



950 Pennsylvania Avenue, NW, Room 2261 Washington, DC 20530

February 3, 2017

RECEIVED

Tim Gruenke
District Attorney
La Crosse County District Attorney's Office
Law Enforcement Center
333 Vine Street, Room 1100
La Crosse, WI 54601

FER 96 2017
DISTRICTATTORNEY'S OFFICE
La Crosse, WI

Re: State of Wisconsin v. Patrick Wayne Greer, Case No. 1995-CF-000129

Dear Mr. Gruenke:

We write to advise you of the results of a review by the United States Department of Justice (the "Department") and the Federal Bureau of Investigation ("FBI" and collectively with the Department "DOJ") of laboratory reports and testimony by FBI Laboratory examiners in cases involving microscopic hair comparison analysis. Through this review, we have determined that a report or testimony regarding microscopic hair comparison analysis containing erroneous statements was used in this case. This error and the process through which it was identified are explained in more detail below. We ask that you determine the actions your office should take in light of this error.

I. Background

DOJ has been engaged in a review of microscopic hair comparison reports and testimony presented by the FBI Laboratory before December 31, 1999, after which mitochondrial DNA testing became routine. The science underlying microscopic hair comparison is not the subject of this review. However, in some cases, FBI Laboratory examiners exceeded the limits of science by overstating the conclusions that may appropriately be drawn from a positive association between evidentiary hair and a known hair sample. This is in contrast to cases in which the FBI Laboratory report and examiner testimony presented conclusions that may appropriately be drawn from a positive association. Thus, the purpose of this review is to ensure that FBI Laboratory reports and examiner testimony regarding microscopic hair comparison analysis met accepted scientific standards and to identify those cases in which those standards were not met so that any appropriate remedial action may be taken.

II. Error Identified in this Matter

We have determined that the microscopic hair comparison analysis testimony or laboratory report presented in this case included statements that exceeded the limits of science in one or more of the following ways and were, therefore, invalid: (1) the examiner stated or implied that the evidentiary hair could be associated with a specific individual to the exclusion of all others - this type of testimony exceeded the limits of the science; (2) the examiner assigned to the positive association a statistical weight or probability or provided a likelihood that the questioned hair originated from a particular source, or an opinion as to the likelihood or rareness of the positive association that could lead the jury to believe that valid statistical weight can be assigned to a microscopic hair association - this type of testimony exceeded the limits of the science; or (3) the examiner cites the number of cases or hair analyses worked in the laboratory and the number of samples from different individuals that could not be distinguished from one another as a predictive value to bolster the conclusion that a hair belongs to a specific individual - this type of testimony exceeded the limits of the science. (A copy of the documents upon which our determination is based, specifying which of the three error types were identified, is enclosed.) We take no position regarding the materiality of the error in this case.

III. Potential Victim Notification

We recommend that you promptly advise the appropriate victim advocate in your office of this error, so that he/she may determine how and when to inform the victim or the victim's family that this matter may be the subject of further litigation and that they may be contacted by the defense.

IV. Potential DNA Testing

In the event that your office determines that further testing is appropriate or necessary or the court orders such testing, the FBI is available to provide mitochondrial DNA testing of the relevant hair evidence or STR testing of related biological evidence if testing of hair evidence is no longer possible, if (1) the evidence to be tested is in the government's possession or control, and (2) the chain of custody for the evidence can be established.

V. Potential Waiver of Procedural Defenses

In the event that the defendant seeks post-conviction relief based on the Department's disclosure that microscopic hair comparison laboratory reports or testimony used in this case contained statements that exceeded the limits of science, we provide the following information to make you aware of how we are handling such situations in federal cases. In such cases under 28 U.S.C. § 2255, in the interest of justice, the United States is waiving reliance on the statute of limitations under Section 2255(f) and any procedural-default defense in order to permit the resolution of legal claims arising from the erroneous presentation of microscopic hair examination laboratory reports or testimony.

VI. Report of Action Taken

To assist us in monitoring the status of cases involving microscopic hair analysis comparisons, we ask that you please advise us by March 13, 2017, if you intend to take any action based on the information that we are providing to you. Please send this information to USAEO.HairReview@usdoj.gov, and let us know if we can be of any assistance.

VII. Additional Notifications

You should be aware that we are also notifying the defense, as well as the Innocence Project and the National Association of Criminal Defense Lawyers of the error. These organizations have expressed an interest in determining whether improper reports or testimony affected any convictions and, if so, to ensure appropriate remedial actions are taken. To assist them in their evaluation, we will provide them with information from our files, including copies of FBI Laboratory examiners' reports and testimony, as well as our assessment of those reports and testimony.

If you have any questions regarding this matter, please contact us at the email address provided above.

Sincerely,

Norman Wong/ Special Counsel

Enclosures

Response Sheet
Please send completed form within 14 days to:
FBI POC FBI Laboratory Quantico, VA.22135 Fax: 703-632-7714 Email: FBICaseReview2@ic.fbi.gov (please include in the subject line "IP and NACDL response" and the name of the defendant)
Referenced FBI Case Number: 91A-MW-32372
Court Docket Number: 1995-CF-000129
Subject(s)/Defendant(s): Patrick Wayne Greer
Independent Findings of the Innocence Project (IP) and National Association of Criminal Defense Lawyers (NACDL):
The IP and NACDL concur with the conclusion reached by the FBI Microscopic Hair Comparison Analysis Review that the materials reviewed contain no instances of Error 1, Error 2, or Error 3.
X The IP and NACDL concur with the conclusion reached by the FBI Microscopic Hair Comparison Analysis Review that the materials reviewed contain the following Error Types:
X Error 1
Error 2
X Error 3
The IP and NACDL disagree with the conclusion reached by the FBI Microscopic Hair Comparison Analysis Review because, contrary to that conclusion, the P and NACDL have found that the materials reviewed contain the following error types:
Error 1
Error 2
Error 3
Comments:
The IP and NACDL would like to meet with the FBI (in person or by phone) to discuss the differing opinions regarding the appropriateness of FBI testimony and/or lab reports.

