TRANSCRIPT OF HEARING

DATE: JULY 18, 2014

IN RE: JAMES SEILER

ORIGINAL

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1   BAILIFF: Carroll County District Court

2   is now in session with Hon. Elizabeth Chandler

3   presiding. May God bless the United States of

4   America, the Commonwealth of Kentucky and this

5   Court. Turn down all cell phones and personal

6   devices. Please be seated and remain quiet.

7   THE COURT: Okay. We're here for part

8   two of the hearings regarding James Seiler and

9   Courtney Groh that joined in with this same

10 hearing. Judge Funk is participating with me on

11 this case just for the sake of consistency between

12 our divisions. He was here with me when we had

13 part one of this hearing. He had an attack of

14 kidney stones the night before last, spent the

15 night in the hospital. And I told him I would take

16 really good notes and he could get a copy of the

17 audiotape to listen to later. My understanding is,

18 there is going to be requests for a part three in

19 order for defense counsel to get their expert here;

20 is that accurate?

21   MR. SUHRE: Yes, Your Honor.

22   THE COURT: Okay. At the end of this,

23 are we going to be able to discuss possible dates

24 for that to get that set now or --

25   MALE SPEAKER: That would be our

1   preference, Judge.

2   MR. SUHRE: Yes, Your Honor. I have a

3   list from the expert.

4   THE COURT: Okay. All right. In that

5   case are we -- I believe where we left off was with

6   the direct exam of Dr. Citek?

7   MALE SPEAKER: It is, Judge. To kind of

8   clarify with the joiner of Ms. Hearn into this

9   proceeding, notably the issue, I believe, with

10   Ms. Hearn is lack of convergence that we're talking

11   about. That's not part of the HGN test.

12   THE COURT: Okay.

13   MALE SPEAKER: So I'm assuming then that

14   the Court's going to have to make two findings,

15   whether or not if HGN is admissible, whether or not

16   lack of convergence is admissible.

17   THE COURT: And we didn't address that at

18   all in part one of this, did we?

19   MALE SPEAKER: We did not address lack of

20   convergence. I would -- I mean, I'm comfortable

21   with defense counsel covering that in their cross,

22   then, and then I can follow up with redirect --

23   THE COURT: Okay.

24   MALE SPEAKER: -- on that.

25   THE COURT: Everybody okay with that?

1   MR. SUHRE: I think it's his job to do

2   the same thing he's done in the HGN. I think he

3   has to present the evidence that it's a

4   scientifically unreliable test.

5   THE COURT: Well, I realize that, but is

6   there any problem with after you all cross, let him

7   then present his direct while the witness is here?

8   All I'm trying to do is get as much done today as

9   we can.

10   MR. SUHRE: I have no problem with that.

11   THE COURT: And I mean I realize -- well,

12   that's fine.

13   MALE SPEAKER: Okay.

14   THE COURT: So are we ready to begin?

15   MALE SPEAKER: We are. Doctor, you want

16   to go ahead and -- since it's been so long, Judge,

17   I'm assuming we'll need to re-swear.

18   THE COURT: Yes. If you'll raise your

19   right hand.

20   (WITNESS DULY SWORN)

21   THE COURT: If you'll have a seat, sir.

22   THE WITNESS: Thank you, Your Honor.

23   THE COURT: Well, he'll say it. Go

24   ahead, whoever is going to start.

25   CROSS-EXAMINATION

1   BY MR. SUHRE:

2   Q.   Dr. Citek, my name is Joe Suhre.   I

3   represent James Seiler in this case.   Just for

4   clarity of the record, could you state your name and

5   spell your last name.

6   A.   Sure.   Karl Citek, Karl, K-A-R-L, Citek,

7   C-I-T-E-K.

8   Q.   Thank you for coming back today.   I think

9   it was February since we saw you last.

10   A.   It's been a while, yes, sir.

11   Q.   I have some -- although it feels like

12   yesterday.   I have some questions for you regarding

13   the testimony you gave back in February on HGN.

14   A.   Certainly.

15   Q.   Kind of as a preliminary matter, but when

16   an officer becomes a police officer, or becomes a

17   DUI officer or is trained in administering the HGN,

18   obviously they have to go through some training on

19   that?

20   A.   Correct.

21   Q.   And the training, itself, generally

22   consists of learning the procedures established by

23   NHTSA?

24   A.   Yes.

25   Q.   Through classroom education?

1 A. Yes. Classroom and laboratory experience.

2 Q. Yes. And also conducting tests in what I

3 think you referred to, and I've been referring to in

4 the past as a wet lab.

5 A. Correct. (Inaudible).

6 Q. And a wet lab, for lack of a better term,

7 is where subjects who have been dosed with alcohol

8 in a controlled environment, are then presented to

9 the officers to administer the HGN to?

10 A. Correct.

11 Q. And that's part of their training?

12 A. Yes.

13 Q. In addition to using wet labs or alcohol

14 labs in training, they've also been used in some of

15 the validation studies that are done regarding the

16 HGN?

17 A. I'm not sure -- you mean the officers who

18 are learning how to conduct the tests?

19 Q. No, sir. Some of the studies done by

20 NHTSA or independent researchers will use dosed

21 subjects to perform their research on the HGN?

22 A. Yes. Yes, of course.

23 Q. When the officers receive their training

24 for the HGN, they're trained to detect three

25 standard clues, correct?

1   A.   But (inaudible) we've got here today, yes.

2   Q.   The first would be the lack of smooth

3 pursuit?

4   A.   Correct.

5   Q.   And distinct and sustained nystagmus at

6 maximum deviation would be the second one they test

7 for and look for?

8   A.   Correct.

9   Q.   And then onset of nystagmus prior to 45

10 degrees is the third one?

11   A.   Correct.

12   Q.   Nystagmus is by NHTSA defined as an

13 involuntary jerking or bouncing of the eye?

14   A.   That's a common definition of it.

15   Q.   And is that a fair definition for our

16 purposes of HGN in the law enforcement context?

17   A.   Yes, it is.

18   Q.   As part of that training, both classroom

19 and wet lab, they're trained to observe it and look

20 for it?

21   A.   Correct.

22   Q.   And they're shown examples of it, both in

23 a video presentation and also in the wet lab portion

24 of it?

25   A.   Yes.

1   Q.   And you participated in that training

2   before?

3   A.   Yes, I have.

4   Q.   And my understanding is that the training

5   itself is generally conducted in a controlled

6   environment, in a classroom setting?

7   A.   Yes.

8   Q.   However, when the officers are

9   administering it as part of their duties, it's

10   typically administered in the field?

11   A.   Correct.

12   Q.   And the field, obviously, has varying

13   circumstances or conditions present?

14   A.   Yes.

15   Q.   Could be, for example, raining or snowing?

16   A.   Could be.

17   Q.   Could be daylight or dark out?

18   A.   Correct.

19   Q.   The cruiser could have its flashing lights

20   on, or could have turned them off?

21   A.   It's possible.

22   Q.   It could be done on the roadside of the

23   interstate or the roadside of a residential street

24   or occasionally even in somebody's driveway?

25   A.   Yes.

1   Q.   There could be a high traffic volume,

2 there could be a low traffic volume?

3   A.   Yes.

4   Q.   So the conditions within which that HGN is

5 administered in the field vary?

6   A.   Yes.

7   Q.   I guess the officer's proficiency, also,

8 can vary, would you agree with that?

9   A.   You mean under different test conditions?

10   Q.   No, not necessarily the test conditions.

11 But for example, there are individuals who are

12 certified DREs or Drug Recognition Experts?

13   A.   Yes.

14   Q.   And they receive not only the standardized

15 field sobriety test training, the basic HGN -- which

16 includes the basic HGN training, but also additional

17 training?

18   A.   Right. And most of the additional

19 training would encompass learning what the effects

20 on different drugs are of --

21   Q.   Yes. But before you can become a DRE you

22 have to reach certain minimum thresholds of

23 experience?

24   A.   Correct.

25   Q.   There are officers who dedicate or are

1   assigned to the traffic unit. So for example, you

2   may have an officer whose primary responsibility is

3   traffic enforcement, including DUIs?

4   A.   And I'm not -- I'm not explicitly aware of

5   exactly how Kentucky does it, but I've heard that

6   states do that, Kentucky may do it that way.

7   Q.   Sure. And maybe departments that have

8   more resources might have a traffic unit, and

9   departments with less resources may have just a

10   general patrol division?

11   A.   Correct.

12   Q.   And then, of course, you got the new guy,

13   the officer that's been on the street for six

14   months?

15   A.   Correct.

16   Q.   So, my point in asking you those is, the

17   proficiency of those officers, not necessarily the

18   training, but the experience in administering, and

19   the times that they've administered it can vary?

20   A.   Yes, of course, just like anything else,

21   just like any other procedural --

22   Q.   Sure. That's how it is for a lawyer.

23   A.   Exactly.

24   Q.   When the officer administers the HGN, he

25   or she is to note the presence or absence of

1   observed nystagmus?

2   A.   Well, the three separate clues that are

3   looked for, as I mentioned before, lack of smooth

4   pursuit, sustained nystagmus at maximum deviation

5   and the onset of nystagmus prior to 45 degrees. We

6   have only two of those at latitude that would

7   qualify as nystagmus. The first clue, lack of

8   smooth pursuit, is not effectively nystagmus, but it

9   is included within the test. You can think of it as

10   three separate subtests, encompassing (inaudible)

11   that makes up the HGN test.

12   Q.   And on the latter two, the distinct and

13   sustained, and the onset prior, the officer is

14   trained, or is supposed to note its presence,

15   nystagmus' presence, or its absence in administering

16   the test?

17   A.   Correct.

18   Q.   And it's that -- it's noted -- it's either

19   there or it's not --

20   A.   Correct.

21   Q.   -- for purposes of the officer's training?

22   A.   And just like with lack of smooth pursuit

23   also, either the eyes track smoothly, in which case

24   the clue would be absent. Or the eyes did not track

25   smoothly, in which case the clue would be present.

1   Q.   With respect to the nystagmus or even the

2 smoothness of the eye, it's not empirically

3 measured. In other words, the officer doesn't say

4 that the amplitude of the nystagmus was .5

5 millimeters, or 1 millimeter?

6   A.   Correct. It is not.

7   Q.   Okay. Nor is the frequency, the rapidity

8 of the nystagmus is measured, in other words there

9 were three bounces within a half a second?

10   A.   Correct.

11   Q.   In your experience, and mine, as well, the

12 officers are not in the field equipped with any type

13 of measuring device to quantitatively measure the

14 nystagmus?

15   A.   Correct. They are not.

16   Q.   I know it exists, but I've never seen it.

17 Have you, in your experience, ever seen an officer

18 utilize a recording device to document the

19 nystagmus' presence or absence in a real world

20 scenario?

21   A.   There are training -- training videos,

22 video cameras developed -- training video cameras

23 available. I'm not aware that they have been used

24 in an actual arrest situation, but I have heard of

25 officers wearing either a lapel camera or a hand

1   camera or something to at least record the gross

2   appearance of the suspect and the officer's

3   movements. So, I have heard and seen videos of that

4   nature. But I'm sure not all officers -- many

5   officers have it.

6   Q.   Okay. One of the clues, the second clue

7   is called distinct and sustained nystagmus at

8   maximum deviation?

9   A.   Correct.

10   Q.   And for just clarity of the record, I know

11   we went over this in February, but that portion of

12   the test is where the officer holds the stimulus 12

13   to 15 inches in front of the individual's face

14   slightly above eye level. And moves the stimulus

15   out to roughly 60 degrees, or as far as the

16   individual's eye can go, so that no white is visible

17   in the corner of the eye. That's how they get the

18   eye to where they need it to be, correct?

19   A.   Correct.

20   Q.   Fair statement? They have to hold it

21   there for at least four seconds, but no more than

22   30. And then the officer is looking to see if the

23   eye has a distinct and sustained nystagmus at that

24   position?

