, so multiple forms.

Q Is one of those forms delta-10?

A Yes.

Q Okay. Are those forms normally reported on the laboratory test?

A No, because they're minor and as a rule, in fact, I think delta-10 is extremely rare in the natural plant. Yeah, I scarcely remember ever seeing it on a certificate of analysis, although it might be in some states --

Q Okay.

A In some strains.

Q Doctor, when was the last time you read a certificate of analysis?

A Probably within the last 48 hours.

Q And the only thing it reported was what?

A Well, as I said, for the state of New Hampshire, which is where I generally roll, no pun intended --

(Laughter.)

A Delta-9-THC --

Q Well, if you want to take a minute of

developing mindfulness right now, we could do that.

A Can I answer the question, sir?

Q Yeah. Go ahead. I'm sorry.

A Delta-9-THC, cannabidiol, those are the major cannabinoids. And it's called major because they generally are the most prevalent. There is cannabinol (CBN), cannabigerol, which is CBG. Those are considered minor cannabinoids, and they all have pharmacologic activity. There are terpenes. Those are the essential plant oils or plant sterols or plant alcohols, and they are listed as well. And then a certificate of analysis usually tests for residual solvents because in the extraction phase of production, to extract the THC, they have to soak it in butane or some other hydrocarbon. And pesticides, of course, which the state limits the amount of pesticides, obviously, that can be in any product that could be ingested.

Q Okay. Now, when you read one of these reports that has all this stuff listed and it seems to have a beneficial effect on the patient, which of those substances is having

that effect on the patient?

A Well, it depends on the effect one is going for. But as I said, delta-9-THC and CBD, cannabidiol, as well as some of the terpenes in my world are both anti-inflammatory -- well, some of them are anti-inflammatory, which plays a role in pain production, and some are analgesic, where there's direct, as I said, receptor activity in the brain that affects pain modulation.

Q And, Doctor, isn't it true that marijuana products, including medical marijuana products, are sometimes marketed as being high in terpenes?

A Well, medical marijuana products and marijuana products are synonymous, first of all. And plant matter, if it's “a full spectrum product” where isolated molecules are not removed and produced in other forms, contain moderate to significant amounts of terpenes, depending upon certain strains.

Q Are you aware of any study when you have a product with terpenes, delta-9, CBD pointing out which of those substances is the most beneficial? And let me clarify I'm talking

about a study that compares all those substances that are quite common in certificates of analysis.

A Yeah, I am aware of those studies.

Q Okay. Do you know what hemp is?

A Hemp is Cannabis sativa. It's the same genus and species as marijuana.

Q What milligram level of delta-9-THC do you have to have in a marijuana product in order for it to be considered hemp?

A The classic description of hemp is that it contains no more than 0.3 percent THC.

Q Okay. And anything over that is considered marijuana, correct?

A As I said, technically speaking, it's the same.

Q Okay.

A The only difference is the amount of delta-9-THC, which is the only -- primarily the only intoxicating cannabinoid. But depending upon when the plant is tested, the residual THC concentration can vary. So interestingly, some hemp products could actually be exceeding the threshold that's generally recognized, but it really depends when it's tested. And various

states, as I understand it, may mandate testing at different times.

Q Mm-hmm. Okay. So if it's hemp -- and again, I'm just testing your knowledge of the marijuana space here because people might recommend hemp, and I want to just probe your understanding of that. What mixture of CBD and THC can be sold throughout the United States in gas stations?

A I don't know the answer to that.

Q Hemp. The products that the New Hampshire or Vermont sells, the Blueberry Lobster, Cherry Pie Flower, Crunch Berries, Dante's Inferno, Dope Dog, Girl Scout Cookies, are any of those CBD products that you know?

A I have no idea, sir. I don't quite know what you're referring to. I mean, I understand there are colloquial labels for certain marijuana strains, but that's not really the kind of aspects of the medication that I deal with.

Q Okay, but these products could be sold as medical marijuana, right?

A I'll just repeat my same answer. I don't really have an understanding or

appreciation of the representative strains and constituents of cannabinoids, terpenes in the aforementioned marketed strains that you're referring to.

Q Okay. But the medical profession is a dignified profession, would you agree?

A Perhaps. Depends on some of the hospitals I've worked in.

Q I think you're dignified.

A What's that, sir? I'm sorry.

Q I said you're dignified. Do you think it's dignified?

A I don't think my spouse would characterize me as being dignified.

Q Okay. Do you think it's dignified to sell medicine called Dope Dog?

A I can't comment on --

Q Okay.

A Marketing tactics, sir.

Q Can you tell me what impression it would have on somebody like a teenager where a medicine is labeled Dope Dog or Girl Scout Cookies? Does it sound medical to somebody? It sounds more like recreational than anything else, doesn't it?

A All right, well, that's multiple questions. First is if I could get into the head of a teenager, I think I'd be in another field. I can't comment on marketing strategies by various purveyors of marijuana and hemp.

Q Okay, but –

A That's not my field.

Q But you're okay with them getting this stuff?

A What, adolescents?

Q No, you're okay with them getting Blueberry Lobster, Cherry Pie Flower, Crunch Berries, Dante's Inferno, Dope Dog, and Girl Scout Cookies. You're okay with patients getting that?

A Sure.

Q Okay. All right.

A One of the --

MS. RACE: Your Honor, if I could just object, please, for request a clarification on the record. The names of these products were from Vermont, not from New Hampshire, I believe the testimony has already indicated that, and Dr. Burchman has already noted that he is not aware of what the contents are of these

products. So if we can just seek clarification on the last point.

(Simultaneous speaking.)

MS. RACE: If I could have a moment?

MR. EVANS: What is your relationship with the team?

JUDGE JULIUS: Hold on. I think she was still talking.

MS. RACE: May I have a moment? It seems there's some additional -- can the government just take two minutes, Your Honor?

JUDGE JULIUS: Yes, go ahead. This isn't counting against your time, Mr. Evans.

MS. RACE: Thank you, Your Honor.

