STATE OF WISCONSIN : CIRCUIT COURT : MANITOWOC COUNTY
BRANCH 1

STATE OF WISCONSIN,

PLAINTIFF,

vs.

STEVEN A. AVERY,

DEFENDANT.

JURY TRIAL
TRIAL DAY - 17
Case No. 05 CF 381

DATE: MARCH 6, 2007

BEFORE: Hon. Patrick L. Willis
Circuit Court Judge

APPEARANCES: KENNETH R. KRATZ
Special Prosecutor
On behalf of the State of Wisconsin.

THOMAS J. FALLON
Special Prosecutor
On behalf of the State of Wisconsin.

NORMAN A. GAHN
Special Prosecutor
On behalf of the State of Wisconsin.

DEAN A. STRANG
Attorney at Law
On behalf of the Defendant.

JEROME F. BUTING
Attorney at Law
On behalf of the Defendant.

STEVEN A. AVERY
Defendant
Appeared in person.

TRANSCRIPT OF PROCEEDINGS

Reported by Diane Tesheneck, RPR

Official Court Reporter

I N D E X

THE COURT: At this time the Court calls the State of Wisconsin vs. Steven Avery, Case No. 05 CF 381. We're here this morning for a continuation of the trial in this matter. We are outside of the presence of the jury at this time. Will the parties state their appearances for the record.

ATTORNEY KRATZ: Good morning, Judge, the State appears by Special Prosecutors Ken Kratz, Tom Fallon, and Norm Gahn.

ATTORNEY STRANG: And good morning, Steven Avery in person; Jerome Buting and Dean Strang on his behalf.

THE COURT: All right. Counsel, I understand that the parties have something to take up outside the presence of the jury.

ATTORNEY STRANG: The defense has a brief motion, your Honor, in light of the Court's rulings at the end of the day yesterday. The defense all along has been consistent in contending that there were no reliable tests that can be done that would be useful to the jury on the dried bloodstains in the Toyota, or the blood vial in the Clerk's Office. The Court ruled as it did, yesterday, leaving reliability to the jury and ruling the State's tests performed during this trial otherwise admissible

under ***Walstad***.

That will not allow -- It's no surprise, as we said all along, that will not allow any rebuttal testing or independent testing that might be offered to rebut the State's testing now that the State has chosen to pursue that and the Court has allowed that testing, regardless of it's reliability. So I have a two prong motion to preserve Mr. Avery's rights and options.

First, I would like the Court to order that all samples remaining of swabs, or the dried bloodstains themselves in the Toyota RAV4, be preserved indefinitely and not destroyed or damaged, absent further Court order on application by the State with notice to Mr. Avery and whoever his counsel may be.

And, as well, that the blood vial from the Clerk's Office be preserved, not damaged or destroyed in any way, absent express further Court order on application by the State with notice to Mr. Avery and counsel, so that we preserve the ability to test, if and when science advances to the point of allowing some reliable testing or just rebuttal testing by the defense.

Second, I would like the Court to enter

an order now that the defense will have access to the swabs from the Toyota. And when I say swabs from the Toyota, I'm referring both to swabs of the dried bloodstains and the control swabs that were taken for purposes of the FBI testing to which Dr. LeBeau has testified, as well as the dried bloodstains themselves, all the dried bloodstains in the Toyota attributed to Mr. Avery, and the blood vial from the Clerk's Office.

I would like the Court to order now that, without further application, the defense may conduct independent testing of any or all of those materials at any time, from today through trial. If there's a conviction, post-conviction, in the appellate process or after the appellate process, I would like the ability to do that testing when it reasonably becomes available to Mr. Avery to do it, as a matter of science and finances, regardless of when that may happen; it won't happen during the trial, so I'm just looking ahead.

Of course, if he's a acquitted, everyone will lose interest in testing. But if he's convicted of any of the charges, this evidence

that the State contends is so material to guilt or innocence, will retain its materiality to guilt or innocence. And I would like the Court to order that Mr. Avery, or his counsel, have access to that, without further order of the Court, for testing, at any time.

THE COURT: Who will be speaking for the State?

ATTORNEY GAHN: I will, your Honor.

THE COURT: Mr. Gahn.

ATTORNEY GAHN: I have no objection to anything that Mr. Strang has stated.

THE COURT: All right. Just as a practical matter, and I'm testing my memory here a bit, I thought that the samples from the RAV4 were already split, such that in order to enable both parties to conduct testing if they wished.

I'm wondering, if the Court is going to issue an order that samples be preserved, I guess rather than leave it that broad, I would like to know where they are now, and perhaps the order should reflect how they should be preserved or where they should be preserved.

ATTORNEY GAHN: My understanding is that the samples from the RAV4 that were submitted to

EDTA testing, which would have been, A-8, the swab from the dashboard; A-10, the swab from the CD case in Teresa Halbach's car; and, A-12, which was the bloodstain swab from the metal on the rear passenger door entry, that Mr. Buting requested that the FBI preserve one half of each of those samples for independent testing.

That has been done. One half of those swabs are preserved. Also, Mr. Buting requested that the controls that were taken also be -- that the FBI only consume one half of those, and that is the case. So one half of the controls are available.

As far as the other swabs which were taken by Sherry Culhane, those are in the control now of the Calumet County Sheriff's Department. And those also are available to the defense. And one half of the A-10, A-12, and A-8 have been returned by the FBI and they are in the control of the Calumet County Sheriff's Department.

THE COURT: All right. So the understanding is that these items are going to be retained at the Calumet County Sheriff's Department, that's where they are going to be if they are needed?

ATTORNEY GAHN: Yes.

ATTORNEY STRANG: That's very helpful. What it leaves uncovered, or that we haven't covered here, are the dried bloodstains themselves, as there were stain areas for which swabs were not sent to the FBI, if I understood Mr. LeBeau's testimony correctly, and then the blood vial. And so we just need to know what arm of the State, what agency of the State is preserving all of those.

THE COURT: All right. So, Mr. Gahn, when you say swabs, you mean samples taken from these areas.

ATTORNEY GAHN: Correct.

THE COURT: Was the part of the vehicle with the stain on the dash removed from the vehicle, or is the dash still intact with the vehicle, wherever it is?

ATTORNEY GAHN: The dash is still intact with the vehicle, and the vehicle is here on the Calumet County grounds.

THE COURT: Is that going to be saved or?

ATTORNEY GAHN: Under --

THE COURT: Let me ask first, what has the defense requested; are the swabs enough?

ATTORNEY STRANG: No, I think the stains

have to be preserved. And I suppose the issue, then, is other -- other control areas for testing. So it would be, I guess, useful to know what the plans are with the Toyota.

THE COURT: Well, let's do this, there's no dispute between the parties that the swabs should be saved. As far as the details of the Court's order, that could be addressed, if there is a conviction in this case. And perhaps between this time and that time, should the need arise, the parties could discuss whether or not they might come to a joint agreement on how to preserve samples.

I mean, the CD case is small enough, that can be preserved. The dash and the door frame, I don't know if the vehicle will be preserved forever, but perhaps the parts could be removed if it would be determined to be necessary. I'm not sure.

ATTORNEY GAHN: I think what the Court is suggesting is a prudent course. Let's wait until these proceedings are over, because Wisconsin does have a mandatory preservation statute that would be applicable in this case. And it would make more sense to address this under that statute, after the proceedings are completed.

THE COURT: I think any order should probably include, not only the fact that the samples would be preserved, but a bit more specificity as to how they would be preserved. And both parties may want to be heard on that or you may come to an agreement with a joint recommendation to the Court.

ATTORNEY STRANG: I'm only in partial agreement with Mr. Gahn. I do want an order now, at least all the control swabs and the swabs of bloodstains be preserved, and the blood vial. And I have not heard yet where the blood vial is, or the remaining part of the blood vial is.

ATTORNEY GAHN: The blood vial will be in the control of the Calumet County Sheriff's Department.

THE COURT: Is that where it is now?

ATTORNEY GAHN: Well, that will also become an exhibit very shortly.

THE COURT: Oh.

ATTORNEY GAHN: And let me also say that some of the stains that Ms Culhane, from the Crime Lab, tested, those stains and swabs are in the court record here as exhibits.

THE COURT: What if we handle it this way, the defense can prepare an order to order that all

these items be preserved now. I understand that to be not in dispute with the State. And the order can provide that the manner of preservation will be determined following the conclusion of the trial. Does that work for both parties?

ATTORNEY STRANG: Sure, I think so. And we'll have no objection to things like the blood vial and the swabs being withdrawn from evidence for purposes of preservation by the State.

THE COURT: All right. Is that sufficient detail for you to prepare a proposed order, Mr. Strang?

ATTORNEY STRANG: Yes.

THE COURT: Okay. In terms of -- I try to keep an inventory of matters that arise during the trial that have not been resolved. One of those items is the fair testing motion which the defense renewed back on February 27th. If there's time, after the last witness today, I would suggest that the Court hear argument on that today.

Mr. Buting gave some argument at the time of the motion. Mr. Gahn requested time to respond. I could hear argument from the State, any rebuttal from Mr. Buting, and, hopefully, resolve that matter today.

I also took under advisement, also Mr. Buting's request, to introduce evidence concerning the voice mails and whether or not they were accessed on November 2nd, or that the details of them being accessed. I believe at the time I reserved ruling. The parties were going to conduct some discussions with each other to see if the matter could be resolved or if additional evidence was necessary. What is the status of that motion at this time?

ATTORNEY KRATZ: Additional evidence, your Honor, is going to be necessary. Mr. Strang and Mr. Buting have agreed to telephone testimony from a Cingular technician. We anticipate that to be sometime tomorrow, probably tomorrow morning. That will be supplemented with the State recalling Mike Halbach. But that combination of witnesses should resolve that matter. And, again, the defense has been kind enough to allow telephone rather than live testimony in that matter.

ATTORNEY STRANG: That's right. And I have also, at least suggested in an email last night to Mr. Fallon -- and I can't remember if I copied Mr. Kratz and Mr. Gahn or not -- but suggested that a stipulation as to one or both of the Cingular

witness and Mike Halbach, stipulation as to one or both of those witnesses is conceivable. And at least we could try, at least take a stab at that. I don't know whether either side in the end would stipulate, but it's worth a discussion.

If we go forward with testimony and not a stipulation from the Cingular person, we're, of course, working on the assumption that the Cingular person at the other end of the telephone would have the same documents in front of him or her that we have here, so that the person can be questioned about the documents and I'm quite certain that the State shares that.

ATTORNEY KRATZ: We actually copied three Court exhibits this morning and faxed them to that person as well.

ATTORNEY STRANG: Great.

ATTORNEY KRATZ: So we're working all from the same pages, Judge.

THE COURT: Very well.

ATTORNEY STRANG: And the remaining -- While the Court is taking inventory, the remaining issue of which I'm aware was my renewed motion to suppress the results of searches of the Avery trailer and the garage and the area behind the

garage. I think we settled on after the November 5 search that began at about 7:30 p.m. and ended about 10:05 p.m.

I had renewed that, oh, several days ago. I think the State, again, reserved response for wanting to be heard on that. And that's my recollection of the issue that remains ripe for decision, or at least further argument and decision.

ATTORNEY FALLON: I was under the impression that we did argue it and the Court decided you would rule later, after hearing the argument that Mr. Strang and I made last week.

ATTORNEY STRANG: Well, actually, that's -- that is right, because now that I hear Mr. Fallon, I recall his eloquence in responding. And the Court at the time I think, if memory serves, said it would not hear reply from me now or at that point, but we would address the issue in some fashion later.

THE COURT: All right. I will -- do the parties remember what day that was? I would like -- I'm going to review the transcript.

ATTORNEY STRANG: It may have been February 22, but I can't promise.

ATTORNEY FALLON: I would have to look at a

calendar.

THE COURT: I do recall that as well.

ATTORNEY FALLON: I'm trying to remember who the witness was, right before a particular witness. Right now, for the life of me, I can't think of that.

THE COURT: All right. Well, we'll attempt to recreate that a bit later. Are the parties ready for the jury to come in?

ATTORNEY STRANG: Yes.

ATTORNEY KRATZ: Yes.

THE COURT: All right. We'll bring in the jurors at this time.

(Jury present.)

THE COURT: You may be seated. Welcome back members of the jury. At this time we are ready to proceed with the testimony. Who will be questioning? Mr. Fallon, you may call your first witness.

ATTORNEY FALLON: Thank you. The State would call Lynn Zigmunt to the stand.

THE CLERK: Please raise your right hand.

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

THE CLERK: Please be seated. Please state your name and spell your last name for the record.

THE WITNESS: Lynn Zigmunt, Z-i-g-m-u-n-t.

DIRECT EXAMINATION

BY ATTORNEY FALLON:

Q. How are you employed?

A. I'm the Clerk of Court for Manitowoc County.

Q. And how long have you been the Clerk of Court for Manitowoc County?

A. Since January of 2005.

Q. Tell us, if you would, what are the duties of the Clerk of the Circuit Court for Manitowoc County?

A. I administer the Clerk of Court Office, oversee the staff to ensure that there is appropriate coverage for all court proceedings, record keeping, oversee all the record keeping in the office. Create policies for the record keeping and oversee the budget for our office.

Q. What kinds of records does the Clerk of Court's maintain?

A. All the records for the three circuit courts. So any of the case files that are started, any of the filings that are made within the files, correspondence, pleadings, and exhibits that would be filed with the court as a result of a

trial or hearing.
Q. And does that include maintaining files and exhibits from files from cases in the past?
A. Yes.
Q. In your capacity as Clerk of the Circuit Court for Manitowoc County, are you familiar with a case entitled State of Wisconsin vs. Steven A. Avery, Case No. 85 FE 118?
A. Yes.
Q. And how are you familiar with that particular case file?
A. I guess from the large interest of the media in that case after Mr. Avery was exonerated in 2003. We maintain the file in our office so, when there are public requests to view the file, we provide it for inspection. And that file was in our office for said purposes.
Q. All right. Now, in your capacity as the Clerk of Circuit Court, do you supervise the other clerks which are employed in that office?
A. Yes.
Q. And as the Clerk of the Circuit Court are you generally familiar with their duties and responsibilities?
A. Yes.

Q. And in terms of your familiarity with the 1985 case, can you tell us, based upon your understanding, of where that file had been kept while in the custody of the Clerk of the Circuit Court?

A. From the time I took office, the file was maintained in a large like rectangular shaped cardboard box. And it was in our inner office, in a central location, meaning on top of a filing cabinet. And the reason that it was there, I think it was brought up after Mr. Avery was exonerated in 2003, after there was a high interest by the media to look through the file. It was a very big and cumbersome box to have to bring up from the basement where it was normally stored before, in a lower level filing area.

Q. I'm going to have some exhibits shown to you, if I may, beginning with a series of exhibits marked 452. Let opposing counsel examine them for a moment or two. While counsel is examining the exhibits, were you asked to bring certified copies of certain documents from case file 85 FE 118?

A. Yes, I was.

Q. And were you able to obtain copies of the

requested documents?
A. Yes.
Q. And you have received the documents?
A. I have received them? Oh, right now.
Q. The exhibits.
A. Yes.
Q. Okay. If you would, directing your attention to Exhibit 452, I believe it is, can you tell us what that is.
A. It's a stipulation filed in the case of State vs. Steven Avery, Case No. 85 FE 118. I think -- I believe it was a stipulation signed by District Attorney E. James FitzGerald and Mr. Avery's then attorney, Robert Henak. I believe they entered into a stipulation regarding providing a DNA sample.
Q. All right. And with respect to the last page of that document, is there any marking or seal from the Clerk of the Circuit Court which is affixed thereto?
A. Yes.
Q. Tell us what that is.
A. It's a seal stating that this is a full certified copy of the original, which is on file in the Office of Clerk of Circuit Court in Manitowoc

County, and signed by me and dated 3/5/07.
Q. All right. And what is Exhibit 453?
A. An order in the case State vs. Steven A. Avery 85 FE 118. And it's in conjunction with the stipulation wherein the Court ordered that Mr. Avery submit to a DNA sample. It's dated November 29th, 1995.
Q. Similarly, is there a certification affixed to that document?
A. Yes, there is.
Q. And whose certification is it?
A. My certification dated 3/5/07.
Q. All right. And what is Exhibit 454?
A. A letter dated December 6, 1995, from Attorney Robert R. Henak addressed to the Clerk of Circuit Court for Manitowoc County, addressed to Ms Wilda, our criminal clerk, just confirming a telephone conversation where a request was made for a conformed copy of Judge Hazlewood's order to be sent to Elaine Wheeler, Health Service Unit Manager with Fox Lake Correctional Facility.
Q. All right. And Exhibit 455?
A. A letter dated December 12th, 1995, from Shirley Wilda, Deputy Clerk with the Clerk of Court Office for Manitowoc County addressed to Elaine

Wheeler, Health Service Unit Manager with Fox Lake Correctional Facility, enclosing a certified copy of the stipulation and order regarding the DNA sample ordered by Judge Hazlewood.

Q. Do the documents to this point indicate the nature of the sample to be submitted for DNA analysis?

A. What do you mean by the nature of the sample?

Q. Does it say -- specify the form of which the DNA sample would be obtained?

A. Enclosed please find a certified copy of the stipulation and order in the above referenced referred to case, which orders that a Health Services Unit at Fox Lake Correctional Institution obtain a DNA sample from the defendant as requested by a Laboratory Corporation of America and forward that sample, as directed, to Laboratory Corporation of America.

Q. All right. What is Exhibit 456?

A. A letter dated December 12th, 1995, from Shirley Wilda of the Manitowoc County Clerk of Court Office to Attorney Robert R. Henak, enclosing a copy of the stipulation and order which was filed in the above matter. And just confirming that on

this date a certified copy of the stipulation and order was mailed to Elaine Wheeler, Health Service Unit Manager at Fox Lake Correctional Facility, per his request.

Q. And what's the next -- is there one more or two?

A. One more.

Q. The last one?

A. Exhibit 457, it is -- it's not dated, it's got a file date where it was received in our office, filed June 6, 1996. It is from Lab Corp Molecular Biology and Pathology, addressed to whom it may concern: Enclosing -- Enclosed you will find evidence that your agency submitted to the Forensic Identity Unit at Roche Biomedical Laboratories for analysis. And then in parenthesis, RBL Case No. F95-624. Please reference your agency file, Wisconsin vs. Avery. So it must be -- looks like it's a return of the evidence which was submitted through a DNA sample. I would think returning it to our office.

Q. All right. Now, the 454, 455, 456, and 457, those exhibits, do they all have certifications affixed to them?

A. Yes, they do.

Q. All right. And you are the one who certified --
A. I certified --
Q. -- those documents?
A. -- them and they are all dated 3/5/07.
Q. Okay. And so that they are official copies of the records which are maintained in Manitowoc County Circuit Court file 85 FE 118?
A. Yes, they are.
Q. All right. I would like to show you -- I would like to show you some photographs now, if we may. If you would examine, your attention is directed to Exhibit 464?
A. Okay.
Q. All right. And do you recognize that?
A. Yes.
Q. And what is Exhibit 464, please?
A. It's a photograph of the two plastic tote storage cases where the case of State vs. Steven Avery, Case No. 85 FE 118 was stored in my office.
Q. All right. If I may publish that now. Thank you. Is this a copy of Exhibit 464?
A. Yes.
Q. It's being displayed on the screen?
A. Yes.
Q. All right. Tell us, specifically, what is

Exhibit 464, what are we looking at here?
A. That is the entire case file of the 85 FE 118 case for Steven Avery. The case contains the case file, the paper part of the case file, as well as all the exhibits that were presented in that file.
Q. What is the location of that particular exhibit? In other words --
A. Of the storage cases?
Q. Yes, where are those -- Where was that picture taken?
A. In my office.
Q. All right. And I believe earlier you talked about the file originally having been contained in some cardboard boxes?
A. Right, it was in one large rectangular shaped cardboard box, which was very cumbersome to move and carry. It was quite heavy with all the exhibits in one box.
Q. When did the file find it's way into the plastic containers which are depicted in Exhibit 464?
A. I had originally thought, like the end of 2005, possibly the beginning of 2006. And I had made a call to my assistant to confirm the exact -- because I bought those storage totes out of -- I

was reimbursed out of our petty cash, so she could track down the exact date. And she did call and confirm that it was July of '06 when the purchase was made.

Q. Okay.

A. So that's when it actually got transferred from that box to these storage totes.

Q. And where was the cardboard box before that?

A. When it was in our office?

Q. Yes.

A. It was -- when you walk into the secured area, like, the secured door to our office, it would be, like, straight ahead against the west wall of our office, in kind of like a general walkway. It was -- Our office is kind of partitioned off into sections and that's kind of like a -- just an open like walkway.

There's a desk on one side where sometimes when people, like attorneys, want to come in and review a file or something, we would let them do it on the desk that's in that area. And where this file was was just a little further past that desk, right in front of like the windows on the side of the building there.

Q. All right. What is the next exhibit you have in

front of you?
A. 447.
Q. 447?
A. And that is a picture of the entrance door to our inner office.
Q. All right. 447 is now displayed on the screen. Could you describe for us what we are looking at here with respect to that?
A. Well, there's a key code pad that's above the latch and that's -- there's an access code that our staff and -- I think it's just court personnel pretty much that has that access code and you need that code to gain entrance into the inside of our office.
Q. So if -- there's a counter I see to the immediate right of the door, under what appears to be a doorbell, what is that counter for?
A. The counter is -- that's part of -- like in our lobby area, there's a counter that surrounds our -- the area where we wait on people over the counter. It's kind of an L-shaped area, that's the short part of the L-shape.
Q. Would it be fair to say that's where the general public comes to do business in the Clerk of Court's Office?

A. Yes.
Q. What are the hours of the Clerk of Court's office in Manitowoc County?
A. On Mondays, 8:30 to 5 and Tuesday through Friday, 8:30 to 4:30.
Q. What is the next exhibit that you are holding, please?
A. Exhibit 448.
Q. And tell us what is Exhibit 448?
A. It is a package, Airborne Express Package. And it was an exhibit and I believe it's the exhibit that contained the box, the blood vial container.
Q. All right. If we could pull this up. Exhibit 448 is now being displayed on the screen. Is that the package that the Clerk's Office received from the testing entity, Lab Corp of America?
A. Yes, that's what it appears to be.
Q. All right. And what is the next exhibit?
A. Exhibit 449. It looks like it's the label that is on that shipping package, telling what is enclosed as the exhibit. It says enclosed evidence return from Forensic Identity Unit at Roche Biomedical Laboratory that has been submitted for analysis. Do you want me to read the whole thing?

Q. No, I think we have it here. What is being depicted on the screen here as exhibit -- is that 449 that you are holding in your hand?
A. Yes.
Q. That is the labeling of the package in 448?
A. Right.
Q. All right. And next exhibit, please.
A. Exhibit 450. And this appears to be probably the backside of the square container that held the blood vial.
Q. All right.
A. The styrofoam container. It has markings on, looks like the date it was opened and it was initialed by the people that were present and witnessed the opening.
Q. Very well. And this box was contained within Exhibit 448?
A. Correct.
Q. Exhibit 451?
A. 451 is just the other side of the styrofoam container that held the blood vial. It shows the taped end, where the evidence tape had been and where it was opened.
Q. All right. So Exhibits, I think we began with 464, and then we went 447 through 451. Are those

exhibits, based upon your knowledge and your responsibilities as a Clerk of the Circuit Court, officially part of the record in the case of State of Wisconsin vs. Steven Avery, 85 FE 118?

A. Yes.

Q. Your best recollection, Ms Zigmunt, when did the file take up residence, as it were, in your private office?

A. Probably my best guess would be this July of '06 when the storage -- those plastic storage tote containers were purchased.

Q. All right. And what was the general procedure for allowing access to this particular file by members of the general public?

A. We have a sign in logbook that anybody who wants to view a public and open record, they sign in it, that would include the date, the case number, their signature. And if their signature would be illegible, we have them print their signature, print their name.

Q. And when did that logbook get created?

A. I started that in April of 2005. Before that there was nothing in effect at all to document when files were being reviewed.

Q. And who would -- First of all, before we get to

that point, let me ask, why did you decide to create such a log?

A. I just thought it was important. And going to the Clerk's meetings, being a new Clerk of Court, I gained a lot of information at all the different conferences that we have -- that I have gone to. And that was one of the things that we had discussed.

And, well, and one of the other reasons I thought would be a good idea to have a record like this was because with identity theft being such a big issue, I thought if we had some kind of tracking device, if there was ever a case of identity theft, we would have something to kind of go back and at least see who was accessing certain files.

Q. All right. And who would be required to sign such a log?

A. In the beginning, I think I had originally wanted the policy to include everyone; the public, and attorneys, and anybody who accessed any file. But some of the staff thought, you know, maybe some of the attorneys that come, if they knew who they are, they thought maybe we didn't have to get their signature.

Or like for title insurance companies too, because when they came in to look at files too, there would be such a long list. We let it kind of go a little lax on it in the beginning. But I'm not sure exactly what the trigger date was, but probably a few months into it, maybe by October of that year for sure, that we got more strict and wanted it to be inclusive of everybody, every single person who viewed any file.

Because I just thought we need a consistent practice. I don't think we can require one person and not another. You know, if we're doing it for a purpose, it's got to be straight forward or it's not serving the purpose.

Q. So your best recollection is is that by October of 2005 anyone who was looking at a particular file would be required to sign in?

A. Right.

Q. All right. And that include -- attorneys and everyone, I take it?

A. Right. It was supposed to include everyone.

Q. Okay. I believe you have now been presented Exhibit 45 -- or 467, is it?

A. Yes.

Q. All right. And can you tell us what Exhibit 467 is?
A. It looks like it's a book called -- entitled Evidence Room Case Entry Log.
Q. All right.
A. And it says evidence room and then at the top it says journal so must be some...
Q. And is that the case entry log that people would be required to sign into?
A. No.
Q. What is that?
A. I have never --
Q. What is that particular?
A. I have never seen this before, this must be...
Q. All right. Do we have a picture of -- is there a picture of your particular log?
A. Here, no.
Q. Okay. All right. I just wanted to make sure that we're clear on what that is. Thank you. All right. I would like to direct your attention to the time frame 2005, particularly that year, and begin with this question. Do you know an individual by the name of Andrew Colborn?
A. Yes, I do.
Q. And who is he?