25   A.   Correct.

1   Q.   So that particular portion of the test

2 requires a quantitative assessment of the nystagmus

3 that they see?

4   A.   Well, no, I don't think so. I think the

5 officer just needs to -- needs to observe that the

6 nystagmus is present during the entire conduct of

7 the test, during that full four-second period. As

8 far as a quality of nystagmus, in other words the

9 amplitude and the frequency as you mentioned, that

10 is not something that is assessed by the officer.

11 We do not ask the officer to do that.

12   Q.   I understand. But the clue is distinct

13 and sustained.

14   A.   Right.

15   Q.   So it has to -- the nystagmus, itself, has

16 to be of sufficient amplitude that one would be of

17 the opinion that it is distinct?

18   A.   Yes. And distinct in this context simply

19 means that at about the arm's length distance that

20 the officer is standing from the suspect that the

21 officer can observe the presence of nystagmus

22 continually.

23   Q.   But if an officer sees at maximum

24 deviation a small amplitude of nystagmus, wouldn't

25 that be considered no clue because it's not

1   distinct?

2   A.   If it's too small to be noticed, yes. It

3   may be present, it certainly is possible that

4   nystagmus can be of such a small amplitude that

5   under casual observation -- and then really that's

6   what you're describing. Where the officer is

7   viewing with his or her own eyes and not using any

8   sort of measuring equipment or scientific apparatus,

9   is not able to discern nystagmus, even though it

10 might be present. But if it is not distinctive, it

11 is not obvious. If it is obvious to the officer

12 then it doesn't matter what the amplitude is, but

13 the officer notes that it is there, then that's one

14 of (inaudible).

15   Q.   Okay. So in that context, the

16 distinctness is visible to that particular officer,

17 but it's not otherwise measured?

18   A.   Correct.

19   Q.   Okay. And it's possible that one officer

20 may be able to perceive it, maybe based on

21 experience or his training. Whereas, another

22 officer may not believe that it's distinct because

23 they may not be able to visually observe it at that

24 distance that the test is being administered at?

25   A.   It certainly is possible that -- I mean,

1 I'll say in my experience when the clue is present

2 because of intoxication, it usually is obvious

3 enough to anyone, even to a new officer, that it is

4 present. Even an officer who has not seen many such

5 situations that that officer would conclude that the

6 clue is present.

7   Q.   Now, there are three subsets to the HGN

8 test. We talked about the lack of smooth pursuit,

9 distinct and sustained and onset prior.

10   A.   Yes.

11   Q.   And for lack of a better term, they're

12 stair stepped in your expectation of observing those

13 indicators?

14   A.   Correct. With alcohol intoxication we can

15 make that inference.

16   Q.   So, and I think in your previous testimony

17 you went into this a little bit. But if the officer

18 were to observe onset prior to 45 degrees, but not

19 maximum deviation and not lack of smooth pursuit,

20 that, to you, would be an indicator of possibly a

21 medical or other neurological condition that's

22 causing the nystagmus?

23   A.   Correct. In the training, teachings that

24 I've been -- presentations that I've done to

25 officers and to prosecutors, if that -- if a

1   situation like that arises, and the officer makes

2   that observation that a later clue is observed, the

3   officer should go back. We always teach an officer

4   to go back and redo the earlier clues, redo the

5   earlier points of the test just to make sure that

6   the officer did not miss the test -- did not miss

7   the clues. Did not inadvertently do something

8   incorrectly to miss a clue. Because in all rights

9   it should be present. There are certainly known to

10   be exceptions. Never say never, never say always,

11   but in the great majority of cases we would expect

12   that. If later clues are observed and is present

13   because of intoxication, then the early clues should

14   be present, as well.

15   Q.   And looking at them with the three clues,

16   does that hold true for onset prior, and no maximum

17   deviation, and no lack of smooth pursuit, which I

18   think you just said it did?

19   A.   Yes.

20   Q.   As well as onset prior and maximum

21   deviation, but no lack of smooth pursuit?

22   A.   Yes.

23   Q.   Okay. I wasn't sure. So once -- I'm

24   sorry. For purposes of determining if the

25   individual is under the influence of an intoxicant,

1   it's your testimony that lack of smooth pursuit

2   should be present if maximum deviation and onset

3   prior are present. And lack of smooth pursuit and

4   distinct nystagmus should be present if onset prior

5   is present also?

6   A.   Correct. If the cause of later clues is

7   intoxication, then the early clues, whether it's

8   less when the previous two, the second one, the

9   previous one, whatever one you want to go with. If

10 the later ones are present because of intoxication,

11 the earlier ones should be present, as well.

12   Q.   The standard manner in which the officers

13 are trained to administer it, is -- I'm not talking

14 about the preamble stuff, lack of smooth pursuit,

15 distinct and sustained at maximum deviation, then

16 onset prior to 45 degrees?

17   A.   Correct.

18   Q.   Does administering them out of order

19 affect the validity of the test?

20   A.   Only to the extent that it is not the

21 standard as protocol.

22   Q.   Okay.

23   A.   From a scientific or medical basis, one

24 clue or one subtest has no bearing on any of the

25 other subtests. So if let's say if I were to do the

1   testing, and I wanted to do a check onset prior to

2   45 first, and then later on check lack of smooth

3   pursuit, what happened to the onset prior to 45

4   would not affect the lack of smooth pursuit.

5   Q.   It would deviate from the training

6   protocol but not, in your opinion, invalidate the

7   results of the test?

8   A.   Correct.

9   Q.   In your direct exam you said something to

10   the effect of approximately 10 percent of sober

11   individuals can show lack of smooth pursuit.

12   A.   Yes.

13   Q.   And I think you said that about 50 to 60

14   percent of sober individuals will exhibit what is

15   known as N point nystagmus.

16   A.   Correct.

17   Q.   And for clarity of the record, N point

18   nystagmus is observed during the phase of the

19   distinct and sustained at maximum deviation where

20   the eye first comes out to that maximum point, there

21   can be a natural un-alcohol related bouncing of the

22   eye?

23   A.   Non-intoxication, yes. But, of course,

24   the difference between the two is that the natural N

25   point nystagmus that an individual may have usually

1   is either not distinct or not sustained.

2   Q.   And that's why you wait for those four

3   seconds before analyzing the presence or absence of

4   it?

5   A.   Yes.

6   Q.   And these figures that you're talking

7   about come from your experience, research, studies,

8   publications that you've familiarized yourself with?

9   A.   Correct.

10   Q.   You've worked on or reviewed studies

11   involving the HGN, obviously?

12   A.   Yes.

13   Q.   Including the ones done by NHTSA?

14   A.   Yes.

15   Q.   And NHTSA is N-H-T-S-A, the National

16   Highway Traffic Safety Administration?

17   A.   Correct, right.

18   Q.   And it's NHTSA who publishes the

19   standardized method with which these field tests,

20   including the HGN, are supposed to be administered?

21   A.   Yes.

22   Q.   And they've also done validation studies

23   on them?

24   A.   Correct. Both in the laboratory setting,

25   controlled setting, and also in the field?

1   Q.   One of the tests that was done on the

2   studies that was done by NHTSA, or commissioned by

3   NHTSA I guess is probably the right phrase, was

4   called the robustness of the HGN.

5   A.   Yes.

6   Q.   It was done in 2007, correct?

7   A.   That's when it was published.

8   Q.   Oh, published in 2007. In that particular

9   study, and I'll kind of summarize here, correct me

10 if I'm wrong. That the purpose of it was to change

11 certain variables in the administration of the test

12 to then analyze whether it still produced what they

13 considered to be valid results?

14   A.   Correct.

15   Q.   All right. One of the variables that they

16 changed was the height of the stimulus relevant to

17 eye level?

18   A.   Yes.

19   Q.   So the NHTSA standard says hold the

20 stimulus 12 to 15 inches from the suspect's face

21 slightly above eye level?

22   A.   Correct.

23   Q.   In that particular variation they held it

24 at zero inches above eye level, two inches above eye

25 level and four inches above eye level?

1   A.   Yes.

2   Q.   And then they administered that test, the

3 HGN test on dosed subjects?

4   A.   Correct.

5   Q.   Individuals that had consumed alcohol and

6 were at a known VAC level?

7   A.   Yes.

8   MR. SUHRE: Judge, can I mark this as

9 Defense One?

10   THE COURT: Sure.

11   MR. SUHRE: May I approach the witness?

12   THE COURT: You may.

13   Q.   I'm going to kind of focus on one portion

14 of this analysis here. You can see on -- well,

15 okay, I'm showing you Defense Exhibit One, do you

16 recognize that --

17   A.   Yes, I do.

18   Q.   Can you tell the Court what that is?

19   A.   It appears to be a reasonable copy of the

20 horizontal gaze nystagmus test report.

21   Q.   Okay. And you've seen this document

22 before?

23   A.   Yes, I have.

24   Q.   In fact, you've (inaudible)?

25   A.   Yes.

1   A.   Right.

2   Q.   Okay. So if my math is right, 73 percent

3   of subjects in this test with a BAC level under a

4   .05 exhibited 4 or more clues on the HGN?

5   A.   Well, no, I'm sorry, that's not how I'm

6   reading it. Under .05 is just the bottom section,

7   the bottom --

8   Q.   Correct. So, for example, if you look at

9   the first level --

10   A.   So in ten -- ten individuals, 4 under .05.

11   Q.   Yes. Ten individuals but 30

12 administrations of the test.

13   A.   Oh, okay.

14   Q.   So once with zero, once at 2, once at --

15   A.   Oh, I see. I'm sorry.

16   Q.   Yeah. So it was ten individuals --

17   A.   30 administrations, yes.

18   Q.   Ten individuals were -- that were under a

19 .05 were administered the HGN test.

20   A.   Correct. Each was administered three

21 times.

22   Q.   Three times. So there were 30

23 administrations of the test?

24   A.   Right.

25   Q.   Of those 30 administrations, 22 resulted

1   in four or more clues being present?

2   A.   Right.

3   Q.   Okay.

4   A.   By that count.

5   Q.   Yes, by that count.

6   A.   Correct.

7   Q.   All right. Flip to, if you would, Page

8   15 -- I'm sorry, Page 21, Table 15.

9   MR. SUHRE: May I approach one more time,

10   Judge?

11   THE COURT: Yes, you may. In fact, just

12   consider yourself free to move about.

13   MR. SUHRE: Thank you.

14   Q.   So I marked on Table 15 the data that I'm

15   interested in for our purposes today, which is

16   individuals that are under a .05. Do you see the

17   highlighted section there?

18   A.   Sure.

19   Q.   Okay. And this particular variable was

20   changing the standardized distance of the stimulus

21   from the individual's face. So in other words 12 to

22   15 inches is the protocol. They did it at 10 and

23   then at 20?

24   A.   Correct.

25   Q.   Is that correct?

1   A.   Yes.

2   Q.   Looking just at the 12 to 15 inch section,

3 it looks to me like there were nine -- let's see,

4 where am I, table -- I'm sorry, looking at all of

5 the under .05 by my count there was 42

6 administrations of the test?

7   A.   Right. 14 individuals, each administered

8 the test three times, so 42 administrations.

9   Q.   And of those 42 administrations of the

10 test to individuals that were under a .05 BAC, 35,

11 or 83 percent showed four or more clues?

12   A.   By that --

13   Q.   By that count.

14   A.   By that count, yes.

15   Q.   Okay. And then if you could flip back

16 to -- this is Page 14, Table 10. On this one, this

17 is the one I was just looking at the stimulus speed

18 variable, correct?

19   A.   Correct.

20   Q.   Now, this one is kind of interesting

21 because the only portion of the HGN test that has a

22 prescribed stimulus speed is the lack of smooth

23 pursuit. It should take approximately 30 degrees a

24 second, or two seconds out and then two seconds

25 back?

1   A.   Correct.

2   Q.   The onset of prior you're supposed to move

3 at a particular rate. But for our purposes, or for

4 NHTSA's purposes in this test, they checked the

5 variable of the lack of smooth pursuit stimulus

6 speed?