JUDGE JULIUS: We'll just pause momentarily.

(Pause.)

MS. RACE: Okay. Thank you. If Your Honor's ready for us back?

JUDGE JULIUS: Yes.

MS. RACE: And I appreciate the pause. To clarify the government's objection here, the questions before the last one posed to Dr. Burchman related to adolescents, the government also seeks clarification that the final question

regarding whether Dr. Burchman would allow for and would support the use of the products aforementioned. The government would like to seek clarification as to whether or not this is for adolescent use or for adult patient medical use.

JUDGE JULIUS: Seeking clarification from Mr. Evans or seeking clarification from the witness?

MS. RACE: We object to the question because the question was vague, and that's the reason -- because it appears as if it was based on adolescent use, and so that's the objection that we're raising.

MR. EVANS: Okay. Well, I -- okay. Are the names -- okay? Do you agree that medical marijuana by the Tea House could be, under certain circumstances, given to adolescents?

THE WITNESS: Am I aware that -- I -- I -- just so I have some clarification and understanding, are you asking me if I am aware that there's a potential for medical diversion of the --

MR. EVANS: No.

THE WITNESS: I don't -- I don't understand what you're saying, sir, I'm sorry.

BY MR. EVANS:

Q Some states, under medical circumstances, permit medical marijuana to be given to children.

They have to get a doctor, and I think they have to do something else to be able to do that.

Are you aware of either New Hampshire or Vermont that -- that would, that --

A Oh, yes.

Q Yeah.

A Absolutely.

Q Okay.

And particularly with CBD, correct?

A Well, not particularly with CBD, CBD is one of the cannabinoids within marijuana, and marijuana can be given to pediatric patients with certain safeguards in the state of New Hampshire.

Q Are you familiar with a marijuana company called Charlotte's Web?

A Yes.

Q Okay.

They pressed for CBD for two children's seizure disorders, is that correct?

A Yes, for Dravet syndrome, correct.

Q Okay, all right.

So, let's just say it's being sold primarily to adults. Okay?

A Excuse me, just so I understand, are you talking about CBD --

Q No, no --

A -- Charlotte's Web?

Q -- I'm sorry, right now, we're looking at Tea House, because Tea House has these products.

A Mm-hmm.

Q And we're only dealing with adults, okay?

A Mm-hmm.

Q Do you think that the names Blueberry Lobster, Cherry Pie Flower, Crunch Berries, Dante's Inferno, Dope Dog, and Girl Scout Cookies were labeled in that way to appeal to adults?

A I cannot comment on the marketing strategies, nor do I really understand them.

Q Do you know where the name Girl Scout

Cookies came from for -- for this type of marijuana?

A Well, I -- I assume it came from the name Girl Scout Cookies.

Q But do you know why they used the name Girl Scout Cookies?

A Can you define they?

Q The people making this product?

A I believe it's not a product that's made, it's a strain.

And so, the strain is a, you know, botanical with a profile of CBD, THC, the cannabinoids, the terpenes, et cetera.

And I have no idea where it originated from, I assume Humboldt County, California, which is one of the genetic centers of cannabis, you know, marijuana gestation, and I cannot explain why names occur for certain strains.

Q This might help you.

Are you aware of the fact that in Colorado, Girl Scouts were selling Girl Scout Cookies in front of dispensaries because people on marijuana get the munchies, and they might buy Girl Scout Cookies? You ever heard about that?

A No, sir.
Q Okay.
I want to deal a little bit with Epidiolex, you familiar with that?
A Yes.
Q Okay.
And what is Epidiolex?
A Epidiolex is cannabidiol that has been purified, and it is an FDA-approved drug for the treatment of pediatric seizures.
Q Good.
Now, when you say purified, what did you mean by that?
A Well, I'm -- I'm not a chemist, but as I understand, in production of pharmaceutical products, good manufacturing principles, it has to be in a very clean, ultra-clean environment.
I -- I really can't espouse to the techniques of manufacturing, because that's not my domain.
Purified means pure.
Q Okay.
Now, since it's approved by the FDA, would you assume that it's free of contaminants?
A I think there's probably a -- a level

of contaminants that is invariably impossible to clear, so there's an accepted minimum level.

That's usually how contaminants are termed in -- in pharmaceutical products.

Q Okay.

You -- you recommend medical marijuana.

In your statement here, you were -- said that you were knowledgeable about safety aspects of medical marijuana, is that correct?

A Yes, sir.

Q Okay.

Is mold a potential contaminant in marijuana?

A Yes.

Q Is mildew a contaminant in marijuana?

A Well, mold and mildew are the same, sir.

Q And what -- and -- and can there be micro biocontamination in cannabis?

A Microbial contamination?

Q Right.

A Yes.

Q Right.

A Bacteriologic-fungal --

Q Okay.

A -- parasites, I assume, but I -- I haven't seen that.

Q Do you know when mold or mildew are more likely to produce themselves?

A Yes.

Q When?

A Any -- any organic vegetative material, when a certain moisture content is present, can -- mold spores are in the air, they're ubiquitous.

And so, both moisture content and temperature, as well as light, can affect the onset of mold in -- in any organic material.

Q Okay.

Have you verified that these products that are sold by Tea House and you're connected with are free from contamination?

A Only in the extent that each -- well, you know, the Tea House doesn't manufacture these products, we get them from growers.

And the growers around the state are all required by the State of Vermont to submit their strains and their batches to independent laboratories for testing.

And moisture content and -- and actual

presence of mold is part of that analysis.

Q Okay.

Does New Hampshire have a process for reporting product recalls when it comes to marijuana products?

A I don't know.

Q Are you aware of any other states that do?

A No.

Q Would it be helpful to you if the State published product recalls so you knew which products not to sell?

A Yes.

Q Does the FDA publish product recalls?

A Yes.

Q Why doesn't the marijuana industry do that in New Hampshire? Isn't that something that would protect patient safety?

Has your Therapeutic Medical Cannabis Oversight Board ever recommended that product recalls be published?

A I -- I don't believe so.

