NEW YORK CITY POLICE DEPARTMENT

DEPUTY COMMISSIONER OF TRIALS

Monday
August 25, 2025
10:19 a.m.

RESPONDENT: DETECTIVE FRANKIE PALAGUACHI
30166/24

REPORTER: ELBIA BRUMIT

A P P E A R A N C E S:

BEFORE: HONORABLE VANESSA FACIO-LINCE
Assistant Deputy Commissioner

FOR THE DEPARTMENT: DANIEL MAURER, ESQ.
Department Advocate's Office

FOR THE RESPONDENT: ERIC SANDERS, ESQ.
The Sanders Firm, PC
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New York, New York 10005

P R O C E E D I N G S

DETECTIVE JOHNSON: Good morning. Calling case number 30166 of 2024, Police Officer Frankie Palaguachi.

COMMISSIONER FACIO-LINCE: Good morning, counsels. Your appearances, please.

MR. MAURER: Daniel Maurer, M-A-U-R-E-R, for the Department Advocate's Office.

Good morning, Commissioner.

Good morning, Counsel.

COMMISSIONER FACIO-LINCE: Good morning, Mr. Maurer.

MR. SANDERS: Eric Sanders for the Respondent.

Good morning, Commissioner.

Good morning, Counsel.

COMMISSIONER FACIO-LINCE: Good morning Mr. Sanders.

And good morning, Officer Palaguachi. Am I saying that correctly?

DETECTIVE PALAGUACHI: Yes.

COMMISSIONER FACIO-LINCE: This matter is on today for a scheduled hearing, which I believe we scheduled back in July. Preliminarily, I want to

PROCEEDINGS

ensure that nothing has changed with regard to the charges and specifications since we conferenced this case in July.

What I have before me is dated March 8th of 2024. It contains two specifications. The first alleges that Officer Palaguachi, while assigned to Housing Bureau on or about and between June 22nd of 2023 and February 22nd of 2024, engaged in conduct prejudicial to good order, efficiency or discipline of the Department, in that he wrongfully ingested marijuana and/or cannabinoids without police necessity or authority to do so.

The second charges that during the same period of time, Officer Palaguachi wrongfully possessed marijuana and cannabinoids. Again, without police necessity or authority to do so.

Is that the most updated version of the charges and specifications?

MR. MAURER: Yes, Judge.

COMMISSIONER FACIO-LINCE: Now, when we conferenced this case last, I was informed that, I believe, one of the Department's experts or one of your witnesses, I should say, was unable to be here today. So we had previously scheduled it for a second date of September 3rd.

PROCEEDINGS

Is that still correct?

MR. MAURER: Yes, Judge. That will be for Dr. Ciuffo.

COMMISSIONER FACIO-LINCE: Okay.

MR. MAURER: In the afternoon, Judge.

COMMISSIONER FACIO-LINCE: Oh, in the afternoon. Okay. I should write that down.

MR. MAURER: Yes. I believe that he's available, I believe, at 1:00.

COMMISSIONER FACIO-LINCE: Okay. So we won't start until then. I will make sure to make a note of that as well.

Now, with regard to exhibits in evidence. I don't have in front of me a DAO exhibit list. I do have one, which we'll get to, from Mr. Sanders. But I don't have -- I have exhibits, but not the exhibit list.

MR. MAURER: I apologize for that, Judge.

COMMISSIONER FACIO-LINCE: That's okay.

MR. MAURER: There were only four exhibits.

COMMISSIONER FACIO-LINCE: Okay.

MR. MAURER: One being -- the first being the eight-page document. Which the first cover sheet is medical division drug screening questionnaire. The second would be the CV. It's a

seven-page document of Dr. Ryan Paulsen. The third would be 135-page document. The cover page being the Psychemedics laboratory data package. And the fourth and final exhibit being that of the medical review officer.

COMMISSIONER FACIO-LINCE: Understood. Okay.

Are these exhibits coming in on consent of both parties or will there be questions regarding that?

MR. MAURER: Judge, I haven't had that conversation with --

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: I'll tell you.

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: First, we don't object to it. It is what it is. Second, there's going to be questions on it. There's going to be voir dire on it with the expert. The third, the test itself, even the tester is going to depend a lot on the doctor. And then of course the fourth, the MRO, is it the MRO? We don't object to that.

COMMISSIONER FACIO-LINCE: Just to be clear, you have no objection to Department's Exhibit 1, which is the medical division drug screening questionnaire, correct?

PROCEEDINGS

MR. SANDERS: Yes.

MR. MAURER: It's an eight-page -- there's a lot more than just the questionnaire in this eight-page package, Judge.

COMMISSIONER FACIO-LINCE: Right. But I don't think they're objecting to any part of it.

MR. MAURER: Oh. Okay.

COMMISSIONER FACIO-LINCE: Am I right?

MR. SANDERS: It's a government business document --

COMMISSIONER FACIO-LINCE: There's no objection to that exhibit coming in its entirety. That will be received by the Court as Department's Exhibit 1.

(Whereupon, Exhibit 1 was entered into evidence.)

COMMISSIONER FACIO-LINCE: The next exhibit that there's no objection to coming in to in its entirety is Department's Exhibit 4. Which is the NYPD medical division drug screening unit documentation and review of the drug steroid test that was prepared by Dr. Ciuffo.

That exhibit is coming in its entirety and again, there's no objection.

(Whereupon, Exhibit 4 was entered

PROCEEDINGS

into evidence.)

COMMISSIONER FACIO-LINCE: Now, Department's Exhibit 2, from what I'm looking at, is Ryan Paulsen's resume. Basically, his CV. Some certificates of accreditation and --

MR. MAURER: It's a seven-page document, Judge.

COMMISSIONER FACIO-LINCE: Yeah, I'm just looking through it.

MR. MAURER: I'm sorry.

COMMISSIONER FACIO-LINCE: Certificate of qualification.

So what part of that are you objecting to coming into evidence? Because you can ask the witness any questions you want, but that doesn't preclude its entry into evidence. So what part of it are you objecting?

MR. SANDERS: Well, if it's going to be conditional on that, because the challenge is to whether or not he's even an expert under either Daubert or the Frye test.

COMMISSIONER FACIO-LINCE: Correct. That --

MR. SANDERS: As well as the examination.

COMMISSIONER FACIO-LINCE: Correct. So the examination, you can always question him about.

PROCEEDINGS

But his curriculum, what he did in his professional life, you can ask him questions, certainly. But I'm not sure how -- what's your objection to the document itself?

MR. SANDERS: Well --

COMMISSIONER FACIO-LINCE: It's a resume, essentially.

MR. SANDERS: Well, I'm conditional on that. But the objection is to expert. We don't want to debate and accept it for the position that he's an expert and it makes him qualified.

COMMISSIONER FACIO-LINCE: Right. Again, his -- his CV does not, in and of itself, qualify him as an expert. I do that. Right.

MR. SANDERS: I understand. I'm just making a record.

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: That's all I'm doing.

COMMISSIONER FACIO-LINCE: All right.

So then without objection, this document will be received as Department's Exhibit 2.

(Whereupon, Exhibit 2 was entered into evidence.)

COMMISSIONER FACIO-LINCE: Now, the final is the laboratory data package. That is a very large

PROCEEDINGS

document that contains the results, the detailed results, if you will, of the testing. Right?

Now, I understand, or please correct me if I'm wrong, but your position, Mr. Sanders, is that somehow this test is not valid in some way or another.

Is that your --

MR. SANDERS: Not valid.

COMMISSIONER FACIO-LINCE: Okay. So again, that is something you can question the doctor about. Mr. Paulsen. Those are all questions that you can make. But I'm not sure that that goes to its --

MR. SANDERS: Yeah, well, I would think, logically, the first challenge is to -- whether or not the test is valid and whether or not this -- it's not scientific, as generally accepted in the scientific community.

If it's not, then why are we accepting a piece of evidence that's not accepted?

COMMISSIONER FACIO-LINCE: Okay. Are you going to bring an expert to tell us that information?

MR. SANDERS: Well, I can bring one by the next -- by the time this case comes up.

PROCEEDINGS

COMMISSIONER FACIO-LINCE: The case is here today.

MR. SANDERS: I know that. But the Respondent testifies next time we come back, when he brings up his defense.

COMMISSIONER FACIO-LINCE: Right. Of course.

My question to you is, are -- you are suggesting that this document is scientifically invalid.

MR. SANDERS: Right. And he's going to testify to it.

COMMISSIONER FACIO-LINCE: Mr. Paulsen, my guess, is going to say, and please correct me if I'm wrong, that this test is valid.

Is that what he's going to say?

MR. MAURER: Correct, Judge.

MR. SANDERS: According to their standards, yes.

COMMISSIONER FACIO-LINCE: According to --

MR. SANDERS: Their standards.

COMMISSIONER FACIO-LINCE: Correct.

MR. SANDERS: Not generally accepted. That's the issue.

COMMISSIONER FACIO-LINCE: Understood.

My guess, Mr. Sanders, is you are going to

PROCEEDINGS

bring an expert to say he's wrong; is that right?

MR. SANDERS: That's right.

COMMISSIONER FACIO-LINCE: Okay. So who is your expert? I just want to write his name down or her name down.

MR. SANDERS: I have to talk to the client to bring in a person -- so I'll have it tomorrow for sure. I'm going to bring an expert.

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: Because at first, I wasn't going to bring an expert because first of all, it's the Department's burden to prove that it's valid.

COMMISSIONER FACIO-LINCE: Correct.

MR. SANDERS: And that the test is valid. Meaning generally accepted. So that doesn't necessarily require an expert, but I can have one. I'll have a name for you tomorrow.

COMMISSIONER FACIO-LINCE: And that person is going to be ready to testify on September 3rd, of course?

MR. SANDERS: Yes.

COMMISSIONER FACIO-LINCE: Mr. Maurer, something you wish to add?

MR. MAURER: I would like to know who this

expert witness is. I'd like to have their CV.

MR. SANDERS: You'll have it beforehand.

MR. MAURER: Literally, this is the first time I'm hearing that an expert witness is going to be presented in this tribunal.

MR. SANDERS: Because of the position for the Respondent is -- and I know you've taken these positions for a long time and no one's ever challenged the validity of it under uniformed guidelines. But it's the Department's burden to prove the test is valid.

COMMISSIONER FACIO-LINCE: Correct.

MR. SANDERS: You don't need an expert to prove that. And the reason why you don't need an expert, because their own CDs, their own Securities and Exchange Commission 10-Ks, they even admit in their own documents that they're only self-validated.

It's never been approved across scientific circuits. That in and of itself makes it invalid. But we can bring an expert to then verify that because -- we can bring in an expert and see if it comes up now. But he doesn't need to do that. It's the Department's burden.

COMMISSIONER FACIO-LINCE: Right. You are

absolutely right that your client does not need to bring an expert. Period. Right. Full stop. He never has to bring in an expert.

MR. SANDERS: Right.

COMMISSIONER FACIO-LINCE: But if you are contesting the scientific validity of this, then the Court must hear from someone other than the Respondent who does not have, I presume, the scientific qualifications --

MR. SANDERS: Right.

COMMISSIONER FACIO-LINCE: -- to contradict whatever evidence they're going to put on. So if you are looking to have me not receive this item in evidence because your suggestion is that it is scientifically invalid, right, then I am going to need an expert.

MR. SANDERS: Okay. That's fine.

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: That's fine.

COMMISSIONER FACIO-LINCE: What I'm going to do is the following: I'm going to hold off on receiving this for now, Mr. Maurer. That does not preclude you, of course, from using it during your direct examination or in any other matter. You can certainly refer to it. It will remain -- I

think you said it was number 3.

MR. MAURER: Three.

COMMISSIONER FACIO-LINCE: It will remain that for identification purposes so that the record is clear.

If and when Mr. Sanders produces this expert on September 3rd that is going to come and contradict what's in here, we can have a more fruitful discussion about its entry into evidence. I don't know that an expert is going to come in and say that this test is invalid. They might have other information. But again, I don't know enough about this to be able to speak on it.

MR. MAURER: Judge --

COMMISSIONER FACIO-LINCE: I'm listening.

MR. MAURER: Just so that I'm clear, Dr. Paulsen is going to be testifying today.

COMMISSIONER FACIO-LINCE: Correct.

MR. MAURER: I'm going to seek to move that into evidence today.

Is it the Court's position that that is going to be -- that decision is going to be held in abeyance?

COMMISSIONER FACIO-LINCE: I'm going to hold it in abeyance for today. But you can refer to

it, you can make a record about it, and you can treat it as though it's going to be moved into evidence. Okay?

And of course, you'll have the opportunity to voir dire. Okay?

Now, sorry, before we continue, I also received today -- or I'm sorry, dated Sunday, August 24th, what looks like an exhibit list containing quite a few exhibits. But I'm not exactly sure what they are, so I'm hoping you can shed some light.

MR. SANDERS: I can tell you. By the time the Respondent gets up there, those documents set judicial notice of things that happened already in similar cases against this company, Psychemedics. All right.

Like for example, A is a Security Exchange Commission report from 2003 where they specifically take judicial notice. It's a government document. All right. And this is going to be -- contains expressed submission regarding the scientific limitation of hair testing, especially regarding to marijuana and testing for cause. Suggesting that not just the test of the hair, but you also have to use urine.

PROCEEDINGS

So we are going to ask for judicial notice at some point during the Respondent's case.

MR. MAURER: Judge --

COMMISSIONER FACIO-LINCE: Let's let him finish and then I'm going to let you --

MR. MAURER: I just wanted to maybe be more efficient if I respond point for point, or else I'm just going to -- it's up to you, Your Honor.

MR. SANDERS: I'm just going to wait until the Respondent's case to even argue this whole thing. Not even now, because I was told you need physical documents. So to make it easier, so by the time the Respondent's case is up, then we can talk about it.

COMMISSIONER FACIO-LINCE: Okay. Well, let me give you a preview of what I'm going to tell you with regard to these documents. And we can argue it when you seek to introduce them, perhaps, maybe you are not seeking to introduce them now.

I usually like to do this as a housekeeping matter. But I will not be prepared to receive in evidence documents that are not directly related to this case. What I mean by that -- and again, I don't know anything about a single document that's in here, so I'm not making any judgments one way

or the other. And if all of these are directly related to this case, then you can forget I even said this.

I will not be receiving evidence of news articles or things of that nature that do not pertain directly to this case or to the evidence that is being sought to be introduced at this trial. Okay?

So for example, if there is -- I mean, again, I haven't had an opportunity to look at this even. Because normally, we ask that this type of thing be submitted one week prior to the trial. As you know, because you've practiced here quite a few times. So you are well aware.

So I haven't had the opportunity. But just so you are aware, if it is not directly related and simply like an article, for example, that was written about these types of tests --

MR. SANDERS: Yes.

COMMISSIONER FACIO-LINCE: Okay. That's fine.

So what we'll do then is the following, on September 3rd, at the beginning -- presumably you are going to begin your case then -- except that is not going to happen because your witness can't

PROCEEDINGS

come until 1:00.

MR. SANDERS: Right.

MR. MAURER: Judge --

COMMISSIONER FACIO-LINCE: Go ahead, Mr. Maurer.

MR. MAURER: Some of this that is in this document, that as you are well aware, you received it yesterday, last night at 6:34 p.m. I received it this morning when I walked into my office. I received the thumb drive 45 minutes, an hour ago. I haven't had an opportunity to look at anything.

Some of this was discussed earlier in the previous discovery motion where the Department asked for an offer of proof. No offer of proof was made, we moved on and set a trial schedule. It is my position, as the advocate, that it's moot, it's dead, it's precluded.