This document is the property of the Federal Bureau of Investigation.

Do not disseminate further without the prior written authorization of the FBI Office of the General Counsel.

03/26/13



U.S. Department of Justice

Federal Bureau of Investigation

Washington, D.C., 20535-0001

MICROSCOPIC HAIR COMPARISON ANALYSIS **RESULT OF REVIEW**

Date:

November 09, 2016

To:

Innocence Project

Microscopic Hair Comparison Analysis Review Team

Federal Bureau of Investigation

Microscopic Hair Comparison Analysis Review Team

FBI File Number: 91A-MW-32372

Criminal Docket Number: 1995-CF-000129

Defendant: Greer, Patrick Wayne Victim: State Bank of Lacrosse

Contributor: Federal Bureau of Investigation 330 East Kilbourn Ave., Suite 600, Plaza East

Milwaukee, WI 53202-6627

<u>X</u> Trial	Plea	Stipulation
X Transcrip	t enclose	ed
Lab Repor	rt enclose	ed

Pursuant to the Letter of Agreement between our organizations, this letter serves to provide your office with the results from the Federal Bureau of Investigation (FBI) Microscopic Hair Comparison Analysis Review regarding the analysis of testimony and lab reports provided in the above-referenced case. Please notify the FBI, within 14 days of receipt of this letter, as to whether or not the Innocence Project (IP) agrees with the FBI's conclusions.

The FBI has conducted its review of the report issued in this case and found it to contain:

Appropriate Statements

Inappropriate Statements

The FBI has conducted its review of the FBI testimony transcript and/or stipulation in accordance with the November 9, 2012 agreed upon scientific standards between the IP and FBI with the following results:

- X Error Type 1: The examiner stated or implied that the evidentiary hair could be associated with a specific individual to the exclusion of all others. This type of testimony exceeds the limits of the science.
- X Error Type 2: The examiner assigned to the positive association a statistical weight or probability or provided a likelihood that the questioned hair originated from a particular source, or an opinion as to the likelihood or rareness of the positive association that could lead the jury to believe that valid statistical weight can be assigned to a microscopic hair association. This type of testimony exceeds the limits of the science.
- X Error Type 3: The examiner cites the number of cases or hair analyses worked in the lab and the number of samples from different individuals that could not be distinguished from one another as a predictive value to bolster the conclusion that a hair belongs to a specific individual. This type of testimony exceeds the limits of the science.

Appropriate

This document may contain information protected by the Privacy Act of 1974 and is provided by the FBI to your agency solely for authorized law enforcement purposes. The information contained herein may not be further disclosed or disseminated without the express consent of the FBI.

Response Sheet

Please send completed form within 14 days to:

Cherise B. Dreyfus FBI Laboratory 2501 Forensic Way Quantico, VA 22135 Fax: 703-632-7714 Email: FBICaseReview2@ic.fbi.gov (please include in the subject line "IP response" and the name of the defendant)
Referenced FBI Case Number: 91A-MW-32372
Court Docket Number: 1995-CF-000129
Subject(s)/ Defendant(s): Greer, Patrick Wayne
Findings of the Innocence Project (IP): The IP concurs with the conclusion reached by the FBI Microscopic Hair Comparison Analysis Review, or The IP disagrees with the conclusion reached by the FBI Microscopic Hair Comparison Analysis Review for the following reasons:
Error 1
Error 2
Error 3
Appropriate
The IP would like to meet with the FBI (in person or by phone) to discuss the differing opinions regarding the appropriateness of FBI testimony and/or lab reports.

Version 1/6/2015

FBI Microscopic Hair Comparison Analysis Review Evaluation Form

Case Information:	
Case Number:	91A-MW-32372
Defendant(s):	Patrick Wayne Greer
Date of Review:	11/2/2016
Standard Applied:	MHCA Standards dated 11/9/2012
Review of Testimon	y:
Date of Testimony:	2/22/1996
Testifying Examiner:	
Name of Prosecutor:	Loralee Clark
Name of Defense:	Kenneth P Patterson
Testimony Results (n	
Inappropriate Stateme	ents: X Yes No
Limiting Language Included in Testimon	y? 🛛 Yes 🔲 No
Identify by Page and	Pg 436, ln 11-15
Line Number(s):	Pg 454, ln 25 to pg 455, ln 4
	Pg 456, ln 10-12
	d Inappropriate Statements, cite each by Error type, page(s) and line number(s):
Pg 434, in 22 to pg 4	
Pg 435, ln 17-21 (E2	/E3)
Pg 436, ln 2-3 (E2)	•
Pg 441, in 8-10 (E1)	
Pg 441, in 12 (E1)	
Pg 456, in 10 (E2)	
Pg 456, ln 16-18 (E2)
Pg 456, ln 19 (E1)	



STATE OF WISCONSIN

CIRCUIT COURT BRANCE 4 LACROSSE COUNTY

STATE OF WISCONSIN,

Plaintiff,

TRANSCRIPT OF JURY TRIAL Day Three
Case No. 95-CF-129

PATRICK W. GREER,

Defendant.

BEFORE THE HONORABLE JOHN J. PERLICH, CIRCUIT JUDGE.

DATE:

Thursday, February 22, 1996

PLACE:

LaCrosse County Courthouse

LaCrosse, WI 54601

APPEARANCES:

LORALRE CLARK, Deputy District Attorney for LaCrosse County, Courthouse, LaCrosse, WI 54601, appearing as counsel for and on behalf of the State.

KENNETH P. PETERSON, Attorney at Law, 1601 Rublee Street, P. O. Box 1471, LaCrosse, WI 54602-1471, appearing as counsel for and on behalf of the Defendant.

PATRICK W. GREER, the Defendant, appearing personally.