A. He's, I believe, a sergeant with the Manitowoc County Sheriff's Department.
Q. And did you recall, or do you recall, ever seeing Sergeant Colborn in the Clerk of Court's Office during the year 2005, your first year in office?
A. No, I don't think I have ever really seen him ever in -- especially in the inner part of our office, ever.
Q. All right. Are you familiar with an individual by the name of James Lenk?
A. Yes, I am.
Q. And who is James Lenk, that you know?
A. I believe he's a lieutenant with the Manitowoc County Sheriff's Department.
Q. And, again, with respect to the year 2005, your first year in office, do you recall ever seeing Lieutenant Lenk in your office that year?
A. There was one occasion, in the very beginning of my term, I had contacted the Sheriff's Department regarding questions I had on evidence storage. Because we have a safe that's in my office, where we do maintain various kinds of evidence. There's some drugs and I'm not sure, I think there might be a weapon in there.
And going -- after one of the

conferences that I had attended, this was an item of discussion regarding maintaining custody of those types of evidence in our possession. And it was suggested that any time those types of evidence came into play that they should be stored at, like a Sheriff's Department or other issuing agency where there's more -- a more secure facility.

And I had called Mr. Lenk, or he was the person I was put in touch with because he must take care of evidence and things over at the Sheriff's Department. And he had come over to see what was at issue. We discussed it and we discussed a procedure. And I'm working -- I mean, I have been working on a policy and procedure for our evidence retention and we discussed how we were going to handle transferring that to the Manitowoc County Sheriff's Department.

Q. And approximately when did that discussion occur?

A. I would say it was early spring. It was probably, you know, very early into that year. So for sure, maybe March or April. I don't think I have anything that really actually documents exactly the date, but it was pretty early in the

year.

Q. Other than that one occasion where you had some discussions about the evidence storage policies, other than that, had you ever seen him in the inner office area of the Clerk of Courts?

A. Never. I don't think -- Besides that one incident, I don't think he's ever been inside of our office.

ATTORNEY BUTING: Objection to that form of that answer, if she's never seen him inside the office, she can't say he's never been in the office.

ATTORNEY FALLON: That's for cross-examination. She answered the question as best she could.

THE COURT: Well, I'm going to sustain the objection, because of lack of foundation, for the opinion about when she was not in the office.

ATTORNEY FALLON: That's fine. One minute. Your Honor, we will pass the witness for cross-examination; however, we would move into evidence Exhibits 452 through 457, as well as Exhibit 464 and 447 through 451.

THE COURT: All right. I take it that excludes the item that the witness could not identify that was on the screen.

ATTORNEY FALLON: That's right.

THE COURT: But all other exhibits that she testified to, you are asking to be admitted?

ATTORNEY FALLON: Yes.

THE COURT: Mr. Buting.

ATTORNEY BUTING: No objection to those, 452 is the only one that's not --

ATTORNEY FALLON: 467 is not offered.

ATTORNEY BUTING: 467, I'm sorry.

THE COURT: All right. Then all the items this witness testified to, other than 467, I understand to be offered and if no objection, they are admitted. Mr. Buting, will you be doing the cross?

ATTORNEY BUTING: Yes, I will, Judge. Thank you.

CROSS-EXAMINATION

BY ATTORNEY BUTING:

Q. Good morning, Ms Zigmunt.

A. Good morning.

Q. The -- You became the clerk, elected clerk, in January of '05, is when you took office?

A. Yes.

Q. So about 10, 11 months before the Teresa Halbach disappearance?

A. Correct.
Q. Correct. Okay. And would it be fair to state that when you first took office, part of your time was getting used to what the security procedures were and were not --
A. That's correct.
Q. -- in existence. And you had some concerns that maybe some of the security and some of the procedures were a little bit -- I don't know if lax is the right word -- but not as secure as you would ultimately wish they would be -- them to be, right?
A. I think that's a pretty good assumption.
Q. Okay. Did you bring the log, evidence log, with you, or the case review log with you?
A. No, I didn't.
Q. Have you reviewed it before today?
A. In detail you mean, or I mean, I guess I haven't paged through and looked, for any reason.
Q. Okay. Well, for instance, do you know that every person who has come to that office since October of 2005 and asked to look at any file, has absolutely, positively, been required to sign in on a log?
A. Since October of 2005, you are saying?

Q. Yes.
A. That was the directive I had given and I don't know that it was completely being followed. I think --
Q. Okay.
A. -- you know, there were people that were making exceptions for people, but we have tightened up on that --
Q. Sure.
A. -- to make it ...
Q. And as of -- Really, you tightened up as of August of '06 is when you really made sure that everybody, all the staff required that people sign in?
A. I don't have an exact date, I didn't document it for any reason, so I guess I can't say with certainty.
Q. But would it be fair to say that until -- or around that time July or August of '06, until that time you would -- or I should say at that time, you became concerned after talking to some of the staff, that maybe some people weren't requiring everybody to sign in and that this was mandatory at this point forward?
A. Yes, I think my concern was, too, that they were

allowing like attorneys who -- if they knew them personally, or like I said, the title insurance companies, things like that, those are pretty -- the ones that were allowed not to sign, but I wanted to make it consistent for everyone to have to sign.

Q. Okay. Now, you were first interviewed by law enforcement officers in this case at the end of December or early January of this -- just a couple months ago, right?

A. I don't know exactly the dates.

Q. Well, were you -- did you ever speak to Agent Fassbender or Mr. Wiegert?

A. Right, they were in on several occasions.

Q. And that was all in the last couple of months or so?

A. Yeah, pretty much.

Q. So no law enforcement officer came to you in November of 2005 and said, you know, Mr. Avery has been telling everybody that if that blood -- if his blood is found inside Teresa Halbach's vehicle, it must have been planted. Nobody came to you and talked to you about that particular statement, did they?

A. No.

Q. And between November of 2005 and this past summer of 2006, none of the law enforcement officers came to look at Mr. Avery's 1985 file, none of the investigating law enforcement officers in this case, right?
A. I can't say that for certainty. I mean, other people wait on people when they are looking --
Q. Okay.
A. -- at the file, so.
Q. So it's possible that somebody from Manitowoc Sheriff's Department even, may have, after Mr. Avery made the public statements that somebody is framing me, somebody has planted my blood, it's possible that somebody from Manitowoc may have come and looked at his file, to see if there was any blood in it?

ATTORNEY FALLON: Objection, two grounds, speculation, and more importantly, it seems to me we have a limited focus of who may have come and looked from Manitowoc County?

ATTORNEY BUTING: I'm talking about the investigation, after the disappearance.

ATTORNEY FALLON: Then I say relevance.

THE COURT: What is the relevance Mr. Buting?

ATTORNEY BUTING: Let me lay some more foundation questions.

THE COURT: Go ahead.

ATTORNEY BUTING: Let's do it that way.

Q. (By Attorney Buting)~ Let me go back a little bit first. As of October of 2005, the 1985 case against Mr. Avery that was in your office was a closed file, right?

A. Yes.

Q. In fact, it had been not only a closed file, but it was a dismissed closed file, right?

A. Yes.

Q. So there were no ongoing post-conviction proceedings, right?

A. Not that I'm aware of.

Q. Or appellate proceedings, right?

A. I mean, I guess I can't really testify to that. I wasn't really that familiar with the file at that time, so I guess...

Q. Okay. You weren't that familiar with the file. But you do know that the media was asking and other, you know, freelance writers, or general public was asking about this file quite a bit?

A. Yes.

Q. And --

ATTORNEY BUTING: Let me mark a couple of exhibits here.

(Exhibit No. 468 & 469 marked for identification.)

Q. (By Attorney Buting)~ Would it be fair to say that until it was discovered publicly that there was a vial of Mr. Avery's blood in that case file, you weren't aware of it?

A. That's correct.

Q. And you didn't have any particular concern about the security of that file because you didn't know there was a blood vial in it, for instance, right?

A. You mean to take any extra security on it?

Q. Right.

A. Correct.

Q. Okay. And if anything, because there were so many requests to see this file, this file was really kept in a less secure spot within the Clerk's Office than other old case files would be?

A. In my office, less secure?

Q. No, the Clerk's Office, not your office.

A. Not real -- I don't know. I mean, I don't know that it's any less secure; it's a pretty secure -- it's not just open to the general public.

Q. Sure.
A. There are very few people who have access.
Q. But you mentioned how it was cumbersome to have to move this big box up and down the stairs, right?
A. Correct.
Q. Normally you have -- is there a vault downstairs or just a room?
A. Just a room. It's in the basement.
Q. Okay. You have a storage room in the basement where your old files are kept?
A. Correct.
Q. And Mr. Avery's file, being a 1985 file, would be normally down there in that sort of archive area?
A. Correct.
Q. But for the fact that once he was exonerated, there were so many demands for it, that you left it upstairs in the main area, right?
A. Correct. And, actually, I'm not the one that brought it up originally, because I wasn't in office at that time.
Q. Okay. So it was actually upstairs before you even came into office?
A. Correct, for probably two years.
ATTORNEY FALLON: Counsel, can we see those

exhibits?

ATTORNEY BUTING: Okay. I'm sorry.

Q. (By Attorney Buting)~ I'm showing you Exhibit 468 and 469. See if you can identify, first, 468?

A. Yes, this was the original cardboard box that the file was maintained in.

Q. The file being the Steven Avery file?

A. Correct.

Q. 1985 file?

A. Right.

Q. And the one next to it is?

A. The same file.

Q. Same file from a little bit farther back, right?

A. Right.

Q. So, it was one of your deputy clerks -- I'm sorry. One of these -- Well, let's publish this so we can talk about it for a minute. This is a picture that shows the file in the Clerk's Office, this is No. 469?

A. Correct. It was put on the desk that was used for the viewing area, like when attorneys would come in and view files.

Q. Okay. And you mentioned that it was stored kind of on a filing cabinet next to a window?

A. Right. Which is kind of behind where that

divider is.
Q. Let me point to it. Right here, it's right back there, right?
A. Yeah.
Q. Just over the shoulder of one of your deputies right?
A. Correct.
Q. And over here is an old vault, like an actual safe with a whole door?
A. Right.

THE COURT: We're going to take a break at this time. Let's -- We'll resume at 10:15.

(Juror needs a break.)

(Jury not present.)

THE COURT: You may be seated. And we'll resume at 10:15.

(Recess taken.)

(Jury present.)

THE COURT: And, Mr. Buting, you may resume your cross-examination.

ATTORNEY BUTING: Thank you, Judge.

CROSS-EXAMINATION, CONTD.

Q. (By Attorney Buting)~ Ms Zigmunt, I found a digital version of what we were looking at before. I'm going to use that so it will be

easier to see, okay?
A. Okay.
Q. Now, I put up Exhibit 469. And the vault that we were talking about, that's the vault door right there, isn't it?
A. Yes.
Q. I can't read that, it says something safe company. It's very old, hundred years old probably, put in when the building was first built, right?
A. I would believe so.
Q. But it's not something that you use as a locked location any more?
A. No.
Q. Wasn't used that way long before you came here, right?
A. Correct.
Q. Okay. And then over on the other side of Janet's left shoulder is the window that you were referring to where that box was normally kept, until somebody would ask to look at it, right?
A. Right.
Q. There's a filing cabinet right there, heater, things of that nature?
A. Right.

Q. Now, the box is -- That is the cardboard box the way it looked until you had it put into plastic tubs sometime in, you think, July, right?
A. July of 2006, right.
Q. Okay. Well, after this photograph was taken any way, right?
A. Right.
Q. Okay. Is that the table that you are referring to, there's like a desk or a table that it can be put on when someone asks to see it, if they can go through?
A. Correct. That is where they originally used to look at files. I mean, and that one, too, but just with that file being so cumbersome and so many exhibits involved, there's really not a place to spread it out. And it just wasn't a real good location. There's a lot of traffic through that area, from the back room, off into the section where you see the other clerk sitting there. People traveling back and forth all the time, it just didn't seem a real secure place for -- with all the exhibits and all that paper out.
Q. Sure. And the file actually has the exhibits in it as well as the paper documents, right?

A. Correct. All the exhibits are underneath all of it. I think all the paper was pretty much at the top.
Q. Right. And this one has -- this particular file has things like clothing, and whatever was introduced as exhibits just kind of like what we have in this case today?
A. Correct.
Q. But I want to draw your attention to -- there's a partition right here on the far right side of the picture, right? Some, like, notices posted?
A. Right behind the box.
Q. Right behind the box, yeah. And so the way it's set -- it's not a partition that goes all the way to the ceiling, but it's not the same height as that -- the partition in the background there?
A. Correct.
Q. They're all -- There's a number of partitions like that in the Clerk's Office, within the interior part of the Clerk's Office?
A. Yes.
Q. And so when one is standing there like Janet is, by this box, the people on the other side of the partition don't see the box?
A. Correct.

Q. And other than this one woman in the background here with the long blond hair, there is no other clerk desk in that back area.
A. Correct.
Q. So I don't have a schematic of the layout, but the way this works is, this is sort of a narrow hallway that leads to this area right from one of doors that goes to the public area, right?
A. Right.
Q. And, then, behind the partition, over here is where the main area where all the clerks work?
A. Right. There's like a separate area over there. There's I think five including the one with the blonde hair, you know, different work stations that are set up.
Q. Okay. So if the clerk who works in that particular workstation is not sitting there right then, when someone is going through this file, you could go through this file without the rest of the clerks directly seeing you moving around things in the box, right?
A. Correct.
Q. And your deputy clerks, like both of the individuals in this picture, have a lot of duties, they move to and fro during the day,

right?
A. Correct.
Q. So the woman in the back, I suppose we could give her a name, but the woman in the background of this photo is not sitting in that chair all day long while she works?
A. Correct.
Q. Okay. Now, the cardboard box that we were looking at, Exhibit 468, has the pleadings and the docket minutes, at least in this instance they are sitting right on top, right?
A. Right.
Q. So it wouldn't be very difficult for someone to know that this particular file or box is the Steven Avery case, would it?
A. I guess if you looked at it, I mean, you would have to -- in that condition of the box that one day, I mean, and when people go through it, it doesn't necessarily end up back in that same condition. And I think when it was kept over on the side filing cabinet, I tried to level things out to, so the cover -- the flaps could come over, because I didn't think that was a very secure ...
Q. Sure. But there is that -- see that foam board

exhibit in the background?
A. Right. And that would probably stick out no matter where --
Q. Yes.
A. -- because it was too big for the box.
Q. So the box wouldn't close?
A. Right.
Q. Okay. No matter what you did. All right. Now, would it be fair to say that the presence of sheriffs deputies inside the interior part of that Clerk's Office, it's not that unusual an event, right? In the normal course of your business?
A. To have sheriffs deputies in our office?
ATTORNEY FALLON: Objection, relevance as asked.
ATTORNEY BUTING: Well, it's entirely relevant.
THE COURT: What is the objection?
ATTORNEY FALLON: Relevance as to the phrasing of that particular question, vis-a-vis the pre-trial court rules.
THE COURT: Well, it could be laid as a foundational question, so I will allow it for that purpose.

ATTORNEY BUTING: Thank you.

Q. (By Attorney Buting)~ Do you understand my question?

A. If you would like to just repeat it.

Q. Sure. Okay. You know that door that you showed us, the photograph that has the little, you know, lock combination?

A. Yes.

Q. When you go through that door, you go into the inner office of the Clerk's Office, right?

A. Yes.

Q. And in that area, it's not unusual to see sheriffs deputies during the normal course of business, is it?

A. The only sheriffs deputies that would be normally in our office would be probably the sheriffs bailiffs that are posted in the courthouse for security reasons. And they --

Q. Right.

A. -- go occasionally.

Q. In fact, they are in there every day picking up files or returning files from court, right?

A. Yeah, they are in their frequently.

Q. Okay. And, similarly, drug unit -- officers who are assigned to drug units, at various times, are

back in that area because they are dealing with search warrants and filing and returns and all that as well, right?

A. They could have access -- I mean, they don't have access -- they don't have the code to get in. They would have to be buzzed in.

Q. I'm sorry. My question is, whether it's unusual to see them in that area. Wouldn't be an unusual event to take note of --

A. Correct.

Q. -- in your mind, right?

A. Correct.

Q. And that would be true of your deputy clerks as well, right? Maybe more so than you, even?

A. True of the deputy clerks, what do you mean --

Q. Seeing a --

A. -- that they would see them?

Q. Seeing a sheriffs department employee in that area was not such an unusual event that it would make someone take note in their mind, hey, what's going on here, would it?

A. Correct.

ATTORNEY FALLON: Speculation, foundation for this witness, ask the answer be stricken.

THE COURT: No, I will allow it.

Q. (By Attorney Buting)~ And on occasion even, sheriff's employees may be coming into the interior of the office, like attorneys, going through files, while they are investigating an old file. I'm sorry, looking at an old file in the course of their investigation in a new case, right?
A. So your question is, an attorney?
Q. No. Badly phrased. Let me retry it. Sheriff's employees, sheriff's deputies, also on occasion are in that back area, the inner area of your Clerk's Office, looking at one case file perhaps as part of their investigation on somebody in another case, right?
A. I guess I can't really say. I don't know that they would be looking at a file there. I mean, if anybody requests to look at a file, it's usually done over the counter. I don't know that it's ...
Q. All right. But you don't --
A. I mean, right, I can't say with 100 percent certainty, what they are doing, because you're usually dealing with the deputy clerks like of a specific unit.
Q. That's right. And you are usually back in your

office and they are dealing with a number of different clerks, deputy clerks?

A. Correct.

Q. Now, in addition, the Sheriff's Department has access to the Clerk's Office with master keys; isn't that right?

A. The security bailiffs would.

Q. Okay. Do you know a list, do you know every -- Well, let me go back for a second. Do you know that the Sheriff's Department is responsible for the security of the whole courthouse facility?

A. Yes.

Q. And that if there's a fire or something, after hours, they have to have access, right?

A. Yes.

Q. Both to the courthouse and to all of the rooms within the courthouse, right?

A. Yes.

Q. And there are a number of master keys that are issued by somebody from Manitowoc County to give to people who are allowed to have this kind of access right?

A. I would imagine, I don't know specifically.

Q. Sure. You don't know who, but you know generally that's the case, right?

A. Yes.
Q. If you have a master key to get through that doorway, you don't need the separate combination lock, right?
A. I wasn't aware of that before, but during the investigation when the keys were, you know, when it was being questioned, it did come to my knowledge that the key could be used to gain access to that door.
Q. Sure. The whole idea of a master key, it wouldn't do much good if they turned the lock, but then you couldn't get past because you have got to have the combination, right?
A. Correct.
Q. So, the way it is set up -- at least the way it was set up in the fall of 2005 was, a master key would allow entry to the inner part of the Clerk's Office.
A. I guess so.
Q. Okay. And that would include after hours, on weekends, or in the evenings, right?
A. Correct.
Q. Okay. Now, Mr. -- Mr. Fallon asked you on direct if you recalled seeing Sergeant Colborn or Lieutenant Lenk in that inner area of the Clerk's

Office; do you recall that question?
A. Yes.
Q. That question was never put to you until some time in late December or early January, 2006 and 2007, correct?
A. I believe that's probably correct.
Q. Okay. So nobody asked you about whether you could recall seeing Lieutenant Lenk or Sergeant Colborn until about 14 or 15 months after the Teresa Halbach disappearance, right?
A. I guess. Yes.
Q. Okay. So between November of 2005 and December of 2006, no investigating officers in this case came to you and said, hey, has anybody come to look at the 1985 court file, right?
A. I don't think so, I think it was pretty much just when all the investigation was going on, like you said, late November, December.
Q. Well, let's get clear here, because your answer isn't, I'm sorry. All the investigation going on you are talking about, is all the investigation that started once the blood vial was discovered there, right?
A. Right, I believe when the special investigator that was assigned.

Q. Mr. Fassbender?
A. Right.
Q. Okay.
A. I guess I don't have a specific date, though. I mean, I didn't mark it down for any reason, so.
Q. We're talking generally here, okay. I'm going to get to some pictures with you in just a minute. But after we, the defense, filed a motion in December, someone in your office took that white box that we looked at, from the exhibit, out of the court file and locked it in the safe for security, right?
A. I believe it was done pursuant to an order of the Court.
Q. And that was in December of 2006, right?
A. Okay.
Q. Okay. Do you agree?
A. I agree. I don't have certainty. I mean, I don't -- I mean, to the time frame, it would be the approximate time.
Q. Okay.
A. But I don't have anything to verify that.
Q. Sure. And shortly thereafter, a week or so later, the attorneys all came to your office and we, with the Court's permission, opened that safe

and opened the box; do you recall that?
A. Correct.
Q. And we -- Do you recall we videotaped it and took photographs?
A. Yes.
Q. Sort of at various stages, right?
A. Yes.
Q. Okay. Bear with me just one second, I'm going to play an excerpt of that videotape. I think counsel has no objection?
ATTORNEY FALLON: Not as long as it's played as represented --
ATTORNEY BUTING: Sure, no audio.
(Court reporter couldn't hear.)
ATTORNEY FALLON: As represented, no audio. We'll stipulate to the fact that counsel indicated that it's a 10 minute version of a 33 minute event. Is it marked as an exhibit?
ATTORNEY BUTING: We'll mark it right after this. I'm going to have it marked as an exhibit.
ATTORNEY FALLON: Very well.
ATTORNEY BUTING: If you want to reserve the next number, this will be a DVD of excerpts of.
Q. Just so we're clear, you recall the date was December 14 of 2006?

A. Yes.
Q. Okay. And what I would like you to do is to watch this and then just tell us afterwards if this, in fact, comports with your recollection of what this box and it's contents looked like at various stages as it's opened. Okay.
(DVD playing.)
Q. Now, stop for one second. At this point this is a closer up version of one of the exhibits that you have in front of you, Exhibit 451. This shows the end of the box secured as it was when we looked at it on December 14th, right?
A. Correct.
Q. And from this you can tell -- I mean you are familiar with the way the exhibits are typically sealed with red evidence tape, or white evidence tape or whatever, right?
A. Correct.
Q. And it's pretty clear to you even at this stage that that evidence tape seal had been opened and the box reclosed just with that little piece of scotch tape, correct?
A. Correct.
(DVD playing.)
Q. All right. Let's go on. We're looking at the

handwriting that was on the outside of the box that you referred to earlier?

A. Correct.

Q. And this is actually taking place in your personal office, right?

A. Right.

Q. There's a label with a date of January 4, 1996?

A. Yes.

Q. Is that Mr. Wiegert there, putting on some gloves?

A. Yes.

Q. And just so the jury is clear, you earlier referred to this whole container as a styrofoam box, but there's actually -- it's a cardboard box that contains a styrofoam box within it, correct?

A. That's correct.

Q. And as we see it right now, that evidence seal on the card -- on the inner styrofoam box appears to be secure from this angle, right?

A. Yes.

Q. Now, Mr. Wiegert is removing the styrofoam box and we're getting a closeup view of the other side of the styrofoam box and that seal appears to be open, does it not?

A. I believe so.

ATTORNEY FALLON: Could I make an observation, it might be best to let the exhibit speak for itself. I think further viewing will establish several points.

THE COURT: The Court agrees, I don't believe the witness has any specialized knowledge in this regard.

(DVD playing.)

THE COURT: Mr. Buting, if at any point you want to stop the tape and point out something to the jury that's on there, you may.

ATTORNEY BUTING: Okay. Thank you, Judge.

Q. (By Attorney Buting)~ Now, just so we're clear, you were actually in your office as we were doing this as well, right?

A. Yes.

Q. So you saw us videotaping this?

A. Yes.

Q. Okay. Keep going.

(DVD playing.)

Q. The parties are sort of rocking this gently, this tube of blood back and forth, gently; were you able to determine if it looked liquid inside there, from where you were at.

A. I couldn't see it from where I was.

(DVD playing).

Q. (By Attorney Buting)~ Just so the record is clear, there is no kind of evidence seal or tape around the top, the lavender top to that tube, is there?

A. It didn't look like there was.

Q. Okay. All right. So does that video excerpt of the events on December 14, 2006, purport with your recollection of what happened when we opened that box?

A. Yes.

ATTORNEY BUTING: Thank you. I have no further questions. We'll mark this as an exhibit now.

THE COURT: And the number of that exhibit is?

(Exhibit 470 marked for identification.)

THE CLERK: 470.

THE COURT: 470.

ATTORNEY BUTING: And that's a DVD of what we just viewed in court.

THE COURT: Correct. Mr. Fallon, any redirect?

ATTORNEY FALLON: Just one moment, I might have a question or two.

REDIRECT EXAMINATION

BY ATTORNEY FALLON:

Q. To your knowledge, Ms Zigmunt, the only sheriff's deputies that have a key that permits access to the inner office of the Clerk of Courts are the two bailiffs?

ATTORNEY BUTING: Objection, calls for speculation, unless she knows.

THE COURT: The question should be preceded with a foundational question to determine if she knows.

Q. (By Attorney Fallon)~ Let's go about it this way. You -- In your cross-examination, you were asked, it was not usual to have the sheriff deputies in the inner office area and you responded, yes, just the bailiffs, explain why you answered it in that regard.

A. Because the bailiffs are pretty commonly seen in the office. They come and go with different reports or different things during the day. Sometimes they are in the office before I get there in the morning. I'm usually one of the first people in the office and one of them might be in the office delivering or picking up. They have a pickup place for papers everyday. So it's

not uncommon to see them at any time, really.
Q. All right. And do they have a key that permits access to the inner office?
A. They must have a key. I mean, I guess I really never looked to see if they were using the code. And they would have to have a key, because if they get there before I do, you would need a key to get in the outside door of the office.
Q. Are they permitted the cipher lock code as well?
A. I know when we changed the codes, because I changed it like January of '06. We changed to a new code from the previous Clerk of Court, just for some security measures. And I did provide them with that access code at that time.
Q. Now, to your knowledge, did you provide that access code to any other member of the sheriff's department, other than the bailiffs?
A. No.
Q. And I believe you also answered a question on cross-examination, that perhaps on occasion other deputies are in the inner office area, from time to time; did I understand that correctly?
A. There could be someone that had business with one of the clerks. They would have to be buzzed in. They wouldn't have automatic access, someone

would have to allow them. Like that doorbell little device thing, we have some of those under the desks at the -- the counter clerks have those and they press that to open the door for ...

Q. So do I understand it correctly, then, that they would be buzzed in and they would be attended to by one of your clerks?

A. Right. If they had -- I mean, a lot of times, too, if they come in, I mean, we take care of them over the counter. I mean, I don't really know what the different business is that they would have to come in for, but occasionally they would ask -- like if they asked to see Janet or something and then if someone determined that she is there, they would buzz her -- buzz them in and they could just go to her desk.

ATTORNEY FALLON: That's all we have. Thank you.

THE COURT: Anything else Mr. Buting?

ATTORNEY BUTING: Just very quick.