Now, if Your Honor is choosing to re-entertain that, that's your prerogative. But there are a lot of things that are -- amongst these 18 pieces of evidence that are completely irrelevant to this case. A lot of these cases, particularly the Boston cases, all pertain to cocaine. We are litigating marijuana here, not cocaine.

PROCEEDINGS

MR. SANDERS: In all due respect, Your Honor, these are government documents and they're relevant to the company that this Department is using to perform a test on my client and all the other people that they're using in the police department.

What they say in their 10(k) disclosure about the hair test is relevant to here. About marijuana, is relevant to here. These are all government documents.

What the SAMHSA has to say about their model hair testing standards is relevant to here. Because that's our argument. There is no hair testing standard. They have a 40-year record of self-certifying their own examinations. There are no scientific agreements about what constitutes RIAH versus EIA, versus HEIA. I can talk about all the variations, but they're all the same thing. They're all based on immuno systems.

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: It's not the Respondent's case yet. He didn't put on his case, and I just premarked it to make it easier so we can talk about it beforehand. And then as we go along, whether or not he's going to try to have it

admitted or not is another story. Like any other case.

MR. MAURER: But this is not trial by ambush, Judge.

MR. SANDERS: It's not a trial by ambush.

COMMISSIONER FACIO-LINCE: Okay. So let's do this. Let me be abundantly clear, Mr. Sanders, that the way that this tribunal works is that we ask for evidence and exhibits one week prior to trial.

Now, I'm not saying that there aren't occasions where things come up and you may need to put something new in. This is not new. You didn't -- you didn't just think of this last night. I assure you. That, I know. As a practicing attorney myself for a long time, these weren't ideas that came to you last night at 6:37.

MR. SANDERS: I've been busy at trial and with other stuff.

COMMISSIONER FACIO-LINCE: I understand. But we conferenced this in July. But that's neither here nor there.

So what I'm going to do is, I'm going to give Mr. Maurer an opportunity to review the documents that you are seeking to introduce in evidence.

PROCEEDINGS

I'm also going to allow for you, after Mr. Paulsen testifies, to reevaluate these exhibits and make a determination as to whether you need all of them. Right, because maybe what Mr. Paulsen is going to say will make it so that you don't necessarily need this information. And again, I can't say that. You certainly don't know that yet, presumably.

On the 3rd, when we come back, prior to calling Dr. Ciuffo, we are going to discuss this again. Mr. Maurer will make an argument as to what he is perhaps consenting to. Maybe none of it. And you'll have made an assessment by the 3rd of September as to whether you need all of it. Maybe nothing will change. Maybe you'll feel you need all of it, okay, to be moved into evidence.

In the meantime, though, I will also have an opportunity, because hopefully you've sent me this information or you can send this to my court staff, and I will also have a meaningful opportunity to review this and be better equipped rather than sort of doing it, you know, haphazardly as to what I am going to be admitting into evidence.

Does that make sense?

PROCEEDINGS

MR. MAURER: That's fine, Judge.

Also, just so that Your Honor is aware, referring to H, I, J and K on this list, independent hair drug tests, and then the last being K is the polygraph examination. We can argue the polygraph examination relevance later.

But specifically with respect to H, I and J, the Department is in absolutely no possession of data laboratory packages or anything scientific from the facilities, whether they be Psychemedics itself or Quest or any other company that support the -- I'm presuming that they're all negatives. We have not received anything.

COMMISSIONER FACIO-LINCE: Okay. So this is part of the client's submission. Am I to understand that you privately had your client tested?

MR. SANDERS: I didn't. He got tested before I even --

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: So yes, this is in the document. It's on the flash drive. It's on the flash drive that was given to the Court. Those documents are there.

MR. MAURER: The laboratory data packages?

PROCEEDINGS

MR. SANDERS: Yes. They're there. Certified from the laboratory. They're there.

COMMISSIONER FACIO-LINCE: So you'll have a meaningful opportunity to look at them.

MR. MAURER: Yes, ma'am.

COMMISSIONER FACIO-LINCE: All right. Thank you.

Any other housekeeping matters before we commence trial?

MR. MAURER: Nothing I'm aware of.

COMMISSIONER FACIO-LINCE: Okay. Then I will hear opening statements.

MR. MAURER: Your Honor, we are here because Detective Frankie Palaguachi, on February 22, 2024, presented himself to the Department's drug testing unit for a random workplace drug test. Shortly thereafter, the results came back and he tested positive for Carboxy THC. Not just marijuana, not just THC, Carboxy THC.

And the testimony will establish the particular relevance of that. Because Carboxy THC, okay, is the particular metabolite of marijuana that can only be resulted from ingestion. You cannot get it from handling marijuana in its raw form. You cannot get it from

walking down the street and smelling the odor of marijuana. The only way that you can get that is if you actively ingest it. You will hear from Dr. Paulsen, and you are going to hear from Dr. Ciuffo. And they're each going to testify to the significance of that.

And Dr. Paulsen is going to testify that pursuant to the Psychemedics procedures as they apply to workplace drug testing and as contracted through the NYPD or with the NYPD, they tested an A sample, they tested a B sample, and at the Respondent's request, tested his C sample. Each one of those tests came back at five times the cutoff or more. That is what the evidence is going to establish.

Now, there may be a defense that the Respondent was exposed to it because his wife vapes. It may be that his wife smokes marijuana and he was exposed to it that way. And you will hear testimony from Dr. Paulsen that even if that is so, it would not have resulted in the Respondent's numbers being five times the administrative cutoff.

There is only one conclusion, Judge, that can be arrived at at the end of this trial, after you

hearing all the evidence. Is that the Respondent deliberately ingested marijuana, and as a result of that and in accordance with the Department's penalty procedures and the zero tolerance policy, termination can only be the result of that -- of this -- of this trial, a verdict of guilt. Or -- yes.

Thank you.

COMMISSIONER FACIO-LINCE: Thank you, Mr. Maurer.

Mr. Sanders.

MR. SANDERS: Thank you, Your Honor.

I've been coming here a long time. It's the first time I'm actually going to read something. I'm going to read it because I don't want to miss a point.

All right. Since the early -- at least the late 1980s, Psychemedics Corporation has promoted hair testing as a scientific grade proof in drug detection. Using RIAH testing, and later on its own, enzyme immunoassay testing, also known as EIA. But they have another version on their website, HEIA. The company claims to detect drug use across long windows in urine analysis providing employees and police departments with a

more complete drug history. But police just market it as a method that is scientifically unstable, never validated by any recognized forensic body and repeatedly discredited in the courts of law.

In particular, there was an affidavit that was produced by the Department of -- of Dr. Ryan Paulsen, and he acknowledges that Psychemedics Corporation ceased to use an RIAH testing in August of 2012. While this submission may seem -- you know, it may appear on its face to be legally significant, and he's probably going to testify to this, a shift of methodology, such framing is scientifically misleading.

As confirmed in Psychemedics' own Securities and Exchange Commission Form 10-K filings following transition, the company merely replaces RIAH platform with enzyme immunoassay, also known as EIA, a change in the detection tag used. In other words, radioactive versus enzymatic. Not in a core approach.

Critically, this revised method remains unvalidated by any national forensic body, including the Substance and Mental Health Services Administration, the National Institute on Drug

Abuse, the Society of Forensic Toxicologists, and the International Organization for Standardization.

No peer review studies, external accreditation or public cut-off standards support the scientific reliability of EIA that's performed by Psychemedics. Particularly with respect to THA -- THC detection. Therefore, the cessation of the RIAH in favor of EIA carries no evidentiary weight. Just wanted to highlight, the Court is going to listen to this.

Now, the government federal standards -- and the Department hasn't talked about it. I want to see if they are going to talk about it in this court. The government federal standard is uniform guidelines on employee selection procedures. Also known as the UGESP, codified at 29 CFR, part 1607, issued in 1978 by the EEOC and sister agencies.

The UGS -- UGESP embodies the rules of Griggs versus Duke Power Company, which is 401 U.S. 424(1971). Even a facially neutral test that is unlawful if disproportionately impacts a protected group, it cannot be proven to be job related and consistent with business necessity. In other words, any test you give an employee has to pass

PROCEEDINGS

that test. Otherwise, it's presumptively invalid.

The UGESP requires employees to maintain records, conduct validation studies and discontinue unvalidated testing. Psychemedics' methodology has never satisfied these requirements. Courts, including the First Circuit in Jones versus City of Boston, have found this test has disproportionately harmed Black officers due to melanin based drug binding.

Boston ultimately paid also $2.6 million in 2023 to resolve claims that Psychemedics, the same testing company the Department is using, and was the second evidence to customer. Boston Police Department was the first in 1999, the NYPD was second. Claims that Psychemedics' testing was both discriminatory and scientifically unreliable. The NYPD, however, continues to rely on the same flawed method.

I'll skip this part. Kind of talked about that. But something else is going to come up in this case. Psychemedics leans on this so-called five -- the FDA 510(k) certification. What that really is, is a clearance. It's a regulatory red herring. A 510(k) clearance merely allows a device to be marketed as if it's, quote,

substantially equivalent to a predicate product. It does not mean the test is scientifically reliable, validated for forensic use or appropriate for employment decisions.

The FDA itself has clarified, 510(k) is not approval. No clearance is ever addressed, marijuana detection in hair or the picogram threshold Psychemedics applies today. No forensic regulator has reviewed the washing procedures, cutoffs or contamination protocol.

In respect to those things, according to the uniformed guidelines, each and every aspect of the testing methodology must meet the UGESP standard. That's something to think about, I want the Court to take judicial notice of later on when I make my arguments.

Equally misleading is the Court's use -- the company's use of a 2014 FBI study. That's another document that's going to come up later on. That paper cited in a 2024 filing, is not a peer reviewed validation. But, they hold it out there as saying our studies have been validated. When meanwhile, that is a cocaine study and has nothing to do with marijuana.

The problem with THC detection is especially

acute. And they admit in their own Securities and Exchange Commission filing that it's an elusive thing to try to detect THC. The backdrop of this NYPD's reliance on Psychemedics raise profound due process concerns.

On February 22, 2024, my client's hair sample reported positive at 5.4 and 5.1 picograms of Carboxy, barely above Psychemedics' own 1.0 picogram cut-off. And what's interesting, and at some point, you are going to hear in this case, the client, before he even hired me, went and had himself tested, three negatives with two from Psychemedics. So it's going to be interesting to hear how they answer for the Court. No standardized wash or segmental analysis was ever documented. And the Department's case is based solely on Psychemedics' internally manufactured threshold, an arbitrary number that has no scientific or legal significance.

In sum, Psychemedics' hair testing is an unvalidated, racially biased and scientifically unreliable method. Its FDA clearance is misrepresented, its SEC disclosure sanitized, its reliance on FBI studies is misplaced and its marijuana detection thresholds are arbitrary.

PROCEEDINGS

Boston has already abandoned the test and paid millions in settlements. Yet, the NYPD persistently uses the test for non-validation. Accordingly, the Department, we feel, after all the evidence is heard before this tribunal, that we believe that the Department hasn't met its burden under UGESP and due process of the constitution. And therefore, it should be a finding of not guilty.

COMMISSIONER FACIO-LINCE: Thank you, Mr. Sanders.

Mr. Maurer?

MR. MAURER: Department calls Sergeant Danny Tse, T-S-E. Sergeant Tse.

(Witness enters courtroom.)

DETECTIVE JOHNSON: Step up.

COMMISSIONER FACIO-LINCE: Good morning, Sergeant.

Do you swear or affirm to tell the truth in all matters before this court?

THE WITNESS: Yes.

COMMISSIONER FACIO-LINCE: You may be seated.

SERGEANT DANNY TSE,

was called as a witness and having been first duly sworn, was examined and testified as follows:

DETECTIVE JOHNSON: Adjust that microphone to your liking. State your rank and full name.

THE WITNESS: Sergeant Danny Tse.

DETECTIVE JOHNSON: Spell your full name for the record.

THE WITNESS: D-A-N-N-Y, T-S-E.

COMMISSIONER FACIO-LINCE: Thank you, Sergeant Tse. I'm going to ask you to adjust that microphone to your comfort level so that you can speak loudly into the microphone. Keep all of your responses verbal because gestures and nonverbal responses cannot be taken down by the court reporter. Okay?

THE WITNESS: Okay.

MR. MAURER: Thank you, Judge.

DIRECT EXAMINATION

BY MR. MAURER:

Q. Good morning, Sergeant.

A. Good morning.

Q. How long have you been a member of the New York City Police Department?

A. Almost ten years.

Q. And in which command are you currently assigned?

A. The 81.

Q. Prior to the 81, where were you assigned?
A. Medical division.
Q. Where within the medical division were you assigned?
A. The drug screening unit.
Q. How long were you with the drug screening unit?
A. A little over four years.
Q. And in February of 2024, you were working at the drug screening unit?
A. Yes.
Q. And within the drug screening unit, what were your roles and responsibilities there?
A. My role is to do a drug testing on members of service.
Q. And was it just uniformed members or civilian or both?
A. Both. But most members of service.
Q. When you say member of service, you mean uniformed?
A. Uniforms.
Q. Now, with respect to the workplace drug testing that you conducted, what training did you receive?
A. We do yearly training on a computer system

that has questions at the -- and quizzes and procedures.

Q. And you had to do that yearly?

A. Correct.

Q. Now, was there an apprenticeship where you had to sit with and be watched by another supervisor or you just took the course and you jumped right in?

A. Took the course.

Q. Now, can you describe for the record, what the process is for drug testing when a member of the service presents themselves to the drug testing unit for drug testing?

A. So once they come in the door, we ask for the NYPD ID, verify it's the right person who comes in to get drug tested. Once we verify, we ask the MOS to grab a clipboard off the wall and fill out those forms.

Q. Now, grabbing a clipboard off the wall, they fill out forms that are on that clipboard?

A. Correct.

Q. And I'm going to direct your attention to February 22, 2024.

Were you working that day?

A. Yes.

Q. And do you recall Detective Frankie Palaguachi coming in and presenting himself for drug

testing?

A. Yes.

MR. MAURER: Judge, at this time, I'd like to have the witness shown what is in evidence as Department's number 1.

Q. Sergeant Tse, is it Tse or Tse?

A. Tse.

Q. Sergeant Tse, I'm going to refer you to the very first page of this package. The page is labeled medical -- titled Medical Division Drug Screening Questionnaire.

A. Correct.

Q. Who fills out this drug screening questionnaire?

A. The MOS.

Q. And are you present when they do this?

A. Parts of it.

Q. I'm going to draw your attention to the drug screening number.

What is that number?

A. That's a number that's generated by the drug screening application. It's a unique number for each MOS doing the drug testing.

Q. So you say it's unique.

Is it ever recycled?

A. No.

Q. So it's only for this member of the service and no other member of the service?

A. Correct.

Q. And it has a bunch of digits and some letters.

What do those digits and letters signify?

A. 01 meaning the first one for the day, file number. 63 is how many is done for the year. And 24 is 2024. X is a random drug test.

Q. Does it indicate whether it's for hair or urine or hair and urine?

A. It's hair test.

Q. How is that signified?

A. It's checked off, and H meaning hair sample.

Q. And you assign -- withdrawn.

This is a computer-generated number?

A. Yes.

Q. And you pull it off of the computer or how do you take this number out of the system?

A. We pull it from the computer system.

Q. Now, with respect to the Respondent filling it out, is it the Respondent's responsibility to fill out question number one?

A. Yes.

Q. And question number one states, list any prescription medication taken during the past three months. If nothing, write nothing to report.

And what did the Respondent write?

A. Nothing to report.

Q. And did the Respondent sign and date this document?

A. Yes.

Q. And there's a fingerprint there.

Whose fingerprint is that?

A. MOS.

Q. And then you sign and date it; you sign it, right?

A. I sign it.

Q. Now, I'm going to refer you to page two, three and four.

What are these three pages, sir?