Q Okay.

Have you ever researched other States that have product recalls, sometimes pages of

them, have you ever looked at that?

A No.

Q Okay.

Well, I would suggest, again, that you take a look at that and maybe get that implemented in your home State.

Okay, now fungal growth on cannabis, can that lead to the production of mycotoxins?

A Fungal growth on any organic material could res -- could result in the residual products of mold, and mycotoxins is -- is a byproduct of that, yes.

Q Can mycotoxins be dangerous to human health?

A Yes, the operative word is toxin, and by definition, that is a product that is toxic.

Q Right.

Now, other forms of contamination for cannabis, can cannabis contain heavy metals?

A Yes.

Q Okay.

Do you know whether or not the products sold at Tea House are tested for heavy metals?

A I would have to say I cannot recall because, as a different State, I don’t’ really -

- I don -- I just don't recall.
Q Do you know if they're tested for in New Hampshire?
A I know they're not in New Hampshire.
Q Okay.
Can heavy metals be dangerous to human health?
A Yes.
Q Okay.
Could you give us an example of some heavy metals that are not tested for in New Hampshire?
A Cadmium, lead, arsenic.
Q Arsenic? And New Hampshire does not test for arsenic in cannabis?
Okay, thank you.
A Is that a question, sir?
Q Yes.
Do you think that's a good idea? Do you think they should be testing for it?
A I -- I leave that to the legislative branch.
Q Well, let me just ask you a question, I -- I ask this of people all the time, and I'll ask it of you.

I -- I've dealt a lot with State legislatures, okay? Maybe I'm a bit jaded because I've dealt with the New Jersey Legislature, but I ask people, if you were going to buy a medicine for your child, which one would you choose, a medicine approved by your State legislature or one approved by the FDA?

I've never had anybody tell me that they would want a medicine put forth by a political body.

And for you, would you prefer one preferred by the State legislature, bunch of politicians, political views, or the FDA, which is supposedly divorced from all that? What would you feel more comfortable?

A I think it depends on the medicine.

Q Okay.

But you're comfortable with the State legislature approving marijuana for a lot of conditions?

A Are we talking about New Hampshire, sir? I -- I -- I've never gone to another State.

Q Yes, in New Hampshire?

A Well, you were just talking about

Vermont and -- and Colorado.

Q Okay.

A I'm -- I'm just a little confused.

Q Okay, I -- I guess I was, too.

In New Hampshire, are you comfortable with what the legislature did by coming up with all these lists of conditions that they can get marijuana for?

A Yes, because that is done with the advice of the board on which I sit, and I have a lot of confidence in the integrity and judicious nature of that board.

Q Was the board created before the legislation?

A I think concurrently, sir, I -- but I'm not a legislative expert, I don't really know the evolution of that.

That board preceded my appearance on it, so I --

Q And what about --

A -- don't really know the nascency of it.

Q What about Vermont? Do you know anything about Vermont?

A Nope.

Q Okay.

Could you tell me what shatter is?

A I believe shatter is a descriptive term for a concentrate.

Concentrates are a, you know, it's -- it's what it sounds. It's -- it's -- it's a -- a higher potency product derived from cannabis oil, which is extracted from the plant.

Q And it's called shatter for what reason?

A I have no idea.

Q Okay.

Is it hard like peanut brittle? Or what do they call it? Peanut brittle?

A I -- I don't know. I -- I've never-

Q Have you ever seen shatter?

A I've -- I've never used nor --

Q Okay.

A -- seen shatter.

Q And what about, how in the -- in the marijuana world, what is -- what is wax?

A I -- I know that wax is also a concentrate.

It's probably of a various -- a different consistency than shatter.

But as I said, while I'm familiar with the formulations, I really don't deal in those products with -- with patients.

Q Now, are the -- are the concentrates, how are they -- how do they get con -- they're -- buy -- buy -- botanical marijuana, but how do they concentrate it from the plant?

A Well, I'm not a manufacturer, and so my ability to understand it is -- is a bit rudimentary.

But I would say that the marijuana plant is bathed in some organic solvent, or sometimes I believe it's frozen and extracted in some way.

But the -- the mechanism is to extract the constituents of the flower where the -- the bulk of the cannabinoids and terpenes are.

And then, through various physicochemical means, they are separated, probably through a selective centrifugation, you know, where it's spun down, and that's probably the extent that I know.

And -- and where shatter and wax and other concentrates lie on the spectrum of that production, that's beyond the scope of my

knowledge.

Q Okay.

Is one of the solvents alcohol that's used?

A I -- I think so, in -- in some manufacturing facilities.

Q Well, you mentioned solvents, what about butane?

A Yes, that I know for sure.

Q Is butane, is that a -- is that a liquid or a gas?

A Well, butane is a -- is a complex hydrocarbon that comes in both liquid and gas forms.

Q Is it dangerous to inhale it?

A I would think so.

Q Is it dangerous to eat it?

A I would assume, I -- I've never been asked that question, but I assume it is. It's -- like, it would be like asking one if gasoline is dangerous to eat or breathe.

Q But it's used.

Are you aware of any other -- I got five minutes --- are you aware of any other medicine that's produced with butane or propane?

A Not being in the medicine pharmaceutical manufacturing industry, I -- I am not familiar with it, but I would assume that complex hydrocarbon chemistry is involved at the level of medication manufacturing in a universal sense.

Q So, would you agree --

A Industrial solvents are used --

Q Would you agree that --

A -- very commonly in the production of pharmaceuticals.

Q -- in dealing with solvents --

A I'm sorry, I -- I couldn't hear you.

Q Okay.

Do you agree that, in dealing with solvents that, on their own are dangerous to human health, that you have to be extremely careful?

A Oh, yes, absolutely.

Q Okay, good.

We talked earlier about overdoses.

Are you aware of a paper called -- a 2024 paper, July-published in PRM?

So, I'm going to give this to them because I want it on the record to know that

they know about this.

It's called Cannabis and the Overdose Crisis Among U.S. Adolescents by Archie Bleyer.