RECROSS-EXAMINATION

BY ATTORNEY BUTING:

Q. You mentioned how if they would ask to see Janet or some other deputy, they would be buzzed in and then the sheriff's department employee would then

be in the inner area, right?
A. Right. I mean, I don't know specifically that any sheriff's department...
Q. I understand that. I'm just saying, just general common practice, would be if one of the sheriff's officers, employees, lieutenants, whoever, asked to see somebody, they would be buzzed in and they could go in back and talk to the clerk or deputy clerk, or whomever, correct?
A. Correct.
Q. And, then, once back in that area, they would have -- would have had in, let's say October, November, 2005, they would have been in the area where Mr. Avery's file could be accessed, right?
A. Well, going to Janet's area would not. I mean, they would be turning the corner right away, where his file was kept was straight ahead and a little out of the way. So I don't think that they would have --
Q. Well, there's no --
A. -- come in contact with that file at all.
Q. There was no other door in between where they would be and where Mr. Avery's file was kept, right?
A. There was quite a distance from it. I don't ...

Q. Well, we saw on the photograph, approximately?
A. Well, that was when it was on the desk, though, in the desk for the viewing area. That isn't where it was normally kept. It was kept on a filing cabinet, although, further away yet. So it was really --
Q. 10 feet from the door maybe, 15 feet?
A. Maybe 20 feet from the door.
Q. Okay. All right.
A. 25, I don't know.
Q. Sure. The point being, though, once you get past that door, where you are buzzed in, it's all open with partitions in the inner area of the Clerk's Office?
A. Right.
Q. And I'm not trying to put blame on you, ma'am. But I understand that in November of 2005, it was not on your radar, you were not worried about an officer from the sheriff's department coming in and removing a court exhibit to plant evidence and frame somebody, was it?

ATTORNEY FALLON: Objection, beyond the scope.

THE COURT: Sustained.

ATTORNEY BUTING: That's all.

THE COURT: All right. The witness is excused. And, members of the jury, we'll take a stretch break before the State calls its next witness. All right. We'll take a short break, five minutes, and then come back.

(Jury not present.)

THE COURT: You may be seated.

ATTORNEY KRATZ: Thank you, Judge. As we alerted the Court before the start of today's proceeding, the State does anticipate calling Dr. Marc LeBeau to testify. Mr. Buting was kind enough on cross-examination to have showed the jury the blood vial, purple-topped blood vial tube, which the State believes entitles us to call Dr. LeBeau at this time.

We had assured the defense that Investigator Wiegert was going to testify, and he is, but that's just as to the packaging of the purple-topped blood vial and sending it to Dr. LeBeau. We would prefer to call Dr. LeBeau so that his direct examination and his cross examination can be completed before he goes back to Virginia today.

If the defense still wishes us to call Investigator Wiegert at this time, we had also

assured the defense and the Court that we would recall him neither for cross-examination or continued cross on matters outside of the limited purpose of packaging the blood.

So we're just looking for direction from the Court. We would prefer, since the vial has already been showed to the jury, to start with the Dr. LeBeau and complete his testimony and then call Investigator Wiegert. And if there's other foundational witnesses, that may be necessary. If there's an issue, or if the Court believes that somehow to be an inappropriate use of resources, or the presentation of evidence, then we can certainly do it the other way as well.

THE COURT: Mr. Buting.

ATTORNEY BUTING: Could I have just one moment with counsel, please.

THE COURT: Go ahead.

ATTORNEY BUTING: Judge, I'm going to -- We can defer Investigator Wiegert's testimony until after Mr. LeBeau, but I am marking four other exhibits which are essentially hard copies of what we just saw. And by stipulation -- I was going to use Investigator Wiegert to introduce those, but we

can just, by stipulation, introduce them and proceed with Mr. LeBeau, if that's what counsel prefers.

ATTORNEY KRATZ: That's fine. 471, start with, Janet?

THE CLERK: Yes.

ATTORNEY BUTING: And then I will be moving all the exhibits that I introduced which is 466 -- 468. Well, let's let her mark them first.

(Exhibit Nos. 471-474 marked for identification.)

ATTORNEY BUTING: Okay. So it will be 468 through 474. Is that all right, counsel?

ATTORNEY KRATZ: Just so I can see them.

ATTORNEY BUTING: Okay. So then I would move 468 through 474.

ATTORNEY KRATZ: Is that a different photo than 451? Janet, can you look at 451 and see if 474 is different.

THE COURT: Let's go off the record for a couple minutes here. Counsel, are you ready to go back?

ATTORNEY BUTING: I am, Mr. Gahn is still checking for something.

THE COURT: All right. I believe that -- We'll go back on the record at this time. Additional exhibits have been marked, those are

numbers what?

THE CLERK: 471 through 474.

THE COURT: 471 through 474. Are the parties asking that they be admitted at this time?

ATTORNEY BUTING: 468 through 471, actually, is what I'm asking to be moved.

THE COURT: 468 through 471.

ATTORNEY BUTING: Yes.

THE COURT: Any objection from State?

ATTORNEY KRATZ: They are eventually going to get in, Judge, we have no objection at this time.

THE COURT: All right. Those are admitted. Anything else before we bring the jurors back in?

ATTORNEY BUTING: No.

THE COURT: If not, we'll bring the jury in at this time.

(Jury present.)

THE COURT: You may be seated. At this time the State may call it's next witness.

ATTORNEY GAHN: Yes, your Honor, the State would call Dr. Marc LeBeau to the stand.

THE COURT: Very well.

DR. MARC LEBEAU, called as a witness herein, having been first duly sworn, was examined and testified as follows:

THE CLERK: Please be seated. Please state your name and spell your last name for the record.

THE WITNESS: My name is Marc, M-a-r-c LeBeau, L-e-B-e-a-u.

DIRECT EXAMINATION

BY ATTORNEY GAHN:

Q. And what is your occupation?

A. I'm the unit chief of the Chemistry Unit at the FBI Laboratory.

Q. And where is the FBI Laboratory located?

A. In Quantico, Virginia.

Q. And how long have you been so employed?

A. I have worked as the unit chief since September of 2000. And prior to that I was within the same unit at the FBI Laboratory, the Chemistry Unit, since 1994.

Q. And what are your duties at the FBI Laboratory in the Chemistry Division?

A. Well, as the unit chief, I oversee the day-to-day operation of that unit. That entails making decisions about the types of cases that we accept into our unit for analysis. And then assign those cases to the most experienced or the appropriate personnel that work under me.

When we receive evidence into our unit,

we're typically asked to analyze for the presence of a chemical, whether or not it is in or on a piece of evidence. Then we compile our results and prepare a report. And before that report is released to the contributing agency, another duty of mine is to review the result and the report to make sure that it meets all of the quality requirements that are set forth by our Quality Assurance Department in our laboratory.

Q. And what is your educational background, Doctor?

A. Well, I have a bachelor's degree in chemistry, as well as criminal justice from Central Missouri State University in Warrensburg, Missouri. I also have a master's degree in forensic science from the University of New Haven and that's in West Haven, Connecticut. And a doctorate in toxicology from St. Louis University, in St. -- I'm sorry, from the University of Maryland in Baltimore. I took an additional four years of graduate level course work at St. Louis University in the early '90s.

Q. Now, when you say you have a doctorate, is that what is commonly referred to as having a Ph.D.?

A. Yes, it is.

Q. And thus the title, Dr. Marc LeBeau.

A. That's correct.
Q. Would you describe any experience or any special training you had in your field?
A. Yes, well, when I started with the FBI Laboratory, I was thoroughly trained in the types of examinations that we typically do in our laboratory. These are examinations specifically in the area of forensic chemistry as well as forensic toxicology.

Before I started with the FBI, I worked as the laboratory manager of the St. Louis County Medical Examiner's Office in St. Louis. And I did that for about four years. I have also worked as a chemistry instructor at the University of New Haven, as well as a laboratory intern at a private toxicology laboratory in Willow Grove, Pennsylvania, called National Medical Services. And I have also worked as a laboratory technician for Monsanto Chemical Company.
Q. Do you belong to any professional or scientific organizations pertaining to your field?
A. Yes, I do.
Q. And would you describe for the jurors what those are?

A. Yes, I'm an active member of the Society of Forensic Toxicologists and I serve on their Board of Directors, as well as I chair one of their committees. I'm also involved with and a member of the International Association of Forensic Toxicologists. And, again, I serve on two committees within that organization. And I'm an active member of the American Academy of Forensic Sciences. And I hold a membership level of fellow within that organization, which is one of highest membership levels you can have.

Q. And do you attend conferences within your field for forensic purposes?

A. Yes, I do.

Q. And how often and why?

A. Well, I attend the conferences of those three organizations pretty much annually, specifically to stay on top of current trends within our field of forensic chemistry and forensic toxicology. But also I'm often invited to put on workshops and be a guest speaker at a number of conferences.

Q. Is your lab at the FBI an accredited lab?

A. Yes, it is.

Q. And what does that mean to be accredited?

A. An accredited laboratory simply means that a body of experts that will, from time to time, come into the laboratory and check your practices to ensure that you are following a set of standards that this body has set down to those that they accredit. So it's simply a quality measure so that we have consistency from one laboratory to the next.

When you are dealing with an accredited laboratory under the body that accredits the FBI Laboratory, which is known as the American Society of Crime Laboratory Directors, Laboratory Accreditation Board, or ASCLD lab, all laboratories that are accredited by that agency, we follow their same standards.

Q. Do you undergo proficiency testing?

A. Yes, we're required to as part of our accreditation.

Q. And what is that proficiency testing?

A. Proficiency testing is simply, we're provided test cases, from time to time, where we're asked -- where we don't know the results, some outside entity knows the results, and we analyze these test cases as if they were real cases and then provide those results to the referee, if you

will, of those results. And they grade our results and then report back, not to just to us, but they report our result back to our accrediting body as well.

Q. And how have you done on your proficiency tests?

A. I have passed all of the proficiencies I have taken in the 16 years I've been employed in this business.

Q. Have you ever testified as an expert before in court?

A. Yes, I have.

Q. How many times?

A. Well, approximately 40 to 50 times.

Q. Have you ever been rejected as an expert in your field?

A. No. No, I have not.

Q. Have you authored or co-authored any peer reviewed journal articles?

A. Yes, I have.

Q. And could you describe some of those to the jurors?

A. Well, I have authored or co-authored about 15 to 20 peer reviewed journal articles, professional articles, scientific articles, that are published in professional publications.

Q. And I have had placed in front of you an exhibit that was marked as Exhibit 433; could you tell the jurors what that is.
A. Yes, this is a copy of my curriculum vitae, essentially my resume that describes my experience.
Q. Now, did you analyze samples that were sent to you in this case?
A. Yes, I did.
Q. Describe how you, in your lab, became involved in this case?
A. Well, following the normal course of business at our laboratory, as the unit chief, as I indicated, I am the gatekeeper, if you will, of cases that we accept to work. And I was contacted by the local District Attorney's Office to make a determination whether or not we could provide assistance in analysis of specific evidence in this particular case.
Q. And did you know that this was a case that involved an allegation of police planting evidence?
A. Yes, I did.
Q. Why would a case such as that, an allegation of law enforcement officers planting evidence, be of

a concern to the FBI?

A. Well, one of the areas that the FBI is responsible for investigating in this country is crimes of public corruption. This is where a politician or another public official, such as a police officer, is accused or believed to be involved in doing something illegal.

So that is an area that we are strongly involved in in our investigations at our agency. And, of course, that's a very serious allegation. If an individual is truly in that political position or in a law enforcement position and they are doing something illegal that erodes the public's trust in that agency or that individual, and we would want that, certainly, that individual, out of that office or off the street.

But, additionally, if they are being wrongly accused, we want to be involved in that investigation to help set the record straight and hopefully clear their name, if they are wrongly accused so, again, the trust can be restored.

Q. And did the testing that you performed in this case determine that issue?

A. I believe it did, yes.

Q. Before we get to your conclusions, I would ask

you to describe for the jurors basically what type of instrumentation did you use to perform the testing in this case?

A. Well, we used an instrument that's called a liquid chromatograph mass spectrometer. And we abbreviate that LC/MS. And then we also took that one step farther and did additional experiments with the mass spectrometer that the entire technique is what is known as LC/MS/MS. It's essentially three different instruments, if you will, that are all linked together and hand shaking with each other so that they work in tandem.

Q. Would you describe for the jurors exactly what analytical chemistry is?

A. Well, analytical chemistry is a subset of the whole field of chemistry that, in a nutshell, just is trying to determine the chemical properties or identity of matter. Little simpler put, analytical chemistry involves trying to either identify the present -- or the chemical characteristics or the identity of an unknown substance, trying to figure out what it is. Or if there's an idea that there's a specific chemical in some material, then we will target

that analysis in trying to figure out if a specific chemical is present in that substance.

Q. And this instrumentation that you just referred to, the LC/MS/MS, is that what is used in analytical chemistry to determine these chemical compounds?

A. Yeah, it's one of the tools that we use in order to do just that, identify what a substance is, or to target a particular analysis to see if specific chemicals are in a material.

Q. Could you very briefly, and as simply as possible, tell the jurors how this instrument works?

A. I will try. It's -- Again, it's three instruments that we're really talking about. The most simple form is to talk about it as two, the LC portion and the mass spec portion. The liquid chromatograph, or LC, it's job is simply to take a mixture of chemicals and separate them so that they are delivered to the next instrument, the mass spectrometer, one at a time.

And a good analogy to think of is, if we had a bag full of marbles and we knew that some marbles were real small, other marbles were of a medium size, and the remaining marbles were very

large. And we can even complicate it a little more by saying that the large marbles are of two colors, some are blue and some are green.

If we were to put these marbles, thinking that they are chemicals, into our liquid chromatograph, the LC portion, it would take that mixture and separate them so that when they came out of the instrument, the small marbles would come out first, say one minute after they were introduced; the medium marbles would come out maybe at two minutes after they were introduced; the large marbles would come out -- or I should say the large blue marbles, perhaps, would come out at three minutes; and the green marbles would come out perhaps 15 seconds later.

So it allows that mixture to be separated into the individual components so that the next instrument only sees essentially one chemical at a time. And that's important because the next instrument is that mass spectrometer. And what that does is, it gives us the fingerprint of that chemical, breaks it apart into small pieces using a very large amount of energy, breaks it apart, and presents us a fingerprint that we can then compare.

And, essentially, all chemicals give you a different fingerprint. That's the value of a mass spectrometer, is it gives us information about the weight of the chemical as well as its fragmentation pattern that, then, we will interpret using a set of guidelines in order to determine if it matches the specific chemical we're looking for, or if we're trying to figure out what unknown chemical it is, we can match it against the data base to see what it matches.

Q. And how long has this technology been around?

A. Well, LC/MS has been around for decades in analytical chemistry laboratories.

Q. So is this a standard instrument used in analytical chemistry?

A. It is. We used it in our laboratory since the early 90s.

Q. Is this technology used in other fields besides analytical chemistry?

A. Yes, it is.

Q. Could you describe a few of those for the jurors.

A. Well, LC/MS is very widely used in the pharmaceutical industry where they are developing new drugs, they are looking for new metabolites of drugs and trying to identify what those are.

It's also used in looking at explosives, explosive residues. If a bomb is discharged, it can look for the residues of the explosive portion that caused that.

It's used to test athletes for steroids. It's used to test workers for whether or not they are smoking marijuana on the weekends.

It's also used in the food industry to look at various components in foods. It is used in agricultural chemistry as well.

Q. I would like to switch topics a little bit now and ask you, would you explain to the jurors what EDTA is?

A. Yes, EDTA stands for ethylenediaminetetraacetic acid, and EDTA is a chemical, simply a chemical that is known as a chelating agent. And what that means is, it simply will take metals that are in the environment of this chemical and latch on to them, bind to it, and remove them from that environment that it's in.

Q. Where is EDTA found?

A. EDTA is found in a lot of commercial products that we all use. It's found in your shampoo. It's found in your laundry detergent. It's found in a number of foods such as sodas. And it's

found in fertilizers, just to name some.

And the reason that they are in things like detergents and shampoos is that it, again, it attaches to the metals. And I don't know if you have hard water here in this part of Wisconsin but, you know, generally hard water has a whole lot of metal in it, that's what makes it hard.

So what that shampoo will do with the EDTA in it is latch on to those metals so that it actually does a better job of cleaning, same with your detergent. So that's what EDTA is found in, a whole lot of different commercial products.

Q. And what's its purpose, again, what is it used for?

A. To bind metals, specifically, what it is used for is a chelating agent. And, then, as I indicated it, because of that binding of metals and different uses, it helps stabilize certain food products, for example. So that's why it's used. In that instance, it might be used in a laboratory setting to serve as a buffer in a reagent.

Q. You use the word it's used to stabilize something, could you explain a little more to the

jurors what you mean by a stable chemical.

A. Well, a stable chemical is one that doesn't easily break apart. That's a very simple way of explaining it. It's very rugged. It's not fragile.

Q. Are there studies in the scientific literature, or articles about the stability of EDTA?

A. Yes, there are, there are numerous studies in the scientific literature that talk about the stability of EDTA.

Q. And why would these studies be made?

A. Well, most of the studies that have been done in the past few decades are studies that are concerned with the prevalence of EDTA in the environment. As I mentioned, it's stable and it attaches to metals. And over the years, as the use of EDTA continues to be used in more and more products, what we're seeing in the environment is that it continues to build up because EDTA is so stable.

So we're finding it in wastewater and river water, find it in your soil. And what the concern is, of course, is it's taking metals out of your water, taking metals out of the soil, that are normally supposed to be there for the

normal process of biology, and latching on to them, making them unusable in their normal form.

So that's what most of the studies are talking about, the stability of EDTA in the environment and the concern of it building up over time. And the difficulties of actually removing it from the environment, out of your water before you drink it, and out of soil, etcetera.

Q. These articles or other studies, these were studies that were developed by other scientists; is that correct?

A. Yes, scientists from all over the world. These publications are from the Netherlands, from South America, from the United States, all over Europe, yeah, essentially all over the world.

Q. Would you tell the jury a little bit about your experience with the stability of EDTA?

A. Well, as part of work that we did around this case is we were interested to see whether or not blood that was in an EDTA tube and put onto a spot card, which is simply a card that you put a spot of blood on, if that were stored at normal room temperature environment for a number of years, would that EDTA remain in that bloodstain.

And we did find that a stain that was made in May of 2004, today still were able to detect the presence of EDTA in.

Q. So this chemical is not easily broken apart under normal environmental conditions; is that fair to say?

A. That is absolutely a correct statement.

Q. And why not?

A. Well, again, it is not a fragile chemical. It is not fragile at all. It takes very severe conditions to break it down. For example it can withstand temperatures up to 300 degrees Fahrenheit before it will break apart.

Q. And this chemical, EDTA, is this a chemical that you could test for its presence in substances in this instrument that you talked about at the FBI?

A. Yes, absolutely.

Q. Now, I would like to ask you, Doctor, what is a blood collection tube?

A. Well, a blood collection tube is simply the glass test tube, if you will, that when you have blood drawn at a doctor's office it is the tube that they put your blood in.

Q. And are there different kinds of blood collection tubes?

A. Yes, there are.
Q. And would you be able to describe those for the jurors?
A. Yes, I could.
Q. We have prepared a -- you have prepared a PowerPoint presentation to give this description; would that be helpful to the jurors while testifying?
A. Yes, it would.
Q. Can you -- Do you have a mechanism to back this up, I think we want a different slide initially to start with the collection tubes. And, again, I'm going to ask you to -- could you describe a little more about these different types before we get the slide set up, these different types of collection tubes and why they have different types.
A. Well, there are a number of different types of tubes. One type of tube has nothing in it; it's simply your blood goes into the tube and it's there with nothing added to it. But the majority of collection tubes that we deal with, the majority of collection tubes that we deal with have some form of a preservative or an anticoagulant in that tube. And the reason being

is you want to allow this blood to be stored for some time, so it's still usable to the laboratory.

As I indicated, there are multiple types of tubes. And the way we can tell what is in the tube is simply by the color of the stopper on that tube. The color indicates what's inside the tube when it's em -- when it's-- before it's filled with blood.

So the red-stoppered tube, as you can see on the screen, has nothing in it, where as the yellow-stoppered tube has citric acid or citrate in it. The gray-stoppered tube has potassium fluoride -- I'm sorry -- sodium fluoride and potassium oxalate in that one. And then the lavender or purple-stoppered tube has this chemical EDTA.

Now, when the blood is put into these tubes, you shake them up so that the chemical additive is well mixed within the tube. And then it does its thing.

Now, if we start by looking simply at the red-stoppered tube with nothing in it, what happens is, within our blood we have blood cells, red blood cells, which you I'm sure heard of, but

we also have calcium in our blood. And that's important because the calcium plays a very key role in those red blood cells staying apart from one another.

After awhile, if we don't have a preservative or an anticoagulant in that tube, what happens is those red blood cells clot. They come together and form clots within that tube, which of course makes it very difficult for laboratories to do testing on the blood.

So that's why we use these anticoagulants and preservatives in these tubes. If we look at the purple-stoppered tube, which is your EDTA tube, the EDTA is in with the blood, mixed in, with the calcium and the red blood cells. And as I said earlier, the role that EDTA plays is to bind metals, such as calcium. But it binds any metals that are present in our blood. And a lot of those metals come from our diet, from our normal metabolic processes that occur in our body.

So the EDTA is going to bind with those calcium -- the calcium, the iron, and other metals and, again, latch onto it and make it unavailable for its normal use. So that's going

to prevent your blood from clotting. And that's why EDTA is in the purple-stoppered tube. What this does, as I said, we have iron floating around in our blood and we have calcium, which is the CA, iron is FE. The EDTA comes along and it complexes with those metals, complexes with the calcium and it complexes with the iron. And that's simply what the different blood collection tubes are and why EDTA, in particular, is present in these purple-stoppered tubes.

Q. And when you did your personal stability test for EDTA, was it bloodstains from purple-topped tubes?

A. That's what was reported to us. I'm sorry, what was your question?

Q. When you did your stability study and degradation study, was it bloodstains from purple-topped tubes?

A. Yes. Yes, they were. They were all stains that were generated from purple-stoppered tubes. Those were generated, again, in May of 2004, and we analyzed them just last week.

Q. And the chemical that you would be looking for, just so it's clear for the jurors, in the instrumentation that you have described, again,

according to this slide, what can you identify with your instrumentation?

A. Well, we specifically focused on EDTA bound to iron, as well as free EDTA. There's so much EDTA in that tube, that not all of it is used. In fact, the majority of it is not used, so there's a lot of the original EDTA still floating around, unbound to anything.

So we focused on both the unbound EDTA, the original form, as well as the EDTA that was bound to iron. And we chose the iron over calcium, simply because iron is about 10 to 30 times more abundant in our blood than is calcium, so it would make it easier to answer the question that was put before us.

Q. And did you receive samples to test in this case?

A. Yes, we did.

Q. And do you recall, what did you receive?

A. We received a number of swabs that were reported to us as having been taken from bloodstains out of a Toyota RAV4, as well as control swabs that were collected in the areas near where those bloodstains were. And we also received a tube of blood in a purple-stop -- stoppered tube, a EDTA tube, that was collected from Mr. Steven Avery.

Q. I'm going to ask Agent Fassbender to bring you what have previously been marked as Exhibits 332, 334, and 336. Dr. LeBeau, would you look at Exhibit 332, which has been already entered into evidence and testified to by Sherry Culhane as being a blood swab that she took from the dashboard of Teresa Halbach's RAV4 and she identified that as her laboratory number A-8; did you receive that?

A. I'm sorry, could you repeat the exhibit number?

Q. Exhibit No. 332?

A. And A?

Q. It was previously identified by Sherry Culhane from the State Crime Lab.

ATTORNEY BUTING: Why don't we just read what's on the exhibit?

A. This says A-10.

Q. I'm sorry. Then, I'm asking you to look at -- look for the one that is for A-8?

A. A-8 has exhibit 336 on it.

Q. And that was previously identified by Sherry Culhane as a bloodstain taken from the dashboard of Teresa Halbach's RAV4; did you receive that?

A. Yes, I did.

Q. And how can you tell?

A. I can recognize our laboratory number that we placed on this packaging, as well as the initials of the technician that did perform the analysis, and my own initials.
Q. Okay. And did you test the swabs from that bloodstain using the technology you have described to the jurors?
A. Yes, we did.
Q. Now, I would ask you to identify for us, if you can, what would have been marked as A-12, a bloodstain from the rear passenger door of Teresa Halbach's car?
A. That's correct.
Q. What exhibit number is that, please?
A. Exhibit 334, yes.
Q. And, again, that has been already entered into evidence and identified by Sherry Culhane as a bloodstain--

ATTORNEY BUTING: Your Honor, I would object to counsel telling this witness what has -- describing these exhibits as something other than what this witness knows. This witness should testify to what he saw, what he was advised. But what was testified to, he has no knowledge of.

THE COURT: I agree that I don't know that

this witness was in a position to say what a previous witness said, but if these exhibits have been admitted on that basis previously, I think it is help for the identification. If there's a dispute about that, then I think we should be heard. Is there a question?

ATTORNEY BUTING: Not at this time, you can proceed.

THE COURT: All right.

Q. (By Attorney Gahn)~ And, again, Exhibit 334, did you receive that for testing in your lab?

A. Yes, we did.

Q. And how can you tell, Doctor?

A. Again, our laboratory number and the initials of both the technician that did the work, as well as myself.

Q. And would you -- would you have Exhibit 336 there?

A. Yes, I do.

Q. And that is an exhibit that has been previously identified by Sherry Culhane from the State Crime Lab as a bloodstain that she took from a CD case from Teresa Halbach's RAV4; is that correct?

A. No, sir.

Q. I'm sorry? I'm sorry, 332; is that correct?

A. Exhibit 332 is identified by the label on the packaging as being collected from the CD case on the front passenger seat.
Q. And -- And did you receive that for testing?
A. Yes, we did.
Q. And how can you the tell?
A. Again, our laboratory number written on the packaging, as well as the initials of the technician that did the work, and myself.
Q. I'm going to ask Agent Fassbender to bring you three additional envelopes which were control swabs taken in this case. And, again, Dr. LeBeau, just the last exhibit, 332; is that marked as exhibit -- have the identifying Crime Lab No. A-10?
A. That's correct.
Q. Dr. LeBeau, would you look at Exhibit 476?
A. Yes.
Q. And can you identify that exhibit?
A. This is a -- reported to be a control swab, or two control swabs that were collected from the rear passenger door area in the RAV4.
Q. And how can you -- Did you examine those?
A. Yes, we did.
Q. And how can you tell?