A. It's a Psychemedics custody control form.

Q. Who fills out these forms?

A. We both do.

Q. When you say "we both," what parts does the Respondent fill out?

A. Step three.

Q. Okay. And you fill out the rest?

A. Correct.

Q. Now, there are barcodes at the very top left of each one of these three pieces of paper.

They're separated by one digit each, correct?

A. Correct.

Q. There's A 2462163, 64, and 65.

What are those numbers -- what do each of those numbers signify?

A. It's just used for which sample that is put on the envelope.

Q. How many samples are taken?

A. Three.

Q. Three samples and three custody control forms?

A. Correct.

Q. Now, the Respondent signed each one of these three custody control forms in step three?

A. Correct.

Q. Is that signed by the Respondent before or after the samples are taken?

A. After.

Q. And could you read for the record what step three actually certifies.

A. I provided the sample in the sample -- the

sample was cut close to the skin and I witnessed the collector seal the sample in the sack. I consent to the testing of the sample by Psychemedics Corporation and the release of the result to the authorized recipient.

Q. And the Respondent signed and dated that?

A. Signed and print.

Q. Signed and print -- and dated?

A. Correct.

Q. You indicated in step two where the hair came from, correct?

A. Yes.

Q. Where did the hair come from?

A. Leg and arm.

Q. And that was for all three samples?

A. Yes.

Q. How is it determined that the hair was going to come from the leg and the arm?

A. I will ask the MOS where they want the hair to be taken from.

Q. What are their options?

A. Body hair or head hair.

Q. So it was the Respondent's choice to do body hair?

A. Yes.

Q. And why arm and leg? Why not just arm or leg?

A. The defendant did not have enough hair on certain part of the body, so we had to use multiple body parts to take the hair samples.

Q. And if you can go to page five, that's the drug screening unit attendance verification?

A. Yes.

Q. That's -- that form is filled out by who?

A. By the MOS.

Q. And it documents what?

A. The time in and time out. And the signature.

Q. Now, after -- you can put that aside now. Thank you, sir.

Now that the Respondent's filled out the drug screening questionnaire, okay, you now do what in the process?

A. We go into one of the rooms and then I'll clean the table, and then I'll put an exam table sheet on the table. And then I get a disposable razor and start to do the process of collecting the hair.

Q. Now, when you say "disposable razor," is that a one-time use sterile razor or is it something that's disinfected and recycled?

A. One-time use.

Q. So it's one Respondent, one razor in the garbage?

A. Correct.

Q. Now, were there any other people other than you and Detective Palaguachi in the room at the time that his hair was taken?

A. No.

Q. At any point during the process of you administering the test and taking his sample hair, did he ever raise any objections, concerns, anything like that?

A. No.

Q. Had he done that, what would you have done? How would you have responded?

A. I would ask the supervisor to come in.

Q. And would you have documented that?

A. Yes.

Q. Were there any documentations, did you make any notifications?

A. No.

Q. Now, you take the hair sample. Now, when you are doing hair, head hair, I take -- I'm sorry.

When you do head hair, you take three separate head hair samples?

A. Correct.

Q. How -- how is the process different when you are taking body hair?

A. Body hair, we use the razor. Head hair, we use the scissor.

Q. With the body hair, are you taking -- let's say you shave the arm and that goes into envelope A or you are taking the leg and it goes into envelope B? Or how do you collect the hair?

A. We'll shave it, put it on a sheet. Then we see if we have enough. If it's not enough from the arms, we'll do the legs. We put it all together and then we put it into separate foils.

Q. So the hair that you shave off the Respondent's body is collected into one pile?

A. Correct.

Q. And then that pile is what?

A. Then we will separate into three piles and put into each silver foils.

Q. So you're dividing one pile into three separate piles?

A. Correct.

Q. And those three separate piles signify -- or how are they significant?

A. It just -- we put an equal amount of each file -- foil.

Q. But each pile represents a different sample?
A. Correct. Each one will be A and B and C.
Q. And what is done with the A and the B sample?
A. A and B will be -- you put A -- each one going to each envelope by itself.
Q. And what -- where do those -- I'm getting ahead of myself. Withdrawn.
So now, you collect three hair samples -- I'm sorry, you collect a pile of hair?
A. Correct.
Q. They're separated into three piles?
A. Correct.
Q. Each one of those piles, what do you do with them separately?
A. We separate them in one -- in each envelope.
Q. When you say "envelope," what are you talking about?
A. The sack, envelope.
Q. Is it plastic? Is it foil? Is it cardboard? What is it?
A. It's a cardboard type envelope.
Q. Each pile get its own cardboard envelope?
A. Yes.
Q. And what happens with those envelopes each?
A. Eventually, we go back to the table. I'll

seal it with tamper evidence seal in front of the MOS. And then the MOS will initial each one for me.

Q. And that's each pile -- I'm sorry, each envelope is done separately?

A. Correct.

Q. What happens with those envelopes next?

A. After the initial, we put it to the side. And then we do the paperwork, the custody control forms.

Q. Okay. That we just reviewed earlier?

A. Correct.

Q. After the custody control forms are done, what happens with those three envelopes?

A. Then we put it in a Psychemedics plastic bag, and then we will tape the -- some type of tape that's already on the envelope and then we'll have the MOS initial and date it for me.

Q. You put it into one envelope or multiple envelopes?

A. It's three envelopes.

Q. Which samples get sent off to Psychemedics for testing?

A. A and B.

Q. What happens with the C sample?

A. C sample stays back. And if the MOS wants to

come and pick it up, they can bring it to a lab to test it.

Q. Do they pick it up or does it get sent out and coordinated through medical division?

A. They pick it up.

Q. They pick it up and they hand deliver it?

A. They pick it up. They come pick it up with the -- the Department supervisor first, to pick up the sample.

Q. Now, this was a random sample -- I'm sorry, a random drug test or a for-cause?

A. A random.

Q. Can you describe for the record how an officer is picked for random drug testing?

A. It's a -- randomly generated.

Q. I'm sorry?

A. It's randomly generated and it -- a supervisor will call down to the precinct and see if the MOS is in.

MR. MAURER: Judge, if I could have Sergeant Tse shown what is marked for identification as Department's number 3.

COMMISSIONER FACIO-LINCE: Yes.

MR. MAURER: Thank you.

BY MR. MAURER:

Q. Sergeant, if I can refer you to page ten of this package. Let me know when you are there.

A. Yes.

Q. Okay. What is this a photograph of? Or a copy of?

A. It's a copy of the sack card. Of sample A.

Q. This is the cardboard envelope that you had referred to earlier?

A. Correct.

Q. And there's a subject initial here.

Whose initials are those?

A. The MOS.

Q. And can you read for the Court what the initials are over that little paragraph.

A. I certify the sample contained in the envelope is my sample. It was close cut to the skin and I witnessed the sample collector seal the sample in the envelope.

Q. And if you can go to the next page, page 11.

What is that a photocopy of?

A. It's a tamper evidence security seal tape.

Q. Is that the tamper evidence security that you -- label that you were referring to earlier that seals the envelope?

A. Correct.

Q. There are initials and a date there.

Whose initials are that -- are those?

A. Mine.

Q. Now, can you go to page 12. And can you describe for the record what that is.

A. That's a Psychemedics bag where you will put in the envelope and we will seal in front of the MOS and have the MOS initial and date it.

Q. So this is the -- is this a plastic bag or is this -- what kind of -- or an envelope? What is this?

A. Plastic bag.

Q. This is the plastic bag that the cardboard envelope goes in?

A. Correct.

Q. Whose initials are there?

A. The MOS.

Q. And if you can go to page 14.

This is what? This is a copy of what?

A. This is a copy of sample B, of the sack envelope.

Q. And -- I'm sorry.

A. It's also initialed by the MOS.

Q. And it has the same certification?

A. Correct.

Q. Just to go back to page ten for a second.

Let me know when you are there.

A. Okay.

Q. Okay. The lower right corner, there is a preprinted indication of leg hair, and then there is a handwritten word there.

What is that handwritten word?

A. Arm.

Q. Who put that there?

A. Some test -- the lab.

Q. No, not the leg hair. Who handwrote the arm? If you know, if you remember.

A. I don't recall.

Q. To go back to 14, page 14, in that lower right-hand corner, what is indicated there for hair?

A. Arm -- arm hair and leg hair.

Q. And if you go to page 15, what is that, sir?

A. It's a tamper evidence seal, security seal.

Q. And page 16, what is that?

A. That's the Psychemedics plastic bag envelope.

Q. Whose initials are on that seal?

A. The MOS.

Q. And I'm going to refer you to page 18.

What is that a photograph of?

A. That's a sample C of the sack envelope, with the MOS's initials on it as well.

Q. And that has the exact same certification as A and B, correct?

A. Correct.

Q. And the lower right-hand corner, where does it indicate the hair came from?

A. Leg hair, arm hair.

Q. And page 19, sir?

A. It's the tamper evidence security seal.

Q. And page 20?

A. It's a Psychemedics plastic envelope.

Q. Whose initials are on that seal?

A. The MOS.

Q. You can give that back to the detective. Thank you.

Now, after everything is sealed in their respective plastic envelopes, where do the samples go?

A. It goes into like a locked storage bin.

Q. A locked storage bin?

A. Correct.

Q. And A and B gets sent off to Psychemedics?

A. Correct.

Q. Where does C stay?

A. It goes in a separate locker.

Q. Now, to your knowledge, were there any other drug test positives for marijuana or for any other drug

that day?

A. No.

MR. MAURER: I have nothing further. Thank you, Sergeant.

COMMISSIONER FACIO-LINCE: Thank you, Mr. Maurer.

Mr. Sanders?

CROSS-EXAMINATION

BY MR. SANDERS:

Q. Good morning, Sergeant.

A. Good morning.

Q. I have a couple of questions.

Do you know what the uniform guidelines on employee selection procedure -- do you know what that is?

A. No.

Q. Were you ever trained in that while you were in the collection part of the medical division?

A. No.

Q. Okay. How often -- you said you received training on a computer, right?

A. Correct.

Q. How often was there audits, that you know of, in the police department with respect to your collections kit? How often were you audited?

COMMISSIONER FACIO-LINCE: I'm sorry, I didn't hear the last part of the question.

MR. SANDERS: How often were you audited?

Q. Well, let me ask you, were you ever audited?

COMMISSIONER FACIO-LINCE: Audited.

A. No.

Q. Okay. Do you know if anyone was ever audited to see if their collection skills were consistent with Department policy?

A. Not that I know of.

Q. Okay. The training you received, was that from Psychemedics?

A. Yes.

Q. And that was computer trained?

A. Yes.

Q. Was there a consultant or someone from Psychemedics corporation that came to the location to train people in person?

A. No.

Q. Has anyone from Psychemedics ever audited you to ensure that you were collecting consistent with their policies or their collection methods?

A. No.

Q. All right. You talked a little bit about random.

Do you know how the random numbers are generated?

A. It's random.

Q. I don't want you to guess. I'm talking about firsthand knowledge.

You testified a little bit earlier about random, right?

A. Yes.

Q. Did you ever work in a section where the random numbers are generated?

A. Yes.

Q. Okay. So where are the numbers generated?

A. From the system.

Q. What system?

A. The drug screening system.

Q. The -- what -- system?

A. The drug screening system.

Q. What's the name of the program?

A. I don't recall.

Q. Were you ever trained in it?

A. Yes.

Q. Do you know whether or not -- what algorithm is used to pick random numbers?

MR. MAURER: Objection, Judge.

MR. SANDERS: Well, it goes to his whole

defense. I'm not going to get too deep into it. I'm just going to ask one or two more questions about it. That's it.

MR. MAURER: It's not relevant.

MR. SANDERS: Then I'm going to move on.

COMMISSIONER FACIO-LINCE: Sergeant, are you able to tell us what the algorithm is for that?

THE WITNESS: No.

BY MR. SANDERS:

Q. Do you have firsthand knowledge on how random numbers are generated?

A. No.

Q. Just want to make sure.

Do you know whether or not that is audited by the Department?

A. No.

Q. Okay. All right.

So Department policy, when it says collect the hair test sample, is there a choice or is there a specific section of the body you are supposed to collect from first? And then if you can't collect from there, then you go to other parts?

A. We give the MOS a choice of where to collect it from.

Q. And is that consistent with Psychemedics'

collection process?

A. I mean, we give the choice. It's up to the MOS to decide where to take the hair from.

Q. I'm asking about Psychemedics.

You were trained in collection methods by Psychemedics, correct?

A. Correct.

Q. What did they train you to do?

A. They trained us to see where the hair can be taken from first.

Q. Are you trained to take from the nape of the neck first?

A. We cannot take it from the neck area. There's not enough hair over there. If the person doesn't have hair that's long enough, we cannot take it from there.

Q. I understand. I'm talking about a system.

Did they teach you there's a system how to collect hair?

A. Yes.

Q. You got to one place first and then if you can't go there, you go to the second, third and fourth areas, right?

A. Right.

Q. What's the first area?

PROCEEDINGS

A. Well, it's the head hair, we can't take it from neck area. It got to be from the top.

Q. Okay. So in this case, you gave a choice, right?

A. Correct.

Q. Was that consistent with Psychemedics' collection methods or inconsistent?

A. It's -- I don't recall like the system.

MR. SANDERS: Nothing further from me.

COMMISSIONER FACIO-LINCE: Mr. Maurer, any questions?

MR. MAURER: No further questions. No follow-up.

COMMISSIONER FACIO-LINCE: Sergeant, can I just ask you one quick question regarding the questionnaire itself.

So I'm referring now to Department's Exhibit 1. On this form, this is the drug screening questionnaire. On the right-hand side, it has the option, hair or urine.

THE WITNESS: Correct.

COMMISSIONER FACIO-LINCE: Who makes the determination as to whether the sample that will be collected from the MOS will be hair, urine or both?

THE WITNESS: It's generated by, I guess, One Police Plaza. They will send over like a list of names, and they will label if the person's doing a single or double. Single meaning hair sample and double meaning hair and urine sample.

And for this MOS, it came back as single.

COMMISSIONER FACIO-LINCE: So that's also randomly generated? Meaning who will get hair, who will get both?

THE WITNESS: Correct.

COMMISSIONER FACIO-LINCE: If the MOS requested it, could they also get urine or not for these random tests?

THE WITNESS: No.

COMMISSIONER FACIO-LINCE: Any questions based on mine?

MR. SANDERS: I do have a question. Because --

RECROSS EXAMINATION

BY MR. SANDERS:

Q. You just answered the questions to the commissioner, right?

A. Yes.

Q. Do you have firsthand knowledge for how people are chosen for hair versus urine or is it

speculation?

A. The list comes down from One PP and sent to us.

Q. I understand.

So you get a list, right?

A. Correct.

Q. You don't know how they're chosen, right?

A. No.

MR. SANDERS: Okay. Fine. Nothing further.

MR. MAURER: Just quick.

COMMISSIONER FACIO-LINCE: Sure.

REDIRECT EXAMINATION

BY MR. MAURER:

Q. When you get this list, we heard a lot about this list, is it a list of names or tax numbers?

A. Names.

Q. And there could be more than one Bob Jones in the Department.

Are there tax numbers associated with these names?

A. It's name, tax number, and I guess the precinct they work in. And the title.

Q. So you get a list generated from wherever and it says these people are to be brought in for drug testing and it has a name, a tax and their command?

A. Correct.

Q. And who notifies the commands that these members need to come in for drug testing?

A. Usually, the supervisor.

Q. Supervisor of who?

A. Sergeant Riley of the drug screening unit.

Q. So someone at the drug screening unit is tasked with reaching out to the commands and making the notifications?

A. Correct.

Q. Do you or does Sergeant Riley or anyone else at the drug testing unit have any say on who is on that list?

A. No.

Q. Do they have any discretion to say I'm not testing you, but I'm testing you and I'm not testing you, but I'm testing you? Anything like that?