7   A.   Yes.

8   Q.   Okay. And in the first column, the two

9 second standard one, there were nine

10 administrations -- nine individuals to whom the test

11 was administered that had a BAC of under .05?

12   A.   Correct.

13   Q.   And of those nine individuals, 100 percent

14 showed at least two clues?

15   A.   That was the standard two second

16 administration, yes.

17   Q.   Yes. Correct. The standard two second.

18 And then seven out of nine, or 77 percent of

19 individuals showed four or more clues -- four clues

20 at the standard speed?

21   A.   Correct.

22   Q.   Okay. Ultimately, the study concluded

23 changing those variables didn't have a statistically

24 significant impact on the test administration,

25 correct?

1   A.   Correct.

2   Q.   So, it was their opinion that if you went

3   ten inches versus twenty inches or zero, two or four

4   inches above eye level, that the test itself was

5   still valid?

6   A.   Correct.

7   Q.   We talked about this, nystagmus is the

8   involuntary jerking or bouncing of the eye for our

9   purposes here?

10   A.   Yes.

11   Q.   There are different types of nystagmus

12 that can be present in an individual out of the

13 context of the law enforcement, there are different

14 types of nystagmus?

15   A.   Yes.

16   Q.   Manifest, congenital, latent, manifest

17 latent and acquired.

18   A.   As general categories, yes.

19   Q.   Yes. The first four I mentioned don't

20 have anything to do with what we're talking about

21 here, but acquired does?

22   A.   Right, correct.

23   Q.   And acquired, one can acquire HGN in

24 numerous different ways?

25   A.   Yes.

1   Q.   One can acquire it through the excessive

2 consumption of an alcoholic beverage?

3   A.   Correct.

4   Q.   One can acquire it because they have

5 multiple sclerosis?

6   A.   Here, we need to be a little careful that

7 you don't just use the term HGN. Because if you say

8 HGN, it would mean all --

9   Q.   Right. I didn't, I said nystagmus.

10   A.   The last piece you said HGN.

11   Q.   Okay. I'm sorry. So the nystagmus can be

12 acquired through the consumption of alcohol?

13   A.   Yes.

14   Q.   Can nystagmus be acquired through disease,

15 such as multiple sclerosis?

16   A.   Yes.

17   Q.   Meniere's Disease, correct?

18   A.   Yeah, any number of other conditions.

19   Q.   Trauma, stroke?

20   A.   Yeah.

21   Q.   Diabetic neuropathy, correct?

22   A.   Not with diabetes, no, but --

23   Q.   Diabetic neuropathy?

24   A.   Unlikely.

25   Q.   But possible?

1   A.   Anything is possible. Unlikely.

2   Q.   I think you said head injury?

3   A.   Head injury, correct.

4   Q.   There can be neurological issues as the

5 result of side effects from medication on

6 anti-seizure medicines or high blood pressure

7 medicines?

8   A.   Yes.

9   Q.   Potentially positive nystagmus. In rare

10 cases, nicotine or hyperventilation could be

11 possible?

12   A.   Well, not in rare cases, but nicotine has

13 been shown to cause nystagmus. But, again, with

14 things other than consumption of alcohol or your

15 central nervous system depressant drugs or inhalers

16 are associated with anesthetics, the type of

17 nystagmus that you would expect, where nystagmus

18 occurs and how it is elicited would differ from that

19 caused by intoxication.

20   Q.   Right. But the nystagmus is still --

21   A.   Just if you use a general term nystagmus.

22   Q.   Right.

23   A.   Yes.

24   Q.   Okay. You can have optokinetic where

25 there's a flashing light that's perceived in one eye

1   that can cause --

2   A.   It would need to be a rotating light, you

3   wouldn't -- not simply a flashing light.

4   Q.   Okay. Well, rotating, flashing or

5   oscillating lights, the officers are trained to face

6   the suspect away from, correct?

7   A.   Correct.

8   Q.   And the reason they're trained to face

9   them away from that is so that there's not a false

10   presence of nystagmus in the administration of the

11   test?

12   A.   Well, if the testing is done correctly,

13   and the suspect is properly attending to the

14   officer's stimulus --

15   Q.   Right.

16   A.   -- optokinetic basically will not occur.

17   The reason that the officer faces the suspect away

18   is to preclude the possibility that there could be.

19   Q.   Well, presuming that it's administered

20   correctly, that's why they're told to face them away

21   from it?

22   A.   Yes.

23   Q.   And the same goes with rapidly moving

24   traffic in close proximity?

25   A.   Yes.

1   Q.   You said you're a member of the American

2 Optometric Association, correct?

3   A.   Yes.

4   Q.   Did I say that right?

5   A.   Yes, you did.

6   Q.   I'm going to approach and show you

7 something that I printed off from their website.

8 Can you tell the Court what that document is?

9   A.   It is entitled Nystagmus with three

10 questions following it. What causes nystagmus? How

11 is nystagmus diagnosed? How is nystagmus treated?

12   Q.   And does that appear to come from the AOA

13 or American Optometric Association's website?

14   A.   It appears that it does, yes.

15   Q.   And if you look on Page 2 of that

16 document, it indicates some other causes of

17 nystagmus that can be things such as lack of

18 development of normal eye movement. Albinism, which

19 is an individual who is an albino, doesn't have

20 melatonin?

21   A.   Melanin.

22   Q.   Melanin.

23   A.   Pigmentation of the skin.

24   Q.   Very high refractive air like

25 nearsightedness or a stigmatism, as well as

1   congenital cataracts, inflammation of the inner ear,

2   we talked about this, anti-epilepsy drugs and

3   certain central nervous system diseases?

4   A.   Yes.

5   Q.   All causes -- potential causes of

6   nystagmus?

7   A.   And other than the last two, the

8   occurrence of a nystagmus, the appearance of a

9   nystagmus, the conditions under which the nystagmus

10   would be elicited are all -- all going to be

11   different than what we expect if it were caused

12   by -- if nystagmus were caused by intoxication.

13   Q.   Okay. Going back to the law enforcement

14   perspective of the test. You previously

15   testified -- correct me if I'm inaccurate in this.

16   That some individuals will show lack of smooth

17   pursuit, but be sober?

18   A.   Yes, that's possible.

19   Q.   Some individuals will show lack of smooth

20   pursuit and distinct and sustained nystagmus at

21   maximum deviation and be sober?

22   A.   Yes, it is possible.

23   Q.   Some will show those two as well as onset

24   prior to 45 degrees and even HGN and still be sober?

25   A.   Yes.

1   Q.   Okay. There are individuals who will show

2   no clues on the HGN but be intoxicated, correct?

3   A.   That is possible.

4   Q.   You would agree with me that the HGN is

5   not a balance test?

6   A.   Balance meaning --

7   Q.   You're not raising one foot to see if you

8   can balance?

9   A.   You're able to maintain your balance, yes.

10   Q.   It's not a coordination test?

11   A.   Correct.

12   Q.   And it's not a divided attention test?

13   A.   Well, technically, it is.

14   Q.   Because you have to follow the stimulus?

15   A.   You have to follow the stimulus. You have

16   to pay attention to the stimulus and that could

17   affect your balance. So while it is not a balance

18   test in and of itself, it could affect an

19   intoxicated individual's ability to maintain upright

20   posture.

21   Q.   Oh, I don't doubt that that is possible.

22   But I'm saying that the test perimeters, itself, are

23   not designed to elicit a balance issue, a

24   coordination problem, or a divided attention task.

25   A.   Well, coordination in terms of large

1   muscle coordination, it is certainly assessing

2   coordination of eye movements to --

3   Q.   Fair enough. By coordination in that

4   question I mean the ability to pull one's driver's

5   license out of one's wallet without fumbling, or to

6   exit the vehicle without leaning on the car?

7   A.   Correct.

8   Q.   It's not a test like that. It's a

9   neurological test?

10   A.   It can be considered as such, yes.

11   Q.   Would you consider it a medical or

12   scientific test?

13   A.   It certainly can be.

14   Q.   And would you agree with me that the HGN

15   test by itself is not a reliable indicator for

16   determining intoxication?

17   A.   Well, not if you're going to use it

18   exclusively by itself, nothing else, as a measure of

19   intoxication.

20   Q.   Okay. So let me --

21   A.   It's impairment. So it just tests for --

22   that abnormal eye movements are present.

23   Q.   Let me just make sure I understand it.

24   But you're more than welcome to explain, but the HGN

25   test by itself is not reliable for determining

1   intoxication; is that a correct statement?

2   A.   Yes.   One has to understand that by

3   intoxication you mean someone who has consumed --

4   for example, consumed alcohol (inaudible) in

5   particular, alcohol concentration in the blood?

6   Q.   Yes.

7   A.   Yes.   It would not be reliable for that

8   purpose, specifically.

9   Q.   Okay.

10   MR. SUHRE: I don't have any further

11   questions, Your Honor.   Thank you, Doctor.

12   THE WITNESS: Thank you.

13   THE COURT: Now, at this time do we want

14   to proceed, allow Mr. Marsh to redirect and then

15   we'll just start again with Mr. Warren's part of

16   this and with direct and cross, or do we want to

17   let Ed cross now?

18   MR. WARREN: I'm not going to follow up

19   with any further cross-examination.

20   THE COURT: Okay.

21   MR. WARREN: I think we've done all we

22   need to do with the page --

23   THE COURT: That's fine.   That's what

24   I --

25   MR. WARREN: If Mr. Marsh has some

1   redirect, and then we can do --

2   THE COURT: That's just all I was

3   establishing. So Mr. Marsh, if you want to

4   redirect.

5   MR. MARSH: Thank you, ma'am.

6   REDIRECT EXAMINATION

7   BY MR. MARSH:

8   Q.   Dr. Citek, let's go back to the American

9   Optometric Association, the set of paperwork -- the

10   lab -- the web download that he gave you.

11   A.   Yes.

12   Q.   First page where it talks about the forms

13   on nystagmus about two-thirds of the way down the

14   page it lists the three forms of a nystagmus, does

15   it not?

16   A.   Yes, it does.

17   Q.   And one of those is acquired nystagmus?

18   A.   Yes.

19   Q.   And that's the type of nystagmus that we

20   are discussing here when we talk about nystagmus due

21   to intoxication; is that correct?

22   A.   Correct.

23   Q.   And can you read for the Court there what

24   it lists under acquired nystagmus?

25   A.   Acquired. It says develops later in

1   childhood or adulthood, the cause is often unknown

2   but it may be due to central nervous system and

3   metabolic disorders or alcohol and drug toxicity.

4   Q.   So nystagmus then, according to the

5   American Optometric Association, could be caused by

6   alcohol and drug toxicity?

7   A.   Yes.

8   Q.   Okay. And that's the type of thing we're

9   talking about here today, correct?

10   A.   Correct.

11   Q.   Okay. So the American Optometric

12   Association does agree that horizontal gaze

13   nystagmus, or HGN, can be used as an indicator, not

14   in itself in a vacuum, but as one of the factors to

15   indicate whether someone is under the influence of

16   drugs or alcohol?

17   A.   Correct.

18   Q.   And those drugs or alcohol being central

19   nervous depressants, correct?

20   A.   That is one of the categories. The other

21   categories being inhaled drugs or inhaled

22   substances, or dissociative anesthetics.

23   Q.   Okay.

24   A.   PCP or ketamine.

25   Q.   All right. Now, Mr. Suhre went through

1   some of these tables with you on stimulus that

2   speed, BAC is an examination period. If we go to I

3   believe one of the ones he talked about was the

4   stimulus speed on Page 14 of that table.

5   A.   Yes.

6   Q.   Okay. If administered properly, and

7   according to the standard procedures that the

8   officers were trained to do at the two second

9   stimulus speed, below a .05 what -- how many false

10   positives were there?

11   A.   Well, at the two seconds, what the table

12   lists itself as false positive is just one.