A Am I familiar with the paper?

Q Yeah, Yeah.

A No.

Q Okay.

Tell me if you agree with this?

A Could I -- excuse me, could I see the paper as you're reading it?

Q You want me to stand next to you?

A If that's what it takes.

Q All right.

Well, I'd -- I'd be happy to get close, may I get close to the witness?

A I mean, you're going to read a pa -- a scientific paper, I think --

Q Yeah.

A -- if you're going to comment on it and ask me the -- the veracity of it, I -- I would be entitled to --

Q I'm -- I'm not asking you --

A -- assess it.

Q -- anything about this paper.

I'm asking you about something that's

written in the paper, a statement, and I want to know whether you agree with it or not.

And I'll -- I'll, you know, I'll -- I'll tell you how to get this, I mean, I -- I want to give it to them, but do you agree with this?

Since 2019, the drug overdose death rate among adolescents 14 to 18 years of age in the United States more than doubled.

That cannabis legalization may have contributed to this tragedy is investigated by comparing the death rate in jurisdictions that have legalized medicinal, or both medicinal and recreational use with those that have not.

So, that's how the study -- what they looked at.

This is their conclusion, and this is what I -- I want to see if you agree with this.

Legalization of cannabis is associated with overdose deaths -- and I'll define that as opiate deaths -- in American adolescents, especially recreational legalization, and regardless of sex or White, Black, Hispanic race, ethnicity, cause-and-effect relationships of these previously unreported correlations, if

verified, merit investigation of biologic and psychosocial mechanisms, interventions, and prevention strategies.

You think that's a good idea to look at biologic and psychosocial mechanisms and interventions and prevention strategies to look at the connection between marijuana and overdose deaths? Do you think that's a good idea?

A Sir, you just read an abstract of a probably complex study, and I can't opine on the veracity of an abstract without studying the study design, the --

Q I'm not asking you to do that, Doctor.

Here, do you think that the connection between marijuana and opiate overduse -- overdoses merits investigation?

A Yes.

Q Okay.

Do you think that you should look at biologic and psychosocial mechanisms?

A Yes.

Q Interventions and prevention strategies?

A All good.

MR. EVANS: Very good.

I'm glad you support it, here you go, we've now got that information after the NPRM.

JUDGE JULIUS: Just for clarity, Mr. Evans, what you just handed or -- or placed on Government Counsel's table --

MR. EVANS: That I -- I don't want it as evidence.

JUDGE JULIUS: -- the document?

MR. EVANS: I just want them -- I want it on the record that they received information after the NPRM that dealt with the issues that they focused on, which was already in half, and I'm asking them, as the DEA, to do something about it, look into it.

I -- I can't talk to the DEA, they don't talk to people like me, or they don't talk to the parents, and I've got an opportunity now to approach them directly, to ask their lawyers, do something about this, look into it.

A lot of people are getting hurt right now.

How much time? Am I done? Huh? One minute? Okay.

Well, Doctor, I -- I want to thank you. I believe that you sincerely believe in -- in

this.

I've met a lot of other people who are cannabis users that, you know, believed in this sort of stuff, and I think that you --

Do you feel that you've presented the New Hampshire view, or are you presenting the view of how this is going on nationally?

THE WITNESS: Is that a question, sir?

BY MR. EVANS:

Q Yes.

A I believe I stated with a fair degree of accuracy and opinion, my view of pain management as it pertains to my -- my patients in the New Hampshire State.

MR. EVANS: Your Honor, again, I make the motion, his testimony should be struck.

It doesn't deal with the issue that we're dealing with today. It doesn't deal with the two-part thing or anything.

Thank you.

JUDGE JULIUS: Understood, the motion is denied.

The issue can be briefed in the closing statements with regard to all of those issues.

MR. EVANS: Right.

JUDGE JULIUS: Thank you.

The next item on our agenda would be opportunity for cross-examination by Dr. Phillip A. Drum, pharmacist who is not here today, so he is waiving the opportunity to cross-examine this witness.

The Court does have at least one question for the witness before I turn it over to the Government for any redirect.

I appreciate, Doctor, that you are a stickler for words and -- and phraseology, I am as well. It's important to my analysis of this issue.

A lot of discussion has been made regarding terms such as recreational marijuana, medical marijuana.

These are terms that people tend to use very colloquially that may have some meaning in some jurisdictions, but not others.

They don't really -- they don't -- they're not a statutory or regulatory definition in our federal system.

So, I want to be clear, when you're discussing medical marijuana, what does -- how do you define that phrase?

THE WITNESS: First of all, thank you for the opportunity to answer, it's a great question, and I -- and I talk about this a lot.

I don't consider a recreational user or a medical user, just a user.

And in my experience and training, I feel that the vast majority of users are using it for a medical purpose, whether it's anxiety, insomnia, most commonly pain.

And so, I have a hard time talking about a medical marijuana patient for an adult use or, quote, recreational.

And believe me when I say, I -- I talk to lots of users, and that's my clinical impression.

Does that answer your question?

JUDGE JULIUS: I believe it does.

I just want to make sure I understand what -- when you're talking about the use of marijuana, what -- what -- how you're conceptualizing that and what you're talking about and what all is -- is -- what products or substances are encompassed within medical marijuana to the extent that is a term that you recognize?

Because I -- I just note that that was the terminology used on the Government's preliminary statement that you would be discussing medical marijuana.

So, I just want to make sure I understand the scope of what you're discussing when you -- when that term is used?

THE WITNESS: Okay.

To be more specific, I would -- I would term it marijuana for therapeutic purposes.

That -- that to me is the definition of medical marijuana.

But -- but when I state marijuana for therapeutic purposes, it encompasses the utilization by a large component of the population that doesn't have marijuana cards.

They haven't gone through the expense and the process of obtaining a card from their respective States, and they are users.

And I speak nationally often about the -- the myth of the medical marijuana patient or the adult use marijuana patient, they're all consumers.