A. No.

Q. Anyone and everyone on that list is brought down for testing?

A. Usually, yes.

Q. Now, when you say "usually," why do you say usually?

A. Sometimes we might not finish a list of names on the -- that comes in for that month.

Q. If you don't finish the list for that day, what happens to the names you miss?

A. We call the next day to see if that MOS is working or not.

Q. And what happens if they're not working?

A. We move on to random select people's names and see who is working.

Q. The people that you don't get to or you can't get to because they're not working or they're on vacation or something like that, how do we know that -- how are they tracked? How are they brought in for testing?

A. We usually leave a note saying call the command to see if they're working or not. If they're working -- if they're not working, we put RDO or vacation or sick right next to it. And then we try to go back to that name eventually down the line and call them.

Q. So it's not like they're just forgotten and they get a pass, you keep trying until you can get them in?

A. Yes.

MR. MAURER: Nothing further.

COMMISSIONER FACIO-LINCE: Anything further?

MR. SANDERS: No.

PROCEEDINGS

COMMISSIONER FACIO-LINCE: Thank you, Sergeant. Your testimony here has concluded. Thank you for your time.

(Witness excused.)

MR. MAURER: Can I walk sergeant out?

COMMISSIONER FACIO-LINCE: Absolutely.

MR. MAURER: Thank you.

COMMISSIONER FACIO-LINCE: Mr. Maurer, before we call Dr. Paulsen, can we just have a brief sidebar?

MR. MAURER: Absolutely.

(Sidebar conference.)

COMMISSIONER FACIO-LINCE: Back on the record.

Before we proceed, I want the record to show that we've had a -- Mr. Sanders, myself, and Mr. Maurer had a sidebar. And I've informed the parties that based upon further contemplation and a review of the laboratory data package from Psychemedics Corporation, which for the record is Department's 3, I am going to be receiving that in evidence -- of course over Mr. Sanders's objection, which I'll allow him to make a record in just a moment.

With the understanding that this package

includes the results, the scientific results of the testing used by Psychemedics for the testing of the drug screening and the positive for marijuana testing.

And again, the weight that I afford this document will depend on my assessment not only of Dr. Paulsen's testimony, certainly, but of any other expert that Mr. Sanders is going to be bringing in. But it does not preclude this board from receiving it into evidence for what it is.

And so I am going to be receiving the laboratory data package as Department's Exhibit 3, again, over Mr. Sanders's objection.

And if you wish to make any further record, you may do so.

MR. SANDERS: Just quickly, Your Honor. Of course, we have to accept the Court's ruling, but like I said earlier, the problem is, with the acceptance is that it kind of skips to the test. Which is the Daubert test or the Frye test, depending which one you use. One is federal -- one is federal or state. It has to be -- the science, in order for it to be accepted, it has to be generally accepted in the scientific community. And I just want the Court to be aware, listen

closely to the testimony of the witness. Because that is going to be a threshold issue, whether or not his testimony is even accepted or any of the test is going to be accepted. All right. That's the only thing we want to make clear for the record as to what our objection is.

COMMISSIONER FACIO-LINCE: Thank you.

MR. MAURER: Judge, before I call my next witness, I have to apologize. Annexed to Dr. Paulsen's resume, which is only three pages, I had inadvertently -- I didn't mean to slip it in. This is not slight of hand. There were the certifications for the lab assigned to it. It's one, two -- it's another four pages.

So it really should be two separate things, not part of the CV. Because the CV is only for the doctor, this is for the lab. So if Your Honor wants to separate it, then I would request that Department's number 5 be the certification. We can mark them for ID now.

COMMISSIONER FACIO-LINCE: That's exactly what I'm going to do. And thank you for correcting the record. So just to be clear one more time, Dr. Paulsen's three-page CV --

MR. MAURER: Department's 2.

PROCEEDINGS

COMMISSIONER FACIO-LINCE: -- is Department's 2.

MR. MAURER: Yes, Judge.

COMMISSIONER FACIO-LINCE: The lab, Psychemedics accreditations is going to be number 5.

MR. MAURER: Yes, Judge. Thank you.

COMMISSIONER FACIO-LINCE: Anything else?

MR. MAURER: No.

MR. SANDERS: We are not objecting to that. We are not objecting to that. We know the certifications, we are not questioning them. We are not questioning whether or not they're --

MR. MAURER: Requesting to be moved into evidence, Judge.

COMMISSIONER FACIO-LINCE: Department's 5 is received into evidence as such.

(Whereupon, Exhibit 5 was entered into evidence.)

MR. SANDERS: To be clear, we are not questioning whether or not they certified the tester. It's the testing.

COMMISSIONER FACIO-LINCE: Understood, Mr. Sanders.

Are we ready to proceed with Dr. Paulsen?

PROCEEDINGS

MR. MAURER: Yes, Judge. Department calls Dr. Ryan Paulsen so P-A-U-L -- I'm sorry, P-A-U-L-S-E-N.

(Witness enters courtroom.)

COMMISSIONER FACIO-LINCE: Dr. Paulsen, please raise your right hand.

Do you swear or affirm to tell the truth in all matters before this court?

THE WITNESS: I do.

COMMISSIONER FACIO-LINCE: Please be seated.

DR. RYAN B. PAULSEN,

was called as a witness and having been first duly sworn, was examined and testified as follows:

DETECTIVE JOHNSON: State your full name for the record.

THE WITNESS: Dr. Ryan B. Paulsen.

DETECTIVE JOHNSON: Spell your full name for the record.

THE WITNESS: First name R-Y-A-N, middle initial B like boy, last name P-A-U-L-S-E-N.

COMMISSIONER FACIO-LINCE: Dr. Paulsen, I'm just going to ask you to adjust that microphone to your liking and comfort level. I'll ask you to keep your voice up while testifying. And just be reminded that only verbal responses can be taken

down by the reporter. So no gestures of any kind because those cannot be recorded. Okay?

All right. Go ahead, Mr. Maurer.

MR. MAURER: Thank you, Judge.

DIRECT EXAMINATION

BY MR. MAURER:

Q. It's still good morning. Good morning, Dr. Paulsen.

A. Good morning.

Q. Dr. Paulsen, by whom are you currently employed?

A. I work for Psychemedics Corporation.

Q. How long have you been with Psychemedics?

A. About 11 years.

Q. And in what capacity do you currently serve with Psychemedics?

A. I'm a laboratory director.

Q. And as part of being the laboratory director, are you responsible -- actually, let me change that.

What are your roles and responsibilities as laboratory director?

A. I have oversight of the full laboratory operation with more granular oversight of the confirmation and mass spectrometry areas.

Q. And with respect to drug tests that are

deemed failures or positives for drug presence, do you certify laboratory reports?

A. I don't certify laboratory reports. I do certify laboratory data packets.

Q. Okay. So it's -- I'm sorry, the data packages that you certify?

A. Yes.

Q. Now, when you are certifying a laboratory data package, what do you do? What are you looking at? How are you analyzing it in order to achieve that certification?

A. I'm working with a team. When we get a request for laboratory data packet, the document custodian will assemble all of the pertinent information associated with the testing of that sample.

So that will be laboratory results, analytical results, chains of custody, work lists and such. Those are given a preliminary review by one of our certifying scientists. She will assemble a data package. And then once she's assembled it, I will review the full data package and then I will redact information associated with other tests not pertinent to the case at hand. And then I will sign off on it in that way.

Q. Now, if during the course of your review of a

laboratory data package, you notice an anomaly or a fault, what do you do?

A. What sort of fault?

Q. If you notice something wrong with the data, whether it be an error made by one of the scientists or an error made by machine, would it even ever get to you or would you be able to catch that?

A. I know in the past we have got things.

Q. And is that then reported as a positive or is it discarded and not reported?

A. You mean a data package -- data packages or --

Q. Yes, the data package.

A. The data has already been reported once we are issuing a data package. Usually weeks in advance, sometimes years in advance. The data would have been reported. That goes through a process involving multiple controls and reviews to make sure that everything is correct.

If I find an error in the data package, I will let the client know. This would have been sort of, you know, down the road after we've made the initial reports to the client. If reviewing the data package I find something out of order, I will notify the client.

Q. Now, with respect to Psychemedics, before we go any further into the lab data packages, the lab holds a certificate of accreditation from the College of American Pathologists?

A. That's correct.

Q. And is that a yearly accreditation? How often is that?

A. I believe they do an on-site inspection every two years, and then we have to do an internal inspection every off year. So every two years, essentially.

Q. And do they come in and do audits and controls and tests to make sure everything is in order?

A. Yes. When they come in, they will review all of our systems, all of our proficiency test performance and so forth. And then they will notify if they found -- if they found any deficiencies.

Q. And Psychemedics is accredited by the New York State Department of Health clinical laboratory permit, correct?

A. Correct.

Q. Is that a yearly or a periodic, how often is that certification?

A. It's not yearly. Off the top of my head, I don't recall. I know it's less frequently than yearly.

It might be every two to three years, as far as them coming out. Like we may have to submit things to them more frequently than that.

Q. And what is A-N-S-I?

A. Is that part of the ISO 17025 accreditation?

Q. Yes, sir. That's A-N-S-I, National Accreditation Board.

A. So there are standards that are established for the industry. Forensic drug testing by ISO. ISO also establishes standards for other groups. And the standards of forensic drug testing would be the ISO 1720255 standard.

There are various agencies that will come out and audit you in order to make sure that you are compliant with the standards. So the people that generate the standard don't do the auditing, they just establish the standard. And then there are a number of agencies that can come out and make sure your certification is in order.

Q. Now, Psychemedics currently holds a certificate of accreditation for forensic testing and calibration, correct?

A. That's what the certificate says.

Q. What does ISO stand for? What is that acronym?

A. I think it's international standards organization.

Q. What are the standards pertaining to?

A. Well, for forensic tox, that's the 17025. It's a broad-based organization. They also have standards for pharmaceutical manufacturers or other types of testing.

But as far as what we do, they want to make sure that we have a proficiency testing plan in place. Proficiency test being samples that are sent from outside the laboratory of unknown character, like we don't know if they're positive or negative. But we have to test them and then return those results to the agency that issues the proficiency tests. They monitor the performance on that.

They will also make sure that we have a good quality management system in place. That is to say that we have good document control, that we have good assessments and implementation of calibration and quality control materials that would make sure that the personnel is qualified according to the standard. It would make sure that our facility meets the requirements of the standard in terms of safety, in terms of equipment, in terms of maintenance and records.

Q. And with respect to qualified staff, you are -- you hold the certificate of qualification from the New York State Department of Health, correct, in clinical toxicology and forensic toxicology?

A. That is correct.

Q. And to get a little bit more granular, what is your -- we have your CV in evidence. But can you describe for the record what your education is, sir.

A. I have a bachelor's degree in chemistry and a PhD in medicinal chemistry from the University of Utah.

Q. And aside from Psychemedics, have you worked as a forensic toxicologist in any other venue, any other company?

A. Yes. I've worked at a place called Sports Medicine Research and Testing Laboratory. They were a laboratory specializing in the detection of performance-enhancing drugs. And then I also worked at a place called Aegis Sciences Corporation. At least where I was, they were primarily doing medication compliance monitoring for health care providers.

Q. And do you have any publications to your credit?

A. Yes.

Q. And are they all with respect to workplace drug testing?

A. Mostly. I think there are a couple of exceptions. But mostly, it's related to drug testing.

Q. And your publications, are they peer reviewed?

A. They are.

Q. And have you ever testified in this venue before?

A. I have.

Q. And in what other venues have you testified other than here at the NYPD?

A. I have testified in federal criminal proceedings, I've testified in court's martial for the U.S. Coast Guard and the Air Force. I have testified in a number of workplace arbitrations, as well as family court venues.

Q. And in each of those times that you have testified, have you been deemed an expert witness in workplace drug testing and forensic toxicology?

A. I believe so.

MR. MAURER: Judge, at this time, I would like to have Dr. Paulsen deemed an expert in the areas of workplace drug testing and forensic toxicology.

COMMISSIONER FACIO-LINCE: Mr. Sanders, voir dire?

MR. SANDERS: Yes. Voir dire.

VOIR DIRE EXAMINATION

BY MR. SANDERS:

Q. Good morning, Doctor.

A. Good morning.

Q. Starting backwards, you've testified in other courts.

Have you ever testified in the Commonwealth of Massachusetts?

A. I have not.

Q. Okay. All right.

So where you testified, what were you testifying what about? What testing methodology were you testifying about, RIAH or EIA?

A. As long as I've been with the company, we've been doing EIA. I don't believe I've ever been called upon to testify with respect to RIAH.

Q. What's the difference between those methodologies?

A. So radioimmunoassay is a technology that's based on basically detecting radioactive iodine. Typically, the -- I haven't done it in a while. It's kind of an open technology. It's fallen out of favor. Not because it wasn't accurate, but because there's radioactive waste that's expensive to dispose of

associated with that testing.

But you are basically looking for -- you're using a simulation counter, I believe. You are trying to measure the radioactive decay of the iodine in order to do the quantitation of drug.

Enzyme immunoassay is something that does not require the radiation. In both cases, it's based on an antibody that has been developed to bind to the drug or metabolite of interest. In both cases, the assay measures basically how much drug is showing up that's binding to those enzymes -- to those antibodies in one form or another.

Q. Okay. So were you aware of when you started working for Psychemedics that they used a technology called RIAH?

MR. MAURER: Objection. At this time, I'm going to object. This is way beyond the scope of voir dire.

MR. SANDERS: Actually --

COMMISSIONER FACIO-LINCE: Okay. One moment. Let's first start with the premise that the court reporter cannot take down two people speaking at the same time.

MR. SANDERS: Right.

COMMISSIONER FACIO-LINCE: So, an objection

has been made.

Are you seeking to withdraw the question or would you like to make an offer of proof as to why you're making --

MR. SANDERS: I'm going to make an offer of proof.

COMMISSIONER FACIO-LINCE: Let's first hear what Mr. Maurer is objecting to. And then you can certainly make --

Go ahead.

MR. MAURER: Just that, Judge, I object because this is way beyond the scope of voir dire. We are talking about the doctor's qualifications and accreditation to be an expert witness in workplace drug testing and forensic toxicology.

Now we are going way far field and we are -- we're dealing with immunoassays and radioimmunoassays. Certainly, not subject to voir dire in this particular situation. Cross-examination, yes, but not here.

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: Well, the first question, what the Department is trying to do is cut off what the expert is. They want the expert to be a workplace, then they shouldn't talk about the

testing. He should only talk about workplace testing. But not the validity of the test itself.

Because my client has a right to question him about his qualifications not only as an expert to talk about workplace, but also the testing methodology that his company utilized in this case. Because invariably, he's going to comment on it.

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: All right. And that's part of -- the Court has to weight on whether or not the expert is going to give relevant information to help make an assessment on whether or not this information should be accepted into evidence at all.

COMMISSIONER FACIO-LINCE: So is your position that the methodology that was used to test your client's sample, this -- I'm going to say it wrong, but this R -- say it again.

MR. SANDERS: RIAH and then EIA.

COMMISSIONER FACIO-LINCE: Thank you.

Is that what you are suggesting?

MR. SANDERS: Yes.

COMMISSIONER FACIO-LINCE: Then I would ask him that question first before you can start to go

into generalizations. Right. Because right now, you -- right now, you are not cross-examining this witness on his methodology. You are --

MR. SANDERS: Actually, I'm not. I'm asking him about --

COMMISSIONER FACIO-LINCE: You are doing voir dire.

Are we on the same page here?

MR. SANDERS: Yes, we are.