A. Again, our laboratory number is placed on there as well as our initials.
Q. And would you look at Exhibit 475; can you identify that exhibit?
A. Yes, I can.
Q. Will you tell the jurors what that is?
A. This is reported to be control swabs that were collected from the RAV4, off of a CD case.
Q. And did you receive that for testing?
A. Yes, we did.
Q. And how can you tell?
A. Again, the laboratory number that we assigned to this case as well as our initials are on it.
Q. And do you have Exhibit 477 in front of you, sir?
A. Yes, I do.
Q. And can you tell the jurors what that is?
A. Again, this is reported to be control swabs that were collected from the RAV4, in the ignition switch area of the vehicle.
Q. And did you test that with the technology you have described?
A. Yes, I did.
ATTORNEY BUTING: Objection, your Honor, I think we need, for foundation purposes, when he says did you test, counsel is asking did you test this,

did you test that, and he is repeatedly answering we tested, yes, we did. So I think there needs to be some clarification as to what this witness did.

THE COURT: The Court agrees, that should be clarified.

Q. (By Attorney Gahn)~ Would you explain to the -- when I say, did you test this, I'm talking about the FBI. Would you explain to the jurors when you receive evidence, how the testing process proceeds?

A. Typically, the way we're set up is, certainly the manager of the unit isn't -- doesn't have a lot of time to spend performing the actual analyses. So, we have two levels of scientists within our unit.

We have what are called chemists, which are essentially technicians, but they are well educated technicians, many with Ph.D.s. And, then, we have examiners. And I'm -- In this role I serve as an examiner. The examiner is assigned the case and oversees the analytical work that's done on the case.

So they're the supervisor. They are in close contact with the technician that worked on the case, often times in the lab with him,

helping out. But most of the analytical work is actually done by a qualified chemist.

When the work is finished, the analytical product, the results, are handed off to the examiner, who compiles the results, forms the opinion that is then put into the report, as I indicated earlier, and is sent out to the contributing agency. So it's simply an efficiency thing so that work can always be done while the examiners are out testifying on their cases.

Q. Would you also describe to the jurors the roles that you have played yourself in the processing of this case and the analysis that was done.

A. Well, again, I supervised the entire process of this case as far as the method development, the receipt of the evidence, the decisions that were made on what was analyzed, when it was analyzed, how it was analyzed. And then took the results and compiled them, formed an opinion, my opinion, as to what they meant, wrote the report myself, issued the report after it had been reviewed by an independent scientist that works within my unit and, of course, here today to testify.

Q. And these items of evidence that you testified to

just now in front of the jury, did you personally examine these items?

A. Yes, I did.

Q. And, thus, that's why your initials are on each of the bags?

A. Yes.

ATTORNEY GAHN: May I proceed?

THE COURT: Actually, I think you are not going to finish before lunch, so I think I'm going to take a break at this time.

Members of the jury, we'll take our lunch break at this time, I will remind you not to discuss the case among yourselves until we resume. And we'll see you after lunch.

(Jury not present.)

THE COURT: You may be seated. Counsel, I would like to see you briefly in chambers before we break for lunch.

(Recess taken.)

(Jury present.)

THE COURT: At this time we're back on the record and Mr. Gahn you may resume.

ATTORNEY GAHN: Thank you, your Honor. Before resuming the testimony I would like to inform the Court that we have marked as exhibits,

Exhibit 465, and Exhibit 466; 466 is the PowerPoint demonstration that Dr. LeBeau was using to explain his testimony for the jurors. We have probably gone through about half of it. There will be some more coming. And Exhibit 465 is a CD Rom of that PowerPoint demonstration. I would move those into evidence at this time.

ATTORNEY BUTING: No objection.

THE COURT: Very well, they are admitted.

DIRECT EXAMINATION CONTD.

BY ATTORNEY GAHN:

Q. Now, Dr. LeBeau, you just finished testifying about some of the samples that you received for testing at your laboratory, namely the three blood swabs that came are from the RAV4 and three controlled swabs, correct, that came from the RAV4?

A. Actually six control swabs, there were two of each.

Q. Two of each. Thank you, Doctor. And did you also receive a blood sample from Steven Avery in this case?

A. I did receive a blood sample that was reported to have been taken from Steven Avery, yes.

Q. And I'm going to ask that that be marked as an

exhibit at this time and I'm going to have that brought to you for your examination.

(Exhibit No. 478 marked for identification.)

Q. (By Attorney Gahn)~ First, could you state what exhibit number is that?

A. This is Exhibit 478.

Q. And do you recognize that?

A. Yes, I do.

Q. And how do you recognize that, sir?

A. Again, I recognize it by the initials of the technician who opened this. Some of the markings that we did place on it, unfortunately our lab number has been covered up by crime scene tape, or evidence tampering tape, rather, from the Wisconsin State Crime Lab in Madison apparently.

Q. And if you were to open that container, would you be able to make further identifications of the blood vial that you tested in this case?

A. Yes, I would be.

Q. Would you do so at this time, sir.

A. Yes.

THE COURT: Before that happens, I recall there was some discussion about fingerprint evidence on the vial, is that -- has that matter been resolved?

ATTORNEY GAHN: It's been completed.

THE COURT: Defense is satisfied?

ATTORNEY BUTING: Let's go to side bar for just a minute.

THE COURT: All right. Don't open it any further, please.

(Side bar taken.)

THE COURT: I should indicate for the record that during the side bar a question was raised about the evidence tape on the vial, which the parties are free to go in their examination.

It was also pointed out to the Court, that witness, in fact, does have latex gloves on, something, unfortunately, in this courtroom, I can't really see from the bench, so. But go ahead, you may proceed.

ATTORNEY GAHN: All right. Thank you, your Honor.

(Witness opens exhibit.)

A. I'm going to try to open it. Oh, okay, it's reversed. I'm a little concerned that I'm going to throw a vial of blood when I open this. There we go.

Q. And would you explain to the jurors why a vial of blood is packaged as it is?

A. Well, this container is a shipping container to ensure that the tube inside doesn't break. It's very high density plastic material and packed on the inside with cotton and then further packaged on the inside with yet another tube that is heavy duty, like a plastic material so that the tube, if it were to break on the inside, the blood would remain, actually, in this secondary container here. It's just a safety precaution.

Opening and being able now to see the tube, I can recognize our laboratory number, as well as the initials of myself and the technician that performed the actual analyses on this blood.

ATTORNEY BUTING: May I see the tube, counsel?

ATTORNEY GAHN: Certainly.

ATTORNEY BUTING: I will let you hold it.

THE WITNESS: Okay.

Q. (By Attorney Gahn)~ And does that blood tube that's contained in that container have the name Steven Avery written on it?

A. Yes, it does.

Q. Now, you may put that aside for the moment. And I would like you to explain to the jurors what you mean by, what are control samples as it

pertains to the control samples that were taken in this case and sent to you?

A. Well, a control sample is simply a replicate swab of the area near the stain that was collected to look for any contamination that would count for positive findings you actually find in the item that you are analyzing. So in this case, the bloodstain itself, it was a swabbing of the area around it to ensure that there wasn't any contaminants that would interfere with our particular analysis.

Q. And why would they be particularly helpful in this case for your analysis?

A. Well, for this particular case because, in part, as I indicated, EDTA is widely used in a number of commercial products. So, you would be concerned that the inside of the car, for example, may be processed with a cleaning agent that may leave a residual amount of EDTA behind. So you want to make sure that that isn't there in case you have a positive finding in the bloodstain because that could confuse the interpretation of the results.

Q. When you receive a case submitted to you for an analysis, do you routinely take photographs of

the items that are sent to you?
A. Yes, I do, as well as my staff routinely does that.
Q. And that is something that is in the protocol of the FBI in your Chemistry Unit?
A. It is within the protocol of the whole FBI Laboratory to document -- to every extent that we can, document the evidence as it is received into the laboratory and into the unit.
Q. And was that done in this case?
A. Yes, it was.
Q. I'm going to ask Mr. Fallon to bring you six photographs. I would like you to look at those. And if you were to take the top photograph, turn it over and identify the exhibit number, please.
A. This is Exhibit 458.
Q. And how -- Do you recognize that photograph?
A. Yes, I do.
Q. How do you do that, sir?
A. I recognize our laboratory number and the item designation we gave to this particular item of evidence.
Q. And how does that photograph -- would you explain to the jurors how that corresponds to the evidentiary items that you have in front of you?

A. Yes, this is a photograph of the blood swab that was reported to have been taken from the ignition area in the RAV4.
Q. And is that photograph now being displayed on the large screen?
A. Yes, it is.
Q. And could you just explain to the jurors the condition of this swab when you first saw it?
A. When -- It looks exactly like you can see in the photograph, that's how we received it.

ATTORNEY BUTING: Objection, again, he's got to testify, it's not clear whether he saw it, or whether he reviewed it, or whether he is talking about his lab staff.

THE COURT: The objection is sustained.

Q. (By Attorney Gahn)~ Did you review this photograph? I mean, have you seen this photograph before?
A. Yes.
Q. And did you yourself look at the swabs that were submitted to you for analysis?
A. Yes, I did.
Q. And could you describe for the jurors the condition of this swab that you actually saw?
A. Again, exactly as you see on the screen, this is

the condition of the swab when it was received in our laboratory and when we opened it for the first time, this is a photograph of it.

It was obvious to us that this swab had been analyzed, or at least cut at one point, previously, because it wasn't the typical rounded shape you would expect on a cotton tipped applicator. It appeared as if a portion of it had been removed and that was consistent with what we had been told had occurred with this particular swab, prior to our analysis with it.

Q. Would a laser pointer be helpful to you --

A. Yes, it would.

Q. -- in pointing this out to the jurors?

A. So specifically this area here, the top portion appeared to have -- that the top had been cut off.

Q. And does this photograph in Exhibit 458 accurately depict this swab, from the dashboard of Teresa Halbach's car, as you observed it?

A. Yes, it does.

Q. Would you go to the next photograph and identify which exhibit that is?

A. This is Exhibit 459.

Q. And how does that correspond to the evidentiary

items in front of you that you have already testified about?

A. This is a photograph of a swab that was reported to have been collected from the rear passenger door area from the RAV4.

Q. And did you personally look at the swabs that were submitted in this case from the rear passenger door area of the RAV4?

A. I did, yes.

Q. And does the photograph, the photograph that you have, is that being displayed now on the large screen?

A. Yes, it is.

Q. And, again, could you point out to the jurors what you observed about this swab?

A. Again, this swab had what appeared to be blood on it. And, again, it was obvious that a portion of it had been cut or removed, prior to it arriving to our laboratory.

Q. And does the photograph that you have in Exhibit 459 accurately depict the condition of this swab from the rear passenger door area as you observed it?

A. Yes.

Q. And would you go to the next exhibit, please, and

identify it.
A. This is Exhibit 460.
Q. And how does that correspond to the evidence samples that you examined in this case?
A. This is a swab that was reported to us as having been collected from the CD case that was found in the RAV4.
Q. And does that photograph -- is that being depicted now on the large screen?
A. Yes, it is.
Q. And did you personally examine this swab?
A. Yes, I did.
Q. And please describe for the jurors the conditions that you observed?
A. Again, this swab appeared to have been sampled previously. There did not appear to be a great deal of blood on this particular swab suggesting that there was little to begin with in the previous analysis, perhaps took the portion that would have been useful for our particular examination.
Q. I would ask you to take the next exhibit, which would be Exhibit 461, I believe, next photograph, please, and identify that exhibit number.
A. Exhibit 461.

Q. Yes.
A. This is -- These are two control swabs, reported to us as control swabs.
Q. And can you correspond those swabs with the evidence samples that you received for analysis?
A. Yes, these were control swabs that were collected from the area near the ignition switch.
Q. And are those swabs that are in that photograph now being shown on the large screen?
A. Yes, they are.
Q. Could you take the next exhibit, please, an identify it.
A. Exhibit 462.
Q. And what is that a photograph of?
A. These are control swabs that were reported to us as having been collected from the area near the staining on the rear passenger door of the RAV4.
Q. And the next exhibit, next photograph, please.
A. Exhibit 463.
Q. Yes. Would you identify that and tell us what that -- which evidentiary item that photograph corresponds to?
A. These are control swabs that were reported to us as having been collected off the CD case that was found in the RAV4 pickup.

Q. And all of these swabs, the controls as well as the bloodstains, did you test these samples for the presence of what you described to the jurors as EDTA?
A. Yes, I did, or we did.
ATTORNEY BUTING: I'm sorry, which is it, you said I did, we did?
A. Collectively we did it within my unit, my staff and I did, yes.
Q. Would you explain, again, to the jurors, just how the process works at the FBI Laboratory, what your role is and the role of your technicians and what is the typical way that a case is processed?
A. Throughout the FBI laboratory we have, again, technicians that do a vast majority of the actual hands on analytical work, saving the staff that is responsible for compiling the result, reviewing the results, ensuring that all the quality standards are correctly documented in the results, preparing the report, testifying, etcetera; assuring that they are available to do their job, we have technicians that do the vast majority of the analytical work.
Q. And, again, what were you looking for when you tested these swabs?

A. We were looking for the presence of EDTA, specifically, as well as the iron complex of EDTA. And if I could go back to the presentation I had used earlier?
Q. Would this be helpful to the jurors?
A. I believe it would be.
Q. Please, do.
A. So, specifically, we were looking for the free form of EDTA, this was the EDTA that was in excess and never bound to any metals in the blood sample, as well as the presence of the EDTA that actually bound to iron. And, again, we chose iron over calcium because iron tends to be present at about a 10 to 30 times higher amount in a blood sample than you would expect calcium to be there.
Q. When was the last time your laboratory at the FBI tested for the presence of EDTA in a bloodstain?
A. The last time we, within the FBI Laboratory, analyzed a bloodstain for EDTA was in the O.J. Simpson trial in the mid 1990's.
Q. Why is that so long ago, why is that the case, that it's been such a long time?
A. Well, simply, because we haven't had any request to do the analysis since then. We -- As I

indicated earlier, we don't go in search of work to do. The investigators call us and ask us if we can provide analytical assistance. We have never had a request, that I can recall, since the O.J. Simpson trial, in which prosecution was interested, or an investigation was interested in determining whether or not EDTA was in a bloodstain.

Q. Are there routine cases and non-routine cases that are submitted to the FBI Laboratory?

A. Yes, there are routine and non-routine cases.

Q. Could you explain the difference to the jurors, please.

A. Well, we -- we do many examinations that we consider routine. And by that I mean, these we're doing, maybe not weekly, but at least monthly. Examples of this might be something like, in a bank robbery, where a individual robbing a bank is given a die pack. And that die pack goes off and leaves a stain on the clothing or on the money of that individual.

We'll analyze that stain to determine whether or not a very unique die is present that's associated with die packs. That's a very routine examination for us. We're one of the few

labs in this country that do that analysis and those types of cases tend to be federal cases.

Another routine examination we do is looking at unknown powders that are mailed in threat letters. We have a whole lot of these happening throughout the country. Our laboratory tends to get these unknown powders and tries to identify what those powders actually are and assess whether or not they are a true threat. Again, that's a very routine thing.

DNA in our laboratory is as routine, essentially, as you can get it, as well as latent fingerprints. You can't get much more routine.

On the other hand, we do a whole lot of non-routine examinations. These are examinations that the state labs would not typically put together a procedure to do, because they may get this request once in their lifetime.

So we're often called upon, especially in my unit we're called upon, to develop a technique to analyze for a specific chemical, a unique chemical. And we may not do that again for a decade. It is not uncommon at all. So that would be an example of a non-routine examination.

An example of some ones that come to mind recently is looking for insulin in a syringe. Most state labs wouldn't do that. We get that request maybe every three years to do something like that.

Looking for a new drug that just recently came on the market, that cannot be a routine examination, so we would develop that as a non-routine procedure and then perform analysis on the evidence. So it's very common in our unit and it does take up a considerable amount of our time to do.

Q. Are you familiar with the crime that has been referred to as a drug facilitated sexual assault?

A. Yes, I am.

Q. Do you have any expertise in this area?

A. Yes, I do.

Q. Please describe for the jurors your expertise in this area?

A. Well, I'm considered one of the country's experts on this particular topic. I do a considerable amount of training, not just in the United States but throughout the world, on drug facilitated sexual assault and drug facilitated crimes.

I have written a number of scientific

articles that have been published in peer review journals. I have also co-authored a book on drug facilitated sexual assault.

Q. And what is a drug facilitated sexual assault?

A. These are crimes that people typically think of as when someone is slipped a drug secretly and that drug knocks them out, incapacitates them so that a perpetrator can potentially assault them, sexually assault them without them resisting the attack.

Q. And what are these drugs that are used to accomplish that?

ATTORNEY BUTING: Objection, to relevance at this point.

ATTORNEY GAHN: Well --

THE COURT: Mr. Gahn.

ATTORNEY GAHN: I have a few more questions and then I will wrap this up, I just wanted to show the chemical testing that was done on this drug.

ATTORNEY BUTING: And why, we test chemicals every day, what's the relevance here?

ATTORNEY GAHN: Well, that's the point of this, to show how the procedures were developed for a non-routine case. It's just a few more questions.

THE COURT: This is a foundational question

for something else?

ATTORNEY GAHN: Yes. Yes.

THE COURT: All right. If you can relate it, I will allow you to continue.

Q. (By Attorney Gahn)~ Did a time come -- These drugs that are used for the drug facilitated sexual assaults, did a time come when your lab was requested to test for these for the first time?

A. Yes, of course.

Q. And what did you do? Did you develop a procedure to test for these drugs that are used in drug facilitated sexual assaults?

A. Yes, we did.

Q. And why was it important to do that?

A. Because we didn't have a procedure that had been validated and put on line, as we would call it, to do the analysis for these drugs. So there's always a first time for everything, of course, and we had to develop a method and validate it and then use it in cases. And it eventually became a very routine examination that we now conduct, but initially it was a first case where we were asked to do this analysis.

Q. And how often do you get requests to test for

chemicals that you have never tested for before?
A. I would say approximately 20 percent of our case load are requests to do unique non-routine types of examinations.
Q. And in this case here, did you develop a procedure or a protocol to test for the presence of EDTA in bloodstains?
A. Yes, we did.
Q. And did you specifically develop those procedures for this case?
A. Yes, we did.
Q. I'm going to ask Mr. Fallon to bring you what has been marked as Exhibit 434 and ask you to identify the document.
A. This is a copy of the procedure that we developed and used in the evidence for this case.
Q. And was there anything in the scientific literature that helped you develop the procedures that you used in this case?
A. Yes, there was.
Q. I'm going to ask Mr. Fallon to bring you what have been marked as Exhibits 436 and Exhibits 437 and I ask that you examine them, please. And what is Exhibit 436?
A. 436 is a article entitled *The Analysis of EDTA in*

Dried Bloodstains by Electrospray LC/MS/MS and Ion Chromatography, published in the *Journal of Analytical Toxicology*, in November/December, 1997.

Q. And what is Exhibit 437?

A. Exhibit 437 is an article entitled *Determining EDTA in Blood*, published in a journal entitled *Analytical Chemistry*, in August, 1997.

Q. And what is the *Journal of Analytical Toxicology*?

A. This is one -- The *Journal of Analytical Toxicology* is one of the most relied upon professional journals for individuals in the field of toxicology, but more specifically forensic toxicology.

Q. And what is the *Journal of Analytical Chemistry*?

A. Analytical Chemistry is one of the most relied upon professional journals for those that practice analytical chemistry.

Q. And are those considered to be scholarly authoritative publications in the scientific community?

A. Absolutely.

Q. And do you consider those articles to be peer reviewed?

A. Yes, they both are.

Q. And what do you mean by an article or publication being peer reviewed?

A. Peer review, what that simply means is a scientist that does research and then wants to publish that research. What they will do is write up a manuscript and submit it to the editor of that particular journal.

Now in science, what we do, we don't just publish because somebody sends us an article, but the editor has the responsibility of reviewing that article and finding experts in that area of study to review the work that was done in that particular manuscript.

So the editor sends that to reviewers, it's done blindly so no one knows who the reviewers are, except the editor. And the reviewers then make comments. They critique the manuscript, make suggestions for improvements in the science and then send those comments back to the editor who then passes those comments on to the original author of the manuscript.

Then the author of that manuscript must meet the recommendations and the suggestions of the peer reviewers and send that back to the editor who then makes a decision as to whether or

not it is suitable to be published. So it's a check and balance to ensure that what is published is actually scientifically valid information.

Q. And did you develop your protocol, which you have identified as Exhibit 434, that you developed for this case, to test for EDTA in bloodstains, based upon procedures in those two exhibits?

A. Yes, one of the things that we do, when we're looking for a method to develop, when we're deciding we need to develop a method that we don't currently have a written standard operating procedure for, we go to the literature, published literature, and we try to find a method that's been used and published by another group of scientists.

And we basically find one that meets our needs that we can apply with the instrumentation that we have in our laboratory and that will meet the needs for the particular analysis that we're being asked to perform. And the first article I referred to, Exhibit 436, from the *Journal of Analytical Toxicology*, this article met those needs.

We essentially based our entire method

on what was published in this article, with the article, Exhibit 437, from Analytical Chemistry, supporting the ideas that were presented in the article from the *Journal of Analytical Toxicology*.

Q. And did you make they improvements to the procedures that you observed in the publication from Analytical Chemistry and Analytical Toxicology?

A. I believe we did make some improvements when we put the method together and actually validated it.

Q. And what were those improvements?

A. Well, one thing we did, we used a different type of LC/MS for analysis. It was a newer technology than what was used in the 1997 publication.

Additionally, we introduced what's called an internal standard into our method. And simply what this is is a -- it's a control that we introduce into every sample as we're doing the analysis. It's a control that tells us whether or not the analysis, not for the whole batch of samples that we're running at one time, but for each individual sample, to show us that it actually worked as it was supposed to work.

Additionally, we added one more experiment than what they were suggesting to do in this paper, that looked for the free form of EDTA in not just one technique, but two techniques.

Q. What was your thought process in approaching this case that was sent to you?

A. If I can go to the presentation.

Q. Will this be helpful to the jurors?

A. It certainly will be.

Q. Then, please, do.

A. The thought process is simply there's going to be one or two scenarios when you are dealing with the notion that blood was planted from an EDTA tube. First scenario is that bloodstain that is found at a crime scene is either there from someone bleeding, actively bleeding, such as indicated here.

If that blood then dries and a crime scene technician comes along and swabs that particular bloodstain, they are going to put some of the blood onto that swab. And then if that swab is sent into the laboratory for doing an analysis, the laboratory will look at that swab and analyze it. That's scenario one.

Second scenario is if the blood is actually planted from an EDTA tube, again, a swab from a crime scene technician, that comes along and samples that stain, again, that swab being sent to the Crime Lab to analyze the stain. So, essentially, if you look at that swab that's sent to the laboratory, you have one of two potential options here.

The first option is if you find the presence of EDTA and the iron complex of EDTA on that bloodstain, on the swab, and you don't find any significant EDTA on your controlled swab, in that area, remember I said you need to make sure that a cleaning product wasn't used that would confuse the interpretation of the results. If that's the case, you find EDTA present on that swab, then that's an indication that that blood was indeed planted or came from a tube such as a purple-topped tube.

The other scenario is that you do not find EDTA, or that metal complex of EDTA, and that would, then, suggest that the blood came from active bleeding and not from an EDTA preserved tube.

Q. And the blood tube that you have identified as

being the blood tube with the name Steven Avery, is that a purple-topped tube blood?

A. Yes, it is.

Q. And in this case, did you follow the protocol that you developed to test for these two scenarios?

A. Yes, we did.

Q. First, would you, please, describe to the jury the steps that you took to validate the procedures that you used in this case.

A. Well, once we had ensured that all of our instrument settings were correct, based, again, on the paper from the *Journal of Analytical Toxicology*, we performed the required validation steps that are a requirement of our unit, based upon the requirements of our laboratory, which, again, are based on the requirements of our accrediting body. And we performed an analysis initially to determine what our detection limit was for this particular analysis, basically, how low could we go to find EDTA.

And we did that one of two ways. We did it, first, by taking solutions of known concentration of EDTA and continuously diluting them, analyzing it, diluting it, analyzing,

diluting, until we got to the point that we could no longer meet the requirements that we had written into the protocol, as far as something being a positive or a negative. When we reached that lowest concentration, that's what's called our detection limit.

Another test we did, though, is we took a tube of blood that had been preserved with EDTA and we put different size drops of blood on a microscope glass slide and we let that dry and then came along with a swab, swabbed it off, and did, again, the analysis like we wrote in this procedure, on those swabs, until the point that we could no longer detect the presence of EDTA.

And as it turned out, with that particular analysis, with the spot, the lowest volume we can accurately measure is one microliter of blood. And one microliter of blood is the equivalent of about 1/50th of a drop. So that's as low as we could accurately measure a volume out onto the microscope slide. And we were still able to find the presence of EDTA and EDTA with the iron complex on that one microliter drop.

So that, combined with the fact that our

decreasing concentration suggested that we could go as low as 13 parts per million, with the analysis, 13 parts per million, we knew where we were as far as sensitivity with this particular method.

The second thing that we did was to look for the presence of interferences that would cause us some confusion when we did the analysis. Since we were dealing with blood, we looked at a number of blood specimens that were not preserved with EDTA. They had other preservatives in them and blood that had no preservatives. And we ran this through the same test. We put some of that blood onto swabs, let it dry, and then ran through the procedure.

That, again, was to demonstrate that blood doesn't interfere with the test. None of the components that are normally found in blood interferes with the test.

The third thing we did was something that's called matrix suppression, an evaluation of matrix suppression. You are putting proteins and all these other things into the instrument when you are dealing with blood. So what we wanted to also verify is that these other things,

not just that they didn't interfere and cause signals that we shouldn't -- that would interfere with our ability to detect or identify EDTA, but also that the signal itself didn't drop because we were dealing with blood.

Now, this is very important when you are doing a method with LC/MS, particularly with the technique, as this paper describes, electrospray LC/MS. Because it's very well known that electrospray LC/MS, this is one of the criticisms of that particular analysis is that with some analytes other things that are in the sample can cause your signal in -- if it were this high, for example, in water, when you run it in a particular matrix, say like blood, or if you were doing food, that those things, other chemicals could cause that signal to drop.

So we had to evaluate that so we knew if this was a significant drop in the signal. And what we found is that at the very low concentration, we had an average drop in signal of about three percent. And at the very high concentration, we had a drop in signal of about a third. And, again, that's not very significant.

The next thing we did was to analyze for

carryover. And this is an important concept any time we're doing chemistry, analytical chemistry, is that when you shoot a sample that has a chemical in it, you want to make sure that that sample doesn't stick around, residual amounts of that sample don't stick around and show up in the next sample that's injected.