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1	PROCEEDINGS:
2	(9:04 a.m. In Open Court. Jury NOT present.)
3	TBE COURT: 95-CF-129, State versus Patrick
4	Greer. Appearances, please?
, 5	MS. CLARK: State appears by Loralee Clark.
6	MR. PETERSON: Your Honor, the defendant is
7	present with counsel, Kenneth Peterson.
8	THE COURT: It's my understanding that the
- 9	defense has rested. Is that correct?
10	MR. PETERSON: On the record, Your Honor, you
11	were going to ask my client, I believe,
12	THE COURT: It's my understanding that the
13	defense has rested. Is that correct?
14	MR. PETERSON: With the exception I'd like to
15	enter the exhibits that we had had marked.
16	THE COURT: They will be received.
17	MR. PETERSON: Thank you.
18	THE COURT: Mr. Greer, you understand that you
19	have the absolute constitutional right to testify at this
.20	trial.
21	MR. GREER: Yes, Your Honor.
22	THE COURT: And it's my understanding that you
23	have chosen not to exercise that right. Is that correct?
24	MR. GREER: On advice of my attorney, that's
25	correct.

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	. 1	THE COURT: Has anybody promised you anything,
₹ .	2	or has anybody threatened you to get you to do this?
-	3	MR. GREER: No.
	4	THE COURT: Fine. Thank you.
	5	MR. GREER: Thank you.
	. 6	THE COURT: Ready to bring in the jury?
	7	MS. CLARK: I just want to how are we doing
	8	on my exhibits? Did I get all the ones in that I
	9	THE COURT: Well, we can clear that up at the
	10	next break. Bring in the jury.
	11	MS. CLARK: Okay.
	12	(9:04 a.m. Jury is brought into the courtroom.)
	13	THE COURT: You may be seated, counsel. Ladies
z .	14	and gentlemen, the defense has rested. The State will
*	15	present the witness that was having a little trouble with
	16	the airlines yesterday and then any rebuttal witnesses
•	17	they may have. Call your witness.
	18	MS. CLARK: Christopher Allen.
	19	CLERR: Please raise your right hand.
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	21	CHRIS ALLEN,
	22	called as a witness herein, being first duly sworn, on
	23	oath, was examined and testified as follows:
.	24	CLERK: Could you please spell your last name
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WITNESS: A-1-1-e-n.

CLERK: Thank you. You can be seated up

there.

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DIRECT EXAMINATION

BY MS. CLARK:

- Q. Could you please state your name for the record?
- 8 A. My name is Chris Allen.
- 9 Q. And your occupation?
- 10 A. I'm employed as a special agent with the Federal Bureau
 11 of Investigation.
- 12 Q. How long have you been so employed?
- 13 A. Nine years.
- Q. And what education or experience do you have leading to that?
 - A. I have a Bachelor of Arts Degree in Biology from Oakland
 University outside of Detroit, Michigan. And I also have
 a Doctor of Dental Surgery, Dental Degree, from the
 University of Detroit in Michigan.
- 20 Q. All right. And what are your duties within the FBI?
 - A. Currently I'm assigned to the forensic laboratory in Washington, DC, at headquarters. And specifically I'm assigned to the Hairs and Fibers Unit.

And my duties involve conducting forensic hair and fiber examinations. And the purpose of those are to

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determine whether items collected from a crime scene, whether it's a homicide, sexual assault, or bank robbery, whether those items collected at that crime scene can be associated or linked to either a person, to another object, or another location through a transfer of hairs and fibers.

If I can find hairs that exhibit the same characteristics on an object from a crime scene compared to a known person, then I can come to a conclusion as to whether or not that person could have had contact with that item.

- Q. All right. And what can you tell from looking at a hair? What kind of characteristics do you look for?
- A. Initially, using a microscope, I can determine first off whether it's animal or human. If it's animal, I can generally tell the species.

Secondarily, if it's human, I can first tell the racial characteristics. We break it down into the three racial groups, that being Caucasian or white, black or Negroid, and then Mongoloid which includes American Indian and Asian.

I can determine what part of the body that hair originated, whether it's a head hair, public hair, or a limb hair.

Generally speaking for forensic purposes we only can

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compare head hairs and pubic hairs. The other types of hairs just do not have enough variation between individuals to be able to determine what person they came from.

I can look at other characteristics under the microscope that help me to try to describe if the characteristics from the questioned hair, which would be a hair that would be collected from an item from a crime scene, exhibited the same characteristics as the known hairs.

- Q. All right. What procedure do you follow when you receive evidence from one of the field offices?
- A. Okay. The examination itself basically takes three steps.

The first step is an item comes in, and obviously there's generally trace evidence on it, either hairs or fibers or soils.

And the first step is to actually collect the debris from that item. And in our laboratory we use a process called a scraping procedure.

And it simply means that the item is suspended on a rack over a table with a clean piece of paper. It's generally scraped with a spatula so that all the loose debris trickles down onto that paper, and it's collected. So I've now collected all the trace evidence

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that was on that particular item.

The second step is to identify if I have a hair or fiber or different type of material. And I do that by mounting the hairs and the fibers on a glass microscope slide, which I can then take to a microscope and identify if it's a human hair and all the characteristics that I had mentioned.

And then, finally, the third step is actual comparison. Now that I have a questioned hair from an item from a bank robbery, or whatever the crime is, I can then compare that to a known sample from an individual.

And I use a special microscope, called a comparison microscope, which actually is just two regular microscopes that are joined together with an optical bridge, and there's a binocular eyeset that's set in the middle.

And what that allows me to do is to look at the questioned hairs and the known hairs in the same field of view, and have a circle, but there's a fine hairline in the middle. On the left-hand side I would have the questioned hair, on the right-hand side I would have the known hairs.

So side by side from root to tip I can look at all the characteristics to determine if the characteristics in the questioned hair are also the same characteristics

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as the known hairs.