COMMISSIONER FACIO-LINCE: And voir dire is to presumably object to his expert qualifications. Yes?

MR. SANDERS: Yes.

COMMISSIONER FACIO-LINCE: Okay. So we need to make these questions about his expert qualifications.

MR. SANDERS: I understand. I've done this a few times, Your Honor. My point is I'm surprised it was so short. Because -- you want me to talk about workplace? I can sit down and then he can talk about the test at some point. I mean --

COMMISSIONER FACIO-LINCE: No, no. We are not talking about the test right now.

MR. SANDERS: I understand.

COMMISSIONER FACIO-LINCE: We are just

talking about his ability to be qualified as an expert in this court on specifically workplace testing.

MR. SANDERS: I understand. And I've been in a lot of trials. This is shortest I've ever seen for the Department witness, for an expert that's -- what are we going to do, a piecemeal or the whole thing up front?

COMMISSIONER FACIO-LINCE: Again, I don't know how Mr. Maurer intends to conduct his direct examination. But right now, he's simply asked the Court to qualify Dr. Paulsen as an expert. That's all.

MR. SANDERS: We think that's improper.

COMMISSIONER FACIO-LINCE: Okay. And so that's why I'm giving you the opportunity to conduct a voir dire.

MR. SANDERS: Okay. For limited -- let me ask you a question since we are going to limit it to this little area. All right? Okay.

VOIR DIRE EXAMINATION

BY MR. SANDERS:

Q. Have you ever testified in a court where you were deemed not an expert?

A. Not that I recall.

Q. Not that you recall.

MR. SANDERS: All right. Nothing further.

COMMISSIONER FACIO-LINCE: Okay. So based upon that, the Court is going to receive Dr. Paulsen's testimony as an expert witness.

MR. MAURER: Continue?

COMMISSIONER FACIO-LINCE: Yes.

MR. MAURER: Thank you, Judge.

BY MR. MAURER:

Q. Now, I touched upon the accreditations of the laboratory with respect to New York and some general overall organizations.

What other jurisdictions, state jurisdictions are -- have accredited Psychemedics?

A. I couldn't give you the full list. It's several, obviously California where we operate. I know that we are certified in Maine. I think Texas. Honestly, it's a long list. I just don't recall the total list. And honestly, most of them are not as exacting as New York State.

A lot of times, a state organization will look to see if New York State has certified a lab, and then they'll just basically sort of piggyback on that. But as far as state accreditations, obviously we have a CLIA certification in California.

Q. What does CLIA stand for?

A. Clinical Laboratory Improvement Amendments. It's just another set of rules that I think developed nationally, but executed at the state level. That's required for operating a laboratory in most states.

But yeah, like most of them, just look to see if those other accreditations are in place before they'll issue us a license. They don't independently come out to do the inspections. That's mostly New York State.

Q. Does the Psychemedics laboratories have federal clearance for doing workplace drug testing?

A. There's a FDA 510(k) clearance process for immunoassays. And our immunoassays, when developed, were submitted to the 510(k) clearance process and approved.

Q. And approved?

A. And approved.

Q. Is there anything else federally that would apply to the laboratory, its processes, its procedures? Anything like that?

A. As far as federal regulations?

Q. Yes, sir.

A. Not that I'm aware of.

Q. Now, could you please describe for the record

what procedures Psychemedics employs when it conducts workplace drug testing, specifically with respect to hair?

A. So the first part of the process is the receipt of the sample. Typically, it's coming in via courier, typically FedEx. The first thing we do upon receiving the sample is make sure the whole chain of custody elements are intact, the forms have been properly filled out by the collector. We would also make sure that the integrity of the package itself is secure.

There is a sample acquisition card, which is essentially an envelope where the hair is placed at the time of collection, that has a tamper evidence seal placed on it when it's closed up. And then that is also placed in a bag with a tamper evidence seal. So all of that has to be intact. Once we've established that all of the chain of custody elements and documentation elements are intact and appropriate, then we would begin to process the sample.

Q. Let me just interrupt you there. Before we get to the processing of the sample.

If at any point that you just described it is discovered that there is a problem, the tamper evidence seal is broken or one of the seals is broken,

whatever the case may be, what would happen at Psychemedics?

A. There's a category called fatal invalid. So anything that doesn't meet certain criteria would be classified as a fatal invalid and we would not report anything on that.

Q. So the sample has now been initially inspected, everything is in order with respect to custody control.

What happens to the sample next?

A. So we would assign what's called a laboratory accession number or LAN. And then that number would follow the sample through the process. It's also entered into our laboratory information management system or LIMS. And all future reference to that sample would be identified as far as the donor, would just be identified by that number. So people working in the laboratory are not looking at like who the client is or who the donor is or the collector. Sometimes -- oftentimes, a lot of our clients will send -- we won't know the name of the subject. It will just be an employee ID.

So once we've established all of that with the LAN number, we would proceed with screening, and that would be the enzyme immunoassay. So

approximately eight milligrams of that hair --

Q. I'm sorry, let me stop you there.

When you -- when the lab receives hair samples from the New York City Police Department, how many samples are they receiving?

A. There will be an A and B sample for the New York -- NYPD.

Q. You started to describe the initial screening.

What sample are we screening?

A. The A sample.

Q. Okay. And you can continue. I'm sorry for interrupting.

A. Sure. Sure.

The B sample at that time is set aside. It's a link to the A sample, but we don't process the B sample at that time.

So the A sample, they'll take eight milligrams of the A sample, they will weigh it and then we will submit it to a patented digest system in order to get the drug out of the hair. Once we've done that, it goes through an enzyme immunoassay, essentially. Which, as I mentioned previously, is an antibody-based analytical technique where you -- you've developed an antibody that will bind to the drugs of

interest. And then if you see that binding in the assay, you will get a response that you can measure with an optical plate reader.

And at that point, anything -- any samples that are negative for however many drugs we are testing for varies by panel, but typically, it's at least five, like cocaine, opioids, amphetamines, marijuana and -- did I say PCP?

Q. No. You just did.

A. Okay. Yeah. So that's what we call the nine to five. So most clients at least get those five. Some get additional tests. But if all of those screens are negative, we will report the sample out as negative at that point. It will be reviewed by a negative certifying scientist and reported at that time.

Q. So if the first sample pulled from the A sample comes back with a negative screen, all testing stops?

A. Correct.

Q. What happens if one of the screens is triggered for one of those drugs of interest?

A. If one of the screens are triggered, we would go back to that original sample acquisition card. Again, we are talking about the A sample. We would weigh out another portion of that hair and then we

would wash it with our decontamination procedure. Which is different depending on the drug in question. And then we would submit it to a different extraction process. Which, again, would depend on which drug we are talking about.

And then at the end of that extraction, it is ready for analysis by mass spectrometry. So we would run a mass spectrometry confirmation test on the sample, and then we would review those results. And if those results are positive above the cutoff established for the assay, at that point, it would be reviewed by a certifying scientist. And then it would be reported as a positive result to the client for the product in question.

Q. Now, that is for the A sample?

A. Correct.

Q. What happens to the B sample?

A. Okay. So once we have a positive confirmation on the A sample, we will initiate a confirmation on the B sample. And so a portion -- at that point, the B sample would be, you know, accessioned and reviewed. And they would open it up and they would weigh a portion of that sample for confirmation. That would also go through the same wash procedure, same extraction procedure, and an

instrumental analysis, and -- by mass spectrometry. And then we would look at that result.

And actually, let me correct an earlier thing I said. The A sample actually would not be reported in the case of NYPD until the B sample result also came in. So once we've got a positive A confirmation and a positive B confirmation, at that point, the results are reported to NYPD.

Q. So is the NYPD unique amongst the industry in that we have the A sample and the B sample?

A. No. We have other clients that also have a retest policy like that. Most of them will just have retesting done of the original sack, though. I think NYPD -- I can't think of another example of someone that sends us an A and a B at the same time. But there could be one, I can't think of one off the top of my head. So that is --

Q. So let's go back and talk about some minutiae.

Psychemedics tests hair; is there a difference between head hair versus body hair?

A. Yes.

Q. And can you describe for the record what that difference is.

A. So the big difference is in the growth

pattern of the head hair as opposed to the body hair. So head hair typically is growing for as long as it's around. And then once it stops growing, it will usually fall out.

Body hair, on the other hand, will grow. But then it has a long dormancy period where it's no longer growing, but it hasn't fallen out either. And so the end shot of this for hair drug testing is that when you take a body hair specimen, you are usually looking at a longer period of time. So the hair will reflect drug use that occurred while the hair was growing.

And so with the body hair, you've got a mix of hair that's currently growing, hair that quit growing a few months ago. And so you got overlapping time frames with the body hair. It could be anywhere from six to eight months, possibly longer. Whereas with the head hair, we usually take the first 3.9 centimeters from the scalp, and that represents 90 days. So you'd be looking at a drug use history of 90 days with the head hair. With the body hair, probably more like six to eight months.

Q. Now, let's talk about one particular drug. Marijuana.

How is marijuana, or should I say THC or

carboxy THC, unique amongst the drugs that are tested by the New York City Police Department?

A. In the case of marijuana, we are only looking for the metabolite. So THC is the active component in marijuana that gives the effect that people seek when they take the drug.

It is metabolized into carboxy THC by the body. That is a metabolite of the marijuana. And that will get into the bloodstream. It will be incorporated into the hair as it grows. And that is unique in that we are only looking at the metabolite in that case. And we are not even looking at the THC in our confirmation process, we are only reporting the metabolite. It's the only thing that we report for marijuana that is reflective of the presence of the metabolite.

Q. How is that unique -- how is that significant, should I say?

A. Well, the metabolite -- the presence of the metabolite indicates that it's been metabolized. So it's gone through the bloodstream, it's been in the liver, it's been metabolized by cytochrome P450 -- cytochrome P450 enzymes are responsible for metabolizing the drug.

And it's a unique sort of biological

product of THC -- unique sort of melanin product -- melanin metabolism product of the THC drug. So it must have been metabolized for it to be there.

Q. And in order for it to have been metabolized through the liver, it has to have been ingested, correct?

A. Correct.

Q. And can you describe -- can you tell the Court what the cutoff -- what an administrative cutoff is?

A. The cutoff is -- there are actually two cutoffs associated with the assay. One is a screening cutoff and one is a confirmation cutoff. And it's part of our FDA clearance. At the time we submitted the FDA clearances, those cutoffs were approved.

And the purpose of the test is to identify someone who is a regular user of the drug as opposed to a one-time user or someone who perhaps was around somebody else using the drug and perhaps inhaled some of it inadvertently. So the cutoff is designed to give you a threshold above which you can confidently state that the individual in question was using the drug repeatedly during the time frame of the hair growth.

Q. So is it fair to say that that cutoff

differentiates between what I -- would differentiate between passive ingestion versus deliberate ingestion? Is that fair to say?

A. Yes, that's fair to say.

Q. And what is the specific cutoff employed for marijuana by the NYPD?

A. For the confirmations, it's one picogram of carboxy THC for ten milligrams of hair.

Q. And that's for the confirmation?

A. Correct.

Q. Now, is that cutoff specific to the NYPD and contracted with the NYPD or is that an industry standard?

A. It's an industry standard.

Q. Now, could the NYPD have asked for a lower administrative cutoff?

A. Yes. Some clients look for what's called a limited detection cutoff. Which is not a reflection of what the FDA clearance was, but it's a reflection of what the instrument sensitivity is for the analysis.

Q. So it's basically any amount of drug?

A. Correct. Anything that we can detect could be an LOD.

Q. Could the NYPD have specified a higher cutoff?

A. Yes.

Q. And that would have deviated from the standard?

A. Yes. And some clients choose to do that because they choose to have a higher tolerance for marijuana use in their employee pool.

Q. Now, who sets this industry standard? We've used those two words together a few times already. Who sets the industry standard?

A. It's based on earlier iterations of proposed SAMHSA guidelines for hair that were not implemented. It became an industry standard a number of years ago. That's the cutoff we use, that's the cutoff that our competitors use.

As far as what other people -- people have proposed a lower standard, actually. Because some people have proposed 0.5 picogram per 10 milligram as a better cutoff. Under the logic that you are missing some marijuana users if you are employing a 1 pico per 10 milligram cutoff.

So the industry may be moving. But at this point, we are still at 1 pico per 10 milligram. Although, in the future, that may go down to 0.5 pico per 10 milligram.

Q. Now, you mentioned SAMHSA.

What does that -- what does that -- what do those letters mean?

A. It's Substance Abuse and Mental Health Services Administration. They have developed the guidelines for urine drug testing. I think they're working on guidelines for oral fluid as well as hair testing.

Anyone that is doing SAMHSA regulated testing, that would include your Department of Transportation testing, truckers and so forth, a lot of government, like federal government employees will be subjected to the SAMHSA rules. So that's SAMHSA. SAMHSA rules do not apply to all workplaces and all drug tests, but it's a well known standard.

Q. And is the SAMHSA standard different from the standard that the NYPD is using?

A. Well, there is no official SAMHSA standard for hair yet. There have been a number of proposals. My professional opinion is that the most recent set of proposals will also be extensively edited before they're implemented.

But currently, they're proposing 0.5 picogram per 10 milligram rather than 1 pico per 10 milligrams. So they're actually suggesting that we be -- the industry be more stringent on marijuana than

it currently is.

Q. All right. So let's get back to the procedures and protocols within the laboratory.

When the A sample is screened, immunoassay-wise and it triggers the immunoassay, you go back into the same sack and you pull out another hair sample?

A. For the A confirmation, yes.

Q. And that second pile or that second sample of hair from sample A goes through mass spectrometry?

A. Correct.

Q. What is mass spectrometry?

A. Mass spectrometry is an analytical technique that allows you to detect a molecule based on its mass properties. So carboxy THC has a specific molecular mass based on the atoms they are in to make up the molecule. And that also will breakdown into characteristic fragments.

So all of our confirmations are done -- for marijuana are done on what's known as a tandem mass spectrometer. So a tandem mass spectrometer looks for the molecular mass of the parent drug, then it fractions -- it fragments it into characteristic fragments, and then it looks for the masses of those fragments.

So in order for us to get a signal on the mass spectrometer, something has to have the right molecular mass and then it has to breakdown into the proper fragments. I've heard it referred to as like a molecular fingerprint.

So the mass spectrometry test is much more specific. You might get some signal on the immunoassay screen from other cannabinoid compounds besides THC. But once you get to the confirmation, we are only going to report -- we are only going to see and we are only going to report the carboxy Delta-9 THC.

Q. So mass spectrometry, are there different types of mass spectrometry?

A. There are.

Q. And which ones or which one does Psychemedics employ?

A. We employ a number of them. We have gas chromatography and mass spectrometry. We have liquid chromatography, tandem mass chromatography.

For PCP only, we have a -- what's called a GCMSD. Which is a gas chromatograph in a single stage. Mass spectrometer. Which looks at fragments as well, but it doesn't look for the parent. It's just a different technology. But that's for the PCP.

MR. MAURER: Now, Your Honor, if I could have Dr. Paulsen, if I can have him given the Department's number 3, please.

COMMISSIONER FACIO-LINCE: Yes. That's the laboratory data package?

MR. MAURER: Yes, Judge.

BY MR. MAURER:

Q. Doctor, you have 135 pages in front of you. So we'll take it -- I'll direct you into which page I'm specifically asking you about. If I -- or if you need to direct us, please let us know what page you are referring to.

This data laboratory package you have in front of you, what is the subject identification number?

A. 01056324XH.

Q. And nowhere in this package does a subject donor name appear, correct?

A. Let me check. So if there were a name, it would be on the CCF, which is on page nine.

Q. Now, when you -- what does the CCF stand for?

A. Custody and control form. This is the document that would have been filled out at the time of collection.

It looks like in this case, for the

donor signature, they put some sort of a numeric ID rather than a signature. So in this case, no, I don't see any reference to the name of the subject.