And this is a particular concern because this paper, again, from the *Journal of Analytical Toxicology*, talked about this being a problem with EDTA. And their recommendation in this paper, to avoid carryover to the next sample or the sample that follows, was to extract blank blood, unpreserved blood, and shoot that as a negative in between samples that were associated with the case.

So we evaluated carryover as part of our validation. And we actually found, with the system we were using today, that we had essentially no carryover. We did not find any. So I attribute that in part because technology has changed and the tubing, etcetera, within the instrument, is no longer made of metal, like it was in 1997. We're using a high density plastic material and that's probably why that occurred.

But those are the steps of the validation that we undertook for this particular analysis.

Q. And after completing this validation, did you use the LC/MS/MS technology, with the procedures that you developed, to test for the presence of EDTA in the samples that were sent to you in this case?

A. Yes, we did.

Q. And after all these different types of analyses that you performed, were you able to reach a conclusion concerning the presence of EDTA in the control swabs from Teresa Halbach's RAV4?

A. I was.

Q. And what was that conclusion?

A. We were not able to identify any presence, whatsoever, of EDTA or the EDTA iron complex on the controlled swabs, any of the controlled swabs from the RAV4.

Q. After all these different types of analyses that were performed, were you able to reach a conclusion concerning the presence of EDTA on the blood swabs that you tested from Teresa Halbach's RAV4 that were sent to you in this case?

A. Yes, sir. Yes, I was.

Q. And what was that conclusion?

A. Again, we were not able to identify any indication of the presence of EDTA or EDTA bound to iron in any of the swabs that were submitted to our laboratory that contained blood and were reported to us as being collected from the RAV4.
Q. And after all these different types of analysis that you performed, were you able to reach a conclusion concerning the presence of EDTA in the purple-topped tube that came from Steven Avery?
A. Yes, I was.
Q. And what is that conclusion?
A. That the tube of blood, the purple-stoppered tube of blood that was reported to have come from Steven Avery, did indeed contain significant amounts of EDTA in it.
Q. Dr. LeBeau, based upon your training and experience, and based upon your test results using the LC/MS/MS technique, and based upon all the data that you reviewed and all the compilations that were done in this case, do you have an opinion, to a reasonable degree of scientific certainty, whether the bloodstains from Teresa Halbach's RAV4, that you tested, came from the vial of blood of Steven Avery that was in the Manitowoc County Clerk of Court's Office?

A. Yes, I do.
Q. And what is that opinion?
A. It's my opinion that the bloodstains that were collected from the RAV4 could not have come from the EDTA tube that was provided to us in this case.
Q. And, therefore, which scenario did your testing answer in this case?
A. Of the scenarios on the board, I think our results rule out one of those two possibilities. It would be my opinion that it could not have been from an EDTA tube.
Q. And, therefore, there was no planting of evidence?

ATTORNEY BUTING: Objection, way over broad.

THE COURT: Without any limitation, yes, sustained. I will sustain the objection. I think -- I'm sustaining the objection.

Q. (By Attorney Gahn)~ In accordance with the two scenarios that you set out in your thought process in analyzing this case, did the planting scenario prove true?
A. No, it did not.

ATTORNEY GAHN: Thank you. That's all I

have.

ATTORNEY BUTING: A break?

THE COURT: Yeah. Members of the jury, would you like a full break or a stretch break at this time. Stretch, is that enough? Okay. We'll take a stretch break at this time. You may be seated.

ATTORNEY GAHN: Before I officially pass the witness, I guess I would like to just introduce the exhibit of the report of Dr. LeBeau from the Crime lab, which has been marked as Exhibit 435.

Q. If you would just identify that.

A. Yes, Exhibit 435 is the laboratory report I prepared for this case.

Q. And does that contain your findings and conclusions in this case?

A. It does, yes.

ATTORNEY GAHN: Thank you.

THE COURT: Is the State moving for admission of any exhibits at this time?

ATTORNEY GAHN: Yes, I would move for admission of Exhibit 475 to 478, 434 through 437, and 433.

ATTORNEY BUTING: No objection.

THE COURT: Very well, those exhibits are

admitted. And, Mr. Buting, you may begin.

ATTORNEY BUTING: This PowerPoint isn't an exhibit, is it?

ATTORNEY KRATZ: It is.

THE COURT: Which number?

ATTORNEY BUTING: I will object to that, but the others I won't.

THE COURT: What number is that?

THE CLERK: 466.

ATTORNEY FALLON: 465.

THE CLERK: 465 is the CD Rom.

THE COURT: All right. Do you wish to be heard, later, outside the presence of the jury?

ATTORNEY BUTING: Later.

THE COURT: The other uncontested exhibits are admitted at this time.

CROSS-EXAMINATION

BY ATTORNEY BUTING:

Q. Good afternoon, Doctor.

A. Good afternoon.

Q. I'm sure you're anxious to get back to Virginia where it's not quite so cold.

A. It would be nice, yes.

Q. You have your curriculum vitae up there with you?

A. Yes, I do.

Q. And we had a little bit of talk about your expertise in drug facilitated rape cases, right?
A. That's correct.
Q. Also sometimes called GHB drugs, one of those types of drugs?
A. One of the 60 different drugs used, yes.
Q. Okay. That's the one that maybe most people have heard of; it's the one I have heard of, okay.
A. Okay.
Q. When you are going through your CV you talked about how you authored or coauthored 15 to 20 articles?
A. That's correct.
Q. How many of those articles did not involve drug facilitated rape?
A. Seventeen.
Q. Okay. And how many of those involved postmortem fluids, analysis of postmortem fluids; do you know what I'm talking about, from deceased bodies?
A. Yes, I know what you are talking about. I'm sorry, did refer to postmortem or did not?
Q. Did.
A. Okay. I don't know that I can answer that because -- If I can elaborate?

Q. Well, go ahead.
A. Well, urine can be a fluid from an autopsy, a postmortem fluid, or urine can be from a living person. So an article I published about urine, it would be hard to say if that's meant to be for postmortem or living people. The same with blood. Now, obviously a liver sample or a brain sample, must be from a deceased individual.
Q. Okay. Would you agree or disagree that the majority of your presentations and the majority of your publications involve either drug facilitated sexual assaults or the analysis of postmortem fluids?
A. I would disagree.
Q. Okay. You do have some experience in analysis of postmortem fluids, right?
A. I certainly do.
Q. You certainly do, yes. And, in fact, one of your more recent articles you published, holds yourself out as an expert in the area of postmortem fluid analysis, does it not?
A. I'm now sure I know --
Q. Are you --
A. -- what article you are referring to.
Q. Okay. Are you an expert, do you consider

yourself an expert in the analysis of postmortem fluids?

A. I do, yes.

Q. Okay. We'll return to that in a moment. You also give quite a few presentations. Just this year alone, out of -- looks like out of nine -- just one moment, please. Out of nine times that you have gone around presenting talks this year, six of those involve drug facilitated sexual assaults, right? In 2006, I'm sorry.

A. Yes, six of the presentations that I gave in 2006 were on the topic of drug facilitated crimes and drug facilitated sexual assaults.

Q. Okay. So would you agree with me that that's one of your real specialties?

A. Yes.

Q. And that's what you are often sought after for, by conferences?

A. It's an area that I am asked to speak on quite frequently, yes.

Q. Have you ever, in your life, been asked to give a presentation on EDTA interpretation in bloodstains?

A. No, I have not.

Q. You are not sought off -- you are not a sought

after presenter on that particular topic, are you?

A. No, sir, I'm not.

Q. Have you ever before testified, in a court of law, as an expert who is giving opinions about the interpretation of EDTA and bloodstains?

A. No.

Q. This jury is privileged to be the first to hear your wisdom on this topic; isn't that right?

ATTORNEY GAHN: Objection, your Honor, to the form of the question.

THE COURT: I will sustain the objection.

Q. (By Attorney Buting)~ This jury is privileged to be the first to hear any opinions you have ever expressed in court on the analysis of EDTA in bloodstains, correct?

A. I wouldn't say they are privileged, but I would say that this is certainly the first time I'm testifying about EDTA in a bloodstain, that's correct.

Q. And one reason is, this is the first case you have ever been asked to test -- to test for EDTA in bloodstains, isn't it?

A. That is correct.

Q. But some of your colleagues at the FBI Laboratory

did have the pleasure of testifying on that topic once before, didn't they?

A. Yes, they did.

Q. In the O.J. Simpson case you mentioned, correct?

A. Yes.

Q. And I believe you said that that, in fact, in 19 -- that's 10 years now, 10 years ago, right?

A. At least 10 years ago, yes.

Q. At least 10 years ago. Okay. So in the last 10 years, nobody has come to your lab and asked for your lab to give us the benefit of your knowledge and your ability to test for EDTA in bloodstains; isn't that right?

A. It hasn't happened to me personally, not to my knowledge.

Q. Okay. And might that be because your lab screwed up in the O.J. Simpson case?

A. No, we did not screw up, as you say, in the O.J. Simpson case.

Q. Well, in the O.J Simpson case, correct me if I'm wrong, tests that your lab did, found EDTA in a sock, right?

A. That is correct, yes.

Q. And the defense used your test to help acquit Mr. Simpson, didn't they?

A. Could you repeat that.
Q. The defense used your test results in the O.J. Simpson case, your lab test results, to help acquit Mr. O.J. Simpson of that crime, didn't they?
A. That I don't know. I have no idea. I wasn't the one that performed any of the analysis of EDTA, as I testified to --
Q. Sir --
A. -- in the O.J. Simpson case. I don't know how -- I don't know that the defense used the results or the prosecution. I don't recall that.
Q. Were you working the FBI Lab during the O.J. Simpson case?
A. Yes, I was. I had been there approximately a year.
Q. And you would have us believe that you weren't following what was going on with your lab's testimony in the O.J. Simpson case?
A. Actually, while that examiner was testifying, I was out on my own testimony at a bank robbery trial in Los Angeles, myself.
Q. Ah, so you --
A. I couldn't --
Q. So --

A. I'm sorry, so I couldn't really monitor the actual testimony in that case.
Q. Sure, you couldn't watch it while it was going on, is what you are saying, right?
A. That's correct.
Q. And are you telling us that you didn't follow up afterward, you didn't hear all of the discussion in the news about your lab's involvement in that case?
A. I heard what the media reported, yes. And I heard what our own chemist reported.
Q. Sure, you talked about it in the lab, didn't you?
A. Yes.
Q. You sat around the water cooler or the lunch table and you talked about it, right?
A. Yes, we did.
Q. And, more than that, shortly after the O.J. Simpson case, your unit, the chemistry unit of the FBI was accused of misconduct or malfeasance of some sort that resulted in an audit by the Inspector General of the United States of America; isn't that right?
A. No, that's not correct.
ATTORNEY GAHN: Objection, your Honor, as to relevancy.

THE COURT: Over --

ATTORNEY BUTING: It's foundation.

THE COURT: Overruled.

Q. (By Attorney Buting)~ Your answer was no?

A. No, that's incorrect.

Q. Okay. Have you read an inspector general's report from 1999 that involved an audit of your unit?

A. I have read a portion of the inspector general's report, that was a report on their audit of the FBI Laboratory.

Q. Okay. And part of that review involved your unit, the chemistry unit, did it not?

A. Not to my recollection. It involved investigation of one chemist within the unit, same individual who worked on the FBI -- sorry -- on the O.J. Simpson case. He was specifically targeted within that investigation; it wasn't our entire unit.

Q. Okay.

A. There were units within the FBI --

Q. Sure.

A. -- laboratory, though, that do chemical analysis that were looked at as a whole unit, but it was not the Chemistry Unit to my recollection.

Q. Do you know Roger Martz?
A. I do, yes.
Q. Was he one of your colleagues at the FBI Lab in 1997?
A. Yes, he was.
Q. Did he testify in the O.J. Simpson case?
A. Yes, he did.
Q. Is he working in your unit any more?
A. No, he's retired from the FBI.
Q. Took early retirement, huh?
A. That would be personnel information that I wouldn't be privy to.
Q. Oh, of course. Well, Mr. Martz, if you read that portion of this inspector general's report, was the target of complaints about the performance of -- or about his performance on EDTA testing in the O.J. Simpson case, was he not?
A. I believe that Mr. Martz was -- there were a number of allegations made by the individual who made allegations against Mr. Martz. And there were approximately 10 individuals within the whole FBI Laboratory that this Dr. Fred Whitehurst made allegations against. Those individuals were looked at because of these allegations, the inspector general came in and

looked into every allegation that was made by Mr. -- or Dr. Whitehurst.

Q. Sir, I'm going to stop you here for a second.

A. Yes, sir.

Q. Are you telling us now that you read the entire report?

A. No, as I -- No, sir.

Q. Okay.

A. But I do know the history.

Q. All right. Well, we'll get into it, question by answer -- question and answer, okay.

A. Yes.

Q. All right. Mr. Martz is one of the esteemed authors of this Exhibit 436, isn't he?

A. Yes, he is.

Q. In this esteemed publication of the *Journal of Analytic Toxicology*, right?

A. It's the *Journal of Analytical Toxicology* and he is one of the authors.

Q. Forgive me. He is one of the authors, one of the four authors of this article upon which you primarily based your protocol for EDTA testing in this case, right?

A. That's exactly right, yes, sir.

Q. The other three authors are all FBI employees,

aren't they?
A. Yes, they are.
Q. And this -- In fact, this entire article is based on the protocol that was developed for the O.J. Simpson case, by the FBI Lab, right?
A. I believe part of it is, but I don't know that the entire article is based on what was done in the O.J. Simpson --
Q. Okay.
A. -- case.
Q. Well, the article was written after the O.J. case was done, right?
A. Approximately two years afterwards.
Q. And the article, in fact, is an effort to explain to the rest of the scientific world how you guys screwed up when you tested O.J. Simpson's --
ATTORNEY GAHN: Objection, your Honor, to the form of the question and the relevancy of this.
THE COURT: It's cross-examination, I will allow the question and I will allow the witness to explain and answer.
A. Could I get the question again, please?
Q. This article was written by these four agents from the FBI to explain to the rest of the scientific world how you guys, your lab, I should

say, managed to screw up in the O.J. Simpson case?

A. Well, that's incorrect, on a number of levels, sir. First of all, those are not agents at the FBI Laboratory. The only one that was was Roger Martz. The others are Ph.D. scientists, chemists, or Ph.D biologist. That article was not written as any form of excuse, or explanation, for what our laboratory for -- in the O.J. Simpson case.

That was simply a group of researchers who had the lead, published group lead authors. Dr. Mark Miller, as well as Dr. Bruce Mccord. They are not in our case working area at the laboratory. They never work on cases. They are in our research unit. They are the lead authors. They are the ones that did the research. They are the ones that published it.

It is quite common for those researchers to give credit to individuals in the case working units who had the original idea.

Q. Okay. So --

A. So that is why, I'm sure, Mr. Martz's name is on that article. He had nothing to do with the actual work done.

Q. Oh, really?
A. Publication.
Q. So these authors, you are telling us that they put Mr. Martz's name on here when he didn't do anything at all to do with this study or this article?
A. I believe that to be true.
Q. How about Mr. Bruce Bedowle.
A. Dr. Bruce Bedowle, he is an expert statistician and at the time was, as I recall, the ranking manager within the research unit. Again, it's a respect thing where you include your supervisor in the list of authors.
Q. Okay. Let's talk for a minute about how the protocol was developed for the O.J. Simpson case. All right?
A. Yes.
Q. Just as in this case, a request was made or efforts were started to create a new type of test, mid-trial, right?
A. Well, again, sir, I didn't do the testing in the O.J. Simpson trial. I don't have all the intimate details as to what conversations occurred, when the request came in. I was a newly qualified examiner in the FBI Laboratory.

I had been there approximately a year. So I don't have knowledge about the intimate details that you are asking there.

Q. Well, I didn't realize I was asking intimate details, but let's rephrase it so I'm not, clearly. Was the protocol used in the O.J. Simpson case in existence in the FBI Lab before that trial began?

A. Not to my knowledge, it was not.

Q. It was developed in a hurry while the trial was going -- ongoing, right?

A. I don't know when they started to develop the pro --

Q. How long did it take to develop the --

A. -- protocol.

Q. How long did it take to develop the protocol in the O.J. Simpson case?

A. I don't know.

Q. Okay. Well, Exhibit 437, *Determining EDTA in Blood*, another scholarly article you refer to, right?

A. Yes, it is.

Q. Respected in the field?

A. Yes, it is.

Q. By two authors, at that time associated with

Cornell University, right?
A. That's correct.
Q. And they talked about, and part of this article talks about, the FBI Lab experience in developing the protocol for testing EDTA in bloodstains, that was used in the O.J. Simpson case, right?
A. I would have to review the article again to answer that question.
Q. Are you serious, you don't know what this says? You don't know if this refers to the O.J. Simpson case?
A. Yes, I am serious. And I asked to review the portion that you are referring to.
Q. Go right ahead. It's on the first page, Doctor.
A. What was your question, again?
Q. Does that refresh your recollection?
A. Yes.
Q. And do these authors say, quote, What was wrong with the laboratory testing? First, it was not clear whether the method had ever been used before. Most likely the method was developed quickly, under a great deal of time pressure. In retrospect, FBI chemists now believe that the EDTA detected may have been injection carryover in the LC/MS/MS instrumentation; do you recall

reading that?
A. I do. I can't verify that that's it. You said quote, I can't verify that, but it sounds like the context is very much what I recall reading in that --
Q. Okay.
A. -- paragraph.
Q. Okay. So these authors pointed out that the FBI effort to develop a protocol for testing EDTA in bloodstains for the O.J. Simpson case was hurried?
A. No, sir, they said it appeared to have been hurried. Those authors were not present in our laboratory when that method was developed. I know that to be a fact.
Q. Okay. So you would like to criticize these authors --
A. No.
Q. -- this publication, now?
A. No, sir. The portion of that article that we relied upon was the scientific portion, not the narrative.
Q. Well --
A. It's the science within the latter portion of the article refers to the use of an instrumental

technique called capillary electrophoresis, mass spectrometry, mass spectrometry. Again it's a technique --

Q. Sir --

A. -- that analyzed for EDTA.

ATTORNEY BUTING: May I ask a question? This is cross-examination, Judge.

THE WITNESS: I thought I was responding.

ATTORNEY BUTING: No, you're not.

THE COURT: Well, the answer goes a little bit beyond what the question was, so.

Q. (By Attorney Buting)~ So --

THE COURT: Mr. Buting.

Q. (By Attorney Buting)~ Okay. So, Exhibit 437 that you considered, that you offered here on direct as one of only two publications that you considered while developing this protocol, you say that you considered the portion of science in the latter part of it, but you ignored the portion in the narrative at the beginning that criticized the hurried nature of the development of a protocol; is that right?

A. Yes, that's correct. It was irrelevant in my opinion.

Q. And you know why -- Well, let me ask it this way.

It was irrelevant to you because, in this case, you were under a time crunch, weren't you?

A. Yes, I was.

Q. Let's talk about that. Oh, and by the way, just to make it absolutely clear, these two publications that you referred to, Exhibit 436 and 437, were both published in 1997, right?

A. Yes, they were.

Q. And both of them discuss the use of an EDTA test in the O.J. Simpson case, right?

A. Yes, they do.

Q. And they don't discuss the use of an EDTA test in any other case, right?

A. No, they don't.

Q. Because, as a matter of fact, no one has ever presented to any jury, anywhere, not just you, no one has ever presented a test for EDTA in bloodstains in a criminal trial before, other than the O.J. Simpson case?

A. I don't know that that's true.

Q. Can you tell me another case in this country where an expert has gotten up in court and expressed an opinion that they are able to determine the presence or lack of EDTA, in a bloodstain, in a criminal jury trial?

A. No, I can't, but I don't know that it's true that it hasn't happened. I haven't done a search of the legal system to make that determination.
Q. Oh, really?
A. Really.
Q. So when you were asked to develop a protocol in this case, are you telling us, then, that you didn't search the public domain to see if maybe someone else had already invented the wheel?
A. I searched the scientific literature, as I indicated earlier, to see if there were published methods in peer review journals that are scientifically sound, in order to base my method upon. I didn't search the so-called public domain for such a method.
Q. Okay. But in any event, you found no other reference in any other scientific journal across whatever disciplines there may be, you found no other reference to any other case or instance where a jury had been presented an expert opinion by somebody who says that they can determine whether or not EDTA exists in a bloodstain, correct?
A. Again, I did not search, like, legal proceedings.
Q. Perhaps my question was too long. Let's break it

down. You searched the entire scientific domain of research articles, right?

A. Yes, I did.

Q. And in that entire search, I'm talking not just chemistry, but any kind of forensic science journals, right? You looked at those?

A. Yes, I did.

Q. Okay. Any kind of physics journals, or whatever?

A. I didn't look at physics journals.

Q. Whatever scientific domain you looked at, you found no other case where anyone had done what you are doing here today and come into court and presented an opinion about whether you can determine EDTA in a bloodstain other than the O. J. Simpson case; correct?

A. That's correct.

Q. All right. Now, you were first contacted by someone on the prosecution team in this case in December, late December, of 2006, correct?

A. That's correct.

Q. Let me go back. I'm sorry, I need to clear up one thing in this Exhibit 437 to 436, the FBI -- I will bring it back to you. Because we talked about carryover, right?

A. Yes, we did.

Q. And the authors of that particular study apparently believe that carryover explained why they were -- why they found any kind of EDTA in Mr. O.J. Simpson's sock, right?
A. Again, I don't recall that specific detail being in this paper. I think, yes, they talked about carryover as being a problem in the O.J. Simpson case. I don't know if that was with a sock, or if it was the bloodstain itself, or a swab, or --
Q. All right.
A. -- or what the evidentiary --
Q. That's fair.
A. -- material was.
Q. That's fair. I don't expect you to remember the particular evidentiary item. But you understand, though, that the conclusion was that carryover was the result of the EDTA reading. EDTA positive came from carryover, right?
A. There was a small signal for EDTA, as I recall, that was attributed to a previous injection of EDTA; again, carrying over into a future injection.
Q. All right. So, then, if carryover explained that small signal of EDTA in whatever piece of evidence that was in Mr. Simpson's case, then, in

fact, there may not have been any EDTA in that piece of evidence, right?

A. That's correct, yes.

Q. And, then, if there was not EDTA in that piece of evidence, when the FBI concluded that there was, then the FBI lab was wrong in that case, right?

A. I don't know that the FBI Laboratory concluded that there was EDTA in that case. Again, I never read the report that was issued in the O.J. Simpson case. I didn't do the work myself. I don't know what the actual report was. And I don't know that they claimed there was a significant amount of EDTA.

Q. All right. Well, let me ask it this way. Either the protocol that was used in that case was faulty, or the work performed was faulty, in order for there to be this report of a finding of EDTA on the evidence sample, right?

A. No, I disagree.

Q. Well, which is it?

A. Well, if I can elaborate?

Q. If you would like to, go right ahead.

A. Okay. What I believe is that the method was not well validated, quite frankly.

Q. All right.

A. That's my understanding.
Q. Okay. I will accept that.
THE COURT: Mr. Buting, I think I'm going to stop you there.
ATTORNEY BUTING: Okay. I see it's 2:30.
THE COURT: It is 2:30. So members of the jury we'll take our break at this time. I will remind you again, as usual, not to discuss the case during the break.
(Jury not present.)
THE COURT: You may be seated. Counsel, I will ask you to report back at quarter to three.
ATTORNEY BUTING: Okay.
(Recess taken.)
THE COURT: Mr. Buting, you may resume.
ATTORNEY BUTING: Thank you, your Honor.

CROSS-EXAMINATION, CONTD.

BY ATTORNEY BUTING:
Q. Okay. Now, sir you were first contacted by somebody from the prosecution team in late December of 2006, right?
A. If I could correct some testimony I made earlier; I realized I made an error. And then I can answer your question; is that all right?
Q. Well, we can wait for redirect, but -- what -- Is

it on one of the articles that you were referring to?

A. It was in response to one of your questions.

Q. And what was it?

A. You asked me earlier, as I recall, if both these articles referred to the testing in the O.J. Simpson case. And during the break I reviewed the article from the Journal of Analytical Chem -- Toxicology and realized that I had mistakenly agreed with your statement. This article does not refer to the O.J. Simpson case. So I wanted to set that -- the record straight.

Q. Oh. Okay. Well, let's -- let's just, for a couple minutes, follow up on that. This article is written, though, by four FBI employees, right?

A. Yes, it is.

Q. Including Mr. Martz, right?

A. Yes. I'm not changing my testimony on that, sir.

Q. Okay. Who testified in the O.J. Simpson case, right?

A. Mr. Martz.

Q. And the article discusses the test on a sock; is that right?

A. You will have to show me that, sir, I couldn't find it in that article.

Q. Let me see if I can find it in mine. I'm going to have Mr. Strang take a moment and look at it and then we can move on and not bore the jury, okay?
A. Yes, sir.
Q. All right. He's quicker than I am. If you would take a minute and look at page 526, begin with the circling of the word, but that will help refresh your recollection.
A. Okay. The word "a sock" is circled, but there is no reference to the O.J. Simpson case. And as I -- I said, I agreed with your statement that it referred to evidence in the O.J. Simpson case and I need to withdraw that agreement because it -- to set the record straight.
Q. Well, do you know of any other case in the mid-nineties when the FBI testified about EDTA on some sock? Yes or no? Do you know of any other?
A. No.
Q. No, right?
A. No.
Q. Okay. And maybe just so the jury is a little bit -- can understand your concerns about your testimony being accurate, there's something called a court testimony monitoring practice that

the FBI is engaged in, right?
A. That's correct.
Q. And the FBI, at least for the last number of years, has a practice of following up what their agents or lab people testify when they come to court, right?
A. That's correct.
Q. And what you say here today, to this jury, could be followed up and reviewed by your supervisor?
A. That's right. Our testimonies are reviewed as part of our accreditating body's requirement.
Q. And so you want to be absolutely sure that you don't say something that may be construed negative about the bureau, by your supervisors, unless it's true, right?
A. Sir, I just want to make sure I'm telling the truth if I'm under oath.
Q. All right. If I can return, my question was, that you were first contacted by somebody in the prosecution team in late, very late December of 2006, right?
A. Yes, sir.
Q. Approximately two months ago, correct?
A. Approximately two and a half months ago.
Q. All right. And that was the first you had ever

heard about this case, or was it?
A. Yes, it was the first I had heard of this case.
Q. And as you thought about, well, geez, what can I do here, to do this test, you thought maybe an LC/MS/MS instrument might be an appropriate instrument to try and run a test for this particular chemical; is that fair?
A. Not in December of 2006.
Q. All right. Let me move forward, just make it a little broader, then. As you later committed to do a protocol or test in this case, you thought about that particular instrument, right?
A. Yes.
Q. And that instrument, as you said, has been used for decades, right?
A. Yes.
Q. It has commercial applications?
A. Yes, it does.
Q. So, for instance, the petroleum industry may use it to determine the, you know, chemical compositions of products that they are putting out?
A. Perhaps.
Q. Pharmaceuticals I think you mentioned. One of the things that they have to do is make sure

that, according to FDA regulations, that the drugs that they are marketing contain the chemical makeup that they represent, right?