13   Q.   Okay.

14   A.   It's just one value at that divide.

15   Q.   Okay. And on Table 13 that we go back

16   here to, it talks about the variation and the

17   experiment that they did below a .05 if the test is

18   administered as the officer is trained to do, how

19   many false positives?

20   A.   There, only two were identified as false

21   positives.

22   Q.   Okay. And over the 30 test range there,

23   30 times that that was administered, does that

24   equate to about a 6.6 percent margin of error?

25   A.   Well, one thing that you need to keep in

1   mind is that -- in this table, for example, Table 13

2   on Page 18 -- let me just make sure that -- that ten

3   separate individuals were tested, but they were

4   retested. So it would be inappropriate to treat

5   those 30 administrations as 30 test results as

6   individual test results.

7   Q.   Okay.

8   A.   They are ten individuals who were assessed

9   three times each. And I don't recall that we need

10 to take the time to go through how the statistics

11 were done on this. But it would be inappropriate to

12 assume, well, those are 30 unique individual tests.

13 They're not 30 individuals. So if one individual

14 showed a number of clues at one administration,

15 there's a very good likelihood that he or she will

16 show that number of clues or more, or around that

17 same number of clues at the same administration, and

18 even at the third administration, even if there is a

19 variance, or even if there are no variances.

20   Q.   Okay. And doesn't that seem to -- I mean

21 the results here seem to concur with you on -- let's

22 take the person at the .047 BAC that had the false

23 positive with six clues.

24   A.   Yes.

25   Q.   That person showed six clues across the

1   board, did they not?

2   A.   Yes.

3   Q.   Okay. And then the same thing with the

4   person at the .019 BAC. With the test administered

5   as it's supposed to be, they showed four clues at a

6   false positive, correct?

7   A.   Correct.

8   Q.   Then they showed four clues at a false

9   positive on the 0 inch elevation, and six clues

10   false positive on a 4-inch elevation?

11   A.   Correct.

12   Q.   And what does that tell us statistically?

13   A.   Well, probably the easiest way to look at

14   it is if you look at each of the individual sets of

15   administrations. So let's just take the standard

16   administration. Just count those, that for those

17   individuals, again identified within the paper and

18   you have to look at it more carefully to see

19   precisely what they mean by false positive versus

20   false negative. But as identified here, only two of

21   the ten came up as false positive. So that would be

22   about 20 percent. And that is right in line with

23   the typical specificity of the HGN test, as it's

24   been established in other laboratory controlled

25   studies.

1   Q.   Okay.   And then Table 15, if I'm reading

2   that correctly, at the 12 to 15 inch standard,

3   that's the distance of the stimulus from the

4   person's face that we had the false positive is a

5   .05, approximately 14 percent.

6   A.   Well, were there 14 individuals in this

7   one?

8   Q.   Uh-huh.

9   A.   So there were one, two, three, four, five,

10 six, seven were identified as false positives?

11   Q.   Okay.

12   A.   So that would be about 50 percent.

13   Q.   All right.   So, I guess in summary then,

14 NHTSA, what was their ultimate conclusion as to the

15 reliability of the HGN?

16   A.   The ultimate conclusion was that variation

17 in the test, in the type of stimulus, in the

18 distance that the stimulus is from the suspect's

19 eyes or face, the speed of movement of the stimulus,

20 that in just everything taken together that there's

21 no significant difference if there is a variation in

22 any of those variables.

23   Q.   So the reliability factor is the same

24 regardless if the officer deviates by two inches on

25 the elevation, whether or not they go in or out with

1   the distance from the face, and whether or not they

2   varied the speed of the stimulus?

3   A.   Yes. That's how I understand it.

4   Q.   Not a statistical significance to degrade

5   the reliability of the HGN as a whole?

6   A.   Correct.

7   Q.   And this study was released when?

8   A.   I believe in 2007.

9   Q.   Okay. We've had seven years since 2007.

10   Is NHTSA still -- is it an approved test?

11   A.   Yes.

12   Q.   Okay. NHTSA still approves it?

13   A.   Yes.

14   Q.   All right. And with regard to the officer

15   training and those things that Mr. Suhre was

16   questioning about before, obviously the officer has

17   to perform the test properly so the test didn't live

18   up to the reliability standard that you have talked

19   about?

20   A.   Correct.

21   Q.   And the -- if the officer -- let's see how

22   to phrase this. If the officer doesn't perform the

23   test in accordance with the specified instructions

24   and training, then that obviously could influence

25   reliability, depending on to what degree they vary

1   from the training?

2   A.   Correct.

3   Q.   Okay. And is the same true in any kind

4   of field sobriety test that you're familiar with?

5   A.   Yes.

6   Q.   Okay. So you're familiar with the one-leg

7   stand?

8   A.   Yes, sir.

9   Q.   And how officers are trained to perform

10   the one-leg stand?

11   A.   Yes.

12   Q.   So, obviously, the clues of impairment

13   that an officer could observe in a one-leg stand

14   could be skewed if the officer doesn't give the test

15   appropriately; is that not true?

16   A.   Correct.

17   Q.   And that holds true for HGN, as well?

18   A.   Correct.

19   Q.   And you testified, I believe this is in

20   your direct examination on -- that we were here

21   several months ago on, that actually the HGN has a

22   higher degree of reliability, statistically, than

23   the one-leg stand?

24   A.   Yes, it does.

25   Q.   And is that the same -- is the same true

1   for the walk and turn?

2   A.   Yes, it is.

3   Q.   Now, with regard to the -- we talked a bit

4   about -- Mr. Suhre was getting into this, you said

5   that standing alone, HGN is not a reliable indicator

6   of intoxication. Is -- are officers trained to use

7   the HGN test alone?

8   A.   No.

9   Q.   Okay. Would you think it fair to assess

10   someone's, I guess, whether or not they are

11   intoxicated or under the influence of drugs or

12   central nervous -- or alcohol or central nervous

13   depressants using the HGN alone?

14   A.   No.

15   Q.   Okay. Is the HGN -- are officers trained

16   to use HGN in combination with the other two

17   standardized field sobriety tests?

18   A.   Yes. And also with the other physical

19   evidence and physiological evidence that they

20   collect.

21   Q.   All right. Is it a fair statement to say

22   that the reliability of all the tests when combined

23   in the totality of the circumstances is heightened,

24   based upon performance on all tests?

25   A.   Yes.

1   Q.   So you wouldn't administer a walk and turn

2   alone, would you?

3   A.   No.

4   Q.   Would you administer a one-leg stand

5   alone?

6   A.   No.

7   Q.   Would you take the smell of alcohol as a

8   single indicator in a vacuum?

9   A.   No.

10   Q.   Okay. And same for HGN?

11   A.   Correct.

12   Q.   But given all those things together, if

13   someone exhibited all the different clues, then it

14   is statistically more likely that they are under the

15   influence if they exhibit all the clues?

16   A.   Yes.

17   MR. MARSH: No further questions at this

18   time, Judge.

19   THE COURT: Any recross?

20   MR. SUHRE: Just a couple. And it has to

21   do with statistics. And I'll represent that I got

22   an A in calculus and not a good grade in

23   statistics. So bear with me if I don't use the

24   right terminology, Doctor.

25   RECROSS EXAMINATION

1   BY MR. SUHRE:

2   Q.   If you could, flip to Page 21 of the

3   Robustness Study and Table 15.

4   A.   Yes.

5   Q.   They report with two stars a false

6   positive, correct?

7   A.   Correct.

8   Q.   A false positive is where the

9   participant's alcohol levels are not expected to

10   produce the signs reported?

11   A.   Correct.

12   Q.   Okay.   I'm looking specifically, like the

13   third one from the bottom is an .027 BAC?

14   A.   Yes.

15   Q.   That individual produced four clues on the

16   HGN, which they listed as a false positive, correct?

17   A.   Correct.

18   Q.   Then if you go up, I don't know, about

19   ten, there's a .036 result?

20   A.   Yes.

21   Q.   And that individual produced four clues on

22   the HGN.   And it was not reported as a false

23   positive.

24   A.   Yes, I see that.

25   Q.   Is it a fair statement to deduce from that

1   information that NHTSA, for purposes of this study,

2   is considering a .03 the threshold where four clues

3   should appear, or could appear? And then I'll

4   represent to you, Doctor, I didn't find in the study

5   where they cut that off.

6   A.   Again, I've not reviewed the study to that

7   level --

8   Q.   Yeah.

9   A.   -- to understand exactly what they

10 interpret as -- the authors of the study determine

11 as false positive versus false negative, and why

12 some are starred and why some are not. Just by

13 conjecture, if that were the situation, if NHTSA

14 were to present that .03 would be the criteria in

15 which four clues should appear, then below the last

16 one that you mentioned to me there's a .035 which

17 shows two clues, there's a .037 which shows zero

18 clues, then presumably those should be false

19 negatives --

20   Q.   Right.

21   A.   -- by that logic. And that to speak with

22 any further information than what's presented on the

23 table here. So at this point I can't go further

24 into what they meant by, or how they determined

25 false positive versus false negatives.

1   Q.   But such --

2   A.   I'd have to review that much more

3 carefully.

4   Q.   But you would agree that they're not

5 calling it .036 with four clues present a false

6 positive?

7   A.   Correct. Because it is possible. It

8 certainly is possible. If I remember correctly, and

9 I've not reviewed my testimony from February, so I

10 don't recall exactly what I did except that -- but

11 they're having papers published going back to the

12 1970's that demonstrate that the first set of clues,

13 lack of smooth pursuit in both eyes in some

14 individuals may occur as early as a BAC of .02 or

15 .03.

16   Q.   Sure. And that's consistent with the

17 other table where --

18   A.   Yes.

19   Q.   -- a hundred percent of the individuals

20 under -- showed at least two clues?

21   A.   (Inaudible) because multiples were over

22 .02. So that would be absolutely consistent with

23 that. Now, given that, and I noticed on some of the

24 tables for -- to test where individuals were above

25 .05, there were some zeros. There were some

1   individuals who showed zero. It is certainly

2   possible that someone under an .08 or even under .05

3   could show four clues or more. It certainly is also

4   possible that someone over an .08 shows zero clues,

5   or let's just say fewer than four. It certainly is

6   possible. With regard to the second set of clues

7   that was expected, the distinct and sustained

8   nystagmus at maximum deviation, again, and I believe

9   I did testify to this in February. That it is

10   possible in some individuals that that can occur at

11   BAC as low as .05 to .06. That doesn't mean that

12   it's not possible that it couldn't occur lower, and

13   we're obviously seeing that evidence here. So

14   unless there was something else going on with these

15   individuals, but it's not outside of the realm of

16   possibility.

17   MR. SUHRE: I don't have any further

18   questions for the Doctor, but while he's on the

19   stand, I'd just ask the Court to move in Defense

20   One and Two.

21   THE COURT: Any objection?

22   MR. MARSH: No objection.

23   THE COURT: So admitted. Any redirect?

24   MR. MARSH: No, Judge.

25   THE COURT: I've got a question or two,

1   and then I'll let the attorneys follow up just in

2   case. And part of this I've just -- I didn't have

3   so much time to review the notes from February as

4   I'd hoped since the court went crazy long in the

5   other county.

6   Did you testify last time that it's about

7   70 to 75 percent reliable at roadside, the HGN?

8   A.   No. I believe the numbers that I would

9   have used was in the laboratory study, and the

10 accuracy typically is between 70 and 75 percent.

11   THE COURT: Okay. So that's laboratory?

12   A.   The roadside, when --

13   THE COURT: Is -- I'm sorry, go ahead.

14   A.   I'm sorry, Your Honor.

15   THE COURT: Well, at roadside -- I have

16 something written down, and I'm a great note taker

17 but sometimes things get missed and then you have

18 to balance listening and taking notes. At

19 roadside, is that when you said it was more likely

20 than not 51 percent reliable at roadside?

21   A.   No. The reliability goes up.

22   THE COURT: Oh, at roadside it goes up?

23   A.   Yeah. The accuracy goes up at roadside

24 because there are other factors that come into play.