Q. This laboratory data package, the testing was performed and it came back positive for what?

A. For marijuana.

Q. Now, I'm going to refer -- withdrawn.

You had an opportunity to review this data package prior to testifying today, correct?

A. Correct.

Q. And you actually reviewed this as the certifier of the laboratory data package back in April of 2024?

A. Correct.

Q. What laboratory protocols are there as a sample moves through the system that would stop a sample proceeding?

A. There are the -- I mentioned the documentation errors that can stop the sample at the outset. Once we are in the testing phase, we have a number of controls, positive and negative controls associated with the test, including blind controls.

Blind in the sense that the analysts do not -- it isn't immediately obvious that they're looking at a controls. And then those controls have

known concentrations. And so once the certifier has reviewed the data, they will check those controls to make sure that the concentrations are in the correct range. They will also make sure that the negative controls are negative. And the positive controls are positive.

So if there's a problem there, that would result in a failure of the analysis. If there's remaining sample, they can begin the analysis again with a fresh portion. But ultimately, we can't report the result out unless we have successful controls associated with that testing.

Q. And how is the sample tracked through the process from start to finish?

A. It's all tracked in our laboratory information management system. If you know the LAN, laboratory accessioning number, you can see the whole process in the LIMS system.

Oh, I should also mention we have a barcode reading that's associated with the sample analysis. So when they're doing the screening as well as the mass spec confirmation, there's a barcode reader to make sure you are looking at the right sample.

Q. So if a sample passes through the immunoassay and it triggers the immunoassay, you then go back

into -- that's a positive, correct?

A. It's a presumptive positive at that point.

Q. Presumptive positive.

Then the laboratory goes back into the A sample, pulls more hair out and sends it to mass spectrometry?

A. After getting washed and extracted, yes.

Q. If that is a negative, what happens to the sample?

A. The sample would be reported as negative.

Q. If it is positive, what happens?

A. Well, in that case, for NYPD, we would go to the B sample, weigh out another portion and repeat what we did for the A sample confirmation. And then if both of those are positive, we would report that to NYPD.

Q. So you have an immunoassay that's positive, you have an A sample confirmation that is positive, you have a B sample that is positive, you report that as a positive?

A. Correct.

Q. If you have an immunoassay that is positive and an A sample confirmation that's positive, but the B is negative, how do you report that?

A. Negative.

Q. Even though you had two prior positives?

A. Yes.

Q. So in this particular situation -- actually not in this particular. But in a normal situation, you would have three positives before you report to the client that this was a drug failure?

A. Yes.

Q. Now, with respect to this data laboratory package, which refers to Detective Palaguachi, what were the immunoassay results? And if you can vector us into the page.

A. On page 34, the one LAN that isn't redacted 217562420, if you look on that line, you can -- at the top, you can see there's hair screen C, that's cocaine. Hair screen O, that's opioids. Hair screen P is PCP. Hair screen A is amphetamines. Hair screen Oxy is like Oxycodone, opioids. And then hair screen T is marijuana.

And if you look at the results for that sample, you can see that there's a plus sign next to hair screen T. And what that plus sign means is that that reading, that 59.7 is lower -- actually, in this case, lower than the optical -- it's called the optical density ratio. DV0 -- BB0 (phonetic), I'm sorry. And if that number is lower than the calibrator, then the sample is presumptive positive.

Q. And this was presumptive positive?

A. Correct.

Q. What is the screening cutoff for THC -- for carboxy THC?

A. Well, the screening cutoff is more complicated because it's an antibody that's developed that will bind to carboxy THC. It's also capable of binding to cannabinoids.

So the screening value reflects the presence of not only the carboxy THC, but also the parent THC. There are a number of cannabinoid metabolites that can show up if somebody consumes cannabis. And so you are looking at a threshold of ten picogram for ten milligrams. But that would include carboxy as well as some contributions from some of those other compounds as well.

Q. When you move on to the confirmation through mass spectrometry, you are specifically only looking for the metabolite of carboxy THC?

A. Correct.

Q. And with respect to the confirmation -- so this was presumptive positive off the screen, yes?

A. Correct.

Q. Then you went to confirmation?

A. Correct.

Q. What were the results from the confirmation test for the A sample?

A. The A sample confirmed at 5.4 picogram per 10 milligrams of hair.

Q. And what is the administrative cutoff that's employed?

A. One picogram per ten milligrams of hair.

Q. So this is a little over five times the administrative cutoff?

A. Correct.

Q. Based on that alone, can you conclude whether this is passive ingestion versus deliberate?

A. Those numbers are consistent with what's known about deliberate consumption of marijuana on a regular basis.

Q. Now, to go to the B sample confirmation, could you tell the Court what the results were for the B sample confirmation?

A. The B sample confirmed 5.1 picograms per 10 milligrams of hair.

Q. So once again, a little over -- just shy over five times the administrative cutoff?

A. It's over five times the administrative cutoff, yes.

Q. Now, is there any significance statistically

or clinically between the 5.4 and the 5.1?

A. No.

Q. And why is that not significant?

A. For one, they're very close. For two, hair in general is what's known as a heterogeneous matrix. Unlike urine is a homogeneous matrix. And if you take the first milliliter and second milliliter of urine, they should be the same. Although, there's also some -- in any two measurements, there's going to be a little bit of a difference.

But with hair, you've got individual hairs that have, you know, varying amounts of drug in them. And that's especially true with body hair. Because again, you've got the different growth patterns. So if somebody was using more marijuana three months ago, the hair that was growing then might have a little more in it than the hair that's growing now if you've been using less recently. So you've got more heterogeneity in hair generally. But I would say that's a very good agreement between the two samples based on all the considerations.

Q. And these samples were a homogeneous collection of hair from both arm and leg?

A. That's what the paperwork says.

Q. Now, after the B sample was tested, you

reported this as a drug failure positive for carboxy THC marijuana, yes?

A. Correct.

Q. Did there come a time when Psychemedics was requested to do the testing of the Respondent's C sample?

A. Yes.

Q. And can you describe for the Court what happens when Psychemedics receives a C sample from a client.

A. If it's a C sample from NYPD, we are aware that it's a follow-up on a previous positive. We will send that through our confirmation process. So it will receive the decontamination procedure. It will be extracted and it will be analyzed by tandem mass spectrometry.

Q. Now, you've mentioned a couple of times this decontamination procedure. Can you describe that for the Court.

A. Sure. It's a series of washes. The first is isopropanol, I believe. And I believe that's 15 minutes. And then I believe there are three -- I don't want to get my numbers wrong -- 30-minute or one-hour washes with phosphate buffer. And those are discarded after each wash.

So you basically wash it, you discard it, put a fresh set of wash in, discard that. Put a fresh set of wash in, discard that as well. So it's been pretty extensively decontaminated before we move on to the confirmation extraction.

Q. Is there anything different with respect to the washing procedures for hair with respect to marijuana than with other drugs of abused?

A. Different drugs have different wash procedures. In some cases, we look at the last wash and then we'll analyze to see if there's any drug coming off in the last wash. We do that with cocaine, for instance. Because if you are still pulling off a lot of drug in the final wash for cocaine, that needs to be considered when you are making a determination of whether the sample is positive or not.

In the case of carboxy THC, because it's a metabolite, we are not concerned about like external contamination from carboxy THC. Someone may have external contamination from THC on their hair from smoke in the air, but they're not going to have external contamination from carboxy THC in their hair. So we don't do a last wash analysis in the case of marijuana.

Q. Then why do a contamination wash at all?

A. Well, there's always the possibility that somebody got somebody else's sweat or, I don't know, something on their hair. So we want to make sure that anything we are reporting is going to be from the subject in question.

Also, some people can sweat out carboxy THC onto their own hair. So if somebody is sweating -- if somebody's consuming THC and then they're sweating and then they've got carboxy THC in that, that can also contribute to the result in the hair and make it perhaps artificially inflated. So by washing it, we are looking at drug that's been incorporated into the hair and not so much drug that's been deposited by sweating by the subject.

Q. So how do you test the C sample? Does it go through immunoassay or it goes right to mass spec?

A. It goes directly to mass spectrometry.

Q. And that's after it's been decontaminated?

A. Correct.

Q. Now, what were the results for the Respondent's C sample?

A. The C sample was 6.6 picograms per 10 milligrams of hair.

Q. So now we are talking six times -- over six times the cutoff, the administrative cutoff?

A. Correct.

Q. Now, is there any significance between the 5.4, 5.1 and the 6.6?

A. No. They're all very close. Usually, we say that two results are in agreement if each of them were within 20 percent of the mean. In this case, that's -- they're all in good agreement.

Sorry, to your earlier question, it's 15 minutes of isopropanol wash and then three 30-minute phosphate washes.

Q. Just to go back and touch upon the anatomical aspects of hair.

How are drugs captured inside body hair, whether it be head hair or any hair on one's body?

A. Anything that gets into the bloodstream can be incorporated into the growing hair shaft. So obviously in hair follicle, the growing hair shaft is fed by the blood supply. And anything that's present in the blood can be incorporated into the hair.

Once it's in the hair, it's essentially stuck there until somebody cuts that hair off. And so it's sort of like a tape recorder looking at drug use over a period of time.

Q. If a person who has never smoked marijuana, okay, has a partner who smokes marijuana, they live in

the same house together, would that account for the Respondent testing over five times the cutoff level for carboxy THC, in your expert opinion?

A. No.

Q. Can you explain that.

A. So part of it is the threshold. So the five picogram -- well, the one picogram per ten milligram threshold, in order to get to that level, people have done studies where they've looked at how much people smoke and what sort of levels people see in their hair.

And they looked at one group of people that were smoking on a daily basis. So daily personal, you know, consumption of marijuana. In the median, that group was like 5.8 picogram per 10 milligram. About where the subject is in this case.

If you look at studies where they've looked at how much people can get from passive exposure, whatever people get from passive exposure, even in extreme tests, extreme circumstances is only a small fraction of what people get from directly consuming the drug.

For instance, there was a study where they put six people in a room who were smoking marijuana with six people who were not smoking and who had not smoked marijuana in like six months. And they

looked at sort of the levels that they were seeing. And while the non-smokers did ingest some of the carboxy THC, they were much, much lower.

And only when the room was unventilated was it even significant. Like once they -- if the room were ventilated, even with high potency marijuana, it was negligible what was showing up. I'm talking like -- I don't remember it off the top of my head. But it was like single digit percentage was -- single digit percentage was showing up in the non-users comparing to what was showing up in the users. So people generally don't pick up that much from secondhand smoke.

Like I said, it was an extreme study. It was so extreme that the non-users that were in the room reported being high or reported physiological effects from the drug. And furthermore, they had to wear goggles because the room was so smoky, it was irritating people's eyes. So people were like issued goggles for the study. That's the kind of ridiculous thing you would have to do to have it show up in your system.

They were looking at oral fluid in that study. Because with hair you are looking at the longitudinal accumulation of drug in the hair, they'd

have to be in that sort of an environment on a regular basis, on an ongoing basis, in order to even show up, I think, on the hair test, let alone be a five.

So the question is, can someone through passive exposure, consume as much marijuana as somebody who's consuming marijuana on a daily basis themselves. And I don't believe that's possible.

Q. Now, what about a vape pen? A THC vape pen? Would that change your opinion?

A. It would make it less -- even less likely that it could be from passive exposure.

Q. And why is that, sir?

A. So they did a study recently -- now granted, this was nicotine, not marijuana. But they were looking at children in households where the parents smoked and they were looking at what were the sorts of numbers of cotinine, which is the metabolite of nicotine.

They were looking at what sort of numbers were showing up in the children from the households where parents smoked versus the households where people vaped. The children from the vape households had about 17 percent of the -- of the cotinine that was showing up in the children from the houses where they were smoking. And there could be a

number of reasons for this. I think it has to do with the technology.

A cigarette, or a joint for that matter, is always sort of burning. With the vape pen, I think some of them have a button you have to push in order to inhale. I think some of them are activated by actually inhaling. You've got the heating element that is not constantly sort of bleeding off the THC.

It's a more controlled release with the vape product than it is with the cigarette or joint. And that's reflected in what they saw in that study with the children.

Q. Now, if you know, Doctor, what are the physiological effects of smoking marijuana? If you know.

A. Sure. It has an impact on short-term memory, it can create sort of lethargy. Some people sleep. Gives people bloodshot eyes. There's a number of physiological effects.

Q. Are there also psychological effects?

A. Of course.

Q. And just to get back to the laboratory, has Psychemedics ever lost its certifications or had its clearances suspended for anything?

A. No.

MR. MAURER: I have nothing further. Thank you, Doctor.

COMMISSIONER FACIO-LINCE: Before you proceed to cross-examination, I would like to take a break. So we are going to do about a ten-minute break just so everyone can stretch their legs. So we'll come back then.

(At this time, a recess was taken.)

COMMISSIONER FACIO-LINCE: Back on the record. We had a brief recess.

Mr. Maurer, you did want to bring something up.

MR. MAURER: Yes, Judge. Before I turn Dr. Paulsen over for cross-examination, I just happened to once again look at the list that was provided by Mr. Sanders, and there are two -- there are actually three independent drug tests. Two of which from Psychemedics that are referenced here that he says are on this thumb drive.

Before I turn the doctor over for cross-examination, I'd at least like to have an opportunity to have him look at these to see whether they're significant and whether I have any questions for him on those.

MR. SANDERS: No, no. We can get right to

the point. I'm not going to ask him about those. I'm not going to question him about Psychemedics, those tests, at all.

COMMISSIONER FACIO-LINCE: Okay.

MR. MAURER: I would still like an opportunity. Because if there's anything probative that can be gleaned from them, they're purported to be negative. However, if there's no data package assigned to them, that's one thing. If there's a data package assigned to them, but information can be gleaned from that, perhaps there are drugs present but below the cutoff, that's significant.

MR. SANDERS: You can. But it looks like the same certifying package that you submitted here on behalf of Psychemedics, the same ones. But I'm not going ask him about those, so -- and it's negative.

MR. MAURER: But if they're being offered --

COMMISSIONER FACIO-LINCE: Right. You are going to want to submit them into evidence is my understanding.

MR. SANDERS: Through my client, yes.

COMMISSIONER FACIO-LINCE: I understand. In whatever manner. But if they are negative, and

they were done by Psychemedics?

MR. SANDERS: Yeah. But -- I kind of -- I already anticipate what he's going to say. That's why I'm not going to ask him about it. Because he already testified about their cutoffs, and the clients have different cutoffs.

COMMISSIONER FACIO-LINCE: Can we have a sidebar.

(Sidebar conference.)

COMMISSIONER FACIO-LINCE: Okay. Back on the record.

To address what Mr. Maurer has asked, so we are going to proceed with the cross-examination. Mr. Sanders will cross-examine Dr. Paulsen. After that is concluded, we will take a break for meal. During which time, Mr. Maurer will review the exhibits in question.

Should he have any further questions for Dr. Paulsen, we will give him the opportunity. Of course, Mr. Sanders, you'll have an opportunity as well. And then if, however, there are no other questions when we come back from meal, we will simply adjourn for September 3rd as we previously planned.

Go ahead, Mr. Sanders.

CROSS-EXAMINATION

BY MR. SANDERS:

Q. Good afternoon, Doctor.

A. Good afternoon.

Q. So Psychemedics, you've been there since -- what -- 2014?

A. Correct.

Q. Since you've been an employee of Psychemedics, have they always used EIA testing?

A. Yes.

Q. Now, with this EIA testing that is performed by Psychemedics, is that proprietary to Psychemedics? In other words, whatever the technology they're using has been self-certified by Psychemedics?

MR. MAURER: Objection as to self-certified.