And as such, being -- being -- having -- having a longitudinal view of the use of

marijuana for primarily therapeutic purposes, I have a really great appreciation for the fact that it has medical value.

JUDGE JULIUS: And are you're fam -- are you familiar with the Controlled Substances Act definition of marijuana?

THE WITNESS: Only in the sense that it is, until recently, considered a -- a Schedule I agent, which, you know, demonstrates that it has a high abuse potential, and therefore, lives in the -- in the family of LSD and psilocybin and heroin, which are obnoxiously hor -- horrifically abused.

And -- and as well, those agents do not have a -- any -- any, you know, commonly accepted medical use.

Whereas, marijuana, it's kind of an oxymoron because it doesn't re -- it sh -- it shouldn't be a Schedule I for -- for those reasons.

A, its abuse potential is not in any way in bed with those other -- other agents, and B, it has demonstrated therapeutic value.

JUDGE JULIUS: Okay.

So, I grant you that the scheduling is

one issue.

The Controlled Substances Act does have a definition section, and I can read to you the federal definition under the Controlled Substances Act, which is 21 USC Section 802(16) Subpart A.

Subject to Subparagraph B, the terms marijuana and marihuana, variously spelled with an H or a J, mean all parts of the plant Cannabis sativa L., whether growing or not, the seeds thereof, the resin extracted from any part of such plant, and every compound, manufacture, salt, derivative, mixture, or preparation of such plant, its seeds or resin.

So, that's the general definition.

And then, excluded from that definition under Part B are hemp, as defined in Section 1639o of Title VII, or the mature stalks of such plant, fiber produced from such stalks, oil or cake made from the seeds of such plant, any other compound, manufacture, salt, derivative, mixture, or preparation of such mature stalks except the resin extracted therefrom, fiber, oil or cake, or the sterilized seeds of such plant which is incapable of germination.

So, those are the parts that are excluded from that definition.

Do you understand --

THE WITNESS: I do.

JUDGE JULIUS: -- that definition? Okay.

So, when you're talking about the use of marijuana, particularly in your pain management practice, because that was your area of expertise that's been provisionally accepted, understanding that definition of marijuana, are there -- are -- is that the definition that matches your understanding of marijuana as you're testifying and how you use it, or do you view marijuana in what you're testifying as smaller than that universe?

THE WITNESS: It's the latter, for sure.

Because while we talk about marijuana, you know, this is a big flowering plant with leaves and stalks and -- and fiber.

The therapeutic or pharmacologic components of that species is almost entirely confined within a -- a glandular aspect of the flower.

That's where the -- the manufacturing facility for all of these pharmacologic molecules reside.

And so, it's -- it's a very broad term.

And so, when I consider marijuana in -- in the sense of how we're describing it in the courtroom, it's really the -- the flower, to a smaller extent the leaves, where the cellular and -- and organic material is produced.

Does -- does that answer the question?

And for -- for example, I -- I kind of take issue with the seeds, because the seeds have – have -- I -- I don't believe they have any cannabinoids in them at all. There -- there's no pharmacologically useful activity in the seeds.

So, I always wondered why, you know, seeds were outlawed and banned and -- and like contraband. I assume it's because, you know, by definition, the seed can produce the plant that could then, eventually, produce the -- the substrates.

But something very interesting str -- strikes me, and that is that, the whole argument kind of concentrates on the psychogenic effect

of marijuana, which is primarily the results of Delta-9-THC.

Yet synthetic Delta-9-THC, which is the same molecule, if you had it in a spectrophotometer to detect the molecular structure, it would be absolutely the same as -- as molecular THC from a plant.

I -- I believe that resides on Sche -- Schedule IV, III or IV, I can't remember -- of -- - of -- of the -- of the -- of the schedule.

So, it never really made sense to me that, if we're going to call the evildoer, the thing that everybody is worried about, this intoxicant, is -- is on -- if -- if we -- if we synthes -- synthesize it in a lab and it's produced and -- and it's a pharma product, it's in one basket.

And then four -- four schedules away, it's in another.

And that -- that kind of duality is -- is nonsensical to me.

And as I said, because of the entourage effect, for lack of a better term, the combination of the other terpenes and the other cannabinoids that have really verifiable

activity -- I mean we -- we rarely didn't talk about CBD, and CBD is much more interesting than THC from a health standpoint, is -- is -- is incorporated in the plant.

And so, it's -- it's a really beneficial product for patients when used, like -- like any drug, if it's used appropriately with the appropriate safeguards and -- and -- and, you know, information that's given to the patient, it's -- it's -- it’s truly like the map being rewritten in terms of how well we can do by patients.

JUDGE JULIUS: Okay, thank you, Doctor.

MR. EVANS: Your Honor?

JUDGE JULIUS: Yes, Mr. Evans.

MR. EVANS: I -- I've been involved in this for several decades.

JUDGE JULIUS: Just be sure to speak into the microphone.

MR. EVANS: I can add some history here if it might be helpful to you.

JUDGE JULIUS: I -- your comments would not be construed as evidence because you are a lawyer in this case and not a --

MR. EVANS: Okay.

JUDGE JULIUS: If you want to --

MR. EVANS: Alls I can say is that I'm sure that Dr. Bertha Madras from Harvard Medical School -- I would suggest you ask her that question.

JUDGE JULIUS: Okay.

MR. EVANS: She is the world-leading expert on medical marijuana, and Dr. Finn wrote the world's leading treatise on medical marijuana, so address those questions to them --

JUDGE JULIUS: Okay.

MR. EVANS: -- and they will explain it to you.

JUDGE JULIUS: I look forward to hearing from Dr. Finn --

MR. EVANS: Okay.

JUDGE JULIUS: -- at -- at the appropriate time.

Thank you very much, Mr. Evans.

Government redirect, whenever you're ready.

MS. RACE: Thank you, Your Honor.

THE WITNESS: Can I just stand up and stretch for like 30 seconds? I just --

JUDGE JULIUS: Yes.

We won't start your time quite yet, Ms. Race, don't worry.

(Pause.)

THE WITNESS: Thank you.