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All right. And what characteristics do you see that ٥. differentiate them?

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As you look around the room, there are, there are three A. characteristics which you can even discern with your own naked eye, and, that is, the color, the length, and the texture or how straight or how curly. And so you can see with your own eye differences between individuals.

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What you can't see, except with the aid of a microscope, are the three internal characteristics or

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parts of a heir that we use in a comparison.

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And I generally, for simplicity reasons, I like to use the visual aid of a pencil. So if you can imagine that this pencil for the next short couple of minutes is going to be a hair, at the eraser end of the hair we have the root. And this is the part, of course, that anchors it to the scalp or whatever part of the body it's attached to.

Depending on the appearance and the shape of the root when we examine it microscopically, we can determine if the hair has been forcibly removed, or if it's been just naturally shed.

Of course, the length of the pencil represents the length of the hair or the shaft.

And, of course, at the other end you have the tip of

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the hair, which can come to a fine point, like in this pencil, but if it's been recently cut, it will have a squared-off appearance.

Now, on the outside of the hair, much like the paint on the pencil, is a fine layer called the cuticle. And this actually is like shingles on a roof, they overlap each other, and they serve the function of protecting the hair from the environment, from water and whatever type of damage that we encounter.

As we go deeper into the hair, which would be represented by the wood, we have the cortex. And the cortex is the main body of the hair.

And it's within the cortex we find most of the characteristics that enable us to distinguish between individuals, that being the pigments and their unique arrangement and coloration, also some trapped air spaces, which are called cortical fusi, and then some rather large clumping areas that look somewhat like a football shape, but they're called ovoid bodies. So it's within the cortex that we use to primarily do a comparison.

And then finally traveling down the center, much like the lead, is an area of the hair we call the medulla. The medulla can be, actually appear to be dark and continuous, as in the lead in the pencil, but it also can be clear, it can be broken up and fragmented into

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little bits, or in even some cases it's even absent or at least we can't see it.

In and of itself the fact that a hair has any one of these parts is not really that significant. It's how they're distinctly arranged in an individual that allows me to tell one person's hair apart from another.

It's very similar to when you walk into a crowded room. How is it that you are able to pick out your best friend or your spouse? Everybody has a unique, finite number of features on their face. They have eyes, nose --

MR. PETERSON: Your Honor, I'm sorry. Not to interrupt you, eir, but I quess I've heard -- you know, I'm sure he's testified again -- or before, and I'm sure he's said the same thing.

I'm wondering if he could maybe have an answer -- or a question and answer so I could maybe object if I don't feel that, that that is a proper question and posing a proper or improper answer.

THE COURT: He is responding to the question.

Overruled. You can finish the answer. Go ahead. Thank you. Everyone has a unique, finite number of features on their face, but it's how they're distinctly arranged on that person that allows you to pick out your best friend or your spouse.

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And the same thing with hair comparisons. Every individual has kind of a set distinct arrangement of features.

So that it's possible for a trained hair expert to examine hairs and to see differences between individuals. And those are the characteristics that we use when we do a forensic hair examination.

BY MS. CLARK:

- Q. All right. How many hair comparisons have you done?
- 10 A. Comparisons, I've done tens of thousands of comparisons.
- 11 | Q. And the -- I think you indicated ten years?
 - A. I've been in the FBI for nine years. I've been in the laboratory for five and a half years.
 - Q. Okay. Have you ever known in your own work two individuals to have the same microscopic hair characteristics?
 - A. Well, I've conducted perhaps 1200 to 1500 examinations in the last five years. And I personally never had a case where, if I was submitted two or more head hair samples from different people, that I was not able to distinguish between them.
 - Q. All right. Are you aware of other examiners at the Bureau ever having observed two individuals with the same microscopic hair characteristics?
 - A. Yes, I am.

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- Q. In what circumstance?
 - a. Well, the circumstance surrounding that is pretty unusual. Because if an examiner, of which we've had varying degrees, we've had up to ten examiners in our unit, if an examiner encounters a situation where he sees two individuals where he's not able to distinguish or she are not able to distinguish between the people, it's such a significant thing that they bring it around to each of the examiners so that they can actually see that it does exist.

It is possible that there are in the community or in the state two people whose hairs exhibit the same characteristics. In this particular situation it happened to be twin brothers, and it was impossible to distinguish between their head hairs.

- Q. All right. Have you ever seen in the literature, other than twins, people to have the same microscopic hair characteristics?
- A. Well, I've never seen anything published where a study has been done to determine how many people have the same characteristics. It's just generally accepted that it's impossible to examine everybody in the world's hair. And because of that, we're not able to actually give a percentage of how many people would have the same type of hairs. It's not something that's openly published in any

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of the forensic journals, yes.

- Q. All right. Did you examine any evidence in conjunction with our LaCrosse armed robbery?
- A. Yes, I did.
- Q. I'm going to show you what has been marked as Exhibit
 10. Do you recognize this?
- 7 A. Yes, I recognize Exhibit 10.
- 8 Q. All right. What, if any, analyses did you conduct on 9 that?
 - A. Well, I received this bag actually from a latent fingerprint examiner. And owing to it's soiled nature and the fact that it appeared to have a lot of stain nuterial, I didn't process it in the normal, routine manner in which I described scraping it down, because I would just be collecting a lot of, a lot of this dye material with that.

So I noticed that there was tape adhering to both sides of it.

- 19 Q. Okay. And was it taped as shown in Exhibits 7 and 8?
- 20 A. Yes, exactly.
 - Q. All right. So what did you do when you noticed the tape?
 - A. Well, of course, tape in the forensic sense lends itself very well to trace evidence, because it has a sticky side to it. So I simply pulled the tape off to determine if

there	Were	any.	hairs	or	fiber	adhering	to	the	other	side
or to	the	adhes.	ive si	i.de	of the	e tape.				