MR. SANDERS: I'm asking a question.

COMMISSIONER FACIO-LINCE: Let's see if Dr. Paulsen understands the nature of the question.

MR. SANDERS: I can rephrase it.

COMMISSIONER FACIO-LINCE: If not, then Mr. Sanders will rephrase it, right?

A. Sure.

The tests were developed by us in-house. And then they were submitted for 510(k) premarket

certification by the FDA.

Q. Let's talk about premarket certification, since you mentioned it.

What is FDA 510(k) precertification? What is that?

A. It's a process by which the FDA looks at things like sort of not -- like it's not the sort of thing that you would do for like a drug approval. That's a different process. But it is a process that they use for devices like diagnostic devices and so forth. That's something like an immunoassay screen would fall into the 510(k) category.

Q. Let me ask you some language questions, since you brought that up, since you talked a little bit about this premarket notification, right?

A. I think that's what it's called.

Q. You agree that is a clearance, right? Meaning a clearance to use whatever the device that you submitted to them for use, but it's not approval of the use of the device necessarily, correct?

A. Well, that's sort of built into the application. Like we have to show what we intend for the device to do and then demonstrate that it can do it.

Q. Right.

There's something called substantial equivalence, right?

A. I've heard that term.

Q. Which means substantially equivalent to other devices on the market, such as other drug testing, right?

A. I think that's part of their considerations.

Q. But is there anything from that 510(k) certification that suggests that somehow the technology you are using is validated for forensic purposes?

A. I mean, that's the whole point of the test, is to use it for forensic purposes.

Q. No, no. It's two questions I'm asking. It's one thing to market it and say we are going to use it for this purpose. But does that mean -- in other words -- let me ask you a straight question.

Do you have any documents from the FDA that says the EIA testing, as used by Psychemedics, has been validated for use in forensic testing of hair? Yes or no?

A. I would have to go back and look at the documents from the FDA clearing. I don't recall the exact wording.

Q. Does the FDA clearance --

MR. SANDERS: This is where I'm going to ask

for the tribunal to take judicial notice to the rules for the 510(k).

Q. I'm going to ask you another couple questions. Not your understanding of what the actual rule means.

Does that rule make -- well, does the rule allow you to make certification by issuance or use of 510(k) that you can tell the difference between ingestion versus external contamination?

A. I mean, part of the process for the approval is to determine a cutoff. And part of the cutoff justification requires that we provide articles and so forth to show like what our typical values -- I mean, it's -- it's -- it's not like it's a -- the process is -- we've had multiple 510(k) clearances. And they ask different questions each time. I couldn't tell you exactly what the FDA's logic was.

Q. Okay. Do you know -- okay.

A. I'm not an expert on 510(k) clearances. I don't pretend to be.

Q. That's fine to say. I'm going to ask you another question about 510(k). One more thing.

Well, do you -- let me be fair to you. Did you actually file the application on behalf of your organization?

A. I did not.

Q. Okay. I'll leave the issue alone.

When you testified, you are testifying about your understanding of 510(k), right?

A. Correct.

Q. You don't have firsthand knowledge of what the application process is and what it --

A. I have not been directly involved in those applications.

Q. I'm going to be fair to you.

A little bit earlier, you testified about this EI -- EIA testing. Okay.

As you sit here today, has SAMHSA -- S-A-M-S-H-A -- we are not going to keep saying what the whole organization's name is.

Have they promulgated rules that apply to all forensic laboratories that we have an agreed upon standard on what hair testing is? Yes or no?

A. No.

Q. Okay.

A. They proposed standards. They've never been fully approved and implemented.

Q. Right. And if I remember, it was way back in 2013 was the first time and the second time was in 2024.

Do you recall that?

A. I think it might have been even earlier in 2013. They might have had drafts.

Q. I understand that. I'm talking about two particular --

A. Okay.

Q. But the latest was 2024 and to this day, there's still no standard, correct?

A. Correct.

Q. What's the NIDA? Do you know what the National Institute on Drug Abuse is?

A. Yes.

Q. What is that organization?

A. Well, it's part of the National Institutes of Health, and they are specifically looking at drug use.

Q. Is that an organization that engages in forensic testing, policing rules related to forensic testing?

A. Yes.

Q. Have they ever certified that the testing EIA used by Psychemedics, does it meet the forensic standard of hair testing?

A. Sorry, can you repeat that question?

Q. Did the NIDA ever come up with a conclusion evaluating the EIA testing of Psychemedics and made the

determination that it's forensically valid for hair testing?

A. Independently of the FDA clearance, I have no idea what NIDA has done.

Q. Okay. What about ISO, the International Organization for Standardization? Have they ever come up with any certification process that -- you know, that would lead you to conclude that Psychemedics EIA testing was valid for the use of hair testing?

A. I don't think ISO engages in that kind of work.

Q. No, I'm asking a question.

A. I've never heard of them approving anyone else's immunoassay or disproving of it.

Q. I have to ask certain questions.

What about the Society of Forensic Toxicologists, SOFT, do you know the name of that organization?

A. I do.

Q. What do they do?

A. It's a professional association of forensic toxicologists.

Q. Is that organization part of making a determination of whether or not hair testing methodology meets the forensic testing values?

A. I don't believe that's part of their purview.

Q. Do they comment on it?

A. Individuals might. I'm not sure that the group has made any statements that I'm aware of.

Q. As you sit here today, has there ever been any third-party -- I know you talked about FD, that's a rule that the Court can look up.

I'm talking about other than what you've mentioned before, is there any third-party group that has validated the EIA testing that's used by Psychemedics for forensic testing of hair?

A. Other than the FDA 510(k) clearance, I can't think of a single body that engages in that sort of an exercise.

Q. Okay. All right.

THC. Now, have you ever written any articles about THC?

A. Excuse me?

Q. Have you ever written any article about THC?

A. I have.

Q. There was an article back in 2022 that you wrote?

A. I think I'm a coauthor on one, yeah.

Q. Okay. Now, in that article, there was some people who were questioned -- well, there were some

participants that were questioned about the impact of THC.

Is that what that article is about?

A. It's been a while. You'd have to show me the article.

MR. SANDERS: That was previously marked as R, though. I'm just going to give it to him as a reference point. This is actually in the drive. I just want to show it to him to refresh his recollection.

COMMISSIONER FACIO-LINCE: Sure.

MR. SANDERS: Just want to ask him some questions about it.

THE WITNESS: Thank you. I got it in front of me.

BY MR. SANDERS:

Q. Remember that?

A. I got it in front of me.

Q. All right. And you're a coauthor of that article, right?

A. I'm a coauthor on the article, yes.

Q. What was the premise of that article, the review?

A. I think we wanted to show -- I think we wanted to look at what types of numbers we saw for some

of these other cannabinoid compounds. That was a new assay that we had developed fairly recently. That was looking for the parent compounds like parent THC, cannabidiol, cannabinol. THCP, which is the tetrahydrocannabiphorol.

Wanted to see like what sorts of numbers we saw. It was kind of a survey of what we'd seen, what the results we'd seen for testing of samples for those drugs.

Q. If I'm right, the participants were 4,773, right?

A. Where are you seeing that number?

Q. Under the SAMHSA.

A. There we go. There were -- they weren't participants, they were just hair samples that we tested.

Q. That's on me. We are talking about your sample. I should have used your word sample.

Where did you get those samples?

A. From our own workplace testing population of samples.

Q. So was this internal to Psychemedics?

A. Well, I mean, some of them were probably being reported for carboxy. But some of the follow-up studies was something we would have done on our own.

Q. What was the conclusion of that article of your study?

A. Well, let's see -- we just wanted to show what kind of numbers we saw with THC relative to the metabolite, how much we saw of cannabinol, THCP, CBD, what is typical. Another question that was sort of being discussed at the time was like people who were taking CBD products contaminated with THC. Like I said, it was kind of a survey.

It's got multiple conclusions. What specifically are you asking about?

Q. So with this study, right, were these self-reported?

A. No, they were not self-reported.

Q. Was there any discussion about contamination? The question of whether something --

A. We mentioned something about THC, the parent drug, and contamination from the parent drug.

Q. Did you draw conclusion about whether or not you can make a determination?

A. It says not all THC from external contamination can be removed.

Q. Okay. So that's one of your propositions, not all contamination can be removed, right?

A. Of parent THC, yes.

Q. I understand. Okay.

So earlier, you testified about ingestion versus external, right?

A. Correct.

Q. Now, you said that you can determine whether a person ingested, right?

A. The presence of the carboxy THC would be indicative of ingestion.

Q. That's their hypothesis, right?

A. Well, yeah.

Q. I'm just asking.

A. Sure. I think it's more than a hypothesis, but yes.

Q. Can a hypothesis be incorrect?

A. It's been demonstrated in many more studies than this one, that carboxy THC is a marker of marijuana consumption. Not only in hair, but also in urine or fluid. A number of matrices. I mean, that's not an invention of ours, that carboxy THC is a marker for THC ingestion.

Q. Okay. So what was the latest longitudinal study that you reviewed that supports your hypothesis that would support ingestion?

A. I could do a PubMed search and I can probably find several hundred articles that says carboxy THC is

the metabolite indicative of marijuana consumption.

Q. You are saying ingestion; but does it tell you how it's ingested?

A. No.

Q. You can just prove it's in the bloodstream and in the hair?

A. Yeah. It would be getting in the bloodstream, it would be metabolized into the carboxy THC.

Q. So that part, you can prove. You believe that it's in the person's bloodstream, hair shaft and therefore, it can be tested, right?

A. What part can I prove?

Q. If it goes into the bloodstream, hair shaft, then can be tested and you can find out through the hair, right?

A. Yes.

Q. Okay. Now, is there a particular difficulty in testing for marijuana THC than other drugs?

A. The parent or the metabolite?

Q. Both. We can talk about the parent and we can talk about the metabolite.

A. A difficulty, well, the parent is usually there in larger quantities. The biggest challenge of carboxy THC, the metabolite is that it's very low

levels and so you need very sensitive methods and instruments in order to see it.

Q. Is there an agreed upon standard as to how to test for it?

A. For drug testing in general, the standard of practice for decades has been an immunoassay screen followed by a mass spectrometry confirmation. That's true for urine, oral fluid, hair, blood.

Anybody doing forensic testing is usually doing something like that. The only exceptions are some labs are doing like a mass spectrometry screen followed by a mass spectrometry confirmation.

Q. Now, you said earlier there's a washing technique, correct?

A. Correct.

Q. The washing technique that you use at Psychemedics, has that ever been audited and reviewed and established as a valid form to properly wash the hair consistent with your forensic testing for drugs?

A. It's been published in peer-reviewed literature, which would involve people in the field independent of us evaluating our claims.

Q. But I'm asking, has anyone reviewed your laboratory specifically?

A. All of the papers we've published on the

subject were from data about our methodology.

Q. I'm not talking about you publishing. I'm talking about third-party reviewing your process. Not --

MR. MAURER: Objection. Asked and answered.

MR. SANDERS: No, it actually hasn't been answered.

COMMISSIONER FACIO-LINCE: I'm going to ask that it actually be reread. Because the way I heard it sounded precisely like he answered it. So I'm going to have it reread by the court reporter. I think it was about two questions ago.

(At this time, the requested portion of the record was read back by the court reporter.)

Q. When you talk about peer-reviewed, you're talking about data you submitted to be evaluated by other parties, correct?

A. Correct.

Q. What I'm asking about is the third-party coming and now reviewing your laboratory testing, the whole EIA process?

A. Every agency that accredits us has to come in and evaluate our processes.

Q. Well, I'm not talking about accreditation.

Accreditation is something that you can voluntarily belong to, correct?

A. Correct.

Q. That's not what I'm talking about. I'm talking about forensic testing where someone evaluates you other than an accreditation that you voluntarily submit yourself to.

A. Well, we submit ourselves to it, but then that means that we are held at the standards described by those accreditations. It's not just like we send them a check and they send us a certificate. We are heavily scrutinized by them.

Q. Okay. Now, you testified a little bit earlier about the one picogram being a cutoff, right?

A. Correct.

Q. You testified as to industry standard?

A. Correct.

Q. And this is a discussion amongst the laboratory of people in the industry?

A. Well, I mean, the papers that I've seen -- excuse me, the lit packages that I've seen from other laboratories, they appear to be using that cutoff. Like I said, other cutoffs have been proposed that are lower by groups such as SAMHSA, and I think also the Society of Hair Testing.

So the standard may be moving. But as of recently, to my knowledge, all of our major competitors are using the one pico per ten milligrams standard unless that's changed recently.

Q. What about the washing technique, does the washing technique take into consideration differences in hair? Like color, coarseness, et cetera?

A. It's the same wash procedure for all hair specimens.

Q. Well, based upon your training as an expert, is there some literature out there that talks about the difference between light hair and dark hair and whether or not they metabolize differently?

A. I've seen that for basic drugs. That is drugs that tend to have a positive charge as physiological PH. I have not seen any papers to that effect for marijuana. Which is an acidic metabolite.

Q. What about darker course hair?

A. What is your question?

Q. Is there a difference, have you seen literature out there that discusses the differences between metabolites holding valid -- let me ask you this way, since I kind of changed the question -- valid after the washing technique, that you can take light hair, get a better wash than you get with dark, coarse

hair, but still withhold the metabolites with the same washing technique?

A. I'm not aware of a paper of that effect. But nothing's coming to mind. Unless you've got something you want to show me.

Q. No.

MR. SANDERS: Nothing further.

COMMISSIONER FACIO-LINCE: Okay. Anything further?

MR. MAURER: Yeah. A few questions.

COMMISSIONER FACIO-LINCE: Sure.

REDIRECT EXAMINATION

BY MR. MAURER:

Q. To your knowledge, Doctor, does the FDA provide approvals, quote-unquote? Or only clearances?

A. It depends on the process. They approve drugs. As far as like enzyme immunoassay tests, they would provide a clearance.

Q. So devices get a clearance, drugs and some other substances, whatever they may be, get approvals?

A. Correct.

Q. Now, the immunoassay that is employed by Psychemedics, does the test itself purport to distinguish between external contamination and ingestion?

A. For marijuana?

Q. For marijuana.

A. Yeah. I mean, the fact that you are looking for carboxy THC is going to be indicative of ingestion. If we were looking for THC, the parent drug, then we would have to make a different claim. We would have to say, well, this could be contamination or it could be ingestion. It's hard to say.

Q. Now, defense counsel stated or asked a question regarding not all parent THC contamination can be removed; is that a fair statement?

A. Correct.

Q. But the test that is employed by Psychemedics is not looking for the parent THC, it's looking for the metabolite, correct?

A. Correct.

Q. Now, the last string of questions dealt with what I'm going to characterize, correct me if I'm wrong, hair color bias.

Has there -- with respect to marijuana, you had mentioned charges or acidity or -- can you explain what you are talking about there.

A. Sure.

Q. Boil it down to layman's terms.

A. Sure. Okay. So there is a theory, which I

do not subscribe to, but it's in some papers, that there is a melanin bias with respect to the body of drugs. And there's different types of melanin. One of them is called the eumelanin, that's melanin that would -- interestingly, eumelanin makes the hair dark. But even people with lighter hair actually have a lot of eumelanin in their hair. It's combined with pheomelanin and other types of melanin.

But one theory of drug binding in hair is that the drug interacts with melanin, the eumelanin specifically, which is predominantly negatively charged. So any drugs that are positively charged at physiological PH would be more prone to bind to them. So that's the model.

I think it's overly simplistic. And one of the reasons why is because if that melanin binding model were true, then you would expect darker hair to actually pick up less carboxy THC. Because you would have -- if the -- if the attraction of positive and negative charges explains why cocaine is in the hair, then why would it not be the case that the negative charge on the carboxy THC would make it underrepresented of darker hair?