JUDGE JULIUS: Sure.

Whenever you're ready, Ms. Race.

MS. RACE: Thank you.

REDIRECT EXAMINATION

MS. RACE: Dr. Burchman, just a few follow-up questions, if I may?

You just provided a definition of marijuana in -- in your view to the Court in response to the Court's questions, just to focus our conversation there.

If you can just clarify for me, please, was your definition of marijuana, was that included within the larger definition of marijuana that the Court read to you from the Controlled Substances Act?

MR. EVANS: Objection to form.

JUDGE JULIUS: Do you want to specify so she can respond to it?

MR. EVANS: It -- it's vague, Your Honor, I don't understand the question.

JUDGE JULIUS: Okay.

Do you want to rephrase perhaps?

MS. RACE: I'd be happy to.

JUDGE JULIUS: Okay.

MS. RACE: Dr. Burchman, did you just provide your definition of marijuana to the Court?

THE WITNESS: Yes.

BY MS. RACE:

Q Okay.

And preceding that, did the Court read to you the definition of marijuana in the Controlled Substance Act?

A Yes.

MR. EVANS: Your Honor, he gave a definition of medical marijuana, not a definition of marijuana, there's a difference.

JUDGE JULIUS: Point taken, I did ask how he defined medical marijuana.

I did provide him the CSA definition of marijuana and asked if his concept of medical marijuana fit within -- or if that matched or if it was a smaller subset.

MS. RACE: And that's the point, Your Honor, thank you very much, that's the point I'm seeking to clarify.

Was -- did the definition you provided the Court for medical marijuana, was that included within the larger definition of marijuana the Court read to you from the Controlled Substances Act?

THE WITNESS: Yes, I believe so.

MS. RACE:

Q Dr. Burchman, you testified on cross examination on a number of occasions about the difference between causation and correlation, do you recall that?

A Yes, I do.

Q I do not believe that you were able to define those terms.

Can you please do so now?

A Yes, and this is a favorite topic of mine, so.

Many studies imply that correlation is causation, and they are statistically totally different.

And in -- in many of my lectures, I give an example, and just indulge me for 30 seconds because it will be -- it -- it'll be exemplary.

In -- if you have a graph, okay, I'm

going to define causation and correlation by example.

Q Okay.

A Say you have a graph, and on the X-axis is time, say from 2005 to 2020.

And on the Y-axis, again, it's a bit absurd, but bear with me, on the Y-axis, it's the amount of cheese in pounds that an American eats, okay?

And so, it goes up over time, more Americans are eating more cheese

And in, you know, in 2010, it's maybe 10 pounds per year, and in 20, it's -- 2020, it's 20 pounds a year, just th -- and there's a graph, it's at a slope.

Let's take a different parameter.

The same times -- same time frame, 2010 to 2020, let's take the parameter number of Americans who die being tangled in their bed sheets and -- and die of asphyxiation.

I know it sounds ridiculous, okay? But there are -- there are statistics that look at this.

If you -- if you superimpose the two graphs, there's what's called in -- in -- in --

in biostatistics a -- a 93 percent confidence in-interval.

That means the -- the graphs superimpose almost perfectly.

One -- obviously, no one's going to say that eating more cheese is going to cause you to die by being strangled in your bed sheets.

It's an -- it's an absurd comparison, but it's an extreme example of how correlation can be confused with causation.

And I submit to you that in many, the majority, of marijuana articles in the medical literature that talk about risk and sequelae of marijuana use, discuss correlation and not causation.

And I'll give you a prime example, and -- and it's -- it's a hot topic, and it's -- it's on everybody's mind, and that's the incidence of psychosis.

If adolescents use lots of marijuana, psychosis occurs.

That's a correlation because there are what are called confounding variables, the socioeconomic status, the concurrent use of other substances such as alcohol, tobacco,

opioids, illicit drugs, genetic factors predisposing to psychosis and psychotic disease.

And so mindful researchers, and I'm not saying people who publish this are not mindful, but other mindful researchers, can demonstrate and tease out these -- these confounding variables.

And when you do, their arguments fall. Their arguments fall out.

And so, that's when I think this gentleman started to read an abstract, and, you know, the abstract is sort of the high points, this is the conclusion.

This is -- this is my, you know, my five-year study, and this is what I found.

But then, buried in every article, usually the last paragraph, are the limitations and the suggestions for future research.

And in those limitations, invariably, it'll be said, these are -- these are correlations, not causations, and one has to -- has to see the results in that context.

And this is a very important factor when one reads medical literature. And -- and in -- in the kind of medical literature --

organizations who read medical literature, they know that, and it's called burying the lead.

In other words, it's a great study. It sounds, wow, you know, marijuana causes suicide.

And -- but then you -- then you read in the -- in the conclusions about the fact that, you know, we didn't control for, you know, suicidal ideation in the family, whether, you know, your grandfather and your father and every male member of the family shot himself in the head before he was 40.

I mean, these are what we call confounding variables, and they are replete in a lot of these studies.

Sorry for the long-winded argument.

Q It's okay, thank you very much -- thank you very much.

We can just take it -- we're taking a minute for the drink, thank you.

I want to move the causation-correlation discussion into opioid deaths and a relationship, potentially, which is proposed to you between overdose deaths and State marijuana laws.

Do you recall that part of the cross

examination today?

A Yes.

Q Okay.

At a -- at some point in that, in your response to these questions, you indicated that there was a difference between population and person.

Do you recall that testimony?

A I do.

Q Can you explain why that -- what those differences are and why they matter?

A Yes.

Let me just preface it by saying I'm not an epidemiologist or biostatistician, so my understanding of it is imperfect.

But I was very excited when the Bachhuber study came out, I think in 2014, because it said, hey, you know, in these medi -- in these States where medical marijuana laws, it apparently, you know, opioid and o -- opioid related deaths went down.

And then, I think it was Stover or Shover came out four years later and said, you know, actually, that's not true.

And -- and it had to do with the fact

that the researchers were looking at numbers, they weren't -- weren't -- weren’t looking at individuals.