So I pulled it off, and I believe I placed it back in it's original position after I removed them.

- Q. All right. What, if any, trace evidence did you find adhering to the tage?
- A. I found both hairs and fibers adhering to the tape.
- Q. All right. Did you make any examinations of the hairs?
- A. Yes: I compared these questioned hairs to two known hair samples that I received.
- Q. And I'm going to show you what's been marked as Exhibit
 60 and Exhibit 34, I believe this is Exhibit 33. Could
 you --

MS. CLARK: Is the Exhibit 33 Pat Greer's hair? It looks like the sticker may have fallen off.

23? No.

MR. PETERSON: 2 MS. CLARK: 33.

CLERK: 33.

(Evidence was remarked for identification as Exhibit No. 33.)

A. Exhibit 60 represents the debris that I actually collected from items of evidence that were submitted.

That debris is collected on the paper, as I explained, and placed in pillboxes, or if it's rather large in a Ziploc bag. So this represents that debris.

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1	And then from that debris I mounted on glass
2	microscope slides, which is the rest of the items in this
3	submission, the hairs and the fibers from the case.
4	So these are glass microscope slides that actually
5	the known and the questioned hairs have been mounted on
6	so that I can examine them microscopically.
7	Exhibit 33 was identified to me as known head hair
8	sample from the defendant Greer.
9	And Exhibit 34 was also identified to me as known
10	head hair sample from an individual named Greg Libke.
11	MS. CLARK: I offer Exhibit 60.
12	THE COURT: Be received.
1.3	MR. PETERSON: Your Honor, could I just see
14	that before you
15	THE COURT: Yeah.
16	(Pause.)
17	THE COURT: Go ahead, counsel.
18	MR. PETERSON: No objection, Your Honor.
19	MS. CLARK: Is the exhibit received?
20	THE COURT: Yes.
21	MS. CLARK: All right.
22	BY MS. CLARK:
23	Q. So what did you next do?
24	A. Well, after I identified hairs on the also submitted bag,
25	I took it to the comparison microscope. So, in other

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1	words, I took the questioned hairs, of which I found two
2	underneath the tape of the zippered bag, and compared it
3	to both the known standards from Mr. Greer and Mr. Libke

- Q. All right. What were your observations?
- A. My observations were that there was one hair which exhibited the same microscopic characteristics as the defendant Greer.

And there was a second hair which was a little bit longer hair, it did not exhibit characteristics to either Mr. Greek of Mr. Libke.

So there were two hairs, one of which exhibited the same microscopic characteristics as the defendant Greer.

- Q. All right. Is that unusual that you would find two hairs on one object, one of which matches and one of which does not?
- 16 A. Oh, no, we find that all the time.
- 17 Q. Did you document these findings in a report?
- 18 A. Yes, I did.
 - Q- I'm showing you what has been marked as Exhibit 39. Can you identify that?
- A. It appears to be a photocopy of a report that I generated describing my -- the findings of my examination.

MS. CLARK: I offer Exhibit 39.

THE COURT: Be received.

BY MS. CLARK:

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- 1 Q. In what percentage of your cases have you been able to make a heir match?
 - A. Let's say I work a hundred cases. In approximately --- in all the cases I have comparison of debris taken from items either from the scene or from another location, and there are many hairs involved in the case.

But in only approximately 10 to 15 percent of the time do I find an actual transfer of either the victim's hair to items from the defendant or from the defendant's hair to the victim's items.

So only in about 10 to 15 percent of the cases do we actually get what we call a positive association.

- 13 Q. Okay. Did you make any fiber comparisons?
- 14 A. I made numerous, yes.
- 15 Q. What items did you examine for fiber?
- 16 A. If I can refer to my notes, I can be more specific.
- Q. Yes, you can. I guess while you're doing that, did you

 make any kind of chart to aid yourself in the conclusions

 you drew?
 - A. Well, the fiber transfers have become so numerous that I kind of lost track, so I did make a chart to just indicate to me --
- 23 Q. Um-hum.
- 24 A. -- what direction the transfers were in, yes.
- 25 Q. All right.

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1 (Evidence was marked for identification as 2 Exhibit No. 75.)

BY MS. CLARK:

Q. Has that chart been marked as Exhibit 75? Wait.

(Shown to counsel.)

BY MS. CLARK:

- Q. Is your chart now marked as Exhibit 75?
- g A. You are asking me to recognize this?
- 9 Q. Oh, yeah.
- 10 A. Yes, I recognize Exhibit 75 as it appears to be a

 11 photocopy of the chart that I prepared in this case.
- 12 Q. All right. Okay. So I think I had asked earlier what
 13 items you had examined.
- 14 A. Okay. I examined the -- a seat cover, a coat, some
 15 carpet, some carpeting, and a cap which were submitted.
 16 So I examined both for hairs and fibers.
 - Q. All right. And did you find any hairs on any of the other items besides the Olan Mills bag?
- 19 A. Yes, I did.
- 20 Q. And did you find fibers that corresponded?
- A. I found -- well, my interest, of course, was to try to
 associate these items found at different locations to
 each other through a transfer of textile fibers, which is
 just a bit different than the hair examination, although
 we used some of the same principles and techniques.

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But I did conduct a fiber examination to determine if these items could be associated with one another. 2

- Okay. And how did you go about that and what were your Q. findings?
- The examination is basically the same. We use the same A. collection and identification procedure. But the comparison actually is a step -- it takes several steps further than just looking under a microscope to see if all the characteristics are the same.

When it comes to particularly synthetic fibers or man-made fibers, which the case is in this situation, there are a number of other types of measurements or things that we can see with different types of microscopes and instruments that allow us to compare the size and the shape and the -- particularly the color. When we're dealing with man-made fibers, color is a very important observation that we use.

So I used all these techniques that I had to do the comparisons of the fibers.