Nobody's ever suggested that. But that just points to the over-simplicity, I think, of the

model that all drug binding in hair is based on melanin.

Q. So melanin, has a negative charge and you are saying that marijuana has a negative charge?

A. Carboxy THC has a negative charge, and so it would be repelled.

Q. So going back to elementary school chemistry, they would repel, almost?

A. Correct.

Q. Whereas with cocaine, which is positively charged, it would attract to the negative melanin?

A. That's the theory.

Q. And these melanin studies, are they -- have they addressed marijuana or only cocaine or other substances?

A. Well, you know, it's interesting that you asked that because there have been very few publications on it because it's sort of an uninteresting finding. But people are looking for the melanin bias, so they'll publish papers suggesting that. But then when they looked at marijuana, they don't see it. They don't see a bias one way or the other.

I know there was a published -- a paper. I think the author on it was a woman named Stacy Smiel

(phonetic). I've been unable to locate it, but I'm familiar with her and I know her personally and I'm familiar with her work. And that study is referenced in other studies.

But the gist of it is, they don't see any melanin bias for marijuana. And if you sort of take the logical conclusions of the melanin binding model, then marijuana might actually be -- like binding of marijuana might actually be adversely affected by the presence of a bunch of negatively charged eumelanin.

I'm not suggesting that's the case, but by the logic of the melanin binding model, that seems like a plausible story.

MR. MAURER: Nothing further.

COMMISSIONER FACIO-LINCE: Anything further, Mr. Sanders?

MR. SANDERS: No.

COMMISSIONER FACIO-LINCE: Dr. Paulsen, thank you for your testimony today. I'm not going to say that it's completely concluded. What we are going to do now, the time is 1:40, we are going to take a meal break. And we will come back at let's say 2:40. You know, let's make it -- let's make it 3:00, just in case.

PROCEEDINGS

We are going to come back at 15:00 hours. After Mr. Maurer has had the opportunity to review some exhibits that were provided to him yesterday evening or maybe this morning by Mr. Sanders in case he has any further questions for you about those particular exhibits.

So we will all, again, just take a break until 15:00 hours, and then we will come back. And perhaps you will have concluded by then.

(At this time, a recess was taken.)

COMMISSIONER FACIO-LINCE: Back on the record.

Before we broke for lunch, we -- Mr. Maurer had asked for an opportunity to review some of the exhibits to see if he would need to call Dr. Paulsen back.

What have you come up with? What conclusion?

MR. MAURER: Yes, Judge. During our recess, I did have the opportunity to review exhibits H, I and J with Dr. Paulsen. And if you would indulge the Department, I would like to ask him a few questions regarding those three independent test samples.

COMMISSIONER FACIO-LINCE: Okay. So I, of course, will indulge that.

PROCEEDINGS

Does that mean, however, that you are going to not contest at this point to their being admitted into evidence? In other words, should I be putting them into evidence?

MR. MAURER: No, Judge, I won't contest that at all.

COMMISSIONER FACIO-LINCE: Okay. So then -- and I hate to call H, I and J because then we're going to confuse the record if A through H are not admitted. But Respondent's --

MR. SANDERS: I've been down that road before in federal court. So --

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: That's fine --

COMMISSIONER FACIO-LINCE: No, no. And I very much appreciate it -- if we need to remark them at a later time, we will.

For now, I'm going to call them Respondent's H, I and J in evidence. All which are being received in evidence without objection.

(Whereupon, Exhibits H, I and J were entered into evidence.)

COMMISSIONER FACIO-LINCE: And so Mr. Maurer will call Dr. Paulsen up again to ask him some questions related to that.

MR. MAURER: Yes, the Department does recall Dr. Paulsen.

Judge, Dr. Paulsen is going to -- with your permission, bring his laptop. He downloaded those three exhibits on his laptop should he need to reference them from the stand.

COMMISSIONER FACIO-LINCE: No problem.

You may be seated. You'll just be reminded that you are still under oath.

MR. MAURER: May I inquire?

COMMISSIONER FACIO-LINCE: Yes.

MR. MAURER: Thank you, Judge.

REDIRECT EXAMINATION

BY MR. MAURER:

Q. Good afternoon, Doctor.

Doctor, have you had an opportunity to review the data litigation package produced by Psychemedics from a hair sample that the Respondent submitted on March 11, 2024, which is labeled Respondent's H?

A. Yes. Briefly.

Q. And that laboratory data package, from where on the body was the hair submitted from?

A. The record shows that it was a head sample.

Q. Do the records indicate the length of hair

that was submitted?

A. I believe it was 3.0 centimeters.

Q. And how is that length significant given the time frame for head hair being three months?

A. Well, three months is based on 3.9 centimeters. So it would be about, you know, 75 percent of that same time frame. So whatever 75 percent of 90 is, it would be a shorter time frame than the 90 days.

Q. And just to recap, the arm, leg hair samples that were submitted on February 22, 2024, which is the subject of why we are here today, that -- those have a lookback of six to eight months?

A. Correct.

Q. Now, that sample that we are referencing and talking about in Respondent's H, did that go to mass spectrometry?

A. It does not appear to have done so, no.

Q. And why not?

A. Because it was submitted as a sample to be screened, so it was screened. The screen came back negative, so it was reported as negative.

Q. Now, was that test conducted at limit of detection or were there cutoffs employed?

A. The standard EIA cutoff of ten pico per

ten milligrams I believe was at play in that case.

Q. Had this sample -- based on your review of the data package, had this sample been submitted for testing at limit of detection, in your expert opinion, would it have tested positive for the presence of carboxy THC?

MR. SANDERS: Objection.

COMMISSIONER FACIO-LINCE: What is your objection?

MR. SANDERS: Well, he's asking him to speculate.

COMMISSIONER FACIO-LINCE: Well, I think he's asking in his professional opinion, meaning as an expert in the field.

MR. SANDERS: I'll cross-examine.

COMMISSIONER FACIO-LINCE: Absolutely. It's overruled.

Go ahead.

BY MR. MAURER:

Q. So based on the data litigation package that you reviewed, and all the math and science that it entails, had it been submitted to testing at limit of detection, would it have tested positive for the presence of carboxy THC?

A. Quite possibly. It's just the mass spec can

seem much lower than the enzyme immunoassay, so.

Q. Now, referring to Respondent's I, which is another test that was conducted and performed by Psychemedics.

From what part of the body was that sample taken from?

A. I believe it was also head hair.

Q. And that was taken on March 15, 2024; is that correct?

A. I don't have it in front of me. But if that's what the CCF says --

Q. Actually, if I can --

A. Open it?

Q. -- draw your attention back to H.

What was the date of the hair submitted for H?

A. H was collected on the 11th and received at the laboratory -- sorry, March 11, 2024, and received at the lab on March 13, 2024.

Q. So now let's go back to I. Exhibit I.

What was the date of that submission? Or should I say when were the hair samples taken?

A. It was collected on March 15, 2024. Received at the lab on March 22, 2024.

Q. So that was four days later?

A. Yes.

Q. And from where on the body was that hair taken?

A. It says head hair.

Q. And what was the approximate length of the hair that was submitted?

A. 3.2 centimeters.

Q. And once again, is that -- does that bear the same significance in reference to the 90-day period?

A. It would be a shorter time frame than the 90 days.

Q. And did this sample go to mass spectrometry?

A. It did not.

Q. And why not?

A. Because it screened negative in the screen, so it was not forwarded.

Q. And based on your review of the data litigation package and all the math and the science that it entails, had that sample gone to limit of detection or testing at limited detection, would it have tested positive for the presence of carboxy THC?

A. Again, possibly. If it's from the same subject and the overlapping frames, I suspect that it probably would have. It's difficult to say for sure without running the mass spec test. But again, the

mass spec test is much more sensitive than what the EIA can pick up.

Q. Now I'm going to draw your attention to Exhibit J.

That was a test conducted by Omega Laboratories, correct?

A. Correct.

Q. On what date was the hair sample submitted and collected?

A. Says it was collected on March 11, 2024. Received at their lab on March 12, 2024.

Q. And where was the hair collected on that -- for that sample?

A. I think it said body on the CCF. Although I didn't see it specified where. Body hair.

Q. And was this test positive or negative?

A. It's negative.

Q. Now, are you familiar with Omega and the -- withdrawn.

Did this go to mass spectrometry?

A. I do not see any mass spectrometry data in the packet, so I assume not.

Q. Now, are you familiar with the immunoassay methodology from Omega Laboratories?

A. They don't publish much on their methods, so

I don't know much about it.

Q. Are you able to speak about the efficiency or adequacy of their immunoassay compared to Psychemedics?

A. I'm not. I know they use a different approach. And one of the key limitations would be if the extraction is poor. I don't know about their extraction efficiency, how well they get the drug out of the hair.

Q. Now, based on your review of their data litigation package and all the science and math that it entails, had this test gone to mass spectrometry at limited detection, could it have tested positive for carboxy THC?

A. It could have.

Q. So in each of these three samples, there was some signaling in the assay that indicated that the drug could have been present?

A. It's -- it's close to where the negative controls are. The immunoassay screen is -- is -- it's hard to interpret in that way. It showed up lower than -- it showed up lower than their positive threshold.

My speculation on whether or not there could be marijuana in the mass spec is based on the fact that the screen just isn't that sensitive. And

that's true for ours as well as theirs. Although I suspect our extraction efficiency is probably better.

MR. MAURER: I have nothing further. Thank you, Doctor.

Thank you, Judge.

RECROSS EXAMINATION

BY MR. SANDERS:

Q. When you say your extraction efficiency is better, how do you know that?

A. Well, they don't publish much.

Q. So you are speculating, right?

A. Yeah.

Q. Okay. So but you don't have an independent knowledge of what Omega actually --

A. I don't know the details of their extraction procedure.

Q. Okay.

A. I can tell you what I suspect it is. But I don't know exactly what it is.

Q. All right. Department Advocate asked you, based on your calculation, you can't say within a degree of scientific certainty whether or not the hair test would have tested positive if there was an MS screening, right?

A. I would have to run the test.

Q. I understand.

But I'm saying right now, as you sit here, you can't say --

A. I really don't have -- other than screening data, so I -- it's naturally going to be speculative what would show up in the mass spec test.

MR. SANDERS: Nothing further. Thank you for your time.

COMMISSIONER FACIO-LINCE: Anything further?

MR. MAURER: No, Your Honor.

COMMISSIONER FACIO-LINCE: Dr. Paulsen, can I just ask you something that you can maybe explain to me in layman's terms.

So the two tests, and I don't have them in front of me, H and I, which were performed by Psychemedics, my understanding is that they both were negative on what I'm going to call the initial screening.

THE WITNESS: Correct.

COMMISSIONER FACIO-LINCE: And that's why they did not go to mass spectrometry, the next testing?

THE WITNESS: Correct.

COMMISSIONER FACIO-LINCE: Okay. And I don't know if this has any impact, but if you can tell

me, is the fact that the collection sample came from the head versus the body, does that have anything to do with whether or not the screening test would be negative or positive?

THE WITNESS: I mean, there are a couple of factors. One of them is definitely the head -- the source of the hair. So as I mentioned earlier, body hair, you are looking at about a six to eight-month lookback window. With head hair, for traditional 3.9 centimeters, you are looking at about a 90-day lookback window. These are a little bit shorter, so it would be something less than 90 days.

So with the hair test, you are looking at an average drug use over the time that the hair was growing. So with body hair, you are looking at kind of an average of, you know, what the drug use -- let's put it this way, for like an individual body hair, you'd be looking at kind an average drug use over the time that hair was growing. But some of it stopped growing, so you've kind of got a population of different things going on with the body hair.

The head hair is going to be typically 90 days. Less than 90 days, in this case. So

that's going to be an average over that same time frame. So like with body hair, somebody could be doing a lot at one point and then doing less later. And so, you know, you are going to get variability that way.

Like if somebody is a drug user, let's say somebody is a marijuana user, we take a head hair specimen today, you'll get one result. He stops using at that point. If we take another sample in, you know, six weeks, it will probably still be positive, but it will be lower. But by the time we get to that 90 days, it would probably be pretty close to negative or negative.

So that's one factor. The other issue is like when there's a follow-up, like a proper follow-up is always done mass spec. So like the B sample went straight to mass spec. The C sample went straight to mass spec. When you sort of send these follow-ups in for a screen, you sort of add in a little bit of -- it's -- the screen -- screens are generally more unpredictable for mass spec confirmations.

There could be interferences, they can lessen the sensitivity at any given moment. And of course another possibility is that somebody could

manipulate the hair in the meantime. I don't know. I haven't personally evaluated them, but there are a number of products on the market that are designed to kind of like clean out your hair. So I know a lot of people use products like that in the meantime.

And then again, you can probably reduce the amount with those types of treatments, but it would be unlikely that you would get it all out. But that's, again, the reason why we do send these directly to mass spec for a follow-up and not back to screening.

COMMISSIONER FACIO-LINCE: Thank you.

Any questions based upon mine?

MR. SANDERS: No.

MR. MAURER: No, Judge.

COMMISSIONER FACIO-LINCE: Okay. Thank you again, Dr. Paulsen, for your time.

THE WITNESS: Thank you.

(Witness excused.)

MR. MAURER: Judge, just one other housekeeping while the doctor is still here. Should the Respondent call an expert witness, again, I would like to have Dr. Paulsen available remotely so that he can hear it and testify in

rebuttal if necessary. I just want to make sure that we can coordinate all that.

COMMISSIONER FACIO-LINCE: Okay. Well, let's start here. Am I right to conclude that you have not identified an expert yet? Or have you already identified your expert?

MR. SANDERS: Well, I think I'm going to have him. I've got to talk to him and see.

COMMISSIONER FACIO-LINCE: Okay.

MR. SANDERS: I will give you advanced notice. You will know within a day.

COMMISSIONER FACIO-LINCE: I only ask because your next date is a week away.

MR. SANDERS: No, I understand.

COMMISSIONER FACIO-LINCE: So it's -- I'm not sure how much more -- you know, Monday is a holiday and things like that.

MR. SANDERS: I understand. I've been at trial a long time. I make adjustments all the time. And, you know, this is sometimes how the trial cases go. So, you know, I understand.

COMMISSIONER FACIO-LINCE: Okay. So I guess what we'll do, or how we are going to proceed is that on September 3rd, which is the date we preselected, you will be calling Dr. Ciuffo as

previously planned. Mr. Sanders will -- obviously will have his client ready to go, but also whomever the expert is. And if Dr. Paulsen is available, he can join us remotely.

MR. MAURER: Okay. And judge, just so that next Wednesday is not a dead day, if everyone consents and the Court doesn't mind, we can put his witness on in the morning and not start off with Dr. Ciuffo. It's up to you guys.

MR. SANDERS: Yeah, no, I don't believe in eating up the whole day. So if I can get that done for you, trust me.

COMMISSIONER FACIO-LINCE: Okay. So we'll be ready to go at 10:00 a.m. Again, contingent on your expert's time and limitations and things like that. So just please keep in touch with the Court so that we know kind of what to expect on that day. But my plan, as it stands today, is that we are going to start at 10:00 a.m. and hopefully make the best use of the time for that day. Okay?

All right. Thank you, everyone. We're adjourned until September 3rd.

(TIME NOTED: 3:20 p.m.)

I N D E X

C E R T I F I C A T E

STATE OF NEW YORK)

:SS

COUNTY OF NASSAU)

I, Elbia Brumit, a Notary Public within and for the State of New York, do hereby certify:

I reported the proceedings in the within-entitled matter, and that the within transcript is a true record of such proceedings to the best of my ability.

I further certify that I am not related to any of the parties to this action by blood or marriage; and that I am in no way interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 29th day of August, 2025.

ELBIA BRUMIT