And this speaks to the whole point of these kinds of studies.

You really have to examine patients and -- and -- and you have to get data from individual patients, and that's why what we call real world data is very important, where we're actually discussing what's called in -- in -- in like randomized clinical trials.

You know, you do a clinical trial, a drug gets FDA approved, and then it's out on the market, then there is real world data.

In other words, we discovered a drug. We -- we went through all the studies, it looks good, and now, we're marketing it.

And now, instead of, you know, a -- a study where 800 people took it, now 800,000 people are taking it.

That's -- that's really the meat of the issue. How's it actually done in the -- how's it doing in the population?

Now, because marijuana is a plant and it -- it's -- it's very hard to do randomized

controlled trials, there's no consistency, generally, and it's -- it's expensive.

It's a Schedule I drug, so institutions generally don't want to touch it.

The regulatory hurdles to do research on a Schedule I drug is very hard.

And so, we don't have randomized control -- controlled trials.

And so, most of the data I cited, like the -- like my -- my Piper study or -- or the -- the Gruber study -- these are real world data, individual patient studies.

And I -- I frequently say in my lectures, marijuana has been in a post -- post-marketing surveillance for 3,000 years.

I mean, it's -- it's a drug that has been used, and -- and the -- the patient or user data is available to us, and that's -- and that's what we're using.

And -- and just interestingly, and this is like providence, just last week, the FDA approved of a -- of a, what's called a breakthrough -- it, it's like a fast track -- of a drug for and -- and which has undergone randomized clinical trials in a -- in a full-

spectrum cannabis product, and that's very exciting.

Q So --

A Sorry for the long-winded answer.

Q It's okay, Doctor.

I have two more questions for you -- ish, if -- if I may?

You were asked on cross examination a number of questions concerning the long-term use of marijuana and the impacts therefrom.

Do you recall that?

A Yes.

Q Okay.

Specifically, whether there were negative impacts or adverse events associated with long-term marijuana use -- do you recall?

A I think so, yes.

Q Can you please compare for us, and compare for the Court, what you know of long -- the negative impacts of long-term opioid use?

A Okay.

And -- and not discuss marijuana?

Q Well, you've already discussed marijuana.

A Okay.

Q We can bring it back however you want to present it, but my question to you, Dr. Burchman, is if you could please explain to the Court the impacts, to the extent you know, of long-term opioid use on a pain patient?

A Okay.

The main principal problem with long-term opioid use in pain patients is addiction.

In -- in the medical field, we generally call it habituation, and that's actually a physiologic descriptor because, as one uses opioids, the body kind of gets accustomed to it.

And the receptors that I talked about, you know, there are cannabinoid receptors, there are also opioid receptors called mu receptors primarily.

Once the body is kind of bathing in this opioid stew, the receptors, you know, they say to themselves, hey, we got a lot of this stuff going on, and they -- they change.

They -- they -- they -- there's a phenomenon called downregulation, and actually, what happens is, the number of receptors actually shrink, and those that stick around,

they don't work so well.

They're kind -- you know, if you eat the same meal every night, you kind of get sick of it.

That's sort of what a receptor says to its neighbor receptor, it's, I'm sick of this opioid stew we're living in, and so they downregulate.

And when you downregulate, what that means is, it's going to take more opioid to get the same effect and -- and more opioid for the mu receptor to act on the opioid.

So, what happens with downregulation is you're going to get an escalation in dose if you want the patient to remain comfortable.

So, I might start a patient on 20 milligrams of morphine for, you know, a chronic shoulder arthritis, and if he -- if he or she takes it for a month, they start to develop tolerance. That's what downregulation is.

And then, before you know it, inside of six months to a year, they're on 200 milligrams, okay?

And -- and also, chronic opioid therapy, it starts not really helping the pain.

And so, then, you're stuck with a patient who's on high-dose opioids, and then, you know, what the hell are you going to do?

If you keep escalating the -- the dosage, you're -- you're not going to help the pain, and you run the ri -- well, you're -- you're already addicted.

In other words, if you lower the dose, they start to go through withdrawal.

And so, then, we're not even taking care of the pain, we're just trying to prevent the withdrawal because, as I said, I know I used the term dumpster fire, I think it's a -- it's adequate, opioid withdrawal is horrible.

The patients are in excruciating pain, it's -- it's very unnerving to see. That's a true psychosis.

And ironically, the pain, you know --

What -- so, what do you do for the pain of a patient who's -- who's withdrawing from opioids?

You know, we would give them Ativan, which is a -- is a benzodiazepine, does nothing for the pain, but it kind of chills them out.

It turns out that cannabinoids are

actually a very good analgesic for opioid withdrawal, and in fact, it's used, it's used quite a bit.

I mean, there are other agents, nonsteroidal anti-inflammatory drugs, the non-opioid analgesic tramadol.

So, there are other agents, but it's a horrendous -- it's a horrendous thing to -- to see, and patients die.

There's hyper excitement, there's exci -- excitation of the autonomic nervous system, hypertension, tachycardia.

If they're an older person who has cardiac disease, they die.

I have seen people die through opioid withdrawal.

I -- I really don't get to see too much cannabis use disorder withdrawal because it's relatively mild.

I mean, I wouldn't want to go through it, but, you know, they -- they don't sleep, they're irritable, they're anxious, occasionally, they're -- they can hallucinate, which some people believe, you know, is an element of psychosis.

But it's -- it's just not bad, and nobody dies from it. I mean, I -- I haven't -- I've never seen a -- a death from a cannabis use disorder withdrawal.

Q Sir, Dr. Burchman, if you -- when you're treating patients with chronic pain and you're prescribing them opioids, do you anticipate that you will have to use opioids for the duration of that patient's life to treat the underlying pain?

A I -- I always use opioids, and we have contracts.

In other words, we tell patients they can't sell their drugs and they -- they shouldn't take more than directed, et cetera, because I'm -- I'm always worried when I give a patient opioids.

I'm talking in a chronic sense, not acutely, you know, like in anesthesia.