25   THE COURT: Okay.

1   A.   That when the officer makes a traffic

2   stop, the driving figure --

3   THE COURT: Right. Then you've got the

4   real world, you've got the other field sobriety

5   tests --

6   A.   Correct.

7   THE COURT: -- et cetera. So in that

8   real world at the roadside, what's your opinion of

9   its reliability?

10   A.   Well, the -- there are -- if I may, there

11   are several different statistical terms here.

12   Accuracy, reliability, those are some of the terms.

13   Reliability simply means that the tests shows -- it

14   shows what it reports to show --

15   THE COURT: Getting it right.

16   A.   -- getting it right, correct.

17   THE COURT: Okay.

18   A.   The accuracy is a measure -- is a

19   statistical measure of how often you actually got

20   the result that you were expecting. Whether it's

21   positive, you were expecting a positive result or

22   you were expecting a negative result. The accuracy

23   that has been reported in laboratory studies ranges

24   between 70 and 75 percent. The accuracy that has

25   been reported in field studies ranges between 85 and

1   92 percent, depending on the field study, so the

2   accuracy improved. Part of that is how that value

3   is measured. How that value is determined.

4   It's based on the number of individuals

5   who are stopped. And the number of individuals who

6   actually are intoxicated. In a laboratory study,

7   frequently we try to balance the number of

8   individuals over the criterion level, at or beyond

9   the criterion level that we're going to measure with

10   hopefully as many, maybe more below that level.

11   So if we measured 30 subjects, you know,

12   in the laboratory study, 15 may be .08 or above,

13   another 15 will be under .08, or even zero. That's

14   not the case in a field study where actual stop --

15   actual traffic stops are made. More than likely,

16   the great majority of individuals who are stopped

17   being under suspicion of impaired driving actually

18   are impaired. That number may be 70 or 80 percent.

19   And only 20 percent are either under the criterion

20   level or sober, but have some other reason as to why

21   they were driving the way they did.

22   So that affects the accuracy. And the

23   studies have been attacked for -- on that basis, but

24   they seem to overrepresent how accurate the test is.

25   Nonetheless, if we look at a better statistical

1   analysis, and that is, can the test properly

2   distinguish for whatever criterion level we set, can

3   it properly distinguish those above that level

4   versus those below that level. The two separate

5   statistics for that are the sensitivity of the test

6   and the specificity of the test.

7   The sensitivity tells us how frequently we

8   get it right. From all of the studies that I have

9   reviewed when I've done my research, the sensitivity

10   typically is around 90 percent. Meaning nine times

11   out of ten we properly identify someone. The test

12   would properly identify someone who is at .08 or

13   above.

14   The specificity is about 70 percent.

15   Meaning 70 percent of the time, seven times out of

16   ten we properly identify someone under .08.

17   Subtract that from one and that's sometimes referred

18   to as a false alarm rate, and that's where it can

19   sometimes be mistakenly referred to as well, we get

20   it wrong 30 percent of the time. That's only true

21   for the individuals who are under .08, not 30

22   percent over everyone.

23   THE COURT: Okay. So --

24   A.   Now, one additional statistic is the

25   positive predictive value. We can use the

1 sensitivity/specificity values and come up with an

2 overall measure that gives us -- it's like a ratio

3 score. If that ratio score is around one, close to

4 one, then it would be no better than flipping a

5 coin. Using the test would be no better than

6 flipping a coin to determine whether someone is

7 above the criterion level or below it.

8   The paper was published in 2008, and I

9 don't recall if it was entered into evidence back in

10 February, but I can certainly provide that if you

11 like. That statistic purports to be a positive

12 predictive value was calculated for the tests that

13 were -- the study said they were published up until

14 that time. And the positive predictive value in all

15 those tests is well above one. It averages out to,

16 I think, two and a half or three. This paper was

17 published by a critique of the HGN test. Even he

18 would conclude that the test was much better than

19 chance when considered in isolation.

20   THE COURT: Okay. And now, if I recall,

21 your belief -- there are kind of two levels here

22 that we look at field sobriety tests. There's the

23 roadside which is when the officer is on the front

24 lines, alcoholic, and he's got to decide, you know,

25 is this person a danger potentially to the

1   community if I let them drive off.

2   A.   Correct.

3   THE COURT: Is that accurate?

4   A.   Correct.

5   THE COURT: And without question, I think

6   everybody in this room would agree that it's a very

7   accurate tool to help that officer make a good

8   decision that night.

9   A.   Yes.

10   THE COURT: Our next hurdle in our domain

11 is when we have six people sitting in that box, and

12 they have the task to determine if someone is

13 guilty beyond a reasonable doubt.

14   A.   Correct.

15   THE COURT: Are you saying that an

16 officer can sit in that stand where you are and

17 testify that somebody was above a .08 based on the

18 test they did at roadside that night, and do you

19 think that's a fair event?

20   A.   No, I --

21   THE COURT: Did you follow my question?

22   A.   Yes, I did.   No, I don't think that an

23 officer would be able to testify to that.   And I

24 don't think an officer should be asked that

25 question.

1   THE COURT: Okay. So if an officer is on

2   the stand in a DUI trial, they should not be able

3   to be asked if the HGN is an indicator that they

4   were guilty of driving under the influence?

5   A.   Well --

6   THE COURT: Do you understand my

7   question?

8   A.   Yes, I think, completely. I think it gets

9   back to a point that Mr. Suhre was making with

10   regard to HGN as an indicator of intoxication.

11   Certainly, the last component, the final subtest of

12   each of the tests, onset of nystagmus prior to 45

13   degrees does culminate with BAC if alcohol is the

14   only intoxicant.

15   THE COURT: I don't --

16   A.   The only correlation.

17   THE COURT: I don't doubt that at all,

18   and I don't doubt any of that. But again, back to

19   my question, if the officer is on that stand, there

20   are six people, somebody is on trial for driving

21   under the influence and the officer is asked how

22   did they do on the HGN --

23   MR. MARSH: Judge, can I clarify that

24   question, please? I think you asked first if it

25   was above a .08, not --

1   THE COURT: Okay, but --

2   MR. MARSH: -- I think that's where the

3   doctor may be diverging.

4   THE COURT: -- above a .08, I guess,

5   because that's our -- that's what our legislators

6   have set the level at.

7   A.   Correct. That is one way to consider it.

8   No, I can't testify. And I don't think an officer

9   should be able to testify to that. If the officer

10   observed six clues, that that proves that that

11   individual was above a .08. But it does demonstrate

12   that impairment was present.

13   So combined with all of the other evidence

14   that was collected, observed, collected, was

15   gathered, if all of those demonstrate together that

16   the individual was impaired, then the question

17   becomes what was causing the impairment? Is it a

18   medical condition? Was somebody suffering from low

19   blood sugar, was it a diabetic, low blood sugar, or

20   someone who is subject to epileptic seizures or was

21   he having a heart attack or a stroke or something?

22   Was a medical condition causing that impairment or

23   was it intoxication? So if the prosecutor can

24   establish that impairment was present, then the

25   question for the Jury becomes, is it reasonable to

1   consider that the impairment was caused by

2   intoxication, regardless of what that value is.

3   THE COURT: Okay. At this point I

4   suspect people will want to follow up on what I

5   just asked. So I'll let Nick start and then go to

6   Mr. Suhre -- I'm sorry?

7   MR. SUHRE: Suhre.

8   THE COURT: Suhre. I don't know why I

9   can't get your name right. Suhre.

10   MR. MARSH: It's been a long week, Judge.

11   THE COURT: I'm going to spell it

12   phonetically in my mind.

13   FURTHER REDIRECT EXAMINATION

14   BY MR. MARSH:

15   Q.   Doctor, to sum up, you can't use HGN to

16   quantify BAC?

17   A.   Correct.

18   Q.   Okay. You can -- but it can be used as a

19   clue in indicating whether someone is under the

20   influence?

21   A.   Correct.

22   Q.   Okay. So you can show impairment, but you

23   can't quantify the level of -- level of the alcohol

24   concentration in their breath or blood?

25   A.   Correct.

1   Q.   Okay.   Now, going back kind of here to

2   this -- the Robustness Study that NHTSA did and

3   everything, and Her Honor was asking you about the

4   roadside variation and things, and we were going

5   into that.   Flip to Page 2 for me, if you can, of

6   that study.

7   A.   Yes.

8   Q.   Okay.   And it talks about the hypothesis

9   and the purpose of the test there in the paragraph

10   below that table, does it not?

11   A.   That begins with the -- italicized within?

12   Q.   Yes.   Read that sentence, please.

13   A.   Within the sanitized procedure specified

14   in Table 2.   And Table 2 indicates the three

15   separate subtests with the expected appearance and

16   what the standardized procedure is.   So within that,

17   there may be some variations in roadside test

18   administration, but no evidence has been reported

19   that these minor variations change either the

20   occurrence, that (inaudible) of HGN signs, or an

21   officer's observations, also (inaudible).

22   Q.   So the accepted position before this test

23   was that the minor roadside conditions that we've

24   talked about do not affect HGN?

25   A.   Correct.   And, in fact, there have been

1 previous field studies that were conducted. For

2 example, one coalition in 1993 that was done in

3 Colorado involving roadside stops primarily during

4 February and March.

5   Q.   Okay.

6   A.   So they were addressing the issue of cold

7 weather and also nighttime affecting the test, and

8 they found that it did not. And I believe similar

9 variations with regard to traffic and other weather

10 conditions were conducted and determined in the

11 Florida study, which I believe is published in 1995,

12 and the San Diego study from 1998.

13   Q.   Okay. Indulge me here and go to Page 35,

14 please, of the study.

15   A.   Yes.

16   Q.   Okay. Or I'm sorry, flip back to Page 34

17 real quick. I found this paragraph to be

18 interesting. Second paragraph under the heading

19 general discussion.

20   A.   Yes.

21   Q.   And it talks about the variations of the

22 stimulus movement and the positions evaluated. Does

23 it not say in there that they were found to have

24 minimal effects on the officer's observations?

25   A.   Yes, it does.

1   Q.   And no measurable effects on the actual

2 occurrence of HGN time?

3   A.   Yes.

4   Q.   And then we go over to Page 35. The full

5 conclusions of NHTSA, and, in fact, on the one

6 second stimulus speed, that significantly increased

7 the number of false negative errors, correct?

8   A.   Correct.

9   Q.   So, if the officer moves the stimulus at a

10 faster rate than he is trained to do, actually,

11 according to this, that is to the person he's

12 testing's advantage; is that correct?

13   A.   Yes, it is.

14   Q.   Okay.

15   A.   Because at the faster speed, even though

16 it might induce lack of smooth pursuit in an

17 individual trying to follow that fast moving

18 stimulus, it makes it much more difficult for the

19 observer, the officer in this case, to notice that

20 lack of smooth pursuit was present.

21   Q.   Okay. And in the laboratory experiments,

22 the -- it states the officers did not err above a

23 .10 BAC; is that correct?

24   A.   Correct.

25   Q.   And rarely erred above a .08?

1   A.   Correct.

2   Q.   Okay. And then the next paragraph talks

3 about the distance of the stimulus to the face. And

4 when the officers deviated, actually put the

5 stimulus closer to the face than trained to do, they

6 correctly observed more HGN signs?

7   A.   Correct.

8   Q.   Okay. So it actually enhanced the test

9 when they deviated from their training?

10   A.   Correct.

11   Q.   And then the person's position when

12 they're taking the test had no effect?

13   A.   Correct.

14   Q.   And then in conclusion, what's the last

15 paragraph say there in the conclusions?

16   A.   It says in conclusion HGN as used by law

17 enforcement is a robust procedure. The study

18 findings provided no basis for concluding that the

19 validity of HGN is compromised by minor procedural

20 variations.

21   Q.   Okay. So the concerns about roadside

22 administration in the robustness of the HGN results

23 were dispelled by NHTSA in this study?