- Q. All right. And what were your conclusions?
- A. With respect to the seat cover, I found fibers that exhibited the same characteristics as carpet fibers, as well as fibers that appeared to originate from the cap. So the seat cover I found carpeting fibers and cap fibers on.

With respect to the coat, brown coat, I found -- the seat cover is composed of two different types of fibers. Sometimes they blend fibers in fabric. I was able to find a polyester as well as an acrylic fiber that appeared to be from the seat cover on the coat, as well as the carpeting fibers and the cap fibers.

So on the coat again I found fibers that came from, or at least appeared to come from the seat cover, the carpet, and the cap.

Additionally, I examined the cap for any fibers it may have. And I was able to find again both the seat cover type carpets on it, as well as the carpet fiber, carpet fibers on the cap.

And then finally on the -- underneath the tape and in the clear plastic window on the zippered bag here, I was able to find a transfer of what appeared to be fibers from the seat cover, as well as the coat, and the carpet. So I was able to interrelate all of them.

- Q. Meaning they all would have been in the same place at one time?
- A. Well, they could have been in one common location or had contact with each other at one time, yes.
- Q. You indicated that you found -- did you find any hairs on the cap?
- A. I believe I did. May I refresh my memory by looking at

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that? Yes, I did.

conclusions.

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A.

Q. All right. And were you able to come to any conclusion with respect to either Mr. Greer or Mr. Libke?

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that I mean, when I make a comparison of the questioned to a known hair, I generally can come to one of three

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If they exhibit the same microscopic characteristics, and there are no distinct differences between them, I can conclude that that person could have been the source of that hair.

I was not able to come to any concrete conclusion. By

If the characteristics are so different that they don't, quote, match, I can exclude that person.

And then, finally, the more obscure one is what we call a similarities or differences. There are some features that are the same, but there are some slight differences.

In this case I had a similarities and differences with Mr. Libke on two hairs that I found in that cap.

And the differences being that, because it appeared that there was a red -- permeation of a red dye or some red material into the hairs, it obliterated the arrangement of the pigment.

So, in other words, I couldn't get an accurate reading from those two hairs. It had some

1 2 . characteristics which looked like Mr. Libke's, but because of the red coloration in the hairs, I couldn't come to either a positive or a negative conclusion.

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Now, you had indicated you found one hair underneath the Q. tape on the Olan Mills bag, or the also submitted bag as you referred to it, which was dissimilar to Mr. Libke and to Mr. Greer?

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That's correct. A.

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What is the significance of that? Q.

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Well, it indicates that that hair could have been picked A. up in any time in which that adhesive material was either opened in the environment or laying around or as the bag was, was sitting, you know, in a vehicle or on a floor or

It just indicates that I was not able to associate

the source of that hair to any of the two individuals in

this case. In other words, it probably came from someone

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14 whatever.

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Q. Is that unusual?

else.

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A. To find hairs that I'm not able to associate?

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Q. Yes.

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A. That's more often the case than not in most of the cases that we work. I mean obviously our clothes and carpeting and interior of cars are a repository for anybody's hairs that's been in that vehicle or in that room. So it's

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impossible for us to be able to identify which person contributed what hair in every situation. It's more often the case we're not able to identify it.

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- How is it that hairs become deposited --Q.
- 5
- Well, --A.

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-- and at what rate?

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-- our bodies, of course, are covered with literally hundreds of thousands of hairs. In the case of our head hairs, we shed, depending on how many we have to begin with, approximately 100 to 150 head hairs a day. They end up everywhere in our environment. They end up going down the drain. They end up on our clothes. They end up on the chairs, on the floor. They end up in the carpeting, you know, in our automobiles, wherever our environment is that we happen to shed a hair. So that's one way, through shedding.

A second way is, of course, in a criminal case where there's been a struggle or some kind of an assault, it can actually be forcibly pulled out or removed by coming into heavy contact with an object.

But generally speaking, the predominant type of hairs that we see are just the naturally shed head hairs which we encounter around us almost on a daily basis.

MS. CLARK: I offer Exhibit 75.

MR. PETERSON: No objection.

MS. CLARK: And I have no other questions.
Thank you.

THE COURT: Be received.

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CROSS-EXAMINATION

BY MR. PETERSON:

Q. Unusual question for you, Mr. Allen. I'll bet you in all the times you've testified you're not going to get this one. Do you believe that He knows and counts and knows every one of our hairs on our heads, meaning God? Yes or no.

MS. CLARK: Objection, relevance.

THE COURT: Yeah, sustained. Ask another

question, connsel.

BY MR. PETERSON:

- Q. What I want here is the truth. I don't think you've ever heard that question before, have you?
- 18 A: No, sir, I have not.
- 19 Q. And, as a matter of fact, you've testified how many times
 20 in a row?
- 21 A. Approximately 55 times.
- 22 Q. Fifty-five?
- 23 A. Yes.
- 24 Q. In just nine years or five and a half?
- 25 A. Yes, five.

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- Q. Okay. And that's part of your job, is it not?
- 2 A. Yes, sir.

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- 3 | Q. And you get paid for that, do you not?
- A. Yes, I do.
- 5 Q. Okay. Do you ever do it for the defense?
- A. I've testified I think four or five times for defense,
 yes.
- 8 Q. Out of the number -- that number?
- 9 A. Ten percent, yes.
- 10 Q. Now, it seemed to me throughout this direct examination,
 11 we're talking about fibers, and then we're bouncing back
 12 to hairs. They're not the same, are they?
- 13 A. No, sir, they're not.
- 14 Q. Okay. And when Miss Clark asked you, were there hairs
 15 found on the seat, coat, carpet, cap, you went to fibers,
 16 because you found fibers from one of the other, isn't
 17 that a -- isn't that what you testified to?
- 18 A. I don't know if I fully understand your question, --
- 19 Q. When she asked -- go ahead.
- 20 A. -- I went to fibers.
 - Q. When she asked you, did you find hairs on the seat, the coat, the cap, the carpeting, you went immediately to fibers, saying that you found on the coat or on the seat you found carpet and cap fibers, on the coat you found fibers from the seat, interchanging between the

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articles in the car.