A. The pharmaceutical industry does use LC/MS and LC/MS/MS techniques.

Q. Sure. And they use it for all kinds of reasons including testing how long their drugs may last, right?

A. Generally, no, they tend to use the LC/MS and LC/MS/MS for metabolite studies and looking for what the body converts these drugs into to monitor.

Q. I see. Okay.

A. Studies that are done.

Q. So they are looking -- They use the instrument to see if -- how the drug breaks down into some other metabolite, you say, right?

A. That's exactly right.

Q. And they want to be sure that there's not side affects, that this drug breaks down into something that might be toxic, for instance, right?

A. That be might one -- one thing that they are looking for, yes.

Q. And they are looking to see that the drugs don't

break down too quickly, or they are just trying to find out how quickly the drug will break down, for one thing, right?

A. That's part of it, yes.

Q. Expiration dates, that's what the whole point of having those kinds of things on drug labels and what not, right?

A. Well, I don't know that they are studying it for expiration dates. Again, they are studying it for metabolites, what the body is converting it into. Shelf life, which I believe you were referring to there, is a completely separate issue.

Q. Okay. But that's an issue as well, that they want to make sure that their drugs are, you know, working long enough to be effective; in other words, someone doesn't take a drug out of their medicine cabinet five years later and it's no longer -- it's way past the expiration date or something?

A. And for some drugs they may need to do that, to verify that it's -- it's stable.

Q. Okay. So you settled on this particular instrument but, before you got there, the person you spoke to was Mr. Gahn, correct?

A. That is correct, yes.
Q. And what you told him in December, when he asked if you could run a test to see if there was EDTA in a bloodstain, was that it would take you three to four months before you would be able to get him any results, right?
A. Yes, that's what I told him.
Q. Okay. And that that was, in part, because you knew that you would -- it had been so long since the O.J. case, the last time your lab had done this kind of a test, that you would need to develop or retest some protocol, right?
A. That we would need to validate the protocol in order to use it.
Q. Sure. And that you would have to, in order to do that, go through a number of tests and what not in order to satisfy the validation process that you thought was necessary, right?
A. That's exactly right, yes.
Q. And so you told them about three to four months?
A. That's the standard estimate I give. When we -- we're asked if we can develop a new method, my standard response is three to four months and that's what I recall responding to Mr. Gahn's request.

Q. Okay. So when you say you get these non-routine cases and you are asked to develop these protocols, typically it takes three to four months?
A. It depends, quite honestly.
Q. But that's the standard answer you give?
A. It's the standard answer.
Q. Okay. And he asked you -- he told you, well, that was not going to work with the trial date that was set in this case, right?
A. He relayed to me that there was an upcoming trial date and indicated that they may need the results faster in order for it to be used in this case.
Q. Okay. And yet, in that discussion with Mr. Gahn, you still could not promise to do anything quicker than three to four months, right?
A. In my recollection, at the time was, I actually suggested that they try to find another laboratory to do the analysis. That was my initial response because we had the holidays coming up, this was right before Christmas. And most of my staff is gone for -- at the end of the year, we lose our leave if we don't take off and use it.

So, you know, realistically, looking at

the scenario we were represented with, I thought three to four months was probably a fair estimate. And the other thing we always have to keep in mind, that we're the primary federal law enforcement investigative body. So if a bomb goes off, if there's a terrorist attack --

Q. Sir --

A. There's --

Q. Excuse me. We would like to get you back to Virginia some time soon so. The question didn't require that long an answer. If you would just try and focus on the questions and give us some answers.

A. I was trying to, sir, I'm sorry.

Q. Okay. And if you need to you, I mean, you will have an opportunity with Mr. Gahn, you can elaborate your answers and explain them further. And if I cut you off and it's unfair, just tell me, okay.

A. Yes, sir, I will.

Q. All right. Thank you. So, you gave Mr. Gahn the standard response. Then, in January, you were contacted again by someone else, about this case, to see if you could do something a little quicker, right?

A. I was, yes.
Q. And that was the FBI office or -- Who was that, U.S. Attorney's Office, or what?
A. It was our local FBI Office.
Q. In Milwaukee?
A. Green Bay.
Q. Green Bay, okay. And after speaking with them and learning something about the case and the trial date that was starting February 5th, you said, oh, well, I think we can do it faster than that, right?
A. No, sir.
Q. You didn't?
A. No.
Q. Did you say you would try to do it faster; is that the difference?
A. I told the agent that called me from our field office in Green Bay, I explained to him that I had had numerous conversations with Mr. Gahn and I had agreed that we would accept the evidence and analyze it for this case, after we had developed a method and validated that method.
Q. Okay. But you told Mr. Gahn, or you told this FBI agent in Green Bay, that you thought you would be able to do all of that while the trial

was going on and you would be able to get results by the end of the trial, right?

A. No, sir. I told him that we would do our best to get the work completed in the time requirements that were needed.

Q. Okay. And you knew that those time requirements were that it's, what, early March now, you knew that you were going to have to get something in probably by around the end of February, right?

A. I believe the deadline we were given was, essentially this week, to have the actual results in.

Q. Okay. Actually, March 9th, I think, right?

A. That sounds familiar, yes.

Q. Okay. So you beat the deadline, right?

A. We did, yes.

Q. Because your actual report is dated February 26th?

A. That's correct.

Q. Now, you testified about why the FBI would have any interest in this case in the first place, do you recall that, with Mr. Gahn?

A. Yes, I do.

Q. You said that, oh, the FBI has this -- has a concern about public corruption, correct?

A. It's one of the types of investigations that we have a classification for within the FBI, yes.
Q. Sure, you have agents that go around and do investigations when there is allegations of public corruption, right?
A. That's correct, yes.
Q. It's not just your chemistry unit that gets involved, right?
A. Of course not. Of course not.
Q. You tell me, now you knew this case, by the way, was charged against Mr. Avery in November of 2005, 16 months ago, approximately, okay. Are you aware of that?
A. That the charges were made then?
Q. Yes.
A. I don't know when the charges were made, sir.
Q. Well, you looked at these swabs that you were testing, right, and they had some dates on them?
A. Yes.
Q. Some of those dates were November of 2005, right?
A. That's correct.
Q. So you knew that Mr. Avery must have been charged by that time.
A. No, sir, I just knew that's when the date that indicated the specimens were collected. I don't

have any knowledge of when charges were made.
Q. Okay. In any event, can you tell me what investigation was started by the FBI to investigate allegations that Mr. Avery made, upon his arrest, publicly, that the police had planted his blood in Teresa Halbach's car?
A. I have no knowledge of an investigation.
Q. In fact there was none, was there?
A. I have no knowledge of it --
Q. Okay.
A. -- whether there was or was not.
Q. Can you tell me when the U.S. attorney convened a grand jury investigation to investigate allegations of public corruption made by Mr. Avery, against police officers, in this case?
A. I have no knowledge of whether or not they did it.
Q. Okay. And can you tell me when any members, any agents from the FBI spoke to Lieutenant Lenk, Lieutenant Colborn, or any other person involved in the investigation of this case?
A. Sir, I'm a scientist; I'm not a law enforcement officer, I have no knowledge of anything of that nature.
Q. Now, you were trying to find out in your test

simply whether or not there was a corrupt, dishonest, criminal cop who planted evidence to frame Mr. Avery is one scenario, right?

ATTORNEY GAHN: I'm going to object, your Honor. I don't believe that was his testimony.

ATTORNEY BUTING: I can rephrase it, it's a little cumbersome.

THE COURT: Go ahead.

Q. (By Attorney Buting)~ You testified, one of the FBI's concerns was, that if there was a corrupt cop on the street and doing something illegal, and certainly planting evidence to frame somebody would be illegal, right? Would you agree with me?

A. Yes, I would.

Q. Okay. And that one of the functions of the FBI was to ferret out bad cops like that, right?

A. Generally, that's what I -- Yes --

Q. Okay.

A. Generally --

Q. Okay.

A. -- that's what I said, yes.

Q. And so what the FBI was asked to do in this case, then, was to find out if there was evidence that would point towards someone planting the

evidence, against Mr. Avery, as he has said, police officers, right; that was one scenario that you were looking into?

A. That's correct.

Q. Or whether or not perhaps Mr. Avery was just full of hot hair and making this up, right?

A. No, sir, I wouldn't say that that was the other scenario. The other scenario was whether that blood came from active bleeding --

Q. All right.

A. -- as opposed to from that tube of EDTA preserved blood.

Q. All right. I didn't -- Don't let me put words in your mouth then, but those were the two scenarios. And as far as you were concerned, you're an objective chemist, you didn't care which way it came down; is that your testimony?

A. That's absolutely my testimony.

Q. And that's the position of the FBI, your boss, I mean, your organization that you work for, they were taking an objective and independent view, in this case, and didn't care which way it came down, in that analysis; is that right?

A. Well, I can't speak for any of my bosses. I'm here testifying for myself. And that is my view

of it, yes, I could care less as to what the results are, quite frankly.

Q. I'm going to show you what's been marked as Exhibit 479 and see if you can identify that for us, please. I'm going to substitute a copy later, so it's really just the first few pages we're concerned about. The chain of custody isn't at issue here.

A. Okay. The first few pages are a copy of the internal communication that the FBI uses to essentially write memos between field offices and divisions within the FBI. And this is the specific request that was sent in to me for analysis in this particular case.

Q. Okay. And did you read the sentence on top of page two that discusses the purpose of this request for your services?

A. The purpose of this request is to establish the presence of EDTA in the vial of blood, thereby eliminating the allegation that this vial was used to plant evidence.

Q. Okay. Can you show me anywhere in there where that request says our purpose is also to find out if there might be any evidence that there's a corrupt cop in Manitowoc County.

A. No, I don't see anything of that nature.
Q. Okay.
A. But I can elaborate if you like.
Q. So, the purpose of your -- of the FBI's request of your laboratory, to get involved in this case, the state crime -- Let me step back for a second. The FBI generally is a law enforcement branch for federal crimes, correct?
A. That's correct.
Q. You don't typically get involved in run of the mill state crimes, do you?
A. That's incorrect.
Q. Well, unless someone brings you in from the state level, for some particular reason, it's not normally the kind of a case where you take jurisdiction, is it?
A. Forty percent of the cases that we work in my unit come from state and local investigations. So I would say it's a significant number.
Q. Is homicide of a citizen in the State of Wisconsin a federal crime?
A. No, sir, it's not.
Q. Okay. Is mutilation of a corpse in the State of Wisconsin a federal crime?
A. No.

Q. Okay. So, the purpose of you getting your federal agency involved in this state crime was to eliminate the allegation that this vial was used to plant evidence; isn't that true?
A. No, sir. If I can elaborate, I will be happy to explain.
Q. You can elaborate later, sir. Now, the protocol that you developed for this case, this test, all right, you began to develop around the beginning of February, February 1st, something like that?
A. I believe we began the actual method validation on -- at the very end of January, perhaps the very last day of January.
Q. All right. So January 31st, let's say, okay. The protocol was completed on February 14th?
A. That's correct.
Q. About two weeks, right?
A. Let me correct that, the protocol was issued --
Q. I said completed. I will get to the differences in a second.
A. The protocol was completed and issued on February 15th.
Q. Okay. Was issued on the 15th, but it was actually completed on the 14th, other than a review process still, right?

A. Well, it's not technically complete until it passes the review process.
Q. Okay. And this so-called validation studies, or whatever you told us was ongoing, that was done by February 14, right?
A. Can I refer to my notes?
Q. Sure.
A. I believe the last validation test was performed on February 13th.
Q. Okay. Thank you. So February 13th. So, really, 14 days, then, if you started on the 31st of January, right.
A. Yes, 14 days.
Q. Okay. But as you said, it's not complete unless it goes through an approval process, right?
A. That's correct.
Q. And the approval process, in your instance, I think you said -- I'm not sure if you did say, actually. But I think you did, yes, you said you had another scientist look at it?
A. Which part are you referring to, sir?
Q. Well, between February 13th and February 15th, did you have somebody else look at this protocol before it was issued?
A. Yes, I did.

Q. A who was that?
A. I had -- Well, if I can clarify things, I had another scientist review all of the validation data --
Q. Okay.
A. -- before the protocol was issued.
Q. Who was that?
A. Madeline Montgomery.
Q. And is Madeline Montgomery in some independent lab?
A. No, she's within the FBI Laboratory, Chemistry Unit.
Q. And she's in the very same Chemistry Unit as yourself?
A. Yes, she is.
Q. Okay. Anybody else?
A. Reviewing the validation data, only the chemist that did the actual work.
Q. And that wouldn't count for your approval purposes, you have to have somebody else take a look at this, right?
A. No, sir, I mean, the first person that does the work has to, of course, review it and verify all of the data is correct. So that's your first level review. Then you follow that up with a

second level review by an independent person and who wasn't involved in the study at all. And I always assign that to a supervisory chemist within the unit, someone with more experience, etcetera.

Q. Okay. Someone in your unit, though, right?

A. It has to be done in the same unit in which they are qualified to do the work. We couldn't get it to a DNA examiner --

Q. Sure.

A. -- they are not a chemist.

Q. Of course. Anybody else look at this validation data, besides yourself and Ms Montgomery and the technician who ran it?

A. I don't believe so.

Q. Okay. Well, I believe we learned a little bit earlier, before the break, that the FBI has something called a forensics science research division, don't they?

A. Yes, they do, they have a research unit.

Q. And, in fact, that's where you said Mr. Miller and Mr. McCord were working. It's called the Forensic Science Research and Training Center, right?

A. That's correct.

Q. And these people don't work on cases?
A. No, they do not.
Q. They just do research, right?
A. They do long term research, primarily.
Q. And that includes developing protocols for new types of tests, right.
A. Not in recent years, no. Most of those duties fall back to the case working units. As I indicated --
Q. Oh, really? You don't -- These are scientists who are doing research, but you don't have them ever look at your new protocols; you let the caseworkers do that?
A. Yes, I mean, I think in this instance, the people that work under me are more qualified to look at this particular type of an analysis. The research unit these days are heavily focused in dealing with homeland security issues. They would not have the time to review this type of material.
Q. Well, you didn't think you had the time either, initially, right?
A. That's correct. But I can make myself make the time; I can't make them make the time.
Q. Just so we're clear, then, you did not have any

scientist researcher from the FBI Forensic Science Research and Training Center review your validation data or the protocol that you used in this case, before using it in Mr. Avery's case, right?

A. That's correct.

Q. Okay. This Madeline Montgomery, that's in your unit?

A. Yes, she is.

Q. She's the one you said you had independently review the validation data?

A. Yes.

Q. Does she report to you?

A. Yes, she does.

Q. Do you review her work?

A. Yes, I do.

Q. Do you decide her raises and promotions?

A. I do, yes.

Q. Okay. And that's your idea of an independent scientist?

A. Absolutely. We train our scientists to be unbiased.

Q. Actually, while I'm on that, you talked about how peer review is done for articles that get published in scientific journals, right?

A. Yes, that's correct.
Q. And that before anything gets put into some sort of publication that has any reputation worthwhile, the editor takes it from the author, the manuscript from the author, and finds some other scientist to review it?
A. Yes, that's correct. Qualified scientist, based on the editor's opinion.
Q. Right. And you say that that's done blindly, so that, you know, there is no bias involved by the reviewers, right?
A. That's exactly right.
Q. And that's important in order to be fair and make sure that you can weed out any kind of bias that one individual may have, either for or against another.
A. Yes, I believe that's true.
Q. But you didn't have Ms Montgomery or Mr. -- or the technician who did this case, run through these tests in a blind fashion, did you?
A. Not blind specifically for the evidence in the case, but we did do some blind testing before we issued the protocol.
Q. And the protocol, just so we're clear, it wasn't -- didn't grow out of any kind of ongoing

research project that you were doing in your lab, right?

A. That's correct, it was based on the publication, as I indicated earlier.

Q. No, no, no. What I'm saying is, it didn't grow out of, it didn't develop because of some ongoing project separate from Mr. Avery's case?

A. No, no, no. It was -- The protocol was validated and reviewed and put into use specifically for this case.

Q. And only this case, so far, right?

A. So far, yes.

Q. Okay. And as you say, the data stuff was done on the 13th of February and it was issued on the 15th, right?

A. Which --

Q. The protocol.

A. -- data stuff? I'm sorry?

Q. You said that all of the data acquisition, however that was being done by these validation -- what you call validation tests, was completed on the 13th, right?

A. The validation work was completed -- the last day of the validation was the 13th of February.

Q. And it was formally issued and adopted by your

laboratory on the 15th of February, right?
A. Yes, it was.
Q. Of this year, 2007?
A. Yes, that's correct.
Q. Okay. And in order to get to that point where it's actually issued, that -- that constitutes an approval process, right?
A. Absolutely, it does.
Q. And that approval process, by your own protocols with the FBI, requires approval by the unit chief, right?
A. That's correct.
Q. As well as someone else, right?
A. As well as the unit chief over our Quality Assurance Unit, which is an independent unit that oversees all quality within the laboratory.
Q. Now, in this case, you are the unit chief?
A. I'm the unit chief of the Chemistry Unit, but --
Q. Right.
A. -- not the Quality Assurance Unit.
Q. So in the protocol, the chain of how these things are supposed to be approved -- By the way, this whole approval process, is part of quality assurance, right?
A. That's exactly right.

Q. And the idea is, we want to get some other eyes looking at this to make sure that it's -- that it's, you know, the protocols have been followed and that this is valid science, right?
A. That's right.
Q. Okay.
A. And other scientists review the procedure before it's issued.
Q. Right. Now, in your case, though, one of those steps was really sort of skipped because you were involved doing the development of the protocol, right?
A. No, sir, not at all.
Q. Oh, so you just reviewed yourself?
A. No.
Q. You graded yourself?
A. No.
Q. Did you find another unit chief besides the quality assurance person?
A. No, as I indicated, the review is done by another scientist. And the scientist that did the review for the protocol, that went through the stepwise procedure, to verify, again, that everything was written as was required by our quality assurance program, that the validation study had been

completed, was Madeline Montgomery.

She did an independent review of this procedure and then -- I'm not approving it in the sense of I'm saying it's okay to be used, my approval is simply that all the steps for the quality assurance program, within my unit, have been met.

Q. So --

A. That's why --

Q. Sir.

A. -- my signature is on the approval line.

Q. The answer to my question then is, yes, you skipped a step in the usual approval process because you were the unit chief who would otherwise have to independently approve a new protocol?

A. No, you're incorrect. No steps were skipped, this is the same approach we take to every protocol that's issued within the FBI Laboratory. I have to be the final signature for approval of any protocol that's issued out of my unit.

Q. All right. And so you graded yourself and gave yourself and A+?

A. I did not --

ATTORNEY GAHN: Objection, your Honor, as

to the form of the question.

THE COURT: Sustained.

Q. (By Attorney Buting)~ As part of the discovery request, you know, attorneys file requests and ask your -- people such as yourself to produce documents, right?

A. Yes.

Q. You are familiar with that process?

A. I am, yes.

Q. You are aware that I asked you, through Mr. Gahn, to disclose the FBI protocol that was used in 1997 in the O.J. Simpson case, right?

A. I am aware that you asked for that, yes.

Q. Okay. And yet your lab refused to give that to me; isn't that right?

A. The attorney that represents our laboratory did indicate that we were not to turn over any other protocol except the one that was used in this particular case, as her opinion was, it was the only one relevant --

Q. In her opinion?

A. -- for this report.

Q. So in her opinion, your lab didn't want this jury to see the only other protocol, the only other time you have ever tested for EDTA in a

bloodstain in any case in this country?

ATTORNEY GAHN: Objection, your Honor, that was not his testimony.

THE COURT: Sustained.

Q. (By Attorney Buting)~ Well, you knew that if you turned over that protocol to the defense, I would use it to cross-examine you, right?

A. I don't know that.

Q. Well, wouldn't take much of a guess to figure it out, that if I had your prior protocol, I could point out to this jury the differences that you made, or lack of differences, between that protocol and this one, right?

ATTORNEY GAHN: Objection, your Honor, as to the relevancy of the O.J. Simpson protocol.

ATTORNEY BUTING: Couldn't be more relevant.

THE COURT: Well, I'm going to sustain the objection, though, on that basis, if there was -- the witness testified it wasn't his decision, but the attorney's decision, not to turn it over. If there's a request for an order to turn it over, that should be directed to the Court, so I don't think this witness is in a position to answer. That's why I'm sustaining the objection.

Q. (By Attorney Buting)~ All right. At any rate, because we don't have, in front of us today -- I assume you didn't bring it, right, or did you?
A. No, I did not.
Q. So you didn't bring it, if the Court was -- if I asked the Court to order you to turn it over today, you don't have it to do that, do you?
A. No, I do not.
Q. Okay. So, because you don't have it, we don't have anything to compare this protocol to the one you used in the OJ case?
A. No, you don't.
Q. We talked briefly about blind tests, let's explain a little bit to the jury. There is -- There is a concept or a technique that's used in science to -- it's called blind testing; are you familiar with that?
A. Yes, I am.
Q. And the idea behind blind testing is that you -- the examiner, or the person who is testing the results or the samples doesn't know what they are or where they came from, right?
A. Sometimes that's considered blind testing, yes. There are other forms of blind testing.
Q. Okay. And one of the reasons that you do -- or

that the scientists do blind testing is to remove the possibility of some sort of bias in the examiner's testing process, right?

A. Yes, that's exactly right.

Q. And so, for instance, when they are testing -- or when you are testing drugs, they will sometimes have a placebo with one person and the effective drug with another. And the person who is testing it doesn't know one way or the other?

A. That's right.

Q. Okay. In this case, maybe in all FBI cases, I don't know, but in this case, the person who did the tests didn't do a blind test, did he? Let me be more specific, because I see you are already trying to pick that question apart. In this case, the person who tested the swabs and the blood that was submitted to you, from the Avery case, did not do a blind test, did he?

A. No, he knew that this was evidence related to a case that we were working.

Q. And he knew more than just that it was evidence, he knew exactly what evidence was which, correct?

A. Yes, I -- Yes, he did. I knew which specimen came from which area.

Q. Okay. And the designations that we saw some of

them up there Q-46, Q-48, K-3, those designations, wasn't some blind code that he didn't know what they meant, right?

A. No, those were the designations that we gave to those individual items that we would refer to within our report.

Q. And when you say we, let's be very clear to the jury you are talking about yourself and the technician who did the tests?

A. Well, no, I'm sorry, in that instance, when I say we, I mean the entire FBI laboratory, that's the system that we use. Those numbers, letter number designation Q-43, for example, it's actually assigned by our evidence control unit. They are the very first ones that receive the evidence and do that initial assignment of specimen designations to -- to evidence.

Q. Okay. But -- Well, let's name this mystery person who was doing the testing in your case; it's a guy named Jason Brewer, right?

A. That's correct.

Q. B-r-e-w-e-r.

A. That's correct.

Q. And he is more than just a technician, would you agree?

A. Well, I would -- He's a Ph.D. He is recently promoted to be an examiner --
Q. Okay.
A. -- in this area.
Q. And he's the one who actually did all the tests that you then later reviewed, right?
A. Well, not exactly. He performed most of the analyses, that part is true. But I was reviewing the data all along. And I was with him a great majority of the time that decisions were being made about the order of things and the amount of sample to use, etcetera.
Q. But you are a busy man, you are a manager, right?
A. I'm a manager, yes.
Q. You don't have time to sit around in the lab while these machines are clicking and whirring, right?
A. Well, I did make time for this case, I was in the lab a substantial amount of time, actually.
Q. Okay. But is it fair to say that Mr. Brewer is the guy who really, from one test to the other, did all of the LS/MS/MS (sic), and the extractions, and the whole protocol; he was involved in every step of your protocol?
A. There's multiple answers to your question; could

you break it out?
Q. Yeah, that was a bad question. Is it fair to say that Mr. Brewer is the one who did the actual instrument analyses in this case?
A. Yes, that is fair to say.
Q. Okay. And Mr. Brewer, you have designations of chemist at sort of the lower level?
A. That's the equivalent of a technician, essentially.
Q. Okay. And then you get promoted to forensic chemist examiner, right?
A. That's exactly right.
Q. And that allows you to do other things, including expert witness testimony regarding the results of chemical analysis, right?
A. That is true, yes.
Q. And you have seen Mr. Brewer's resumé, have you not?
A. Yes, I did. I turned it over to you.
Q. Okay.
(Exhibit 480 marked for identification.)
Q. (By Attorney Buting)~ I'm showing you what's marked now as Exhibit 480; this is Jason Brewer's curriculum vitae, right?
A. Yes, it is.

Q. And would you agree with me that it says in his curriculum vitae that he is qualified, by your laboratory, to come to court and to explain to juries what it is he does in cases?
A. No, sir, it does not say that on his curriculum vitae that he is qualified to do so --
Q. Oh.
A. -- and he is not qualified to do so.
Q. Doesn't this say, under his job description here, interpret data, prepare written reports and provide expert witness testimony regarding the results of chemical analysis?
A. That's correct, that's what it says. But he is -- he was a chemist and qualified as a chemist, as a technician. And, then, just last September, he was promoted to the level of an examiner, but he is still in a training mode as an examiner. He still works cases as a chemist. Until he is qualified, completes his training, passes all the tests, he is not allowed to testify until that is completed and he is certified. He is not a certified examiner at this time, sir.
Q. Well, he is a forensic chemist examiner?
A. That's his position, his official position title

within the U.S. government.
Q. And so, despite the fact that the curriculum vitae that he has, that you turned over to us, that says that he can do that, it's your testimony today that he is not qualified to come here like you are?
A. That's correct.
Q. Okay. So that's why we're not hearing from him?
A. That's correct. I supervised his work and I'm the one that compiled the results and formed the opinion and issued the report; that's why I'm here today.
Q. All right. You say that Mr. Brewer is still in training for courtroom testimony, right?
A. No, sir, I didn't say that.
Q. Well, you said he is not qualified to come here and testify to this jury about what he did?
A. That's what I said, yes.
Q. Okay. What sort of courses or training does he need to do to learn how to tell the truth to a jury.

ATTORNEY GAHN: Objection, your Honor, as to the form of the question.

THE COURT: Sustained.

Q. (By Attorney Buting)~ Let me just turn for a

moment to this particular instrument that you use, GS -- or I'm sorry -- LC/MS/MS. All right.