24   A.   Yes.

25   MR. MARSH: Okay. No further questions,

1   Judge.

2   THE COURT: Mr. Suhre.

3   FURTHER RECROSS-EXAMINATION

4   BY MR. SUHRE:

5   Q.   Just on that last comment, that's not what

6   the study said. The study said that deviations in

7   speed, minor deviations in speed, minor deviations

8   in stimulus height or minor deviations in stimulus

9   distance from the subject's face didn't

10   statistically impact the validity of the HGN,

11   according to NHTSA?

12   A.   Right, right.

13   Q.   But more than minor procedural deviations

14   can impact them, correct?

15   A.   Well, it certainly could -- the most

16   significant error that I typically find --

17   Q.   No, no, no, I understand, Doctor, but more

18   than minor procedural deviations can affect the

19   validity of the HGN?

20   A.   Correct. Well, if I can give you an

21   example --

22   Q.   That's okay. This study did not test

23   roadside variations. It tested those three

24   variations that I just mentioned?

25   A.   Yes.

1   MR. SUHRE: Okay. That's all I have.

2   THE WITNESS: Yes.

3   THE COURT: Anything else?

4   FURTHER REDIRECT EXAMINATION

5   BY MR. MARSH:

6   Q.   Are the three variations the most typical

7   roadside variations?

8   A.   Yes, they would be.

9   Q.   Okay.

10   A.   Well, actually, there is one additional

11 one and that is not holding the stimulus out at

12 maximum deviation for the prescribed amount of time.

13   Q.   Okay.

14   A.   Or officers hold the stimulus for less

15 than four seconds and conclude that the clues are

16 present. That's the most common -- in my

17 experience, from what I've heard from officers, the

18 most common procedural variation.

19   Q.   Had there been any studies that you know

20 of that have addressed that variation?

21   A.   No, no.

22   MR. MARSH: No further questions, Judge.

23   THE COURT: Any further?

24   MR. SUHRE: No.

25   THE COURT: Okay. Then this would

1   conclude the HGN section of our testimony. At this

2   time, Mr. Marsh, if you want to begin your next

3   topic of lack of convergence.

4   MR. MARSH: Dr. Citek, we've been through

5   all of your qualifications in direct, I'm assuming

6   the Court does not need us to go through those

7   again.

8   THE COURT: I certainly don't.

9   MR. SUHRE: Thank you, Your Honor.

10   THE COURT: Mr. Bourne wasn't here for

11   that. I mean, are you good with qualifying -- I

12   mean --

13   MR. BOURNE: I'm good with it, Judge.

14   THE COURT: Okay.

15   MR. BOURNE: His qualifications.

16   DIRECT EXAMINATION

17   BY MR. MARSH:

18   Q.   The -- have you -- are you familiar with

19   the term lack of convergence?

20   A.   Yes, I am.

21   Q.   Okay. Is lack of convergence a part of

22   the HGN test?

23   A.   It is not.

24   Q.   Is it part of HGN?

25   A.   It is not.

1   Q.   What is lack of convergence?

2   A.   It is a component of the eye -- of the

3   test that is conducted during a DRE, drug

4   recognition expert evaluation.

5   Q.   Okay. And what types of -- or what type

6   of training -- what's the minimal training that an

7   officer would have to have to be able to give a lack

8   of convergence test?

9   A.   The absolute minimum would be to attend

10 and be certified following attendance at ARIDE

11 class, that's the Advanced Roadside Identification

12 of Drugs -- Advanced Roadside Identification of

13 Drugs -- or Determined by Drugs -- whatever ARIDE

14 stands for.

15   Q.   The common acronym, ARIDE?

16   A.   The common acronym, yes, sir.

17   Q.   So, if an officer has ARIDE certification,

18 then they are -- in essence they are certified to

19 give a lack of convergence test?

20   A.   Yes.

21   Q.   Okay. And how are officers trained to

22 give a lack of convergence test?

23   A.   They'll start with the stimulus at the

24 original nominal prescribed distance of 12 to 15

25 inches, move the stimulus in the -- usually in a

1   circle or an oval around the face to have the

2   suspect follow the stimulus to make sure that he or

3   she can follow. And then bring the stimulus in

4   along the midline. Just along a line that would

5   connect directly to the nose between the two eyes.

6   And then stop at a distance of about two inches from

7   the nose.

8   Q.   Okay. And what is the officer looking for

9   when they are conducting this?

10   A.   The officer is looking to see that the

11 eyes can converge and stay focused on the stimulus

12 as it moves closer to the eyes.

13   Q.   And you said converge, what do you mean?

14   A.   By converging meaning that the eyes move

15 together to maintain -- in order to allow an

16 individual to maintain single vision when looking at

17 that close object.

18   Q.   The eyes come inward?

19   A.   They cross.

20   Q.   They cross, okay. And why -- what -- why

21 would an officer ever need to give a lack of

22 convergence test?

23   A.   Because there are going to be certain

24 drugs that fall under the categories of central

25 nervous system depressants, including alcohol,

1   inhalant substances and drugs.   And then

2   dissociative anesthetics, as well as cannabis, can

3   cause lack of convergence.

4   Q.   Okay.   So marijuana?

5   A.   Yes.

6   Q.   Okay.   And if a person's eyes do not

7   converge during this test, is that an indication

8   that a person is under the influence of those

9   substances that you just enumerated?

10   A.   That is a possibility.

11   Q.   Okay.

12   A.   But in and of itself as a stand-alone

13   finding, it doesn't -- it would not indicate that.

14   So if there was no other indicators, no other -- no

15   other physical evidence, no other physiological

16   indicators that intoxication by any of the -- any

17   drug within those categories was present, then lack

18   of convergence by itself would not be proof, or

19   would not be a solid indicator --

20   Q.   Okay.

21   A.   -- of intoxication.

22   Q.   So, what other types of indicators would

23   you think an officer would need to look for to

24   determine whether or not lack of a convergence test

25   would be appropriate?

1   A.   Well, there could be physical indicators.

2   For example, alcohol and cannabis are both

3   vasodilators. Meaning they cause blood vessels to

4   open up when those substances are present in the

5   bloodstream. So the blood vessels in the eye would

6   be dilated and the eyes would have a bloodshot

7   appearance is one example. The eyes could also

8   be -- you can have a watery or glassy appearance

9   because alcohol exacerbates a dry eye problem. In

10   response, the body's response to that is to produce

11   more reflex tears. Cannabis also, usually because

12   of how it is ingested, that is usually smoked, the

13   smoke can be an irritant to the eyes and that could

14   cause the eyes to be watery.

15   Q.   Okay.

16   A.   Those are just a couple physical examples.

17   Then there are the physiological indicators, for

18   example, if it were alcohol causing the problem then

19   you'd expect to observe HGN, VGN clues, and

20   certainly clues on the divided attention tests.

21   That would also be true of cannabis as an example.

22   Q.   Okay. Possibly, you could have the smell

23   of alcohol or marijuana?

24   A.   As another physical -- as another physical

25   observation, yes.

1   Q.   Okay. So your -- I'm assuming your

2 position would be then standing alone in a vacuum --

3   MR. SUHRE: Judge, I'm going to object to

4 the -- I don't mind some leading but --

5   THE COURT: Objection. Leading, is that

6 your objection?

7   MR. SUHRE: Yes, ma'am.

8   THE COURT: Sustained.

9   Q.   Do you believe that the lack of

10 convergence is reliable standing by itself --

11   A.   No.

12   Q.   -- to indicate -- let me start with

13 alcohol, to indicate someone being under the

14 influence of alcohol?

15   A.   Just by itself with no other --

16   Q.   Correct.

17   A.   That's how -- what I was assuming when I

18 answered no. So my answer is still no.

19   Q.   So if you walked up to me and performed a

20 lack of convergence test right now. I don't smell

21 of alcohol, my eyes look normal, and my eyes don't

22 converge, would you conclude that I'm under the

23 influence of alcohol?

24   A.   No.

25   Q.   Okay. Same with marijuana. If my eyes

1   didn't converge, would you conclude I was under the

2   influence of marijuana?

3   A.   No.

4   Q.   Or an inhalant?

5   A.   No.

6   Q.   Okay. So your position then on the

7   convergence, is that similar to your position on HGN

8   then, that you can't use it by itself?

9   A.   Correct.

10   Q.   All right. Do you know what the -- is

11 there a reliability factor, for lack of convergence,

12 in determining whether someone is under the

13 influence of alcohol or a central nervous

14 depressant?

15   A.   Well, if I can, I'll start with just

16 normal occurrence of that condition.

17   Q.   Uh-huh.

18   A.   A reasonable estimate of otherwise normal

19 sober individuals who cannot converge to within two

20 inches of the nose in the normal population is

21 between 5 and 10 percent. So that would -- well,

22 right off the bat say, oh, there's about a 5 to 10

23 percent error rate. Just anyone off the street with

24 no other indicators whatsoever. With regard to --

25 with regard to intoxication, whether it's alcohol or

1   cannabis or any other substance, causing lack of

2   convergence it would depend on the individual and on

3   the dosage.

4   So for some individuals, very much like

5   the other eye signs, lack of convergence may show up

6   at a low level of intoxication. For others, it may

7   not occur until the level of intoxication, which

8   drug is in the body, gets to a much higher level.

9   Q.   Okay. In your opinion, when other factors

10   are considered do you believe lack of convergence to

11   be a reliable indicator?

12   A.   Yes.

13   Q.   Okay. Of impairment?

14   A.   Yes.

15   Q.   Okay. Is this the position of any of the

16   associations we've covered with HGN?

17   A.   Actually, it is. In 2010, the American

18   Optometric Association adopted a resolution

19   recognizing limiting the liability of the DRE

20   protocol. The kind of protocol that's a whole --

21   that's what the resolution dealt with. But within

22   in that, of course, is each of the component tests,

23   including HGN, including VGN, the walk and turn

24   test, the one-leg stand, all of the other physical

25   tests, blood pressures, pulse, all that, including

1   lack of convergence and how it is administered. So

2   I take that as the recognition of the reliability of

3   the tests within the entire -- within that protocol,

4   or as it might be administered in an ARIDE certified

5   officer for the purpose of determining the presence

6   of impairment.

7   Q.   Okay. With regard to lack of convergence,

8   are there any other -- you said 5 to 10 percent will

9   show a lack of convergence without being under the

10 influence, so what are other possible causes of lack

11 of convergence?

12   A.   The most common one is just a congenital

13 lack of ability to do that, when someone just does

14 not have that ability.

15   Q.   Okay.

16   A.   That's going to be the most common reason.

17 Certainly, injury, injury to the eyes, head injury,

18 infection -- infection of some sort, disease process

19 of some sort could cause that also, but that should

20 be fairly obvious that there were other indicators

21 present or other physical evidence present.

22   Q.   Okay.

23   A.   And very likely, be the usual -- probably

24 know that something else has happened, or that the

25 individual has a condition that possibly could cause

1   a lack of convergence.

2   Q.   Would it be fair to I guess classify lack

3   of convergence as simply another clue of impairment?

4   A.   Yes.

5   Q.   And would it be your position to the Court

6   that the Court should -- or a Jury should consider

7   the other factors and other tests in conjunction

8   with the lack of convergence?

9   A.   Yes.

10   Q.   All right.

11   MR. MARSH: No further questions at this

12   time, Judge.

13   CROSS-EXAMINATION

14   BY MR. WARREN:

15   Q.   Sir, have you been trained to give the

16   lack of convergence test?

17   A.   It is based on --

18   Q.   Sir, have you been trained to administer

19   the lack of convergence test? I'm sorry, that's my

20   question.

21   A.   Trained by whom?

22   Q.   Have you been trained in the state that

23   trains the state police, city officers, have you

24   ever been through the program that trains to give

25   lack of convergence tests?

1   A.   I have sat in on that training and have --

2 I have conducted that training. I've not been

3 trained by an officer within the DRE protocol to do

4 that.

5   Q.   So you've never been through the training

6 to administer the lack of convergence test?

7   A.   If I may, the lack of convergence test is

8 similar to a test that we conduct clinically,

9 through my clinical training we do something very

10 similar.