The humanist in me always thinks, well, we're going to get this patient through his -- his spasticity, you know, he's got Parkinson's disease, he's got severe pain because of that, and we will transition him at some point.

But he, you know, he presents with

severe pain, so we put the fire out with opioids, this is, like, pre-marijuana therapy.

And -- and then, hopefully, we can transition him to a non-opioid analgesic, but the non-opioid analgesics are just not that good, they're just not.

And then, the fact that, you know, this marijuana business came along, first an -- anecdotally and then -- and then, starting to be accepted by pharma, and it really -- and -- and then, you know, they had the promise of the -- of the single use FDA-approved dronabinol, and we were all excited.

We're like, finally, we've got something that's going to work.

And then, the dronabinol kind of disappointed us.

But then, the full spectrum agents and the flower -- it was like the -- it was like the key to the golden lock. We were really, really excited.

And now, with the progression of scientific investigation and -- and peer-reviewed research data, I think the promise is -- is very good that we're going to soon be able

to kind of uncouple from this.

Q Dr. Burchman, yesterday afternoon and then today, you were asked a number of questions on cross examination.

Have any of your medical opinions changed following your engagement with the -- with the -- the other interested parties in this case?

A No.

Q Okay.

And just lastly, Your Honor, if I may?

You were also asked today, Dr. Burchman, about your financial ties, your current financial ties to the marijuana industry.

Do you recall that testimony?

A Yes.

MS. RACE: The fact that you had, at some point, a financial benefit from the marijuana industry, did that change how you treated your patients?

MR. EVANS: Leading.

MS. RACE: I mean, I'm happy to rephrase if you'd like, but it's -- I mean, it's a pretty open-ended question.

JUDGE JULIUS: Go ahead and rephrase, Counsel, thank you.

MS. RACE: Did you change how you treated your patients based on financial ties?

MR. EVANS: Leading, it's the same question.

MS. RACE: What if it -- no, hold on a second.

Your last year of medical practice, sir, can you compare, please, to the -- for the Court, in relative terms, the amount that you made in your medical practice versus the amount that you made in -- from the marijuana industry?

THE WITNESS: -- in aggregate?

BY MS. RACE:

Q Yes, I don't -- I'm not looking for specific numbers.

A So -- so, what you're asking me is what sort -- what sort of financial resources I extracted from my medical career vis-à-vis the --

Q The mari --

A Okay.

MS. RACE: Yes, Your Honor -- yes, sir.

THE WITNESS: Well, that's a good

question.

I wo --

MR. EVANS: In your last year?

THE WITNESS: In my last year of practice?

MR. EVANS: That's her question.

JUDGE JULIUS: That was the scope of the question.

THE WITNESS: But in a longitudinal way, like 30 years of medical practice versus the -- I -- I'm sorry, I'm just confused.

MS. RACE: No, that's okay, it's been a long few days.

Thank you very much.

Did you make more as a treating physician, Dr. Burchman, than you did -- than you do in the m -- marijuana industry?

THE WITNESS: In 2019 or -- or -- I mean, just in that epoch of time, or --

BY MS. RACE:

Q In a yearly basis, take an average year when you were practicing medicine and compare it to an average year following 2019?

A Medicine, The answer is medicine.

Q Okay.

By a factor of about how much?

A Tenfold.

Q What, if any, effect did your payment by the marijuana industry impact your medical practice?

A None.

MS. RACE: Thank you, Your Honor, I think I'm done.

JUDGE JULIUS: Thank you, Ms. Race.

MS. RACE: It's all right.

JUDGE JULIUS: Is there any chance that the Government may seek to recall him for rebuttal?

MS. RACE: No.

JUDGE JULIUS: Okay.

So, your testimony is complete.

Thank you so much for all of your time --

THE WITNESS: Thank you.

JUDGE JULIUS: -- and answering everyone's questions.

MS. RACE: Appreciate it.

JUDGE JULIUS: I know there were a lot of them.

MS. RACE: I know.

THE WITNESS: Thanks so much, I appreciate it.

JUDGE JULIUS: Thank you.

All right, so, that was the last thing we -- actually, we're -- that was the first thing that was scheduled for tomorrow, so we're still running ahead of schedule, and we're going to adjourn a couple hours early today.

I promised I would never make someone start their case-in-chief a day before their scheduled one, so tomorrow we will begin with the case-in-chief by --

MR. EVANS: It's NDASA tomorrow.

JUDGE JULIUS: Yeah, I was going to say NDASA, but I wanted to get the full name. The --

MR. EVANS: But the -- we're supposed to start at 9:00 a.m. with cross-exam by Phillip Drum.

JUDGE JULIUS: Right, well --

MR. EVANS: He -- he lives in California, I don't think he's going to probably come here until he has to testify.

JUDGE JULIUS: That's my understanding from the -- the availability schedule.

MR. EVANS: Yeah.

JUDGE JULIUS: So, I think what we'll start with tomorrow will be the opening statements and the case-in-chief by National Drug and Alcohol Screening Association, NDASA, just wanted the record to be clear, don't like to use acronyms if I don't have to, as government employee, I know we're rife with acronyms.

Thank you, everyone, I know it's been a couple long days, but I hope the early release today, you can get some rest, recharge for tomorrow.

Look forward to seeing you.

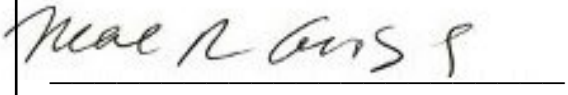
We'll be in recess until 9:00 a.m. tomorrow morning.

Thank you, everyone.

(Whereupon the proceedings went off the record at 2:46 p.m. until 9:00 AM tomorrow morning.)

C E R T I F I C A T E

This is to certify that the foregoing transcript was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings; and that I am neither counsel for, related to, nor employed by any of the parties to this action in which this matter was taken; and further that I am not a relative nor an employee of any of the parties nor counsel employed by the parties, and I am not financially or otherwise interested in the outcome of the action.



James Cordes