THE COURT: Mr. Buting, just before you get into that new --

ATTORNEY BUTING: You want to stretch?

THE COURT: -- topic, lets stand up and stretch.

ATTORNEY BUTING: Okay.

THE COURT: All right. Mr. Buting, you may resume.

ATTORNEY BUTING: Thank you.

Q. (By Attorney Buting)~ Let's talk about this -- this instrument, this LS/MS/MS (sic) instrument. It's three instruments, you said, together, right?

A. Yes, sir, it's the LC/MS/MS.

Q. I'm sorry, I'm not a chemist. I keep botching that designation, I'm sorry. I want to explain, make sure the jury understands, because sometimes lay people, like myself, are in awe of science and machines and we sometimes think that they do more than they can, okay?

A. Yes.

Q. So this isn't something that you just push a few buttons, run a sample through, some lights flash

and buzzers go off, and then spits out a result at the end, paper result says this is EDTA, or this is not EDTA, right?

A. That's correct.

Q. It's nowhere near that simple, right?

A. No, it's not that simple.

Q. And in fact, what the whole premise of the machine is is that it's supposed to somehow determine the characteristic of an ion and whether or not it's consistent with one chemical or another?

A. That's not technically correct, no.

Q. All right. A series of ions, is that the correction you wanted?

A. It's fragments that are ions --

Q. Okay.

A. -- that originate from the chemical itself.

Q. Okay. If you turn to -- I have handed you what's been marked as exhibit -- I'm sorry, what is the exhibit number?

A. 441.

Q. 441, and it's entitled guidelines for comparison of mass spectra, right?

A. That's correct.

Q. And this is a document that's issued by your

unit, the FBI Laboratory, Chemistry Unit, right?
A. That is correct.
Q. June 21st of '06 is this one, right?
A. Yes, it is.
Q. And it's signed by yourself at the end, as well as the quality assurance people?
A. Yes, it's signed by myself and two other individuals.
Q. Okay. And if you would turn to page three, there's a section that has a heading that says determination of diagnostic ions in a mass spectrum, okay?
A. Yes, sir.
Q. Your guidelines state, quote, the definition of what makes any given ion "characteristic" of a particular chemical structure is somewhat nebulous and there does not appear to be any universally accepted standard in the field, correct?
A. Yes, that's what it says.
Q. Okay. And it says that's why you have got to have good and consistent judgment and you have to employ judgment -- subjective judgment as an examiner, when you look at the results of these tests, right?

A. It does say you should apply good and consistent judgment, it doesn't say subjective, as you indicated there.
Q. Is there any such thing as objective judgment?
A. I don't know.
Q. I will take that as a no.
A. I don't know.
Q. You are going to fight me on that one too?
A. No.
Q. Okay. And, then, on the last page, page 10 of 15 actually, limitation section?
A. I'm sorry, I do want to -- I want to rethink that answer. I do believe there is such a thing as objective judgment.
Q. All right. Go ahead turn to page 10 of 15. You got it?
A. Yes, sir.
Q. Okay. And this is a heading that's called limitation and, again, these are the guidelines on how to interpret the results of these tests, right? That's what this document is?
A. Of the mass spec --
Q. Mass spectra.
A. -- type test?
Q. Yes.

A. Yes, this -- this is a narrative talking about the general limitations in evaluating mass spectral data.
Q. And this particular section is headed limitations. It's telling you, you know, hold on, there are some limits to this we have got to consider, right?
A. That is exactly right.
Q. Okay. And doesn't it say, quote, the mere fact that an unknown mass spectrum matches well to the spectrum of a known standard will rarely, by itself, be sufficient grounds to claim the presence of that compound in the question sample, correct?
A. That's correct.
Q. Doesn't it also say that, quote, similarly, the fact that an unknown mass spectrum fails to match that of a known standard generally will not, by itself, constitute grounds for concluding that the compound is not present in the questioned spectrum, correct?
A. That's correct, too.
Q. All right. And so what you have to do with these mass spectrum tests is look at a big picture, consider all the data, as well as what comes out

of this machine or instrument, correct?
A. Yes, you have to look at all the data that's generated and put all the pieces of the puzzle together to reach your conclusion.
Q. All right. Your protocol, then, that was developed on February -- or issued on February 15th of 2007, for this case only, it's important that whoever do the test, follow the protocol as written, correct?
A. Yes.
Q. And that you are not supposed to just adjust one procedure differently than what's in the protocol?
A. You are allowed to do that as long as you document the fact that you did make a deviation to the procedure.
Q. Okay. And when you do that, you are actually, by your lab's protocol, you are supposed to fill out some kind of a form saying I want to deviate from the protocol?
A. Well, it depends, there's two types of deviations. We have what are called major deviations, which are quality affecting, meaning by doing this deviation you potentially are going to affect the results of the test and you have to

get a higher level of approval. It has to go up to the quality assurance unit, if you are going to do a major deviation. If you're going to do a minor deviation, on the other hand, it simply just requires a notation in the notes with approval by the examiner and myself, and in this case, approval by me.

Q. All right. Turn to 434 exhibit, please, page 3 of 9, No. 9 procedure, got that?

A. Yes, sir.

Q. Sets forth five steps to follow, right?

A. Yes, sir.

Q. And the last step after you do this filtrate and -- I'm not going to bore everybody with the scientific jargon -- but is that you are supposed to transfer this -- this solution that you come up with, first, and inject it into a system that's a negative ion mode, correct?

A. That's what the procedure says, yes.

Q. And then you follow that up and inject some of the other samples, if they are positive, into the positive ion mode, correct?

A. That's correct.

Q. And in this case, Mr. Brewer did the reverse, didn't he?

A. Yes, he did.
Q. He injected it, first, into the positive ion mode, right?
A. Yes, he did.
Q. And then into the negative ion?
A. Yes, he did, per my instructions.
Q. Okay. Your instructions?
A. Yes.
Q. Okay. So on the very first time you used this protocol, you started changing the procedures around?
A. No, sir. Consider that a minor deviation, simply, it's like you put your right shoe on first or your left shoe--
Q. Okay.
A. It's that simple.
Q. The exhibit in front of you, also, in paragraph two -- number two, I should say, not paragraph two, first page?
A. Paragraph two, first page.
Q. Not paragraph two, item number two, where it says scope?
A. Yes, sir.
Q. It says that this procedure allows for the screening and confirmation of EDTA in suspected

bloodstains, right?
A. That's correct.
Q. The protocol isn't actually validated to do -- to quantitate a particular specific level of EDTA, correct?
A. That's exactly right.
Q. And the difference, just so we're clear, is that protocol is designed to see if there's any level of EDTA that can be detected under your -- above your bar, your limit, right?
A. Yes, that's part of it, yes.
Q. But the protocol is not designed to allow you to actually fix a number and say this is 500 micrograms or whatever, right?
A. It's not validated to provide an accurate number on any measurement we make where we put a number on it.
Q. Okay. Mass spec instruments, though, you can set up a protocol and they are sometimes used to actually quantitate, right?
A. Yes, they are.
Q. But you didn't use it -- you didn't use the instrument in this type of protocol to do that, right?
A. That's correct, we did not.

Q. And you did not, for instance, when you tested in the blood vial that had Mr. Avery's name on it, you didn't quantitate what level of EDTA was in the tube, right?
A. It wasn't validated to do quantitative analysis, so we did not --
Q. All right.
A. -- put a specific value on the amount of EDTA that was present in the tube.
Q. That's fine. That's all I'm asking. You didn't do it, right?
A. That's right.
Q. And you issued your report, Exhibit -- what is it, 326? No. Do you have the report up there with you?
A. Yes, I do.
Q. What is the number?
A. Exhibit 435.
Q. 435. You didn't -- As per the protocol, you didn't express any kind of opinion in the report about how much, if any, EDTA was detected in the vial from -- of Mr. Avery's blood, right?
A. No, I did not.
Q. Okay. And one of the things that was kind of really unique about it, or is unique about this

case, is that when you are testing that purple vial, it's 11 years old, right?

A. Yes, I believe it was.

Q. It was drawn from Mr. Avery's arm in January of 1996 and tested in your lab in February of 2007, correct?

A. I would have to refer to my notes.

Q. Go ahead.

A. Yes, that's a correct statement.

Q. Okay. And we talked a little bit -- or you talked a little bit about this, I think, with Mr. Gahn, but the whole question of the stability or lack of stability of this chemical, EDTA, is an issue of research, correct? In the scientific community?

A. I don't know how much it's researched these days. It's -- I think it's very well documented. I don't know how much ongoing research there is on it.

Q. Well, you mentioned that it's a concern that some environmentalists have that this chemical could be building up in our water and our soil, right?

A. That's correct, yes.

Q. On the other hand, manufacturers who include this chemical in their products are countering that by

saying that this a biodegradable product and will ultimately be dissolved and not be a problem?

A. No, sir, I don't believe that's true.

Q. Are the manufacturers telling the environmentalists that you are right, this drug is just going to build up in our soil and water forever?

A. I don't know that the manufacturers are saying anything to the environmentalists.

Q. You are not aware of any debate, ongoing research in that field?

A. No, sir, I'm not.

Q. But you did mention that you were aware of some degree of studies about the stability of EDTA, right? I believe you testified to that.

A. Yes, I'm aware of a number of studies that discuss the stability of EDTA as well as chemistry reference books that talk about the stability of EDTA.

Q. Okay. Can you cite me to any study, published study, that's ever studied the -- or evaluated the degradation rate of EDTA in an 11 year old vial of blood?

A. No, sir.

Q. Can you cite me to any published study that has

ever tried to characterize the degradation rate of EDTA in any blood substance, stains or liquid?
A. Yes, sir, I can.
Q. What's that?
A. The *Journal of Analytical Toxicology* article that I believe you have. I'm sorry. For clarification, did you say an 11 year old bloodstain?
Q. Well, at first I said 11 year old and you are aware there is no study of blood that old, right?
A. Yes, sir, I'm aware of that.
Q. You do know, though -- Let me just step back for a second, you do know that EDTA is biodegradable eventually, correct, or is that the wrong term?
A. That's the correct term, the research suggests that it is not very biodegradable.
Q. But the research also suggests that it can be broken down, correct?
A. Extremely harsh conditions, yes.
Q. Well, waste water treatment plants have been doing studies where they determined that if you increase the PH in the treatment plant, you can break down EDTA quite readily, right?
A. Well, the published references say that if you boil EDTA in a highly alkaline solution, which

would be high PH, it doesn't breakdown.
Q. You are not aware of studies that talk about using lime in waste water treatment to increase the PH so that it breaks down?
A. Well, the lime may be doing other things, other than just dealing with PH. And there are numerous steps that they take to breakdown the EDTA in water, so it's not just lime.
Q. Okay. But it is -- there are steps they take to break it down.
A. Again, very harsh steps.
Q. In your opinion, you have never done any yourself --
(Court reporter asked to have the last answer repeated.)
A. Harsh. Harsh steps.
Q. Harsh in your opinion because you have never actually done of any of those studies, right?
A. Harsh in my review of the literature, as they call them. I'm quoting some of those references. They are referring to things that, as a chemist, I consider to be quite harsh.
Q. Have you ever done any kind of experiment yourself to see if you can actually make EDTA break down into its components?
A. No, I haven't done any studies.

Q. Okay.
A. But your question is twofold there. And you said into its components, I'm not aware of the components that EDTA breaks into.
Q. Well, at some point, it can be degraded, whether it's harsh or whatever, that's what I'm talking about.
A. And then it would just fall apart as a molecule.
Q. Okay. I apologize, I don't know all the terminology, but you get my drift, right? You understand the question?
A. I do understand the question.
Q. And you haven't performed any experiments to break it down, break the molecules apart?
A. I have not performed any such experiments.
Q. Okay. You did, however, testify about performing a little study just last week, right?
A. Correct.
Q. And that study was designed to see whether or not you would still be able to detect EDTA in some blood spot cards that you had had on -- or that your lab, one of your units had, right, from a number of years ago or, actually, 33 months?
A. I need you to --
Q. All right.

A. -- repeat that question, please.
Q. It's a little study that you are talking about in which you tried to see if -- if you could still detect EDTA in some spot cards, that were 33 months old, is something you did last week, right?
A. That's correct, yes, last week.
Q. And you actually did it on February 28th?
A. If I can refer to my notes.
Q. Go ahead.
A. Yes, sir, that's correct, February 28th.
Q. Now, on February 26th, you issued the report in this case, right?
A. That is correct.
Q. With your opinions, right?
A. That's correct.
Q. The opinions that you knew you'd have to express in court, under oath, in front of a jury, right?
A. Correct, yes.
Q. And so when you issued that report, you had done no study whatsoever of whether or not EDTA would be stable enough to be found in some old bloodstains or blood vial, correct?
A. Yeah, I had not personally done it, but it was in the literature.

Q. And the literature you are referring to is this analytical chemistry thing, right?
A. No, sir. The Journal of Analytical Toxicology did a stability study of EDTA in old blood stains as well.
Q. Two years old, right?
A. I believe it was 24 months, yes.
Q. Okay. And you knew in this case you were talking about a blood vial that's 11 years old, five times longer, right?
A. Well, my understanding there, the bloodstains were just about two years old themselves.
Q. Well, if the vial of blood that came out of Mr. Avery's arm on January of 1996 was used to plant the stains in the RAV4 in 2005, then that blood at that time was already almost nine years old, correct?
A. That's correct.
Q. And, then, since that date, another 16 months or so had elapsed?
A. Yes, that's correct.
Q. Okay. So you issue your report, without doing any study of your own on what the stability might be of EDTA in a bloodstain, correct?
A. That is correct.

Q. And so, then, two days later -- Was that after Mr. Gahn called you and asked you a question that I had raised, that you decided to do this study?
A. No, I decided to do the study based on the letter you sent requesting materials, discovery materials, and one of the items you requested were any studies that the FBI had done on the stability of old bloodstains.
Q. Okay.
A. It prompted me to start thinking, is there a way that we could do it.
Q. Okay.
A. And I went to our DNA Unit and asked them if they had any old blood cards with EDTA on it, and they did. So we decided to go ahead and run them to see if it would help, for this particular case.
Q. Okay. So -- I'm glad you cleared that up. So, then, this -- this study that you did on stability was because the defense attorney in the case had pointed out to you that something might be lacking in your ability to express an opinion to the jury about how stable EDTA was or was not; would that be fair?
A. No, that wouldn't be fair at all, sir.
Q. Okay. Well, we'll let the jury draw whatever

inference they want from that. But I'm showing you now what exhibit -- what's exhibit -- I'm sorry -- 444, this is your EDTA stability study, right? It's up on the screen?

A. Oh, that is the summary of the EDTA stability study. Those are my notes doing a quick review of what we found.

Q. Okay. And these are the other notes attached to this study dated February 28 of '07, correct?

A. That's correct.

Q. And those are Mr. Brewer's initials, again?

A. Yes, that's Dr. Brewer's initials.

Q. Dr. Brewer, I'm sorry.

A. Yes.

Q. And other than these handwritten notes and this one paragraph, there's nothing else that tells us about this study that you did, right?

A. No, that's false.

Q. Did you write up some report?

A. No, there are pages of data that are related to that study.

Q. Okay. Just graphs and charts and things of that nature, right?

A. That's correct. That's the actual study. This is the interpretation of the study and the notes

as to how the study was put together and how it was actually run.

Q. Okay. So would you submit this to some journal to be published, in its form?

A. That one paragraph, I don't believe would be accepted for publication, sir.

Q. I thought not. Let me just talk about the timing of this for a second. If you had done this test, two days after you issued your report, because you are worried about my cross-examination of you, and if you had found that these --

ATTORNEY GAHN: Objection, your Honor, to the form of that question and that's not what his testimony was.

Q. I haven't finished it, but I will start rephrasing it. If you had done this study, two days after issuing your report and you knew you were going to come into court and testify under oath about and if you had gotten results that would show this EDTA really wasn't as stable as you thought it was, you would be -- you would have a bit of a problem there, wouldn't you?

A. Well, we would be refuting all the published scientific data out there that suggests that EDTA is an incredibly stable complex, so it would be

rather a eureka moment, quite frankly.

Q. And so, then, there would have been no reason for you to do this study at all, right? If it's -- If it's that clear in the published literature, there would have been no reason for you to do this study two days after you issued your report, would there?

A. Obviously, we didn't do it as part of the method development, so I do not consider it to be a relevant aspect of putting the method together, doing the analysis in this case, and providing that report to the agency that requested the examinations.

But I do believe that it assists in the final interpretation. It does assist in answering your question, your specific question that we had not addressed in my unit. It had been addressed in the publication, as I alluded to earlier. I did think it was a good idea to do since we did have available to us bloodstains that were 33 months old. I didn't think, as a scientist, that I could just pass that by and not test them.

Q. Well, I'm very glad to hear that, sir.

A. I'm sorry?

Q. I'm very glad to hear that, as a scientist, you didn't just pass that by. But, tell me, page two, which is the only place that describes the actual method that was used; is this a protocol?
A. I'm sorry?
Q. Is this a protocol for testing the stability of EDTA in 33 month old bloodstains?
A. These are the notes describing the steps that were taken in order to conduct the study. But the protocol that we used is the published protocol, the issued standard operating procedure for the analysis of EDTA in dried bloodstains.
Q. So, did you submit a protocol to determine the stability of EDTA, long term, over many, many months?
A. I don't think I understand that question.
Q. You just used the protocol you developed to see if there is EDTA in a particular stain at a given time, right? Correct?
A. Yes.
Q. Which isn't designed to quantitate how much EDTA, if any, is there?
A. That's right.
Q. My question is, did you develop a protocol, as a scientist, that would be accepted for peer

review, that would determine -- be designed to determine the stability of EDTA, as the term you actually used here, to determine EDTA stability?

A. Yes, I believe that the work that was done here is worthy of -- total worthy of publication if we decide to write it up and submit it to a journal.

Q. Okay. But you just used the other protocol that you already developed, you didn't develop a new protocol to study how stable EDTA was; am I right?

A. I'm sorry. I'm not completely understanding your question. We used this stepwise procedure, page two.

Q. Let me just ask, very simple: Did you develop a new protocol -- the question probably begs the answer -- but you did not develop a new protocol and go through your rigorous review and approval and validation and studies, and all of that, for the specific question of determining the stability of EDTA, correct?

A. We did not develop a new protocol to address the -- any potential breakdown of EDTA, but we did determine that we could still --

Q. Okay.

A. -- find EDTA in a 33 year old -- not -- 33 month

old bloodstain.
Q. And looking at this result, you tested a total of 10 spot cards, right?
A. That's correct.
Q. That you got from the DNA Unit?
A. Yes.
Q. You didn't know where they came from, right?
A. I didn't, no.
Q. Didn't know whether they came out of a purple-topped tube, a yellow-topped tube, a red-topped tube, or a gray-topped tube, right?
A. Wrong.
Q. Wrong?
A. That's an incorrect statement you just made.
Q. Okay. How did you know what kind of tube a little spot on a piece of paper came from?
A. Because I was informed by the analyst in DNA that these were all EDTA bloodstains.
Q. Okay. So you relied on that, whatever information that was?
A. Yes.
Q. Okay. And when you tested them, you found that 4 of the 10 spot cards you could not determine -- you could not detect the iron complex EDTA, correct?

A. That's correct, 4 out of the 10 it failed --
Q. Okay.
A. -- the requirements failed to actually make the call. There was an indication of it's presence, though.
Q. But something that's an indication, that doesn't reach your threshold, you don't make a call?
A. That's exactly right because we err -- we work conservatively.
Q. Right. Because something that's just an indication could be an indication of other things, right? That's why you have threshold limits, correct?
A. Well, as we discussed earlier, we have the guideline for mass spectral comparison, which was Exhibit 441. That defines how we interpret the mass spectral data. And those four samples failed the requirements in here to actually make the call.
Q. All right. So, 40 percent of the samples that were only 33 year -- 33 months old, were already -- had already degraded in the EDTA iron complex?
A. No, sir. I wouldn't say that at all. We don't know what the original concentration of EDTA was,

of the iron complex, in that spot. Additionally, this was done on spot cards and we validated our method to be done on cotton tipped swabs.

We did not, in this study, go to see, you know, all the steps we talked about earlier about detection limit. We didn't look at interferences. We didn't look at matrix suppression. We did not do the -- Well, the carryover would probably be irrelevant here. But we didn't do all of those steps for extracting it from a filter paper, a DNA filter paper, which is probably insignificant, but scientifically I can't say that with absolute certainty, that that couldn't have some affects because --

Q. Okay.

A. -- this -- this material may --

Q. Sir.

A. -- bind more tightly to that filter paper, the bloodstain may. Because that's actually what these are designed for, these are spot cards for blood.

Q. Those steps you just mentioned: Carryover, matrix suppression, limited detections, that's called validation, right?

A. That's exactly right.

Q. And what you just told us is that you didn't validate this study to detect EDTA in spot cards, right?
A. That's exactly right.
Q. Thank you. So this study, then, wouldn't really tell you how stable or not EDTA might be in a liquid form that's 11 years old, right?
A. That's correct, yes.
Q. You mentioned -- You mentioned that you were testing swabs, or your tests were designed for swabs of cotton, right?
A. Yes, we did all of our validation on cotton tipped swabs --
Q. Okay.
A. -- because that's what we were told the evidentiary material was going to be in this case.
Q. Okay. And cotton swabs are also absorbent, more absorbent than paper, would you agree, or disagree?
A. I don't know.
Q. You don't know. You haven't tested it, so you don't have an opinion one way or the other?
A. I don't have an opinion.
Q. Okay. You do have an opinion, though, that EDTA

on -- in a bloodstain that is on fabric might be absorbed in different ways so that throughout the stain the level of EDTA is not homogenous, correct?

A. Incorrect.

Q. You disagree with that?

A. Yes.

Q. Okay. Did you shake up the tube when you got it?

A. Yes, we did.

Q. Mix it up real well?

A. Yes.

Q. Have no way of knowing if somebody used that vial to plant, as your little PowerPoint showed, drip, drip, drip, drip, drip, whether or not that person would have shaken up the vial, 11 year old -- or nine year old vial, before doing that, do you?

A. Could you repeat that question?

Q. You have no way of knowing that if somebody used that vial to plant blood in the Halbach vehicle, whether that person shook that vial up like a scientist would before doing so, do you?

A. If that was the scenario, then, I wouldn't know if they shook that vial first.

Q. Okay. By the way you never did any -- I think

you testified about the swabs when you had the photos up there, you kept referring to them as bloodstains here and there, right? Do you recall that?

A. Yes, that's what they were reported to us as being.

Q. Okay. Reported to you, but you didn't do any kind of presumptive tests on them?

A. No, sir, I'm not a qualified serologist.

Q. So the portion when you -- well, not you, but when Mr. Brewer cut the swabs -- By the way, were you present when he cut the swabs?

A. Yes, I was.

Q. Okay. You didn't test to be sure that the section that he was cutting did or did not prove presumptively positive for the presence of human blood, right?

A. Again, I'm not qualified to do that. It was reported to us that this was blood and that had been confirmed by testing at another laboratory.

Q. Well, it had been confirmed to you that somewhere on this swab, the portion of the swab that was cut off by the prior lab had tested, that had blood, right? As far as you know?

A. Yes, that's -- I believe that's what I said.

Q. Okay. But the portion that was left on those swabs, you don't know that anybody ever tested to see if there was blood, and if so, how much of the swab that was being cut off contained the blood, right?
A. That's correct.
Q. Okay. You know that blood and EDTA -- that EDTA is a binding; you call it chelating, but the same way -- another way of saying binding, right, molecules?
A. Yeah, it binds -- it binds metals, that's correct.
Q. Particularly metals, right?
A. Yes.
Q. And so it may bind with one substrate that a stain is sitting on differently than another substrate that a stain is sitting on, right?
A. If it's not already bound to another metal, yes.
Q. Okay. And by substrate, I'm talking -- it's another way of saying a surface, particular surface, right?
A. That's correct.
Q. You only tested three swabs that were reported to have been taken, or found, in the Teresa Halbach vehicle, right?

A. That's correct.
Q. Do you know how many other swabs or how many other stains were also found in that vehicle?
A. No, I don't.
Q. Your opinion that there's no EDTA in the swabs from the Halbach vehicle, then, is limited to the three swabs that were presented to you; isn't that right?
A. Could you repeat that?
Q. You expressed an opinion a little more broadly than perhaps you intended to, I believe, which was that your opinion was -- let me look for my notes -- that the stains in the Halbach -- bloodstains in the Halbach vehicle could not have come from the purple vial that you tested, right?
A. That's correct.
Q. But you're actually referring only to the three stain swabs that you tested, correct?
A. No, I believe my original testimony is what I meant.
Q. Well, are you telling me right now, that even though you never tested three other swabs of separate bloodstains found elsewhere in the RAV4 vehicle, that you're willing to express an opinion that none of those three swabs have EDTA

either?
A. I am willing to -- to conclude that.
Q. Oh, you are?
A. Yes, sir. If I can elaborate.
Q. Well, no, let me finish my -- my question. So even though you didn't test those other three swabs, you are prepared to state that they could not have come from the blue -- the purple-topped vial that you tested of Mr. Avery's blood?
A. I believe that to be true within a reasonable degree of scientific certainty, yes.
Q. Okay. I just wanted to know how far you were willing to go. And the -- You also give another interesting opinion where you -- I'm not sure exactly how it came out after I objected and it was rephrased, but that you believe the planting scenario, one of those two -- you only gave two scenarios there, one which is that the blood came from a dripping finger that you so helpfully gave us on the screen, right, that was one scenario?
A. To represent active bleeding. I wouldn't know if it came from a finger or a toe or an arm.
Q. Oh, really, you just picked a dripping finger out of just thin air, right?
A. That's what happened to be at Microsoft's web

site --
Q. Oh.
A. -- a finger, right.
Q. And that was one scenario. The other scenario was that someone was pouring out these little drops from the purple-topped tube, right?
A. Sure, yes.
Q. And I think if I understood you, you maybe went even farther and said that because of your test on those three stains, there was no way that -- that the blood in the RAV4 could have been planted by anybody; isn't that what you said?
A. Yes, that was my opinion. That's correct.
Q. Or did you mean that they couldn't have been planted from that purple-topped tube only?
A. Well, if you look at all of the information I was given on this case, my opinion would be that it couldn't have come from the EDTA tube that we tested or any other EDTA tube.
Q. Okay. But you are not expressing the opinion that it couldn't have been planted from some other blood source, that didn't have EDTA already, are you?
A. No, sir.
Q. Okay.