11   Q.   Have you ever been trained by the state

12 police at any of the states to administer the lack

13 of convergence test?

14   A.   No, I have not, sir.

15   Q.   Are you certified to give the lack of

16 convergence test?

17   A.   If by certification you mean the ability

18 to conduct a DRE validation --

19   Q.   Like a police officer would be.

20   A.   No, I'm not, I --

21   Q.   Are you a drug recognition expert?

22   A.   I am not.

23   Q.   You have not been through the twelve-step

24 program, have you?

25   A.   I have not.

1   Q.   You say that this American association

2 that you're a member of adopted what now includes

3 the lack of convergence test?

4   A.   The American Optometric Association in

5 2010 at its annual meeting with delegates

6 representing optometrists in all 50 states and

7 territories and the military, adopted a resolution

8 recognizing the validity and the reliability of the

9 DRE protocol.

10   Q.   It didn't recognize the lack of

11 convergence on its own; is that correct?

12   A.   Correct.

13   Q.   Has to be given in accordance with the

14 twelve-step program of a drug recognition expert;

15 isn't that true?

16   A.   That's how the resolution reads, yes.

17   Q.   Now, have you testified as an expert in

18 lack of convergence?

19   A.   Yes.

20   Q.   Where was that, sir?

21   A.   If I may review my curriculum vitae, in

22 any of the hearings that involved admissibility of

23 eye tests within the DRE protocol. There were

24 several in Nebraska. There's one recently in

25 Maryland, in Oregon, in Hawaii.

1   Q.   You can't give me anything specific on

2 that?

3   A.   (Inaudible) 1997, Arlene versus Sampson

4 and others, Roseburg, Oregon on the admissibility

5 of -- admissibility of the eye test and other --

6   Q.   What eye test was it?

7   A.   Well, HGN, VGN, lack of convergence, pupil

8 size estimation of --

9   Q.   Who did you testify for?

10   A.   The state.

11   Q.   And what was the ruling by the Court?

12   A.   That the Court found -- found the evidence

13 to be admissible.

14   Q.   Okay. Can brain disorders cause lack of

15 convergence?

16   A.   They can.

17   Q.   Can Parkinson's cause lack of convergence?

18   A.   It can.

19   Q.   Blood pressure cause lack of convergence?

20   A.   Do you mean high blood pressure, sir?

21   Q.   Yeah.

22   A.   (Inaudible).

23   Q.   Pardon?

24   A.   I was asking if you meant high blood

25 pressure. In and of itself I'm not aware that it

1   would, but possibly the medication that you might

2   take for hypertension could.

3   Q.   Just, we've got an expert coming in

4   ourselves, but I want to know what articles you've

5   written on lack of convergence, please.

6   MR. MARSH: Judge, if I may, if I may

7   interject here, the CV was admitted in the last

8   hearing, and the qualifications, and all the

9   publications that Mr. Warren copied, we'll be happy

10 to give them to him.

11   MR. WARREN: I just want to know what

12 articles he's written on lack of convergence.

13   THE COURT: I'll allow it.

14   Q.   If any.

15   A.   I know that it was included within one --

16 at least one review paper and one study that we

17 published on using the (inaudible) evidence.

18   Q.   Have you written an article on lack of

19 convergence alone?

20   A.   May I refer to my CV, please?

21   Q.   Sure.

22   A.   It would be included -- it would be

23 included within the two papers, one published in

24 1998 with my colleagues, Drug Evaluation

25 Classification Program Using Eye Movement and Other

1 Science to Detect Drug Intoxication, as well as a

2 paper published in 2002.

3   Q.   Did you write those papers, sir?

4   A.   I was a co-author of those papers, yes.

5   Q.   Who was the other author?

6   A.   On the first one, the first doctor was

7 Koznoski. The second author Yeltsin. Third author

8 myself and there were two --

9   Q.   Did you say there's -- there's

10 publications in there dealing with lack of

11 convergence?

12   A.   We describe and discuss lack of

13 convergence, yes.

14   Q.   And it's the two articles?

15   A.   Yes.

16   Q.   And when were they written?

17   A.   The first one, 1998, the second one in

18 2002.

19   Q.   You've not written anything since then?

20   A.   Not on lack of convergence specifically,

21 no.

22   Q.   And what articles have you read recently

23 dealing with lack of convergence?

24   A.   I'm not aware of any recent articles on

25 lack of convergence.

1   Q.   When's the last time you read an article

2 on lack of convergence? Was it back in 2000?

3   A.   It very well could have been before the

4 2002 paper, yes.

5   Q.   And I might have asked you, sir, and

6 you -- the last time you testified was in 2000 on

7 lack of convergence?

8   A.   No. No, last testimony with regard to --

9 actually, this CV only goes up through 2011. I have

10 more recent ones, but nevertheless, it would have

11 been certainly -- certainly no later back than 2010.

12 There's two testimonies that I did in 2010 with

13 regard to -- with regard to eye signs, testing --

14   Q.   Did you testify -- I'm sorry, sir, go

15 ahead.

16   A.   Within -- with regard to a DRE protocol.

17   Q.   Have you testified as an expert on lack of

18 convergence in the Commonwealth of Kentucky?

19   A.   Prior to this, I have not.

20   Q.   Do contact lenses affect lack of

21 convergence?

22   A.   Only to the extent that an individual may

23 have difficulty maintaining focus on --

24   Q.   Either it does or it doesn't. It's a

25 simple question.

1   A.   Depends on the individual.

2   Q.   Could? Does poor eyesight affect lack of

3 convergence?

4   A.   By itself, no.

5   Q.   Under what settings have you observed

6 police officers use lack of convergence?

7   A.   In field certification trainings conducted

8 by the DRE officers and those officers learning to

9 become DREs. And also observed in the field when

10 DRE validations were done.

11   Q.   Is lack of convergence an indicator of use

12 of alcohol?

13   A.   Yes. Alcohol can cause lack of

14 convergence.

15   Q.   And they teach that in the DRE class; is

16 that correct?

17   A.   Yes.

18   Q.   Are you aware of any articles that state

19 that lack of convergence is not an indication of

20 someone being under the influence?

21   A.   No, I'm not.

22   Q.   Tell me how the officers are trained to do

23 the lack of convergence test.

24   A.   The officer starts with the stimulus at

25 about 12 to 15 inches, the normal position for the

1   other eye movement tests. And typically moves the

2   stimulus in a circle around the suspect's face to

3   make sure that the suspect can follow the stimulus.

4   And brings it back to straight ahead and moves it

5   along midline. In other words along the line

6   straight towards the eyes, between the eyes toward

7   the nose and comes to within two inches of the eyes.

8   Q.   And that's all that does?

9   A.   No, sir. Then makes the observations to

10   see what the suspect's eyes do.

11   Q.   And where is it he moves the stimulus to?

12   A.   Along midline toward the nose to within

13   two inches of the eyes.

14   Q.   All right. Isn't it true he's supposed to

15   hold the stimulus for one second once he gets to the

16   bridge of the nose?

17   A.   Holding for one second, but he's not going

18   to the bridge of the nose.

19   Q.   Pardon?

20   A.   He's not moving into the bridge of the

21   nose.

22   Q.   The other thing I see here is you are

23   supposed to move to within two inches of the bridge

24   of the nose, not just the nose; is that correct?

25   A.   To the bridge of the nose, yes, sir.

1   Q.   Multiple sclerosis, can it cause lack of

2   convergence?

3   A.   Yes.

4   Q.   Meniere's Disease cause lack of

5   convergence?

6   A.   By itself, no.

7   Q.   Lack of convergence by itself is not a

8   reliable indicator of being under the influence; is

9   that correct?

10   A.   Yes.

11   Q.   And, in fact, the officers are trained to

12   use it in the twelve DRE -- the twelve-steps that

13   people are certified under DRE, drug recognition

14   expert; isn't that correct?

15   A.   Yes.

16   Q.   And a person can show a lack of

17   convergence and be a sober person; isn't that

18   correct?

19   A.   Yes.

20   Q.   And the preferable way that you all are

21   trained to do this lack of convergence is getting

22   the twelve-step process as a drug recognition

23   expert; isn't that correct?

24   A.   Well, that's one way of doing it --

25   Q.   That's the best way, isn't it?

1   A.   Best for whom, the officers --

2   Q.   Best for the defendant because he's

3 presumed innocent, sir?

4   A.   Yes.

5   Q.   That's the fairest way to do it. To do

6 all twelve steps and not just pick out one test to

7 see if he's under the influence? That's the correct

8 way to do it, isn't it?

9   A.   Correct. But even within the ARIDE

10 program, that is not done by just picking one test.

11   Q.   You need all twelve steps, don't you?

12   A.   I'll grant you, it is -- ideally, it is

13 the best way to do it, yes.

14   Q.   What percent of sober individuals did you

15 say show lack of convergence, I'm sorry, sir?

16   A.   Between 5 and 10 percent.

17   Q.   And where did you get that from?

18   A.   That's from my clinical experience, or

19 clinical training as an optometrist, and from my

20 clinical experience.

21   Q.   Have you ever written articles on that?

22   A.   No.

23   Q.   When did you do those clinicals?

24   A.   Well, it's on the observations I've made

25 on my patients. What I gathered from my --

1   Q.   Tell me what you did, that specific

2 clinical, where you tested to get this number you

3 came up with of 5 to 10 percent is when people show

4 it.

5   A.   I believe there is -- it is published

6 in --

7   Q.   No. When did you do the clinical --

8   A.   I did not.

9   Q.   -- that you're talking about?

10   A.   I'm just speaking of my personal

11 observations, in addition to my clinical training

12 which would include material presented from

13 textbooks that have --

14   Q.   You've never done a clinical to see what

15 percent of people show lack of convergence when

16 they're not doing drugs or drinking, have you?

17   A.   Just the observations that I make on my

18 own --

19   Q.   Have you ever done a clinical? Have you

20 ever had individuals come in and have you ever done

21 tests on them?

22   A.   Not for this purpose alone, no, but as --

23   Q.   That's what I thought. Just trying to get

24 to that. So when you say 5 or 10 percent based on

25 studies, you don't have any research material to

1   back it up or any clinicals to back it up, it's just

2   your numbers you're pulling out of the air?

3   A.   Well, when I arrived this morning was the

4   first indication that I had received that lack of

5   convergence would be in the discussion today.

6   Q.   So that's Mr. Marsh's fault?

7   A.   I don't care whose fault it is.   It

8   doesn't matter.   But that's the first indication

9   that I had that this would be a topic of discussion.

10 So I did not bring along or prepare any materials,

11 or review them for that purpose.   What I'm saying to

12 you, sir, are numbers that I'm aware of that were

13 published in textbooks or that had been published in

14 studies --

15   Q.   Name me a study that says 5 or 10 percent.

16   A.   And if I had it with me, I would show you

17 the textbook.

18   Q.   For purposes of today, you can't name any

19 material that says that, can you?

20   A.   The authors are Scheiman and Wick,

21 S-C-H-E-I-M-A-N, Wick, W-I-C-K.   I believe the

22 textbook is entitled Eye Movement Disorders.   I

23 forget when the most recent edition was published,

24 but it was certainly in the last ten years.

25   Q.   How many editions are there in that book

1   so I can go look it up? I want to know which one it

2   is.

3   A.   It would be the most recent edition. I

4   believe it's the third edition.

5   Q.   So it would be in the third edition?

6   A.   I believe so.

7   Q.   If it's not in there, then it doesn't

8   exist?

9   A.   Well, it may be in another textbook.

10   Q.   Okay.

11   A.   Another textbook that I could -- that I

12   would refer to is Leigh, L-E-I-G-H, and Zee, Z-E-E

13   as the authors. That is Neurology of Eye Movements,

14   and that I believe is in the sixth edition, last

15   published in 2006.

16   MR. WARREN: Thank you for your

17   testimony, Doctor.