- A. Well, I'd have to have the court reporter read that back, but I don't recall being asked a hair question and answered it with fibers. If I did, then I misunderstood the question.
- Q. Then let me ask it this way, 'cause this is where I'm going with this questioning. Did you find any hair, identifiable hair, on the seat, first of all, the car seat, the cover seat that you examined?
- 10 A. By identifiable, what do you mean, sir?
- 11 Q. Well, were there hairs, any hairs, on the seat?
- 12 A. Oh, yes.
- Q. Okay. And were they -- did you put a number to Mr.

 Green's hairs, like R2, or isn't that your work?
- 15 A. Yes, K2.
- 16 Q. Okay.
- 17 A. Well, I didn't assign it, Mr. Rooney did.
- 18 Q. Okay. Did you find any hairs on the seat, the car seat,
 19 that was consistent with K2, Mr. Green's hairs?
- 20 A. If I can refer to this report -- no, I did not.
- 21 Q. Did you find any hairs, K2, consistent with Mr. Greer on the coat?
- 23 A. No, sir, I didn't.
- Q. And this is the coat you looked at? Or don't you recall,
 or --

- A. Well, yes, it bears my initials, so that's the coat I examined.
- Q. This is conducive material to accumulate hair like even a car?
- 5 A. Oh, it can be, yes.
- Q. Okay. And did you find and you said you didn't find any K2's, Greer's hairs, on that coat?
- 8 A. No, I wasn't able to associate him to that.
- 9 Q. And how about the carpeting that you were supplied or 10 given?
- 11 A. I think I was actually just given yarns from the carpeting.
- 13 Q. What were you given from the --
- 14 A. Let me refer to my notes if I can quickly here. (Pause.)

 15 Yeah, I just -- I just received the fiber samples or yarn

 16 samples themselves. So I didn't examine -- let me refer

 17 to my notes here again -- I didn't examine the carpet for

 18 hairs.
- 19 Q. Okay. You did examine a cap, though, for hairs, did you 20 not?
- 21 A. Yes.

- 22 Q. Did you find any K2, being the Greer hairs, on the cap?
- A. No, I think I've already testified that the hairs that I did find had similarities and slight differences to --
 - Q. Libka.

- 1 A. -- Mr. Libke, yes.
- 2 Q. Were you given a ski mask --
- 3 A. Aski mask?
- 4 | Q. -- to examine for hair fibers?
- A. The only what I would refer to as a ski-type cap was the specimen Q12.
- 7 Q. Pardon me?
- A. Specimen Q12 or -- I haven't seen the exhibit up here.
- It's a, what's referred to as a stocking cap.
- 10 Q. You did -- you were given that?
- 11 A. Yes.
- 12 Q. Okay. And that stocking cap, did you find any R2's, Mr.
- Green's hairs thereon?
- 14 A. Again let me refer to my notes if I can --
- 15 Q. Certainly.
- 16 A. -- to be accurate. (Pause.) Again you are asking if I
- 17 found any of the defendant Green's hairs on that cap.
- 18 Q. K2.
- 19 A. No, sir, I did not.
- 20 Q. You did not?
- 21 A. No.
- 22 Q. My understanding then in going through all this -- strike
- 23 that. You indicated I think on direct as well that a car
- 24 is kind of a depository for hair?
- 25 A. Yes.

- Q. Can I say that some of us lose our hair faster than others?
- 3 | A. Yes, 100 to 150 is an average, yes.
- Q. Looking at my client, do you think he's above average in losing his hair? Sorry, Pat.
- 6 A. No, he would be below.
- 7 Q. Oh, below?
- 8 A. Below average.
- 9 Q. All right. And again the car is a depository for such hairs, isn't that a fact?
- 11 A. Yes.
- 12 Q. Okay. And my understanding then is you found one hair on
 13 the duct tape that was K2, or Mr. Green's, or similar,
 14 consistent with Mr. Green's?
- 15 A. Yes.
- 16 Q. So if that duct tape was in the car, that hair could have 17 got there on the duct tape?
- 18 A. I'm not able to determine how that hair got there. That
 19 could be one possibility.
- Q. And you don't know when, can you -- or can you tell me
 when that duct tape was used on the Olan Mills bag or the
 bag in question here? You don't know?
- 23 A. When?
 - 24 | Q. Yes.
 - 25 A. I don't know.

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- I Q. You don't know when it was attached?
- 2 A. No, I do not.
 - Q. And as an expert, and I can see you are, you can't tell
 me when that hair attached to that tape, can you? How
 long was there?
 - A. No, sir.
 - Q. You can't tell me if it's an old or a new hair attachment, or -- you can't tell me that, can you?
 - A. Well, within, within reason. If it were an old hair that had been laying around a while, I would have expected to see a lot more perhaps debris adhering to it.

In other words, if it had been laying around the car for months at a time, I would expect to find debris interwoven in the outer layor of the cuticle which has scales on it.

Plus, hairs that have been laying around for an extended period of time can exhibit chew marks from either bacteria or critters, you know, small mites in the carpeting and that, so --

- Q. How long would it take to for that to happen, the decomposion (sic) I guess what you are saying about the hair? How long would it take?
- A. Several months.
- Q. Okay, several months. Am I right in assuming, or I read somewhere, that hair comparisons are not a basis for

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- A. I believe you read that in my report.
- 3 Q. I did. That's a true statement, is it not?
- 4 A. That's correct.
- 9. I have another question about your reports. Perhaps
 you've got the original.
- 7 A. Okay.
- 9 anybody sign these things? And this is no -- this is the same, this is no exception.
 - MS. CLARK: Objection, relevance.
- THE COURT: Is there some relevancy to that,
- 13 counsel?
- MR. PETERSON: Well, I'm wondering why they
 don't sign them.
- 16 BY MR. PETERSON:
- 17 Q. Do you stand behind them?
- 18 | A. Do I stand behind --
- 19 Q. Yes, right.
- 20 A. -- the results of this report?
- 21 Q. Right.
- 22 A. Yes, absolutely.
- 23 Q. Okay. But you just don't sign your name?
- 24 A. Well, the way that the reports are compiled don't always
 25 lend us to being able to do that. In other words, I will

conduct my examination, but I'll give my results to, in this case, Mr. Rooney to compile the final report. And so it may be that I'm out of town.