A. I'm not saying that.
Q. Okay. And you never tested any swabs that were reported to you to have been recovered from the garage floor or inside Mr. Avery's tailer -- trailer, were you?
A. Could you repeat that?
Q. You never tested any swabs that were given to you that were reportedly recovered from the garage floor or trailer of Mr. Avery, did you?
A. No, I wasn't.
ATTORNEY BUTING: Should we approach the bench for a minute, your Honor?
THE COURT: Sure.
(Side bar taken.)
THE COURT: Members of the jury, we're going to go a little longer than normal to get the witness back to Virginia. I'm told we don't have too much to go. But let's take a quick stretch break and then allow the attorneys to finish. You may continue.
ATTORNEY BUTING: Thank you, Judge.
Q. (By Attorney Buting)~ The -- Without getting too bogged down in the procedure that's followed and the protocol and all that, if you allow me to oversimplify it, as I understand it, you take

these swabs -- And, by the way, let's just clear one thing up, the photograph showed two control swabs for each of these three stains, right?

A. Yes, that's correct.

Q. You didn't test both control swabs, though, did you?

A. No, standard practice, we leave half for retesting, so we tested one and left the other for future testing if that was deemed necessary.

Q. Well, aren't these swabs supposed to have been taken from different areas of, like, one side or the other of a particular stain.

A. It's from the general area, that's correct.

Q. But the theory being that you don't swab the exact same area twice, you swab -- you use the second swab to swab a different control area somewhere around the stain, right?

A. That's one way to do it, yes.

Q. All right. You don't know how it was done in this case, because you weren't there?

A. That's correct, I was not there.

Q. Okay. But my point is, you didn't test -- you didn't take half of each -- clip off half of each swab and do it that way, right?

A. That's correct, we did not.

Q. You just tested one?
A. Yes.
Q. Okay. The -- As I understand it, what you do is you clip off the swab. You put it in a little -- some sort of a little vial or something. You put a solution in there. And it's actually 200 microliters of something, something of that nature; does that sound right?
A. Well, perhaps you are oversimplifying it.
Q. Well, you put a solution -- you put a solution into the dry swab sample, right?
A. You do, yes.
Q. And you allow it to react for a certain period of time, right?
A. Forty-five minutes.
Q. And your protocol for this particular test, 45 minutes, correct?
A. Yes. Yes.
Q. And then you -- you centrifuge it?
A. Yes, we do.
Q. And then, what that does, is it separates the liquid from the solids that drop to the bottom, right?
A. The liquid portion goes through the filter and it carries with it the EDTA and EDTA iron complex

that was dissolved into the solution.
Q. And the solids drop to the bottom?
A. No, sir.
Q. Well, okay, the liquid is at the top?
A. No, sir. If you would like, I can simplify this.
Q. Please.
A. Okay.
Q. Simply.
A. The swabs are cut and put into what's called a molecular weight cut off filter, it's a filtering device, sitting in this filter device. And then we add a solution of the internal standard, which I described earlier as the positive control, into each sample. That's 200 microliters, which is -- again, that is approximately a 10th -- I'm sorry -- a 20th of a drop, and that is placed into the --
Q. Two hundred microliters?
A. I'm sorry, I misspoke. It's not --
Q. Yeah, I thought so.
A. It's approximately two drops. Thank you. It's approximately two drops of liquid that are placed into that -- onto that swab. And it's left to sit for 45 minutes to allow for -- time for all of the EDTA, or a portion of the EDTA and the

iron complex, to actually go into the water that was added to it.

And then we centrifuge it at high speed to drive the liquid through the filter device and the liquid goes to the bottom of the tube and the swab and all the solids remain at the top in the filter itself. And then we analyze the liquid portion.

Q. Okay. So I misspoke, it's the other way around, the liquid is at the bottom, right?

A. Yes, sir.

Q. All right. And then goes into -- there's -- there's approximately 200 microliters of liquid, a little less probably by then, right?

A. A little less, yes.

Q. Okay. Then it goes into a machine called auto sampler, right?

A. No, not exactly.

Q. Well --

A. It's transferred into a small sampling container, a vial, which is a sealed glass vial. And then we manually place it onto an auto sampler.

Q. Okay. And then the auto sampler basically sucks out just five microliters for the test, right?

A. For each of the individual tests that we ran on

this, yes.
Q. Correct. So out of each, Q-49, Q-48, Q-47, the micro sampler takes five micro -- auto sampler takes about five microliters, leaving 190 or so left, correct?
A. Well, probably considerably less than 190, but it leaves some residual liquid behind, yes.
Q. Okay. And then it's that five microliters that gets tested in the instrument, correct?
A. That's right.
Q. But you don't save the remaining liquid to be retested by the defense, or another lab, or anything of that nature, do you?
A. No, we don't.
Q. And presumably, if you did, that would be one way of verifying the results that came from the five microliters that was tested, correct?
A. That would be one of many ways it could be --
Q. Okay.
A. -- reevaluated.
Q. Now, EDTA is found, you mentioned, in many, many products, common household products, right?
A. Yes.
Q. You mentioned shampoos, detergents, and some automotive cleaning products as well, right?

A. Yes.
Q. Including Armor All?
A. No.
Q. Make up?
A. Some cosmetics.
Q. Okay. Also used in photography?
A. In some applications of photography, yes.
Q. Okay. And, yet, when you tested the controls in this case, you found no EDTA detectable, correct?
A. That's exactly right.
Q. And that was in the process whereby you have diluted the -- or allowed the solid to react with 200 microliters of liquid, correct?
A. That's correct, yes.
Q. If you had allowed that to evaporate down to a smaller amount, if there was any EDTA in the liquid, it would be more concentrated, correct?
A. Yes, it would be.
Q. You did not do that in this case, on the controls, for instance, to rerun them and see if you would detect EDTA at a lower dilution?
A. No, I don't believe it was necessary to do.
Q. Okay. And, by the way, the -- even with this brand new test you devised, you can't tell the jury, to a absolute scientific certainty, if

there is such a thing, that there's no EDTA in any of those blood stains. All you can say is that there is none detectable given your limits of detection, correct?

A. Yes, they are negative at our limit of detection, which I feel --

Q. Okay.

A. -- is more than adequate.

Q. I understand that's your opinion, but the point of it is, there might be a lower level of detection which might reveal EDTA; isn't that right?

A. Well, you could go lower and start detecting environmental contamination from soil and water, but that, I believe, would just confuse the interpretation on this case.

Q. What that might do is just what happened in the O.J. case, which is, show the jury that there is EDTA in the bloodstain rather than that there is not, correct?

A. Again, I didn't do the testing in the O.J. case and I'm not fully aware of all the final findings in that particular case. It's been, I believe, 12 years, actually.

Q. All right.

A. And -- But it's my recollection, to answer your question, that we did not report that there was a significant amount of EDTA in that bloodstain in that case.
Q. I want to show you a photograph that we have looked at earlier. Probably this -- one of these two. But I will show you Exhibit 473, first. Take a look at these two. Okay. Have you had a chance to look at that?
A. Yes, I have.
Q. And is that the blood vial that looked the way it looked when you got it?
A. No, sir.
Q. It's changed? The one you got was changed? How?
A. Well, I can't even verify that this is the same vial, based on this photograph, either of these photographs.
Q. Well, I think counsel -- we have had testimony earlier, we can -- for your purposes, you can assume that that is the same vial that ultimately made it to the FBI Lab, at least we hope, okay.
ATTORNEY GAHN: I will agree that the witness can assume that that's the vial that came from the Manitowoc County Clerk of Court's Office and was sent to the FBI for your analysis, Doctor.

Q. (By Attorney Buting)~ Okay.
A. Yes.
Q. So, then, my question is, the condition, the way that vial looks to you right now in that picture, is that consistent with the -- is that consistent with the way the vial looked on that day that you saw it?
A. If I can refer to my notes.
Q. Sure.
A. Again, I really can't tell fully because I can't see all the markings on the vial to verify that it's marked exactly the same as when we received it. But when we -- when we received the vial of blood, it came in a different container, as was indicated earlier. It was sealed into a shipping container like this and it has a label on the side that I don't see in either of these photographs. Additionally, the top was sealed with evidence tape on here. Let me correct that last statement, the vial itself was not sealed with evidence tape, it's this outside container that was.
Q. Okay. Let me put this up on the screen for you, for the jury. Is this the same exhibit you are looking at right now.

THE COURT: I'm not sure your microphone is on, Mr. Buting.

ATTORNEY BUTING: Sorry.

Q. (By Attorney Buting)~ Is this the same exhibit that you are looking at right now? Does it look the same?

A. No, sir, I believe that's a different photograph.

Q. Let me see the photograph, please.

A. Yes.

Q. All right. Let's try this one. Okay. I think counsel have agreed we have got Exhibit 473 up on the screen now. Let me ask you, when you did open up the vial, or the packaging, and found the purple vial of blood that said -- or that was reported to you to be Steven Avery's, did it appear to you that the vial had been clearly opened at some time?

A. Yes, it did.

Q. Okay. And is that, in part, because around the edge, as I have zoomed in on this exhibit of the stopper, there appears to be some red blood that has actually seeped in onto the stopper itself?

A. That's exactly right, yes.

Q. Okay. And that's a clear sign that at some point the top had been opened, right?

A. Yes, it is.
Q. All right. Your opinions that you expressed today are to a reasonable degree of scientific certainty, right?
A. Yes.
Q. And just as you would do in any other case where you are expressing an opinion to a jury, correct, as an expert?
A. Yes, based on the science, yes.
Q. All right. Well, let's talk about another case that you were involved in in which a protocol was developed rather hurriedly, not the O.J. one that you were not involved in, but a fellow by the name of Dr. William Sybers, does that ring a bell?
A. Yes, it does.
Q. Correct me if I'm wrong, but Dr. Sybers was a medical examiner in the State of Florida, whose wife passed away and nine years later was charged with her murder for poisoning -- allegedly poisoning her with a particular sort of muscle paralyzing drug, correct? Is that a fair summary?
A. Yes.
Q. Okay. And so what they did was, they dug up poor

Mrs. Sybers' body and took samples from the tissue of -- the embalmed tissue of her remains, correct?

A. Yes, they did.

Q. And then, they went to you, to develop a protocol to test for a particular drug called succinylcholine, that's s-u-c-c -- maybe you can spell it. S-u-c-c-i-n-y-l-c-h-o-l-i-n-e, is that right?

A. No, that's wrong.

Q. Okay. Tell us, how do you spell it?

A. No, that's the correct spelling, your statement was wrong.

Q. Okay. You developed a protocol to develop -- in an effort to determine whether, from a metabolite that could be found in someone's postmortem fluids, one could determine if the parent drug had been administered at some earlier time?

A. I need you to repeat that before I can respond.

Q. You developed a protocol, in that case -- First, let me step back. What you were trying to do, what you were asked to do, was to test these postmortem fluids, a subject which, by the way, you continue to testify on now, in 2007, right, or six?

A. Again, that's a multi-question question, I can't respond to it.
Q. They train you well on courtroom testimony, don't they?
A. I'm just answering your questions --
Q. Okay.
A. -- truthfully, sir.
Q. You were correct that was a multi -- that was a bad question, it's getting late. You still teach at conferences about postmortem fluids, right? The testing of postmortem bodily fluids?
A. I do, that's part of my job.
Q. Right. And it was back in 1999, I think, right?
A. Yes, it was.
Q. And you were asked in that case to try and see if you could come up with a test protocol that could determine whether or not Dr. Sybers had poisoned his wife with a particular drug; is that right?
A. Not entirely correct, no.
Q. Well, you're going to fight me all the way on this I can see. You developed a protocol to try and find out whether the prosecution's theory that Dr. Sybers had poisoned his wife was correct or not, correct?
A. No, sir. That's never the intent of developing a

procedure is to determine someone's guilt or innocence. It's to simply analyze for the presence of a chemical in evidentiary material. We don't decide the guilt or the innocence.

Q. Well, thank God for that.

ATTORNEY GAHN: Objection, your Honor.

THE COURT: Sustained.

Q. (By Attorney Buting)~ What you were trying to do was to test bodily fluid that had been embalmed nine years earlier and draw some conclusions about whether or not one could make an assessment of whether this parent drug had been administered to the person before they died, correct?

A. If I can correct your question a little bit, move things along. We tested, not postmortem fluids, but we tested postmortem tissues, heart, kidney, lung, fat, muscle, as I recall. We were asked to develop the protocol to determine whether or not a chemical called succinylmonocholine, s-u-c-c-i-n-y-l-m-o-n-o-c-h-o-l-i-n-e, was present in these tissues, because another laboratory had found them and we were asked to verify whether or not that laboratory had indeed identified this particular chemical.

Q. Okay. And your testing indicated a positive

finding for succinylmonocholine in the victim's kidney, correct?

A. That is correct.

Q. And that particular molecule is a metabolite of the drug succinylcholine, correct?

A. Yes, it is.

Q. And your testimony was employed, by the prosecution, to obtain a conviction of Dr. Sybers for the murder of his wife by means of the injection of this succinylcholine, correct?

A. I did pros -- I did testify for the prosecution in that case, that's correct.

Q. And you rendered opinions to a reasonable degree of scientific certainty, didn't you?

A. I believe I did. If I rendered an opinion, I would make sure it was within a reasonable degree of scientific certainty.

Q. Just as you are today?

A. Yes, sir.

Q. To a jury just as we have here today, correct?

A. To a jury, yes.

Q. And that jury convicted Mr. Sybers, correct?

A. Yes, they did.

Q. The conviction, however, was reversed by the Court of Appeals in Florida four years later,

right?
A. I don't know when, but I do know that they reversed the decision on appeal.
Q. And only after that, when additional tests were done on other tissues or fluids from other deceased persons, was it determined that that very same metabolite you found in Mrs. Sybers' body was also in theirs; isn't that right?
A. That's correct. I would like to elaborate on it.
Q. You can elaborate in a moment and I'm sure you will take any opportunity you can. But the point being, your protocol was hurriedly developed for the trial of Mr. Sybers' case, right? Mid-trial, while the trial was going on, yes or no?
A. I'm trying to answer, but you are not giving me a chance, sir. Yes, it was developed for the Sybers' case.
Q. Okay.
A. It was a court ordered test that we were --
Q. Okay.
A. -- told to do.
Q. And you didn't decline, right? You could have said, no, we don't have enough time to do this?
A. I couldn't decline in that instance, no.
Q. Well, did you tell the Court, hey, I just don't

have time to do this properly and scientifically?
A. No, sir, I was told that the Attorney General of the United States was going to call me and request that we do this exam, so I decided that I would do it.
Q. Did you tell the jury that you were under pressure to do -- to develop a test protocol that you didn't feel comfortable doing?
A. No, I never -- never told the jury I was uncomfortable developing the test protocol.
Q. Okay.
A. But I do believe I informed them it was done under rather rushed circumstances.
Q. Okay. And you never told them that there was any concerns about the scientific validity of the opinions you were expressing either, were you, correct?
A. There were no concerns, in my opinion, about the scientific certainty of what we did in that particular case.
Q. Okay.
A. And I stand by it today.
Q. Okay. Except that years later, when you tested, as you should have all along, other tissues from other bodies, you found the same metabolite?

A. Well, it's a complex question; I can't just answer yes or no. We did test tissues from other bodies when we worked to develop the method and validate the method before it was used on specimens in the Sybers case, we did do that.

But what happened was years later we got a new instrument into our laboratory and we had additional cases where we were requested to analyze for the same analyte. And when we started to move the method over to the new instrument, which was more sensitive than the old method, we started to find this chemical there at very low levels in bodies that we knew had never been exposed to that particular drug.

So that was then reported immediately to the investigators in Florida. We did all of that work ourself. We reported it to the investigators and informed the Court of our findings.

Q. Now, just out of the goodness of your heart, you kept testing these samples, is that what you are saying? There was no ongoing post-conviction litigation that was involved in this case?

A. No, sir, not at all. As I testified, we continued to test specimens because we were

requested to do this examination on other cases in the future.

Q. Okay. And what happened was this, you expressed an opinion, in court, to the jury, that the presence of the metabolite, succinylmonocholine, proved to a scientific certainty, the prior presence of or injection of succinylcholine, correct?

A. Can I see what you are reading from, please.

Q. I just asked you the question?

A. I don't recall. I would have to see what you are reading from.

Q. Okay. Well, I will show you this in just a moment. In any event, several years later, the attorney general, or the prosecutor in Florida, submitted what's called a notice to the court, that is marked as the Exhibit 439, correct?

A. I don't know what that form is called, I'm sorry.

Q. Well, have you seen this exhibit before?

A. First time I saw it was yesterday.

Q. Okay. But you saw it yesterday?

A. Yes.

Q. Okay. I'm going to read you a sentence and you tell me in you agree or disagree with it. The purpose of this filing is to notify the Court and

the defendant that recent scientific testing, conducted by National Medical Services and the Federal Bureau of Investigation Laboratories, has discovered that the findings specifically related to this defendant and the testimony of the experts from each of these laboratories, though believed to be correct at the time of the testimony, can no longer be relied upon.

The findings of the presence of succinylmonocholine in the specimens tested are believed to be accurate and correct; however, the opinions that the succinylmonocholine proves, to a scientific certainty, the prior presence of, or ingestion of, succinylcholine are not correct, end quote.

A. I disagree with that statement.

Q. You do? Oh, this is the ***State of Florida vs. William Sybers***, correct?

A. Yes, it is.

Q. Okay. Prosecutor apparently agreed with it, correct?

A. I think you would have to ask the prosecutor; I don't know.

Q. Okay. Well, would you like to see the signature of the State's attorney on this document?

A. Yes.
Q. Do you see that?
A. Yes.
Q. Okay. By the way, National Medical Services is the lab that you interned at, correct?
A. I did a three month intern there while I was working on my master's in 1987.
Q. And in the trial of that case, you and Dr. Kevin Ballard, from that lab, were both testifying for the prosecution, correct?
A. Yes, we were both called by the prosecution to testify in that case, that's correct.
Q. Do you know how many years Mr. -- or Dr. Sybers spent in prison before the -- before these tests proved to disprove that original thesis?
A. I believe he's still in prison, sir.
Q. Well, did you ever go apologize to Dr. Sybers?
A. No, sir, I did not.
Q. Did you ever send a letter or apology to the jurors who convicted him, for giving them an opinion that was later retracted by the prosecutor himself?
A. No, because I believed my original testing was accurate, that the specimens did contain what I said were in those specimens, which was

succinylmonocholine.

Q. And that your opinion was that the presence of that proved poor Mrs. Sybers had been injected by the parent drug?

A. And that opinion, of course, was based on the research that was available at the time.

Q. And later research proved your opinion to be wrong; isn't that right, sir?

A. Not exactly. Later research, with more sensitive instrumentation that was not used in the Sybers case, proved that we were able to find traces of this chemical, now, when we used a more sensitive approach than we actually used in this case.

Q. So, later science and instrumentation proved your opinion, offered to the jury to a reasonable degree of scientific certainty in that case, was wrong, correct?

A. No, sir. I believe all it did is actually confuse the issue.

Q. Just like you are doing here today in Mr. Avery's case, correct?

A. I hope I'm not confusing the issue, sir.

Q. Well, I hope so too.

ATTORNEY BUTING: Thank you, sir that's all I have.

THE COURT: Mr. Gahn, any redirect?

ATTORNEY GAHN: Yes, your Honor, just a little bit.

REDIRECT EXAMINATION

BY ATTORNEY GAHN:

Q. Dr. LeBeau, will you, please, explain to the jurors how you became involved in the Sybers case, what transpired, and how it was finally resolved?

A. Yes, I will. There was an investigation of a medical examiner named William Sybers, in the State of Florida. It was a very long ongoing investigation where there was a great deal of evidence -- the investigators felt there was a great deal of evidence against this forensic pathologist in the death of his wife. And the investigation lasted approximately 10 years. Because he was a medical doctor --

ATTORNEY BUTING: Judge, I'm going to object, unless this is knowledge that he's acquired on his own, from his involvement in the case, it's hearsay and it's irrelevant. It's at least hearsay.

THE COURT: I think the background of the case is already established and the witness should move onto his role in it and what he knows happened

afterward, if we haven't heard it already.

A. The laboratory in Pennsylvania was involved in this case and they analyzed those specimens from her exhumed body for the presence of every single chemical known to man. And they found the presence of this chemical called succinylmonocholine. And in that, they concluded that that would -- that chemical was a metabolite that comes from succinylcholine. And that was very well established in the research that dated back into the '50s.

But because they were the only laboratory that did this analysis and because they had some prior evidence rejected by the Court on that particular case, the Court ordered the prosecution to find another laboratory to verify the findings of the laboratory out of Pennsylvania and they called upon us to do so.

So we developed a method -- quickly developed a method to try to identify the presence of this chemical, succinylmonocholine, in tissues, which is actually one of the most difficult types of analyses to do. And we did identify the presence of this chemical in some of the same tissues that the laboratory in

Pennsylvania found it in, but not all of them. And I testified to that in the trial, that we were not able to find it in all those tissues and that our method was not as sensitive as the method that was used by the laboratory in Pennsylvania.

I did conclude, at that trial, that the only known source of succinylmonocholine, at the time, came from injections of the parent drug, succinylcholine. And I testified to that. We did validate the method before it was put into use. We ran negative tissues from other bodies that we knew had never been exposed to succinylcholine or succinylmonocholine.

Then, in the years after the trial and the conviction, we were continuing to get requests from other agencies that were claiming that that same laboratory in Pennsylvania had found the presence of this same chemical in old cases, unclosed cases. And after awhile I started to get concerned, because it didn't make sense to me that this very unique drug would be used in so many homicide cases.

So we started testing, using a new instrument. And we transferred the method over

to this new instrument that was much more sensitive than what we had used in the past. And in the validation steps for the transfer, we ran some blank tissues again, as we did before we used it in the Sybers case. But this time we started to find small, small amounts of the chemical, succinylmonocholine.

And we -- as soon as we finished that and we verified the findings, we consulted heavily with the laboratory in Pennsylvania and we concluded that this was present in very trace amounts, naturally, in our bodies, at least in postmortem specimens. So we were the very first ones to identify this.

And we reported it immediately, not only to the prosecutor in that case, but prosecutors in other cases. And we also immediately put a letter into the *Journal of Analytical Toxicology* so that that information would be immediately available to anyone else that may be doing this testing. So my opinion at the time, I feel, was correct. At the time, the only known source for succinylmonocholine came from the parent drug succinylcholine.

Q. And it was your testing for this chemical later

on that you notified the Court that the technology that you had in place now was finding it?

A. That's exactly right.

Q. And can you tell this jury how was the Sybers case resolved.

A. My understanding is --

ATTORNEY BUTING: Objection, the -- we can -- the Court can take judicial notice of how the matter was ultimately resolved. And unless this witness was involved in the resolution, I don't know how that is relevant.

ATTORNEY GAHN: Well, your Honor, I will take the exhibit that defense attorney has been reading from and I would like to get a complete reading of the exhibit.

THE COURT: Is the exhibit available?

ATTORNEY BUTING: Yes, it is.

Q. (By Attorney Gahn)~ This is Exhibit 439 that you have seen before?

A. Yes, it is.

Q. And do you know, how was this case resolved against Mr. Sybers?

A. Dr. Sybers pled guilty.

Q. Thank you.

ATTORNEY GAHN: That's all I have.

RECROSS-EXAMINATION

BY ATTORNEY BUTING:

Q. Dr. Sybers pled guilty to time served and was released immediately, wasn't he?

A. That I don't know, sir.

Q. You haven't researched it? You didn't look that up; is that what you are saying? Do you know that Dr. Sybers was released from prison, in 2003, as a result of entering a plea that was time served, after this notice was filed with the Court?

THE COURT: I'm going to intercept here and stop with your comment. I think the relevance of whatever happened to him later is borderline. I believe the testimony that's relevant to this case is already in the record.

ATTORNEY BUTING: All right.

THE COURT: Members of the jury, we're going to excuse you for today. I apologize for running late. Again, I will remind you not to discuss the case with each other or with anyone else and we'll see you tomorrow morning.

(Jury not present.)

THE COURT: You may be seated. Counsel,

I'm not going to take up any of the outstanding motions at this time, but we probably should deal with Exhibit 466, the PowerPoint presentation of this witness that the defense objected to -- defense objected to the admission.

ATTORNEY BUTING: I object to it because it really draws a conclusion that -- of a dripping -- a finger dripping blood, when the State is trying to argue that that may have been the source of the blood is highly prejudicial and apparently without any foundation from this witness, according to his own testimony.

THE COURT: Mr. Gahn.

ATTORNEY GAHN: I think that the witness -- that the doctor testified that his PowerPoint demonstration would be helpful to the jury. And I think he explained that on cross-examination that the only reason he used that was because it was in the Microsoft. I really don't think it has any impact.

THE COURT: In the Court's mind, the jury has already seen it. He's given a satisfactory explanation. I believe the jury understands it was used for illustrative purposes only and it is consistent with the opinion that he gave, so I'm

going to admit Exhibit 466.

ATTORNEY BUTING: I would also move to admit whatever -- what are those two, the curriculum vitae, No. 480, of Mr. Brewer -- Dr. Brewer, oh, and No. 479, which is the original intake internal communication document.

THE COURT: Are there any exhibits that you marked that you are not requesting be admitted?

ATTORNEY BUTING: I don't believe so. I think we have introduced everything else.

THE COURT: Any objection from the State to any of the marked exhibits being admitted?

ATTORNEY GAHN: Only to the CV of Dr. Brewer, I don't what the purpose of that is. Dr. Brewer did not testify.

THE COURT: He did not testify, but there was testimony he played a role in the testing of the blood, so I'm going to allow that exhibit as well. Anything else today?

ATTORNEY STRANG: Are 475 through 478 in?

ATTORNEY GAHN: Yes.

ATTORNEY STRANG: They are, okay.

THE COURT: All right. We'll see you tomorrow morning.

ATTORNEY GAHN: Your Honor, may Dr. LeBeau

go back to Virginia?

THE COURT: Assuming the defense isn't asking him to say.

ATTORNEY BUTING: No, we're not.

THE COURT: He is excused.

THE WITNESS: Thank you, your Honor.

(Proceedings concluded.)

STATE OF WISCONSIN)
)ss
COUNTY OF MANITOWOC)

I, Diane Tesheneck, Official Court Reporter for Circuit Court Branch 1 and the State of Wisconsin, do hereby certify that I reported the foregoing matter and that the foregoing transcript has been carefully prepared by me with my computerized stenographic notes as taken by me in machine shorthand, and by computer-assisted transcription thereafter transcribed, and that it is a true and correct transcript of the proceedings had in said matter to the best of my knowledge and ability.

Dated this 2nd day of January, 2008.

_____
Diane Tesheneck, RPR
Official Court Reporter