18   THE COURT: Is that all, Mr. Warren?

19   Redirect?

20   MR. MARSH: I have just a brief question,

21   Judge.

22   THE COURT: Uh-huh.

23   FURTHER DIRECT EXAMINATION

24   BY MR. MARSH:

25   Q.   Doctor, your testimony here today, is it

1 based upon your experience and your training?

2   A.   Yes.

3   Q.   Okay.   Have you reviewed, I guess,

4 material -- you said textbooks and other articles

5 that indicate that these are correct numbers?

6   MR. WARREN: Judge, I'm going to object.

7 He's answered that question.   He can't tell us

8 today what material exists, what the name is for

9 sure.

10   MR. MARSH: Judge, the standard of an

11 expert is based upon their experience and training.

12 If this expert has reviewed materials, he can

13 testify whether he has reviewed materials.

14   THE COURT: I think it was asked and

15 answered.   But I'll allow him to answer it again.

16   Q.   Have you reviewed materials?

17   A.   Previously, yes.

18   Q.   Okay.   And are they -- do they corroborate

19 your testimony here today?

20   A.   Yes.

21   Q.   Okay.   Have you reviewed any material that

22 would cause you to deviate from your testimony here

23 today?

24   A.   No.

25   Q.   Okay.   The -- you talk about ARIDE and DRE

1 as two different things. Are they two different

2 things?

3   A.   Not really.

4   Q.   Okay. Explain to me then the ARIDE

5 program and the DRE program.

6   A.   The DRE program is essentially a two-week

7 classroom course, very intensive where you have the

8 different categories of impairing substances, seven

9 different categories of drugs, all the signs,

10 physical and physiological signs and indicators that

11 drugs within those categories would cause if an

12 individual had consumed or ingested those drugs.

13 It's a very intense class.

14   First of all, an officer needs -- at

15 least, sir, in most states the requirement is that

16 officer needs a certain level of experience to be

17 allowed to go to the class in the first place. And

18 even so, not all officers pass automatically. They

19 must go through this rigorous program.

20   And then there's a field certification

21 component along with that as well, once a classroom

22 component is finished. Then there's a field

23 certification and a final knowledge test that the

24 officer must pass before they are -- before they are

25 certified as DREs.

1   As I understand it, with the understanding

2   that it is such an intense program and not all

3   officers have the time or are afforded the time to

4   go through --

5   MR. WARREN: Judge, I'm going to object

6   to this testimony here, as we understand it he's

7   not been through the DRE program. I mean, if he

8   knows it for sure, I'm okay, but I'm not sure what

9   he's talking about.

10   THE COURT: Overruled. I'm going to

11 allow it.

12   A.   And Your Honor, for clarification, as I've

13 taught in DRE schools in Oregon and Washington,

14 Montana, Idaho, some of the places, as of December,

15 2012. I don't recall if I testified to this in my

16 qualifications previously. But since December of

17 2012, I've been a member of the technical advisory

18 panel of the National Association of Chiefs of

19 Police, and that is the panel that oversees the

20 curriculum for SFST, DRE and ARIDE training. So I

21 have some knowledge of the curriculum.

22   Q.   Okay. Go ahead, Doctor.

23   A.   With the understanding that not all

24 officers can have the time, can go through and get

25 through DRE program, that is where the ARIDE program

1   came to be, to allow officers who don't -- who don't

2   have the level of experience that a DRE eligible

3   officer would have or should have, but to allow

4   that -- that officer also to recognize impairment

5   that is caused by drugs other than alcohol.

6   So it is -- it involves the same --

7   essentially the same tests, the same additional

8   tests that a DRE would learn without much of the

9   background information. It's a little shorter, I

10   believe it's only a two or a three-day program.

11   That may depend on the state and also an officer

12   doesn't need to show as much proficiency in

13   conducting SFSTs in order to go through the ARIDE

14   training. But it would allow that officer to at

15   least do a first-line recognition of someone under

16   the influence of drugs other than alcohol.

17   Q.   And lack of convergence is taught in both

18   of those courses, correct?

19   A.   Yes, it is.

20   Q.   And is the purpose of lack of convergence

21   being taught in those courses to be used as a test

22   in the totality of the circumstances?

23   A.   Yes, it is.

24   Q.   All right. And I believe Mr. Warren has

25   asked you about testifying in the Commonwealth of

1   Kentucky, and your testimony was what?

2   A.   That in -- that previously in Kentucky I

3   had only testified with regard to HGN and VGN.

4   Q.   Okay. Had you, however -- have you

5   participated or have you taught in Kentucky?

6   A.   Yes.

7   Q.   Okay. And what seminars have you taught

8   in Kentucky?

9   A.   There are numerous seminars that go by the

10   Protecting Lives, Saving Futures, it is a program

11   sponsored by NHTSA, which brings together

12   prosecutors and law enforcement officers and

13   reviews -- does a quick overview of the DRE program.

14   I usually come in and do a segment on HGN and other

15   eye tests. And we discussed that, and present it to

16   the officers and the prosecutors who are present.

17   And there's other information provided, as well. I

18   mean, I see how many dozens of times I've been here

19   and in Tennessee and elsewhere.

20   Q.   Okay.

21   A.   (Inaudible).

22   Q.   All right. So you've been relied upon by

23   the state then to be an instructor in the

24   Commonwealth?

25   A.   Yes.

1   MR. WARREN: Okay. I'm going to object

2   to him being an instructor in the DRE school; is

3   that what you're asking?

4   MR. MARSH: No. In the state-sponsored

5   seminars that are also sponsored by NHTSA.

6   MR. WARREN: Again, I'm going to object,

7   unless he can qualify whether it was just the HGN,

8   or the HGN and the lack of convergence test.

9   THE COURT: If you could rephrase,

10 Mr. Marsh.

11   Q.   Dr. Citek, did you -- were you one of the

12 instructors in the Protecting Lives, Saving

13 Futures --

14   A.   Yes.

15   Q.   -- series?

16   A.   Yes.

17   Q.   Okay. Did you teach on HGN?

18   A.   Yes.

19   Q.   Did you teach on lack of convergence?

20   A.   I believe I did -- I do mention it as part

21 of -- part of the training, yes.

22   Q.   Part of your curriculum?

23   A.   As part of that.

24   MR. MARSH: No further questions.

25   RECROSS-EXAMINATION

1   BY MR. WARREN:

2   Q.   Well, I just want to follow up. You say

3   you believe that it's part of the HGN test when

4   you --

5   A.   No, it's not part of the HGN test. I said

6   I believe that -- I do mention that it's part of

7   that training --

8   Q.   But you don't know for sure if you do or

9   not?

10   A.   Well, I discuss the different types of eye

11   movements that are possible --

12   Q.   You can't -- I'm sorry, go ahead.

13   A.   I describe the different eye movements

14   that an individual would make, and should make, and

15   that are assessed during that test, and lack of

16   convergence would be one of those.

17   Q.   Did you mention the word lack of

18   convergence to those prosecutors?

19   A.   In many instances I would say yes.

20   Q.   But you're not for sure?

21   A.   I don't recall specifically.

22   Q.   You can't say whether you specifically

23   were an instructor on lack of convergence at a

24   seminar for prosecutors here in the Commonwealth,

25   can you?

1   A.   I know that -- I know that it has come up.

2   I cannot tell you for sure.

3   Q.   Thank you for your answers, sir.

4   THE COURT: Anything else, Mr. Warren?

5   MR. WARREN: No.

6   THE COURT: Anything else?

7   MR. MARSH: No.

8   THE COURT: Thank you, sir. All right.

9   So that -- any motions at this time, or are we just

10 ready to set the hearing date for the next expert?

11 Thank you, sir. Mr. Suhre, you said you had some

12 possible dates. Why don't you start going through

13 and I'll look at my calendar and try and figure out

14 what will work.

15   MR. SUHRE: Well, Judge, I have dates

16 that probably are too close in time. And I have --

17 I went through my calendar, I have one that works

18 from the doctor. How long -- how far out are you

19 thinking?

20   THE COURT: Well, out of curiosity what's

21 the date you have that works?

22   MR. SUHRE: August 12th.

23   THE COURT: Yeah, that's not going to

24 work.

25   MR. SUHRE: Sorry.

1   THE COURT: Well, how about if I give

2 some possible -- when is circuit court week in

3 September?

4   FEMALE SPEAKER: I believe it's the

5 8th --

6   THE COURT: Okay. So what about

7 September 3rd in the afternoon for -- well, what

8 about circuit court in October?

9   MR. SUHRE: Judge, October is October

10 6th, 7th and 8th.

11   THE COURT: What's your ability to get

12 here after a circuit court? What time?

13   MR. SUHRE: Judge, if I know far enough

14 in advance I won't schedule anything on -- are we

15 looking at a Tuesday, Judge?

16   THE COURT: No, I was looking at a

17 Wednesday.

18   MALE SPEAKER: That's fine. I'll be done

19 by 11:30 and --

20   MALE SPEAKER: October 8th, Judge, I'll

21 be out of town.

22   THE COURT: Okay. How about --

23   MALE SPEAKER: How about the 22nd?

24   MR. SUHRE: 21 and 22nd I'm in Daubert

25 Hearing and trial in Louisville.

1   THE COURT: Do you want to go back into

2 September to look, or do you think there's no point

3 to that?

4   MR. MARSH: We were here September 3rd --

5   THE COURT: I have jury trials on both my

6 Wednesday afternoons and --

7   MR. MARSH: And, Judge, we would also

8 like, you know, reserve the right to call

9 additional experts on the lack of convergence since

10 they are two different things.

11   THE COURT: That's fine. What about

12 November 5th?

13   MR. SUHRE: Well, now, if we're going to

14 call additional experts, then I don't want to put

15 my guy on until he's done.

16   MR. MARSH: Okay. That's fine. If I

17 call an additional, he'll go first.

18   MR. SUHRE: Okay.

19   THE COURT: Well, do we want to set a

20 date first for your additional expert, and then

21 another day for their expert?

22   MR. MARSH: My additional expert, if any,

23 Judge, would be a state employee, so --

24   THE COURT: So you don't have another

25 expert at this time?

1   MR. MARSH: No. We have to name one.

2   THE COURT: Let's just move along and get

3   this done.

4   MR. MARSH: Sure.

5   THE COURT: So let's just have the

6   defense expert, and then we're going to close it.

7   So November 5th -- back to my question, is that

8   going to work?

9   MR. WARREN: Yes, ma'am.

10   MR. SUHRE: Yes, ma'am.

11   MR. MARSH: Yes.

12   THE COURT: Okay. We'll say at 1:30.

13   MR. WARREN: Yes, ma'am.

14   THE COURT: In the event he's not

15   available, do you have my cell phone number?

16   MR. SUHRE: No, ma'am.

17   THE COURT: Can I give it to you?

18   MR. SUHRE: Yes, ma'am.

19   THE COURT: (859) 428-6152. If he is not

20   available, would you set up a conference call with

21   me and Mr. Warren and Mr. Marsh to get another

22   date?

23   MR. SUHRE: Certainly.

24   THE COURT: Okay. Thank you.

25   MR. WARREN: What about a backup date,

1   November the 19th, since we're all here?

2   MR. MARSH: That's good for us.

3   THE COURT: Somebody?

4   MR. SUHRE: Fine on here.

5   MR. WARREN: Gives us two days, Judge.

6   THE COURT: All right.   Thank you,

7   gentlemen.   Court's adjourned.

8

9   (ADJOURNED)

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2   COMMONWEALTH OF KENTUCKY   )

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8   I, Tina M. Barlow, Notary Public in and

9   for the Commonwealth of Kentucky at Large, certify

10   that the audio recording was transcribed by me, and

11   the foregoing is a true record of said audio

12   recording transcribed to the best of my ability.

13

14

15   IN WITNESS WHEREOF, I have subscribed my

16   name and affixed my seal this 13th day of August,

17   2014.

18

19

20   _____

21   Tina M. Barlow

22   Notary Public

23   My Commission expires: 11/6/14

24   Notary ID 429588

25

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