It's just standard procedure that we at current policy do not sign the reports. There's an indication by my symbols that I am one of the examiners on it, but as far as signing it, we don't do that.

- Q. And we don't know your symbols. At any rate, in that report there's only one hair attached to a duct tape that's consistent with my client, even though hair comparisons are not really an absolute personal identification, that's the only hair, and out of all the hairs you found, and you did find a number of hairs, did you not?
- A. Yeah, I found perhaps six to ten hairs, yes.
- Q. And that was the only one that was consistent with my client on this tape?
- A. Yes, sir.

MR. PETERSON: Thank you.

REDIRECT EXAMINATION

22 BY MS. CLARK:

Q. Just so it's clear, I'm sorry, I should have done this before. The seat cover that you were referring to, is this recognizable to you?

- 1 A. Yes.
- 2 Q. All right. And this would be Exhibit 16 I think?
- 3 A. Yes.

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- Q. 16, okay. All right. And the cap that you were referring to is this one?
- 6 A. Yes.
 - Q. That's Exhibit 19?
- 8 A. That's correct.
- 9 Q. And the coat that you are referring to is the one marked
 10 as Exhibit 21?
- 11 A. Q9, yes.
- 12 Q. All right. What conclusion can you reach regarding the
 13 hair? Or what is the significance of your conclusion
 14 that a hair consistent with the defendant's was beneath
 15 the tape on this bag?
 - A. Well, the significance is that that hair had to have been deposited onto that adhesive side of that tape prior to it being placed on the zippered bag or having at least been picked up in an environment where the defendant was in order that it was on the adhesive side before it was placed on the zippered bag:
 - Q. And you indicated that you examined it, and there was no debris associated with it that would tell you it was an old hair?
 - A. Correct.

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MS. CLARK: Thank you.

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MR. PETERSON: I'll follow up, Your Honor.

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RECROSS-EXAMINATION

5 BY MR. PETERSON:

Q. You mentioned just now the defendant was present when it was attached. But isn't it possible that he wasn't there when that hair attached to that tape and was on the bag? That's possible, isn't it?

MS. CLARK: Your Honor, that's not --

11 BY MR. PETERSON:

12 Q. Yes?

13 A. I'd have to -- I'd have to hear my response to the prosecution's question.

Q. Let me ask you this. I don't think you need it, but you can certainly have it.

MS. CLARK: Well, that -- I object.

18 BY MR. PETERSON:

Q. My question is --

You have an objection to it, make it. Ask the question, counsel.

BY MR. PETERSON:

Q. My question is, does Mr. Greer have to be present when that tape was put on the bag?

- A. No, I can't tell if the defendant was present or not when that hair was deposited on that tape.
- 3 0. And he doesn't have to be present when it's deposited,
 4 isn't that a fact?
 - A. He doesn't have to be present?
- 6 Q. Right.
- A. I quess that's a possibility, yes.
 - Q- Because a car is a depository for hairs, is it not?
- 9 A. Cars collect hairs, yes, they do-
- MR. PETERSON: Thank you.

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FURTHER REDIRECT EXAMINATION

13 BY MS. CLARK:

- Q. Are you able to say one way or another which is more likely from --
 - MR. PETERSON: Your Honor, --

17 BY MS. CLARK:

- Q. -- your observation of the hair, its characteristics, the lack of debris, and your experience?
 - A. I think to be, to be fair and honest, it would be impossible, impossible for me to tell exactly when that hair was deposited, how long it's been there, and if it was either a direct transfer from the defendant or if it was indirectly transferred from another environment first to the tape and then onto the bag.

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So to be fair and honest, I'm not able to really give a possibility or probability either way.

Q. All right.

you.

MS. CLARK: Thank you.

MR. PETERSON: That's all, Your Honor. Thank

THE COURT: Any member of the jury have a question?

(Counsel approach the bench to review the questions from the jury.)

THE COURT: Mr. Allen, were there any hairs of any kind on the coat collar?

A. I'll refer to my notes if I can.

THE COURT: Sure.

in processing evidence, which I described as this suspension of the item over a table and then scraping, doesn't lend itself for us to be able to tell exactly where the hair came from that item. In other words, we scrape it all at one time.

And so any hairs that I found on the coat could have come from the sleeve, it could have come from the collar, it could have come from anywhere on that coat.

So to answer your question directly, I'm not able to say whether hairs that I found, which did not associate

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to either the defendant or Mr. Libke, came from the collar.

So I didn't find any hairs that exhibited the same characteristics as either person. And the hairs that I did find, which I couldn't associate, I'm not able to tell you directly where they came from on that coat.

THE COURT: Thank you, sir. You may step down.

WITNESS: Okay.

MS. CLARK: The State rests.

MR. PETERSON: Nothing further, Your Honor.

THE COURT: Any further rebuttal?

MS. CLARK: No.

THE COURT: Ladies and gentlemen, --

MR. PETERSON: Nothing.

THE COURT: -- that concludes the testimony. At this time I'm going to ask you to step in the jury room, take your note pads with you.

I will go over the instructions with the attorneys, which hopefully are finished or very close to being finished, and then we'll have the instructions and the final arguments of the attorneys.

Take the jury out.

(9:48 a.m. Jury is sent into the jury room.)

(Pause:)

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